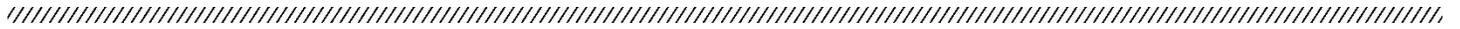


Quarter One 2019 Report to the Oregon Public Utility Commission & Energy Trust Board of Directors



ENERGY TRUST OF OREGON
MAY 15, 2019

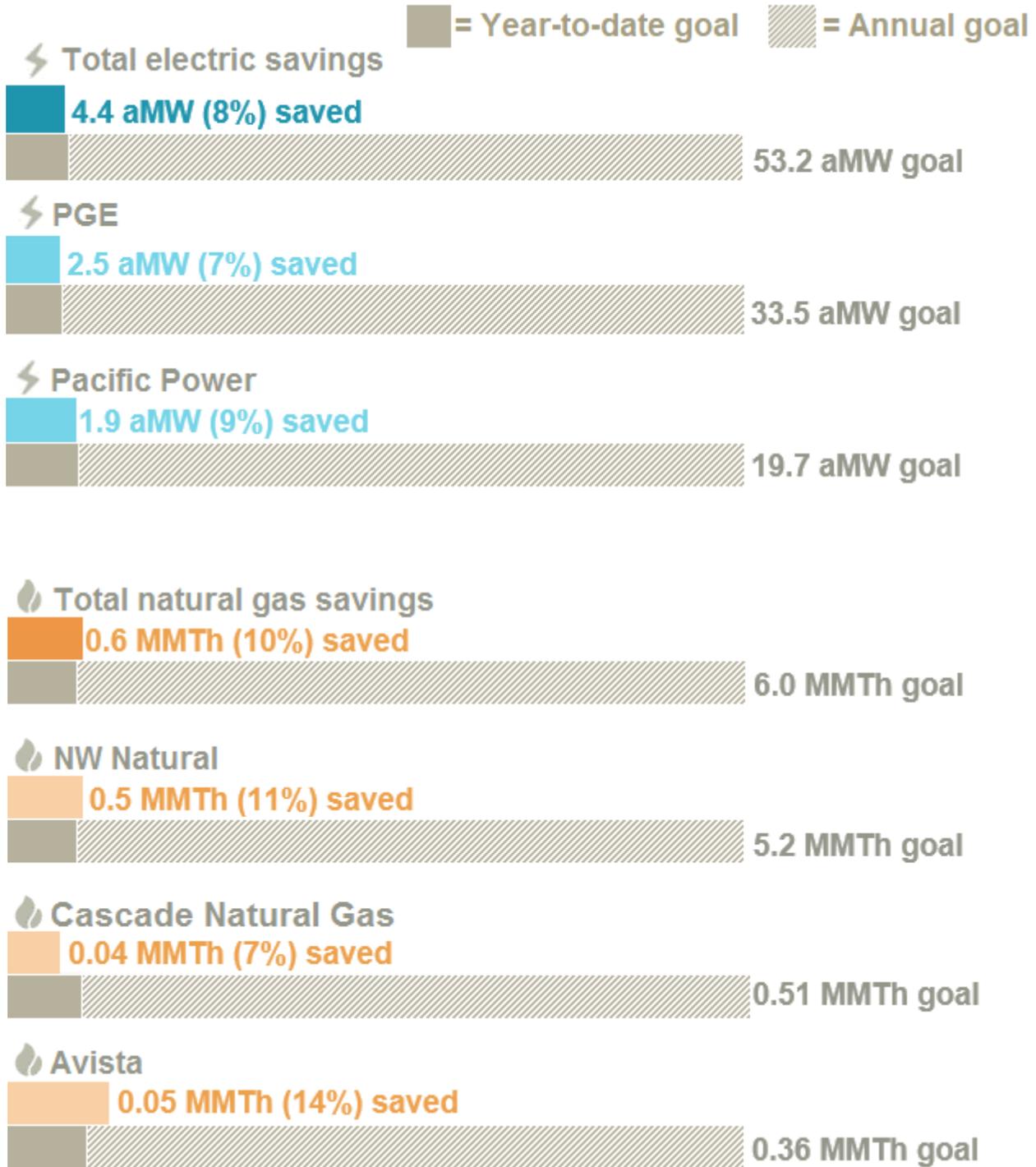
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A glossary of program descriptions and key terms is available online at www.energytrust.org/reports

