



Energy Trust of Oregon

2017 Annual Budget and 2017-2018 Action Plan

FINAL PROPOSED

**Presented to the Board of Directors
December 16, 2016**

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MEMO

Date: December 6, 2016
To: Board of Directors
From: Michael Colgrove, Executive Director
Subject: Final Proposed 2017 Budget and 2017-2018 Action Plan

I am pleased to present to you Energy Trust of Oregon's Final Proposed 2017 Budget and 2017-2018 Action Plan, which will be the focus of our December 16 board meeting.

The enclosed information provides an update on the draft budget and action plan presented to you on November 2, 2016, including revisions based on stakeholder feedback and public comments. Specifically, the packet includes a handout and slide presentation summarizing changes made to the draft budget and action plan, frequently asked budget questions, a summary of comments received with staff responses, copies of actual comments received and additional details on the budget. Also enclosed is the staffing details memo, planning assumptions memo and an updated memo on current energy-efficiency measure exceptions approved by the OPUC.

In developing this final proposed budget and action plan, the draft annual goals and activities were presented to and reviewed by the board of directors, Oregon Public Utility Commission, Conservation Advisory Council, Renewable Energy Advisory Council, affiliated utilities and members of the public.

The final proposed annual budget and two-year action plan will guide Energy Trust's investment of \$198.6 million to acquire 59.3 average megawatts and 7.41 million annual therms of the lowest-cost and cleanest energy available to utilities and their customers. This budget will further benefit customers by focusing investments in emerging technologies and new approaches, expanding participation, improving internal operations and managing for transition—four key strategies to meet our 2017 savings and generation goals, and contribute to our ambitious 2015-2019 Strategic Plan goals.

After board consideration on December 16, 2016, a final 2017 annual budget and 2017-2018 action plan will be submitted to the OPUC by year end and posted online at www.energytrust.org.

These documents guide Energy Trust in delivering the lowest-cost energy resources available to utilities and their customers, and diversifying Oregon's energy resource mix with small-scale renewable energy generation. The outcomes and benefits of our investments lower participant utility bills, avoid carbon dioxide emissions and strengthen our economy.

I look forward to our discussion next week and welcome your comments and questions.

Thank you,



Final Proposed 2017 Budget—Overview

Energy Trust of Oregon’s annual budget and two-year action plan are developed through a transparent, public process. They guide our delivery of the lowest-cost energy resource for customers of Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas and Avista, and diversify Oregon’s energy resource mix with clean power from small-scale renewable energy systems.

Learn more at www.energytrust.org/about/budget.