I Results at a glance^{1,2}

Savings



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



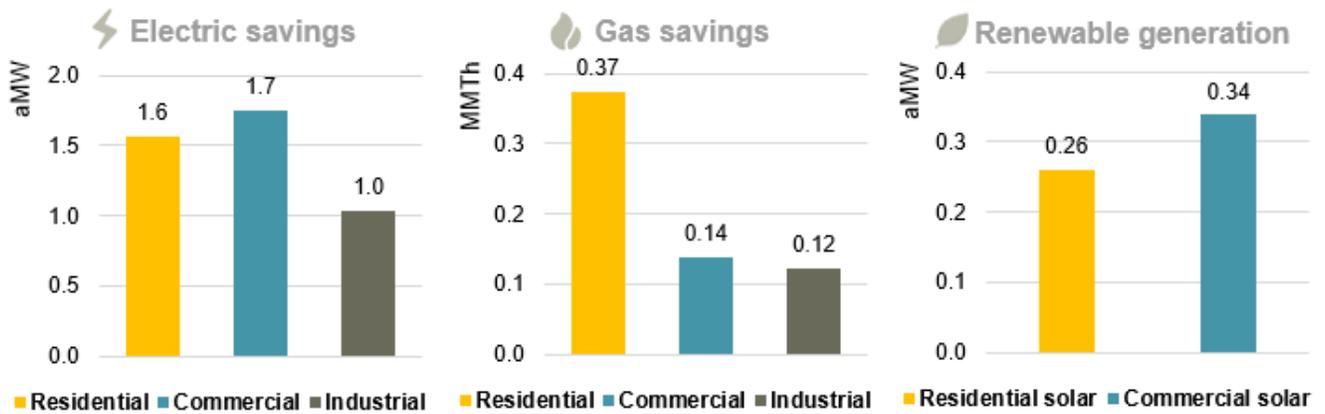
PGE



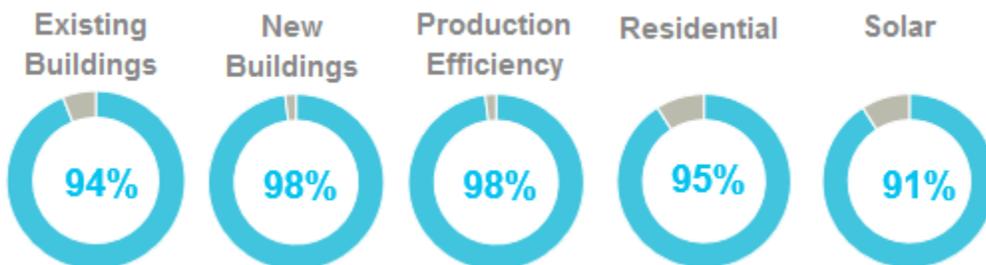
Pacific Power



Savings and generation by sector year-to-date



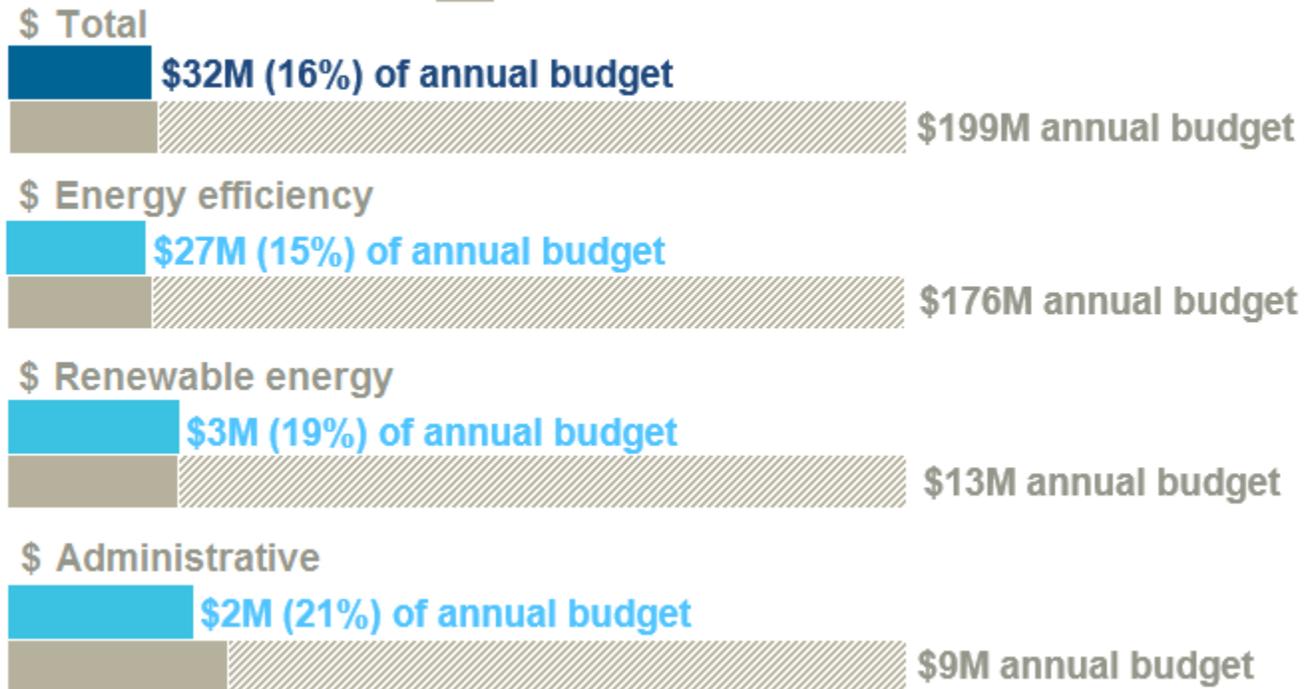
Customer satisfaction³



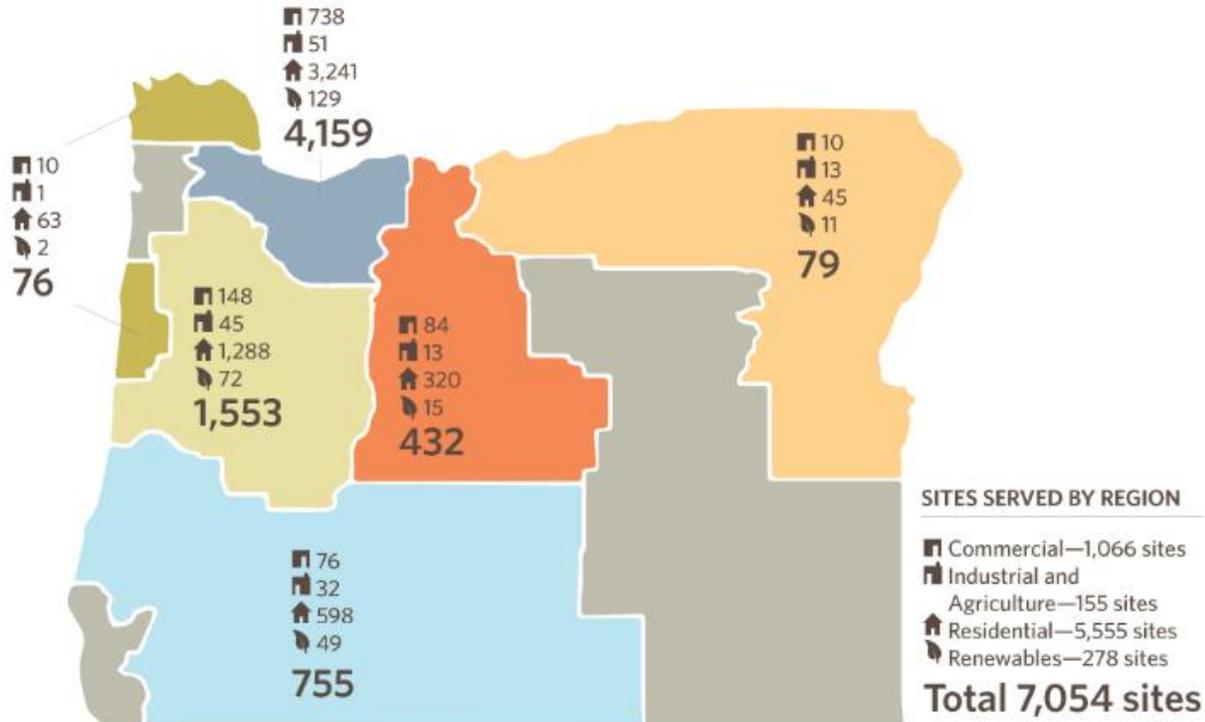
³ From December 2018 to March 2019, Energy Trust delivered a short telephone survey to 1,011 randomly selected participants in five Oregon programs who completed projects between October and December 2018 and received an incentive or discount from Energy Trust. New Buildings participants are surveyed every other year, with the most recent survey in Q2 2018.

Expenditures

■ = Year-to-date budget ▨ = Annual budget



Sites served by region



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.

II Executive summary

A. Progress to energy efficiency and renewable energy goals^{4,5}

- **Energy Trust is largely tracking in line with expectations at the end of quarter one. Savings are typically lower in the first half of the year** as more studies and assessments are completed compared to the second half of the year when more projects close. This report focuses on the development of those potential projects expected to save or generate energy and contribute to organizational goals by year-end.
- **Electric efficiency improvements completed in quarter one saved 4.4 average megawatts** of electricity. Savings accounted for 8 percent of the 2019 goal of 53.2 aMW, comparable to the percent of goal savings achieved in quarter one 2018.
- **Gas efficiency improvements completed during quarter one saved approximately 600,000 annual therms** of natural gas⁶. Savings accounted for 10 percent of the 2019 goal of 6.0 million annual therms, comparable to the percent of goal savings achieved in quarter one 2018.
- **Renewable energy systems installed during quarter one will generate 0.6 aMW of electricity**, 27 percent of the 2019 goal of 2.25 aMW. The strong performance was largely due to commercial projects delayed from 2018 completing in the first quarter of this year.
- **Savings and generation achieved in quarter one represent about 27,000 tons of carbon dioxide** kept out of the atmosphere, the equivalent of removing 5,800 cars from Oregon roads.