Areas of Emphasis

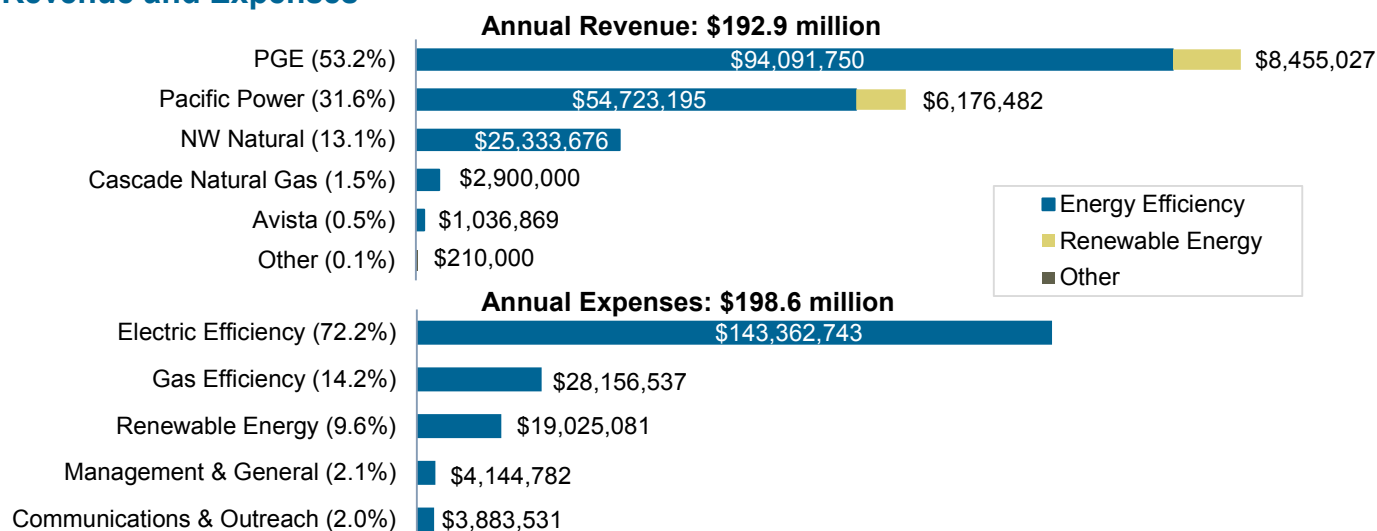
Expanding participation—Expand market research to improve services and reach new customers. Increase outreach to eastern and southern Oregon, moderate-income households and small businesses, and recruit more business trade allies. Increase retail, direct installation and upstream approaches to serve more customers at lower costs. Expand informational resources for customers.

New approaches, emerging technologies—Innovation for future savings through pilots and Northwest Energy Efficiency Alliance electric and gas market transformation activities. Support new opportunities in irrigation modernization, wastewater treatment plants, the cannabis market, energy performance scoring for new manufactured homes, energy performance management and smart thermostats as part of utility demand response programs. Explore role in solar and storage, energy resilience, electric vehicles and other emerging areas to identify savings and generation opportunities.

Managing transitions—Roll-out full services to Avista natural gas customers, respond to a rapidly changing LED market and any regulatory or policy shifts affecting solar incentives. Implement measure changes and modify approaches to serving residential customers. Continue stakeholder and customer outreach associated with executive director transition.

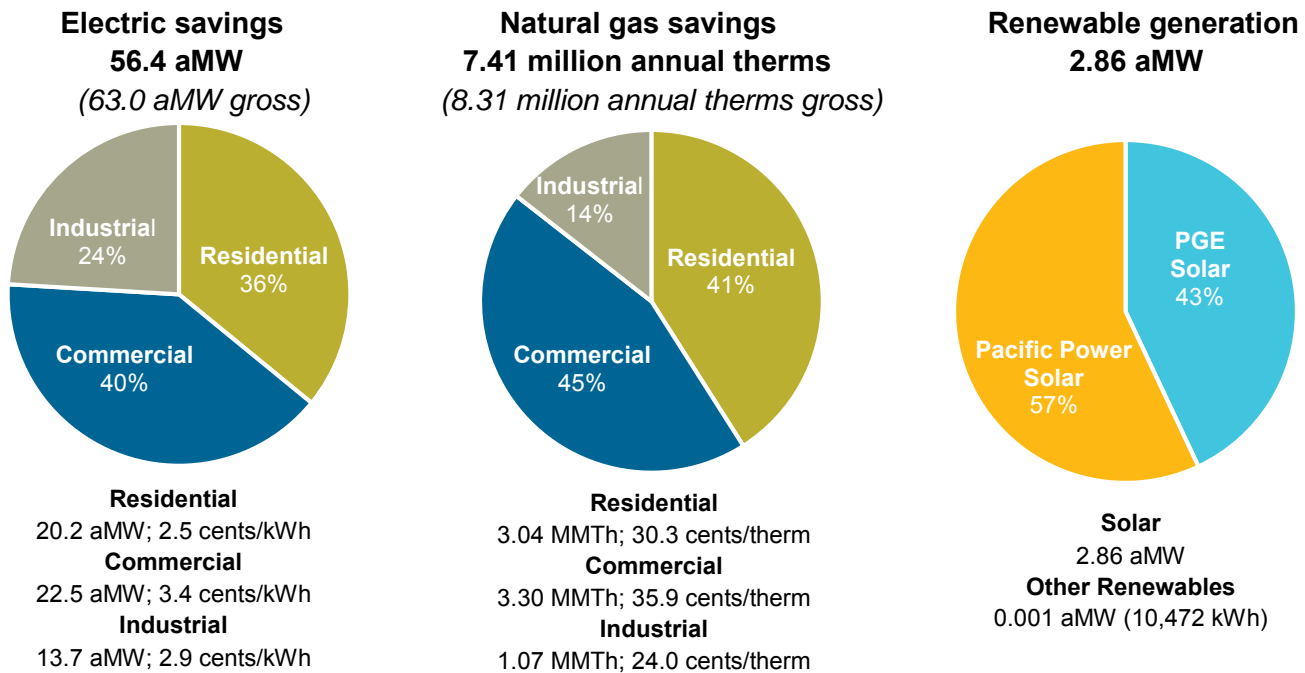
Efficient and effective operations—Use data and analysis to improve program effectiveness. Enhance internal systems and processes, supporting positive customer experiences, cost savings, transparency and accountability. Take steps toward diversifying workforce and staff development to serve a more diverse customer base. Maintain low staffing and administrative costs as a percentage of expenses.

Revenue and Expenses



Use of reserves in 2015 and 2016 enabled increased energy efficiency acquisition without significant new revenue. In 2017, use of reserves is modest and revenues are on par with expected expenditures.

Energy Efficiency and Generation Goals



Investing \$198.6 Million to Deliver Significant Benefits

- Participants saving \$713 million on their utility bills over time from projects completed in 2017
- Energy saved at a cost of 3.0 cents/kWh and 31.3 cents/therm, a fraction of the cost of fossil fuels
- Jobs, wages and business income added to the local economy
- Air quality improvements by avoiding 4 million tons of carbon dioxide
- Training and support for 2,400 local businesses, many of them small companies employing 12,400 people to work on Energy Trust projects (self-reported by trade allies)

Activities by Customer Type

Homeowners and renters:

Online Home Energy Reviews; referrals to trade ally contractors; incentives for equipment, weatherization, LEDs, showerheads, clothes washers and solar; energy performance scoring for new homes, including manufactured; enhanced incentives for moderate-income customers

Commercial businesses, public entities, nonprofits and multifamily properties:

Energy modeling, design and technical assistance; incentives for equipment, lighting and solar; Strategic Energy Management; Path to Net Zero; “Pay for Performance” pilot; multifamily rental unit and common-area incentives

Industrial and agricultural businesses:

Technical assistance, studies and analyses; customized solutions for industrial processes; equipment, lighting and solar incentives; Strategic Energy Management; expanded outreach to small industries; projects delivered by trade allies

Renewable energy project developers:

Project development assistance; anaerobic digestion at wastewater treatment facilities, irrigation district modernization and hydropower; solar “soft cost” reduction strategies

Notes: MMTh (million annual therms), aMW (average megawatt); this document reports in net except where noted