4.4

AVERAGE
MEGAWATTS SAVED

0.6

MILLION ANNUAL
THERMS SAVED

0.6

AMW GENERATED

27,000

TONS OF CARBON
DIOXIDE AVOIDED

B. Notable activities and trends

- **Energy Trust helped residential customers save more energy than expected**, largely driven by the construction of EPS™ new homes, a fixed-price offering for heat pumps in manufactured homes, smart thermostats and heat pump water heaters purchased in stores, and more energy savings from retail lighting and showerheads than anticipated.
- **The organization influenced commercial customers to complete 18 highly efficient Path to Net Zero new construction projects** since the inception of the offering, with another 48 projects advancing in the installation and design process. Participation is high for affordable housing and school projects, and New Buildings will focus on supporting the affordable housing market in 2019. Path to Net Zero projects exceed code by 40 percent through a combination of energy-efficient and renewable energy features. In addition, Energy Trust provided grants to support the first group of Net Zero Emerging Leaders who



18 PATH TO NET ZERO
PROJECTS
COMPLETED TO DATE

⁴ This document reports net savings, which are adjusted gross savings based on results of current and past evaluations.

⁵ 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, 2017, 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 2017 Report is available online at www.energytrust.org/reports.

⁶ The gas savings do not include results for NW Natural in Washington. These results are available at www.energytrust.org/reports.

completed internships with architecture firms to gain industry experience and influence the industry to achieve more efficient building design.

- **Energy Trust planned pilots for 2019 and 2020 to test new commercial and industrial lighting offerings** to capture savings and increase customer participation as the business lighting market moves toward transformation over the next few years. Pilots include linear tube LEDs installed at no cost to small businesses, a midstream lighting offering and a networked lighting controls pilot.
- **Energy Trust developed new offerings and incentives to diversify savings sources and expand participation across sectors**, including incentives for efficient residential clothes dryers, conveyer charbroilers in restaurants and over-wrappers used in grocery stores. In addition, staff planned to transition several offerings from delivery at retail stores to midstream delivery, providing immediate markdowns for consumers and reducing program delivery costs.
- **Energy Trust began an Existing Multifamily Program Assessment project** to identify opportunities to maintain cost-effective offerings for multifamily customers and address challenges such as increasing market saturation and declining savings from key measures. Staff will develop potential improvements to the program and engage stakeholders for input in quarter two. Program improvements will be rolled out in 2020 and 2021.
- **Energy Trust launched new solar early design incentives to incorporate solar panels or solar-ready infrastructure into home or building designs.** Incorporating solar in the early design process will help builders and design teams meet Governor Brown's Executive Order 17-20, which requires all new residential and commercial buildings to be built solar ready by October 1, 2020, and October 1, 2022, respectively.
- **Guided by stakeholder input, Energy Trust planned to prioritize higher-value solar applications** in 2019 that provide additional benefits such as grid flexibility and resilience and that target underserved and grid-constrained communities.
- **Energy Trust supported an event recognizing irrigation modernization accomplishments in Central Oregon**, including planned and completed upgrades in Tumalo and Three Sisters irrigation districts and the completion of a 200-kilowatt micro-hydropower demonstration project at Three Sisters. With more than 100 stakeholders and other irrigation districts in attendance, including U.S. Senator Jeff Merkley, the event garnered print and broadcast news in several Central Oregon publications.
- **The organization launched a new DocuSign option for customers to sign and submit New Buildings and some Existing Multifamily enrollment forms digitally using their computer, smart phone or tablet.** This improvement makes it easier and faster for customers to complete applications and receive incentives by eliminating the need to sign and mail or deliver hard copies. With the new DocuSign option, application completion time dropped from an average of 18 days to an average of five days across the two programs.



NEW COMMERCIAL AND INDUSTRIAL LIGHTING PILOTS

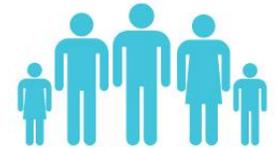


LAUNCHED SOLAR EARLY DESIGN INCENTIVES



UPGRADES AT CENTRAL OREGON IRRIGATION DISTRICTS

- **Energy Trust and utilities planned two pilots to promote existing energy-efficient or solar offerings in communities where they are most valuable** to avoid potential distribution infrastructure upgrades.
 - **With Pacific Power, Energy Trust will run a pilot in South Medford and Phoenix** from June 2019 through the end of 2020. In quarter one, staff planned to promote energy-efficiency and solar upgrades in these communities. Targeted marketing is expected to begin in quarter two and will include increased digital advertising and direct mail.
 - **With NW Natural, Energy Trust planned a pilot in Silverton** that will increase promotion of energy efficiency offers from September 2019 to December 2021.
- **Staff collaborated with PGE on the development of PGE's Smart Grid Testbed**, including coordinating marketing efforts and sharing data to align messaging to customers and reduce potential confusion in the market. The program will continue this coordination throughout 2019.
- **Energy Trust made progress toward achieving its diversity, equity and inclusion goals for 2019 and 2020**, established at the end of 2018. These goals help drive diversity, equity and inclusion activities across programs and operations, which are reflected throughout this report. A few examples of organization-wide diversity, equity and inclusion activities completed in quarter one include:
 - **Staff convened seven community leaders to help shape the vision for a new Diversity Advisory Council.** A charter for the Diversity Advisory Council will be developed in quarter two, and recruitment and formation of the new council is expected in quarter three. The new council will provide direction and insight to the board and staff on a range of topics, including diversity, equity and inclusion efforts and progress.
 - **Programs developed detailed plans for achieving diversity, equity and inclusion goals** and engaged Program Management Contractors and Program Delivery Contractors.
 - **Staff convened project teams for each goal** and engaged staff and stakeholders for input and guidance.
- **Staff engaged the OPUC, board of directors, advisory councils, utilities and other stakeholders for input and guidance on the organization's strategic direction** in preparation for drafting Energy Trust's 2020-2024 Strategic Plan in quarter two. The draft plan will be discussed by the board at its May strategic planning workshop.
- **Energy Trust kicked off two new projects to improve organizational processes, readiness for the future**, and capacity to innovate and adapt to change.
 - **The innovation project team will help Energy Trust define a framework that clarifies the type of support available to foster the development of new ideas.** After selecting and defining an innovation framework for Energy Trust, the team will conduct a pilot to test tools and approaches to nurture and develop innovative ideas.
 - **The budget tools project team will select new budgeting software** that will be easier to use, enable faster and more complex analysis and planning, and improve forecasting ability to support staff in developing



PROGRESS TOWARD
DIVERSITY, EQUITY
AND INCLUSION
GOALS



IMPROVING
ORGANIZATIONAL
PROCESSES AND
READINESS

annual budgets. The software will be selected and tested in early 2020 for use in developing the 2021 budget.

- **Staff completed an analysis to show projected future staffing costs under a range of scenarios.** The scenarios were requested by the OPUC in anticipation of potential reduced energy savings opportunities and possible revenue reductions. The analysis may inform the OPUC performance measures set for Energy Trust in 2020. The 2019 performance measure requires total staffing expenditures to not exceed 7.25 percent of total organizational expenditures on a three-year rolling average.
- **Energy Trust signed a subcontract with Energy Solutions to administer part of the Oregon Community Solar Program.** Energy Trust's role is to advise on program design and lead project certification, customer service and consumer protection activities.

III Program and operations activity

A. Commercial sector highlights

- **The commercial sector performed in line with expectations in quarter one.** The sector continued to build the pipeline of projects for 2019 and will have a clearer understanding of the savings potential in quarter two.
- **Savings from NEEA activities comprised 9 percent and 13 percent of the sector's 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.

9%

OF COMMERCIAL
SECTOR SAVINGS IN
PGE TERRITORY FROM
NEEA ACTIVITIES

13%

OF COMMERCIAL
SECTOR SAVINGS IN
PACIFIC POWER
TERRITORY FROM
NEEA ACTIVITIES

Existing Buildings

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

- **The Existing Buildings program developed two new offerings to help restaurants and grocery stores save more energy.** In the first quarter, the program launched a new incentive for conveyor charbroilers in restaurants. Staff also developed an incentive for overwrappers—used to package and seal fresh food—in grocery stores, planned for a midyear launch.
- **The program prepared to roll out a midstream offering for emergency generator block heaters** by developing process and training guides for installers and distributors. This offering will be available to customers starting in quarter two. Midstream incentives are provided to distributors and retailers and are passed on to both consumers and contractors as instant discounts, reducing barriers to participation and lowering costs of delivery.
- **The program prepared to launch new pilots for 2019 and 2020 to test new offerings that could offset declining lighting savings**, including:
 - A pilot for installing linear tube LEDs for small businesses at no cost to the customer. This pilot is part of a five-year lighting strategy developed in collaboration with the Production Efficiency and Existing Multifamily programs. The pilot is expected to launch in quarter three.
 - A midstream lighting pilot offering. As part of the five-year lighting strategy, this offer will be developed in 2019 and launched in the first quarter of 2020.
 - A networked lighting controls pilot. A networked lighting control system is an intelligent system for programming building- or enterprise-level controls and measuring and monitoring energy use. The pilot is expected



NEW LIGHTING PILOTS
FOR 2019 AND 2020

to launch in quarter two, pending approval from the Oregon Public Utility Commission.

- **A smart thermostat pilot for small- and medium-sized businesses** conducted in coordination with PGE as a demand response initiative. Expected to launch in quarter two, this pilot will evaluate the impact of installing energy-saving Ecobee and Pelican smart thermostats in small- and medium-sized businesses by the end of 2020.
- **The program launched a small business team to prioritize outreach and technical services to small- and medium-sized business customers in rural areas.** In the first quarter, the team visited more than 250 business customers across the state. This group helped small businesses install energy-efficient lighting and other standard upgrades, with a focus on reaching more business owners who speak English as a second language.
- **To reduce commercial Strategic Energy Management delivery costs and increase savings, the Existing Buildings program created a strategy to streamline data processing and improve forecasting.** As a result of this more accurate forecasting, the program will be able to **identify and prioritize enrollment of sites with the most savings potential** and dedicated SEM resources.
- **The Existing Buildings program proposed a carbon reduction initiative to assist with NW Natural's carbon reduction goals.** The proposed approach will focus on customers with old, inefficient boilers that choose to repair the boilers rather than upgrade to more efficient technology due to high replacement costs. If approved, customers will receive a carbon reduction payment from NW Natural in addition to the energy efficiency incentive provided by Energy Trust. This increased support will enable customers to upgrade to more efficient boilers. If approved by the Oregon Public Utility Commission, the effort will launch in quarter two.



SMART THERMOSTAT PILOT FOR SMALL- AND MEDIUM-SIZED BUSINESSES



IDENTIFYING SEM SITES WITH HIGH ENERGY SAVINGS POTENTIAL

Existing Multifamily

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. Offerings include free in-unit installation of LEDs, showerheads and faucet aerators and distribution of energy-saving advanced power strips; incentives for 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; incentives for custom projects; and technical services including technical analysis studies and free walkthrough surveys.

- **The Existing Multifamily program began early planning to expand the Savings Within Reach offer to moderate-income multifamily unit owners.** Currently, Savings Within Reach incentives are available to owners of single-family and manufactured homes who meet moderate-income qualifications. The offering is expected to be available to multifamily customers in the second half of the year.



EXPANDING SAVINGS WITHIN REACH OFFER TO MODERATE-INCOME MULTIFAMILY UNIT OWNERS

- **The program developed an incentive for efficient domestic hot water recirculation systems** that help customers save energy and conserve water by cycling off during periods of low demand. The incentive will launch later this year.
- **The Existing Multifamily program developed new marketing materials to support targeted outreach to customer groups with historically low participation.** These materials promote free installation of LEDs, showerheads and faucet aerators in tenant units. As a result, the program saw a nearly 30 percent increase in traffic to the web page for this offering and is exceeding targets in rural areas.
- **The program enrolled seven new trade allies in quarter one, five of which are in Southern Oregon.** The program is **increasing outreach to grow the number of trade allies outside of the Portland Metro area** to expand customer participation in historically underserved areas.
- **Staff formed a cross-functional workgroup to conduct an Existing Multifamily Program Assessment.** The goals of the assessment are to identify opportunities to maintain cost-effective offerings for multifamily customers and address challenges such as increasing market saturation and declining savings from key offerings. The workgroup will develop potential improvements to the program and engage stakeholders for input in quarter two. Program improvements will be rolled out in 2020 and 2021.
- **The program made progress toward diversity, equity and inclusion goals** through targeted marketing and outreach to small multifamily properties and customers outside of the Portland Metro region and re-engagement of past participants in low-income areas in the Portland Metro region.



EXPANDING TRADE
ALLY NETWORK
THROUGHOUT
OREGON

New Buildings

The New Buildings program supports design and construction of high-performance commercial buildings and major renovations of all sizes and building types. Staff engage with building owners, developers and design professionals to provide standard prescriptive incentives, Market Solutions incentive packages and custom incentives. Tailored Market Solutions incentive packages help businesses make quick decisions and achieve deeper energy savings when constructing small restaurant, grocery, multifamily, office, school or retail buildings less than 70,000 square feet.

- **In quarter one, the New Buildings program completed 51 projects,** 10 more than were completed during quarter one 2018. Despite this strong start to the year and continued outreach and marketing, the program may not be able to achieve its annual energy-savings goals due to construction delays in a constrained labor market.
- **The program is preparing to support customers to comply with two new state building codes,** one that will go into effect in October 2019 and one that will go into effect in 2020. These new codes may alter how the program analyzes savings and may shift how the program serves small-sized, medium-sized and rural businesses. The program will monitor these code changes and

51

NEW BUILDING
PROJECTS
COMPLETED IN
QUARTER ONE

adjust program requirements to support customers and market adoption of the new code.