Final Proposed 2017 Budget—Year-to-year Comparison

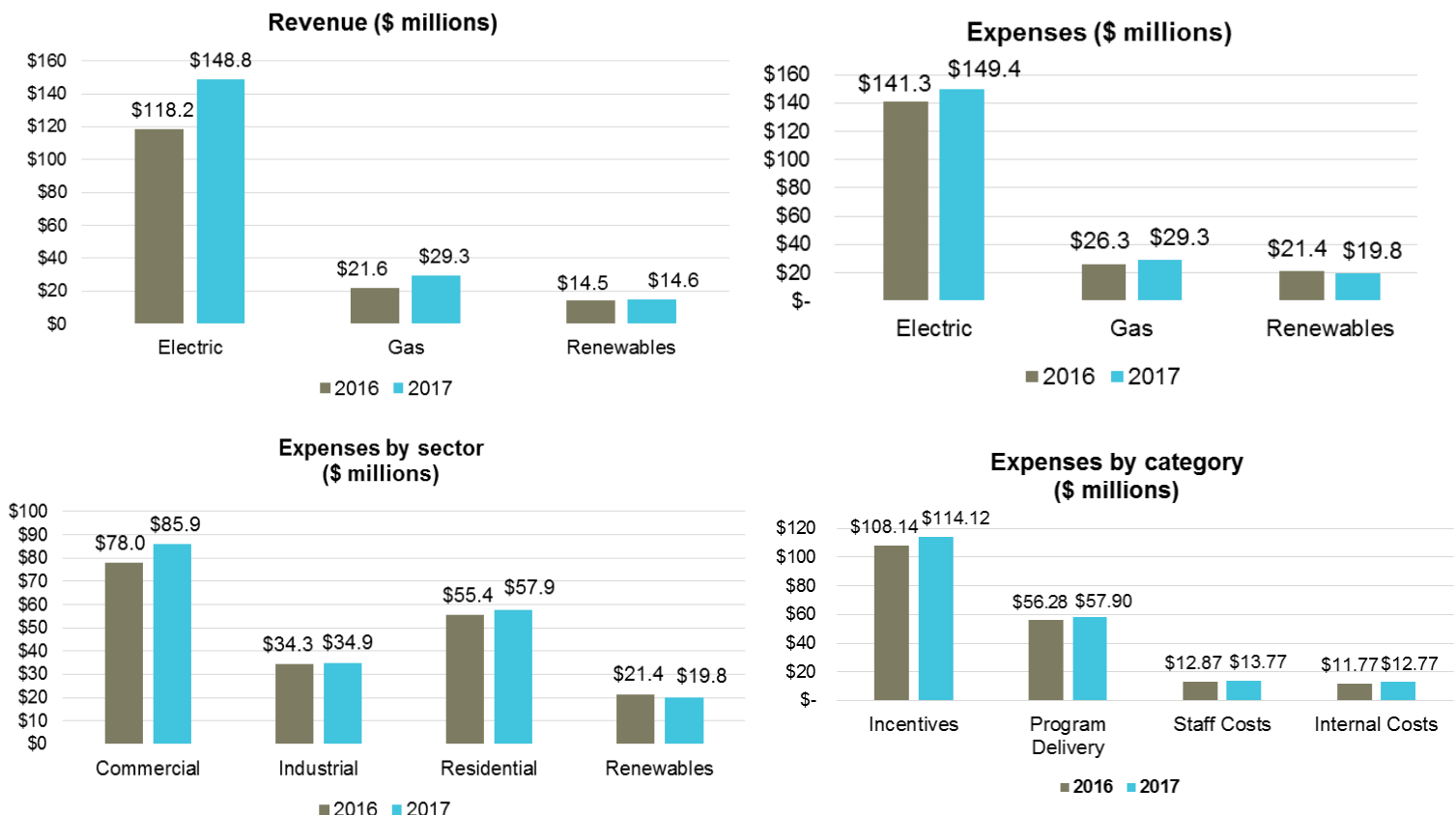
The detailed 2017 budget and 2017-18 action plans are posted at www.energytrust.org/about/budget.