- **The New Buildings program began work with the Multicultural Collaborative**, a team of planning and business professionals dedicated to empowering communities of color through leadership, governance and self-advocacy. The collaborative reviewed plans and community engagement opportunities for the New Buildings program and provided recommendations for implementation, including building relationships and awareness through widening networks with community-based and culturally specific groups.
- **In 2019, the New Buildings program will offer Construction Contractors Board (CCB) education credits to encourage contractors to attend trainings.** Small commercial general contractors, especially in rural areas, are often responsible for selecting a building's HVAC systems or lighting. Providing CCB education credits is a new strategy to influence and educate contractors on the long-term benefits of efficient technologies.
- **As of quarter one, Energy Trust has supported completion of 18 Path to Net Zero projects, with another 48 projects advancing in the installation and design process.** This includes:
 - **One affordable housing project** completed and another six affordable housing projects in progress. The program plans to focus on the affordable housing market in 2019.
 - **Five projects completed in school districts**, including Reynolds, Woodburn and Tigard-Tualatin school districts. Some schools leveraged Green Energy Technology funding in addition to bonds to add extra solar panels to achieve net-zero status.
- **The first set of Net Zero Emerging Leaders completed internships with architecture firms and presented their learnings.** Energy Trust's grants to architecture firms provide students with the opportunity to gain entry-level job experience while moving the industry toward more efficient building design, helping the industry achieve the national Architecture 2030 Challenge to construct all buildings net zero by 2030.



**BEGAN WORK WITH
THE MULTICULTURAL
COLLABORATIVE**



**FIVE PATH TO NET
ZERO PROJECTS
COMPLETED IN
SCHOOL DISTRICTS**

B. Industry and agriculture sector highlights

- **The industry and agriculture sector had a lower than average pipeline of projects expected to complete by year-end.** To help reach goals in all territories, the program is continuing to build the pipeline of lighting projects and is considering increasing custom gas incentives. The sector will have a clearer understanding of the savings potential in quarter two.
- **Savings from NEEA activities comprised approximately less than 1 percent of the sector's results** in both PGE and Pacific Power territories. 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.

1%

**OF COMMERCIAL
SECTOR SAVINGS IN
PGE AND PACIFIC
POWER TERRITORIES
FROM NEEA
ACTIVITIES**

Production Efficiency

Production Efficiency provides energy-efficiency solutions for all sizes and types of eligible industrial, agricultural, municipal water and wastewater customers. The 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.

- **In quarter one, the Production Efficiency program hired a new program outreach representative located in Bend to increase support for customers in Southern and Eastern Oregon.** Small- and medium-sized customers in rural areas face more barriers to participation than their urban and larger counterparts.
- **The program made progress toward enhancing the industrial Strategic Energy Management offering** by preparing a new Continuous SEM cohort workshop for quarter two and preparing to test a streamlined approach in the First-Year SEM offering. The streamlined approach will be developed in quarter two and rolled out by year-end to eight to 10 customers.
- **Staff collaborated with PGE to develop a plan to reach more small industrial customers.** PGE will contact small customers and provide warm leads to the program, enabling Energy Trust to engage with more small customers.
- **The program developed a direct-installation pilot offering for linear tube LEDs for small businesses at no cost to the customer.** This pilot is part of a five-year lighting strategy developed in collaboration with the Existing Buildings and Existing Multifamily programs. The pilot is on track to launch in quarter three.



HIRED AN OUTREACH REPRESENTATIVE FOR SOUTHERN AND EASTERN OREGON



REACHING MORE SMALL INDUSTRIAL CUSTOMERS

C. Residential sector highlights

- **The residential sector performed above expectations in quarter one, with a strong start for savings and incentives.**
- **Savings from NEEA activities comprised approximately 32 percent and 31 percent of the sector's 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.

Residential

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

32%

OF RESIDENTIAL SECTOR SAVINGS IN PGE TERRITORY FROM NEEA ACTIVITIES

31%

OF RESIDENTIAL SECTOR SAVINGS IN PACIFIC POWER TERRITORY FROM NEEA ACTIVITIES

HVAC and water heating equipment, lighting, appliances, weatherization upgrades and whole home improvements in new construction.

- **Exceptionally strong quarter one electric and gas savings** were driven largely by construction of EPS new homes, a fixed-price offering for heat pumps in manufactured homes, smart thermostats and heat pump water heaters purchased in stores, and more energy savings from retail lighting and showerheads than anticipated.
- **Customers purchased 500 heat pump water heaters from distributors and retailers**, a 30 percent increase over the first quarter last year. This is the result of distributors becoming more familiar with the product and more successful in promoting and reporting sales in the second year of implementation.
- **The program supported construction of more EPS new homes than anticipated** because completion of many projects shifted from quarter four 2018 to quarter one 2019.
- **The Residential program developed a new incentive paid to consumers who purchase efficient clothes dryers in stores.** This offer will roll out in quarter three.
- **The program planned to transition its existing clothes washer incentive from a retail incentive provided to consumers to a midstream incentive** provided to retailers by quarter three. Midstream incentives are provided to retailers to encourage stocking of energy-efficient equipment and are passed on to consumers as instant discounts, reducing barriers to participation and program delivery costs.
- **The program provided higher incentives, enhanced promotional support and made more field visits to stores selling energy efficiency products in underserved areas** such as rural communities, communities of color and communities with low and moderate incomes.
- **The program extended promotion of fixed-price ducted and ductless heat pumps for manufactured homes through the end of 2019.** The success of the effort resulted in nearly 70 projects in 2018 and 170 projects in quarter one. For fixed-price offerings, Energy Trust provides an incentive to trade ally contractors who agree to offer equipment to customers at a reduced price that stays the same even if the contractor's costs go up.
- **In quarter one, Energy Trust developed two pilots: an extended capacity heat pump pilot launched in quarter one and a residential Pay for Performance pilot expected to launch in quarter two.** These two pilots test new HVAC technology and new strategies, respectively, to gain more savings.
- **The program developed strategies to expand participation in Eastern Oregon.** The strategy includes designating all customers in a lower-income part of Malheur County as eligible for Savings Within Reach incentives. These higher incentives help low- and moderate-income homeowners access energy efficiency benefits. In addition, the program will increase heat pump marketing promotions in Pendleton and will partner with a local housing program in Sherman County to leverage Energy Trust incentives to increase available housing.



INFLUENCED THE SALE OF 500 HEAT PUMP WATER HEATERS



PLANNED NEW MIDSTREAM CLOTHES WASHER INCENTIVE



DEVELOPED TWO NEW RESIDENTIAL PILOTS

D. Renewable energy sector highlights

- **The renewable energy sector performed ahead of expectations in quarter one** and planned activities that will result in generation later in the year.