2017 Budget Drivers

- Capture all cost-effective energy efficiency
 - Deliver greater savings than last year, 2.4% more electric savings and 23.8% more gas savings
 - Maximize savings in expanding new construction sector through New Homes and New Buildings
 - Increase retail, direct installation, instant incentives and upstream approaches
 - Roll-out full gas services to Avista customers
- Serve a high volume of customers investing in solar projects
- Use process improvements and internal system enhancements to manage costs
- Continue to meet/exceed Oregon Public Utility Commission performance measures

Year-to-year Comparison of Revenues and Expenses

- Revenues up 24.7% over 2016 to support increased energy-saving goals (up for each utility)
- Revenues on par with expected expenditure levels for each utility (use of reserves in 2015 and 2016 enabled increased energy efficiency acquisition without significant new revenue)
- Expenses up 5% over the 2016 budget; the single largest increase is in incentive spending, up \$6 million or 5.5% over 2016
- Staff and internal costs are up compared to 2016 and remain low compared to the overall budget

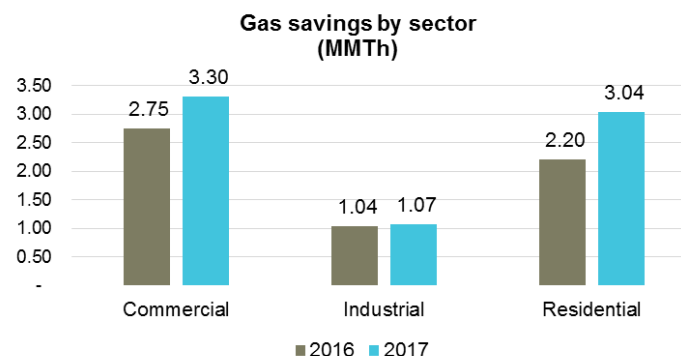
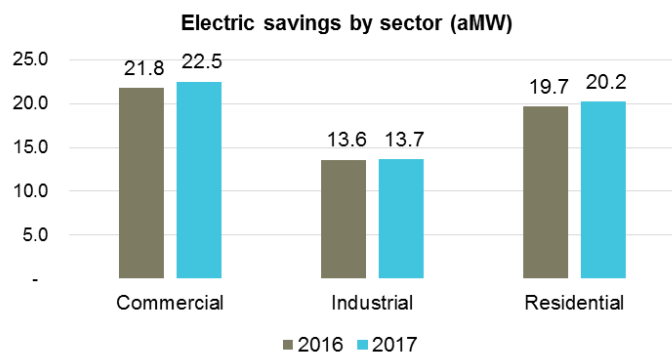


Notes: Charts depict approved 2016 budget to final proposed 2017 budget, except where noted
MMTh (million annual therms), aMW (average megawatt)

Year-to-year Comparison of Savings and Generation

	Savings		Generation
	Electric aMW	Gas MMTh	Electric aMW
2016	55.1	5.99	4.13
2017	56.4	7.41	2.86
% Change	2.4%	23.8%	(30.8%)

	Savings Levelized Cost	
	Electric cents/kWh	Gas cents/therm
2016	2.9	33.7
2017	3.0	31.3



Residential

- More electric savings are expected from NEEA and LEDs, and strong gas savings are expected from New Homes
- Existing Homes electric savings decreased slightly and gas savings increased 43% largely due to moving water heating support upstream, doubling the furnace installations in rentals and increasing Savings Within Reach activity
- New opportunities in energy performance scoring for manufactured homes and smart thermostats as part of utility-led demand response programs

Commercial and multifamily

- Increasing project volume and doubling the number of new construction projects
- Continuing trend of fewer savings per project; multiple large demand-side management gas projects
- Increasing electric savings from new construction and lighting, gas savings from new construction and moderate savings from commercial Strategic Energy Management
- Expecting to serve more smaller multifamily buildings

Industrial and agricultural

- Increasing project volume, savings and incentives; new savings opportunities in the cannabis market and projects resulting from customers' air pollution reduction efforts
- Expanding continuous Strategic Energy Management

Renewable energy

- Generation down from last year due to uneven timing in large projects
- High solar demand continuing as a result of lower installation costs and high consumer interest
- Nominal generation from 2 wind projects
- Continuing project development assistance for hydropower at irrigation districts, biopower at wastewater treatment plants, geothermal and wind projects; vast majority of generation from these efforts will occur in 2018 and beyond