Solar

The Solar program aims to create a vigorous and sustainable market for solar in Oregon that will ultimately thrive without incentives. The program offers incentives and support to increase consumer awareness through education and marketing; protect consumers by enforcing business and quality standards; aid the industry to drive down non-hardware soft costs; and ensure a robust, qualified Trade Ally Network. The program offers standard incentives for smaller-scale distributed systems for residential, business, public sector and nonprofit customers. In 2019, the program focuses on continuing to improve equitable access to solar for lower-income customers and expanding innovative applications of solar that provide greater value to communities or the grid.

- **The Solar program had a strong start to the year, with more commercial solar projects completing in the first quarter than in previous years.** Some of the commercial projects were originally expected to complete in quarter four of 2018 and were delayed.
- **The program received more new residential applications and fewer commercial applications than last year at this time.** Energy Trust anticipates commercial applications to increase later in the year with support from PGE's Renewable Development Fund and Pacific Power's Blue SkySM community grants.
- **Based on strategic planning and input from stakeholders, the Solar program will focus more staff time and resources on higher-value applications of distributed solar that provide additional benefits such as grid flexibility, resilience and broader access for more customers.** The program plans to reduce staff time to deliver conventional solar offerings by streamlining and simplifying operations.
- **Staff solicited stakeholder feedback on a proposed Solar Within Reach offering.** This new offer will provide enhanced solar incentives to moderate-income homeowners. The offering is set to roll out in quarter three.
- **In quarter one, the Solar program awarded nine organizations with low- and moderate-income solar innovation grants.** The grants will support organizations to develop new, innovative programs to help underserved customers directly benefit from solar. The program expects that some of these new ideas could be replicable and scalable to other communities. Grantees include organizations in Wallowa, Klamath, Lake, Benton, Douglas, Hood River, Multnomah and Washington counties.
- **The program developed an online application for an improved solar development assistance incentive offering that will launch in quarter two.** This streamlined application will reduce contractor and staff time to apply for and manage incentive applications. The incentives support customers that typically have longer project development timelines: nonprofit



COMPLETED MORE
COMMERCIAL SOLAR
PROJECTS



FOCUS ON SOLAR FOR
GRID FLEXIBILITY,
RESILIENCE AND
BROADER ACCESS

9

ORGANIZATIONS
RECEIVED SOLAR
INNOVATION GRANTS

and public entities, customers enrolled in the New Buildings program, customers pursuing utility grants and customers exploring advanced solar plus storage systems.

- **Staff coordinated with the Residential and Commercial sectors to roll out solar early design assistance incentives.** Early design assistance incentives encourage builders and design teams to include a solar trade ally in early design discussions and incorporate solar panels or solar-ready infrastructure into home or building designs. Supporting the incorporation of solar in the early design process will help builders and design teams meet Governor Brown's Executive Order 17-20, which requires all new residential and commercial buildings to be built solar ready in 2020 and 2022, respectively.



ROLL OUT SOLAR
EARLY DESIGN
ASSISTANCE
INCENTIVES

Other Renewables

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. Most projects are less than 2 megawatts in size. The goal of the program is to expand Energy Trust's renewable energy portfolio across a range of technologies and improve market conditions. The program provides project development assistance incentives and installation incentives. Project development assistance incentives can pay for a portion of the costs of feasibility studies, technical assistance or other non-capital cost assessments and investigations to help projects move from concept to construction. Qualified projects may access project development assistance incentives multiple times, up to the limits of funding caps, enabling applicants to move through consecutive development activities. The program also provides installation incentives calculated on a custom basis after a detailed technical and financial review of a project's application. All incentives are paid following successful project installation or activity completion.

- **Energy Trust staff helped coordinate a ground-breaking ceremony for construction of a 1,176-kilowatt biopower project at the City of Salem Willow Lake water resource recovery facility.** Expected to reach commercial operation in 2020 and supported by a \$3 million Energy Trust incentive, the project will generate renewable thermal energy and electricity and offset approximately half of the facility's electric demand.
- **More than 100 stakeholders, government agencies and irrigation districts attended a ribbon-cutting recognizing irrigation modernization accomplishments in Central Oregon.** Attendees joined U.S. Senator Jeff Merkley and United States Department of Agriculture's Natural Resource Conservation Service Chief Matt Lohr. The event celebrated piping of the Tumalo and Three Sisters irrigation districts, and construction and commercial operation of the 200-kilowatt Three Sisters Irrigation District Watson micro-hydropower project.
- **Energy Trust hosted a discussion with representatives from Metro and Portland regional solid waste and water resource recovery agencies** to explore the capabilities of existing water recovery facilities to receive and



RECOGNIZED
CENTRAL OREGON
IRRIGATION
MODERNIZATION

digest post-commercial food waste to generate renewable biogas. Energy Trust is supporting further work to quantify the existing capacity of regional facilities to add food waste to boost biogas production.

- **Two new irrigation districts enrolled in the Irrigation Modernization initiative**, including Hermiston and Westland irrigation districts. In total, 23 irrigation districts in Oregon are participating in the Irrigation Modernization initiative that will lead to substantial energy savings and renewable energy generation opportunities. The initiative is a collaborative effort by Energy Trust and Farmers Conservation Alliance to help irrigation districts and farmers invest in modern irrigation infrastructure. Replacing open irrigation ditches with pipes saves energy, conserves water, enables habitat improvements for fish and wildlife, and can generate clean energy through small hydropower systems. Several additional districts are expected to sign on as participants in 2019.
- **The program opened a competitive solicitation for project installation incentive applications.** The program will review applications and select recipients in quarter two. The program typically runs two competitive solicitation processes each year to select incentive fund recipients. An additional solicitation is scheduled for quarter three.

2

NEW DISTRICTS
ENROLLED IN THE
IRRIGATION
MODERNIZATION
INITIATIVE

E. Internal operations highlights

Communications

- **Energy Trust received 108,000 website visits in quarter one**, generating 330,500 page views.
- **Staff launched an updated My Business campaign web page** to connect customers with contractors in their area to identify lighting updates for their business. Campaign results will be available in quarter two.
- **Nearly 80 percent of all visitors to the website in quarter one were new visitors**, most of whom found the website through a search engine or paid online advertising. In addition to the home page, most new visitors viewed the residential incentives page, the residential heating solutions page and the Energy Saver Kit order page.
- **Visitors to the Energy Trust website viewed three pages per visit and spent just over three minutes on the website**, a slight increase over the 2018 average and a good indicator of engagement.
- **The majority of web visitors were located in the Portland Metro area (77 percent)**, followed by Willamette Valley (9 percent), Southern Oregon (8 percent) and Central Oregon (4 percent). The remaining 2 percent of visits originated from Eastern Oregon, the North Coast and outside of Oregon.
- **Energy Trust distributed two press releases in the first quarter**, featuring cold weather energy-saving tips and irrigation modernization achievements in Central Oregon.
- **Energy Trust garnered 42 news stories** about its programs, services and customer benefits in print and broadcast with a media value of \$139,000—what

108,000

WEBSITE VISITS

42

NEWS STORIES
ABOUT ENERGY
TRUST

it would have cost to purchase the equivalent advertising space or air time—as a result of media outreach and responses to reporter inquiries.

Customer service

- **Energy Trust received 4,380 calls** and 430 email inquiries in quarter one.
- **Staff launched a new DocuSign option for customers to sign and submit New Buildings and some Existing Multifamily enrollment forms digitally using their computer, smart phone or tablet.** This improvement makes it easier and faster for customers to complete applications and receive incentives by eliminating the need to sign and mail or deliver hard copies. With the new DocuSign option, application completion time dropped from an average of 18 days to an average of five days across the two programs.
- **Energy Trust received three complaints in quarter one** that could not be easily resolved by a call center representative. Complaints were regarding a customer requesting duplicative incentives and from two trade allies.

Trade and program allies

- **Staff attended workforce development and networking events in Bend, Medford, Redmond and Portland.** Events included hosting a booth at Governor Kate Brown's Marketplace Conference and presenting at the Oregon Association of Minority Entrepreneurs to increase participation of minority- and women-owned businesses in the Trade Ally Network.
- **Energy Trust announced the sunset of the Real Estate Ally Network on June 1, 2019** because continuing education opportunities about energy efficiency have become readily available for real estate professionals. Earth Advantage will continue to work with real estate agents around the state and serve as the main point of contact for efficiency and renewable energy interest in real estate.

General outreach

- **Energy Trust recruited and hired a new Eastern Oregon Outreach Manager** located in Pendleton. This staff member brings established relationships within the local community and extensive industry experience.
- **Energy Trust expanded awareness about programs and services through presentations and events,** including the Green Energy Institute, Portland 2.0, University of Oregon's climate change conferences, Affiliated Tribes of Northwest Indians annual conference, Douglas County Smart Energy and the Douglas County Home and Garden Show.
- **Energy Trust committed to sponsorship for Latinx events throughout 2019,** including Conectate in La Grande, a gathering of organizations providing services to Latinx populations throughout Oregon.
- **Outreach staff provided information about Energy Trust programs** and results through meetings with the City of Milwaukie, the City of Bend and its Climate Action Steering Committee, the Muslim Education Trust, a Deschutes County Commissioner, Grants Pass Chamber of Commerce Business Retention and Expansion meetings, League of Oregon Cities'



CUSTOMERS CAN
NOW ENROLL
DIGITALLY



COMMITTED
SPONSORSHIP TO
LATINX EVENTS
THROUGHOUT
OREGON

Small Cities, Network of Oregon Watershed Councils, the Association for African American Home Ownership, Oregon legislators and the Eastern Oregon Economic Development Corporation.

- **Energy Trust provided ongoing training and support** to AmeriCorps Resource Assistance for Rural Environments (RARE) interns in Lake County, Hood River and Pendleton. Energy Trust partially sponsors AmeriCorps RARE interns to build capacity in rural communities and connect those communities to programs and services.
- **Staff supported a collaborative effort between Rogue Climate and the City of Talent to provide Energy Saver Kits to low- and moderate-income households.** This effort was coordinated through the RARE member in Talent.

IT and business systems

- **Energy Trust upgraded its audio-visual systems with new video capability** and improved audio and presentation quality to make it easier to participate remotely for board, advisory council and other meetings.
- **Energy Trust processed nearly 18,500 customer projects in Energy Trust systems,** including 15,400 submitted through web applications.
- **Staff tested the use of Microsoft Skype for Business for remote meetings and collaboration.** Energy Trust plans to implement Skype for Business later in 2019.

18,500

CUSTOMER
PROJECTS
PROCESSED

Planning and evaluation

- **Staff designed 46 new energy-efficiency measures** and revised 72 measures.
- **Staff completed and posted two evaluations and market studies** on the Energy Trust website: 2018 Windows Market Research Report and Energy Trust Production Efficiency Strategic Energy Management Evaluation.
- **Staff refined the resource assessment model used to forecast the long-term efficiency resource for utility Integrated Resource Planning.** The resource assessment model is used to estimate the future cost-effective, energy efficiency resource that will be acquired, resulting in reductions to overall loads on utility systems. Updates to the model include a revision of the assumptions associated with industrial sector measures.
- **Staff finalized the avoided costs used for cost-effectiveness screening to prepare measures and programs for 2020 planning and budgeting.** Cost-effectiveness screening compares the value of the energy-efficiency investment compared to a utility supplying the same amount of energy in order to determine whether energy efficiency is a good investment for all utility customers. On average, avoided costs are up for both electric and gas.

46

NEW ENERGY-
EFFICIENCY
MEASURES
CREATED



FINALIZED
AVOIDED COSTS
FOR 2020
PLANNING

IV Revenues and expenditures tables^{7,8}

A. Revenues and expenditures summary

- **Overall revenues totaled \$57.9 million for Q1 2019**, 3 percent over what was budgeted.
- **Q1 expenditures totaled \$31.7 million**, of which is \$10.9 million or 34 percent was for incentives. Typically, actual expenditures vary from budgeted expenditures by a few percentage points.
- **Q1 electric efficiency expenditures** were 8 percent below budget.
- **Q1 gas efficiency expenditures** were 8 percent over budget.
- **Q1 renewable energy expenditures** were 2 over budget.

B. Revenues⁹

Revenues include public purpose revenue, 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.

| Source | Q1 actual revenues | Q1 budgeted revenues |
|-------------------------------|----------------------|----------------------|
| Portland General Electric | \$ 10,975,971 | \$ 11,157,632 |
| PGE Incremental | \$ 16,833,909 | \$ 14,750,084 |
| Pacific Power | \$ 8,121,360 | \$ 8,122,157 |
| Pacific Power Incremental | \$ 9,601,567 | \$ 9,675,841 |
| NW Natural | \$ 8,995,825 | \$ 9,072,902 |
| NW Natural Industrial DSM | \$ 1,500,000 | \$ 1,500,000 |
| Cascade Natural Gas | \$ 1,356,954 | \$ 1,257,007 |
| Avista | \$ 522,968 | \$ 522,968 |
| Low and moderate income grant | \$ 16,128 | \$ - |
| Community solar | \$ 15,835 | \$ 33,402 |
| Total | \$ 57,940,515 | \$ 56,091,992 |

⁷ Columns may not total due to rounding.

⁸ The gas savings do not include results for NW Natural in Washington. These results are available at www.energytrust.org/reports.

⁹ Energy Trust signed a subcontract with Energy Solutions to help administer the Oregon Community Solar Program in March 2019.

C. Expenditures by utility^{10,11,12}

| Source | Q1 actual expenditures | Q1 budgeted expenditures |
|-------------------------------|------------------------|--------------------------|
| Portland General Electric | \$ 14,933,225 | \$ 16,708,569 |
| Pacific Power | \$ 11,306,626 | \$ 11,616,230 |
| NW Natural | \$ 4,243,753 | \$ 3,828,856 |
| NW Natural Industrial DSM | \$ 386,287 | \$ 436,135 |
| Cascade Natural Gas | \$ 412,609 | \$ 425,865 |
| Avista | \$ 337,888 | \$ 274,305 |
| Low and moderate income grant | \$ 16,128 | \$ - |
| Community solar | \$ 7,978 | \$ 19,339 |
| Business development | \$ 7,162 | \$ - |
| Total | \$ 31,651,656 | \$ 33,309,298 |

D. Expenditures by sector and program

| | Q1 actual expenditures | Q1 budgeted expenditures | |
|-----------------------------------|-------------------------------|--------------------------|--------------|
| Commercial | Existing Buildings | \$ 4,904,653 | \$ 7,666,297 |
| | Existing Multifamily | \$ 1,911,902 | \$ 1,895,012 |
| | New Buildings | \$ 3,073,421 | \$ 2,820,925 |
| | NEEA Commercial | \$ 1,027,293 | \$ 880,543 |
| Commercial total | \$ 10,917,270 | \$ 13,262,778 | |
| Industrial | Production Efficiency | \$ 5,036,927 | \$ 5,665,795 |
| | NEEA Industrial | \$ 30,119 | \$ 32,639 |
| Industrial total | \$ 5,067,046 | \$ 5,698,435 | |
| Residential | Residential | \$ 9,910,158 | \$ 8,403,424 |
| | NEEA Residential | \$ 1,211,687 | \$ 1,080,728 |
| Residential total | \$ 11,121,844 | \$ 9,484,152 | |
| Energy efficiency total | \$ 27,106,160 | \$ 28,445,364 | |
| Renewables | Solar | \$ 1,856,748 | \$ 1,687,357 |
| | Other Renewables | \$ 706,886 | \$ 839,790 |
| Renewable generation total | \$ 2,563,634 | \$ 2,527,147 | |
| Administration | Administration | \$ 1,952,186 | \$ 2,318,544 |
| Administration total | \$ 1,952,186 | \$ 2,318,544 | |
| Other | Low and moderate income grant | \$ 15,031 | \$ - |
| | Community solar | \$ 7,484 | \$ 18,242 |
| | Business development | \$ 7,162 | \$ - |
| Total expenditures | \$ 31,651,656 | \$ 33,309,298 | |

¹⁰ Energy Trust signed a subcontract with Energy Solutions to help administer the Oregon Community Solar Program in March 2019.

¹¹ Energy Trust received a grant from the U.S. Department of Energy to collaborate with the Oregon Department of Energy to increase access to solar energy for low- and moderate-income communities.

¹² Energy Trust invested organization contingency pool funds to explore new business development opportunities. Organization contingency pool funds are unrestricted donations and consulting fees, and are independent from ratepayer funds.

E. Incentives paid

| Quarter | PGE efficiency | Pacific Power efficiency | NW Natural Gas 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 |
| Total | \$3,920,613 | \$3,171,264 | \$1,849,998 | \$150,184 | \$113,578 | \$789,880 | \$892,848 | \$10,888,365 |

V Savings and generation tables^{13,14,15,16,17}

A. Savings and generation by fuel

| | Q1 savings/generation | Annual goal | Percent achieved YTD |
|---------------------|-----------------------|--------------------|----------------------|
| Electric savings | 4.4 aMW | 53.2 aMW | 8% |
| Natural gas savings | 633,958 therms | 6.0 million therms | 10% |
| Electric generation | 0.60 aMW | 2.25 aMW | 27% |

B. Progress toward annual efficiency goals by utility

| | Q1 savings | Annual goal | Percent achieved YTD | Annual IRP target | Percent achieved YTD |
|---------------------------|----------------|--------------------|----------------------|--------------------|----------------------|
| Portland General Electric | 2.5 aMW | 33.5 aMW | 7% | 34.5 aMW* | 7% |
| Pacific Power | 1.9 aMW | 19.7 aMW | 9% | 20.2 aMW | 9% |
| NW Natural | 546,348 therms | 5.2 million therms | 11% | 5.2 million therms | 11% |
| Cascade Natural Gas | 37,557 therms | 511,553 therms | 7% | 582,464 therms* | 6% |
| Avista | 50,053 therms | 360,682 therms | 14% | 294,720 therms | 17% |

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.

* Integrated Resource Plans for Portland General Electric and Cascade Natural Gas are pending acknowledgement by the OPUC.

¹³ Columns may not total due to rounding.

¹⁴ This document reports net savings. Net savings are adjusted gross savings based on results of current and past evaluations.

¹⁵ Electric savings also include transmission and distribution savings.

¹⁶ The gas savings do not include results for NW Natural in Washington. These results are available at www.energytrust.org/reports.

¹⁷ Energy Trust reports 100 percent 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.

C. Electric savings by sector and program

| | | Q1 savings aMW | Annual goal aMW | Percent achieved YTD |
|-------------------------------|-----------------------|-------------------|--------------------|-------------------------|
| Commercial | Existing Buildings | 0.7 | 14.2 | 5% |
| | Existing Multifamily | 0.4 | 1.5 | 23% |
| | New Buildings | 0.4 | 6.2 | 7% |
| | NEEA Commercial | 0.2 | 2.4 | 10% |
| Commercial total | | 1.7 | 24.3 | 7% |
| Industrial | Production Efficiency | 1.0 | 18.8 | 6% |
| | NEEA Industrial | - | 0.1 | 0% |
| Industrial total | | 1.0 | 18.9 | 6% |
| Residential | Residential | 1.2 | 6.8 | 18% |
| | NEEA Residential | 0.3 | 3.2 | 10% |
| Residential total | | 1.6 | 10.0 | 16% |
| Total electric savings | | 4.4 | 53.2 | 8% |

D. Natural gas savings by sector and program

| | | Q1 savings thm | Annual goal thm | Percent achieved YTD |
|----------------------------------|--------------------------|-------------------|--------------------|-------------------------|
| Commercial | Existing Buildings | 57,179 | 1,536,231 | 4% |
| | Existing Multifamily | 18,840 | 145,321 | 13% |
| | New Buildings | 62,227 | 845,608 | 7% |
| | Commercial total | 138,246 | 2,527,160 | 5% |
| Industrial | Production Efficiency | 121,269 | 1,102,463 | 11% |
| | Industrial total | 121,269 | 1,102,463 | 11% |
| Residential | Residential | 374,442 | 2,413,207 | 16% |
| | Residential total | 374,442 | 2,413,207 | 16% |
| Total natural gas savings | | 633,958 | 6,042,831 | 10% |

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.

E. Renewable energy generation by utility

| | | Q1 generation aMW | Annual goal aMW | Percent achieved YTD |
|---------------------------|--|----------------------|--------------------|-------------------------|
| Portland General Electric | | 0.30 | 1.22 | 25% |
| Pacific Power | | 0.30 | 1.03 | 29% |
| Total | | 0.60 | 2.25 | 27% |

F. Renewable energy generation by program

| | Q1 generation aMW | Annual goal aMW | Percent achieved YTD |
|-------------------------|------------------------------|----------------------------|---------------------------------|
| Other Renewables | 0.00 | 0.00 | n/a |
| Solar | 0.60 | 2.02 | 30% |
| Total generation | 0.60 | 2.25 | 27% |

G. Incremental utility SB 838 expenditures¹⁸

| Utility | 2019 Q1 SB 838 Expenditures |
|------------------------------|------------------------------------|
| Portland General Electric \$ | 245,278 |
| Pacific Power \$ | 169,014 |
| Total \$ | 414,292 |

¹⁸ 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.