Staffing Recap

- Requesting positions for Planning Project Manager, Human Resources Generalist, Communications/Outreach Project Manager (temporary), Attorney (0.5 FTE)
- Expanding ability to incorporate utility dimensions into planning; support HR initiatives as staffing needs evolve; support additional market research, outreach and communications in light of expanding participation focus, program transitions and active policy landscape; and continuing to review and negotiate contracts as programs and operations require more legal services
- Meeting OPUC performance measure to not exceed 7.75% on a 3-year rolling average for staffing costs

	# FTE	% Annual Expenses	OPUC Perf. Measure
2016	105	6.4%	✓
2017	108.5	6.9%	✓

Frequently Asked Questions: Energy Trust Annual Budget and Two-Year Action Plan

December 6, 2016

How is your budget and action plan developed?

Our annual budget and two-year action plan are developed through a transparent, public process that ensures stakeholder review and input. Our five-year Strategic Plan and each utility's Integrated Resource Plan (IRP) serve as primary building blocks for the budget, and are also developed through public processes at the Oregon Public Utility Commission (OPUC).

Annually starting in July and continuing through December, we work with Portland General Electric (PGE), Pacific Power, NW Natural, Cascade Natural Gas, Avista and our Conservation Advisory Council to build action plans and determine the amount of energy efficiency that can be cost-effectively acquired in the coming year. We also work with our Renewable Energy Advisory Council to determine planned renewable energy generation within PGE and Pacific Power territories. Our budget is submitted for review and comment to the OPUC, is reviewed and approved by our board of directors by December 31 of each year, and is posted online.



How can I participate?

Public comments are actively solicited and directly shape our final budget and action plan. Public notices and materials for board, Conservation Advisory Council and Renewable Energy Advisory Council meetings are posted on our website in advance of each meeting and every board meeting invites public comment. The OPUC hearing is also open to the public.

Written public comments are due to Energy Trust by 5 p.m., Wednesday, November 9, 2016. Comments may be emailed to info@energytrust.org, or mailed or submitted in person to Energy Trust of Oregon, 421 SW Oak St., Suite 300, Portland, Oregon 97204.

Who reviews and approves the budget and action plan?

Budget goals and activities are reviewed by our board of directors, Conservation Advisory Council, Renewable Energy Advisory Council, PGE, Pacific Power, NW Natural, Cascade Natural Gas, Avista and the OPUC. We also engage the public and a variety of stakeholders and utility customers. Broad public comment is sought through our website, outreach meetings and through a public webinar.

Comments received during the outreach period are summarized, with many incorporated into a final proposed budget and action plan presented to the board at its public meeting in December. The board approves the final proposed budget and action plan.

Where can I learn more information about next year's budget and action plan?

Visit our website at www.energytrust.org/about/budget to find the draft budget and action plan, view the budget schedule and register for the public webinar. All board and advisory council meeting agendas and packet materials are at www.energytrust.org/about/public-meetings.

How are programs and services funded?

Funding for our energy-efficiency and renewable energy programs comes exclusively from customers of PGE, Pacific Power, NW Natural, Cascade Natural Gas and Avista in Oregon, and NW Natural customers in Washington.

What benefits will the budget provide?

Our budget and action plan are designed to help a range of customers save energy and produce renewable power—from homeowners to large industrial facilities around the state. We deliver the low-cost energy efficiency utilities rely on to meet their customers' energy needs, and add clean, renewable power to the electric grid. Projects and actions resulting from our budget reduce participating customer utility bills, help keep energy costs lower for all utility customers, avoid carbon emissions and strengthen local economies.

What accountability measures are in place to ensure funds are spent wisely?

All expenditures must comply with legal requirements guiding our investments and meet minimum annual performance measures established by the OPUC. For instance, administrative and program support costs must be below 8 percent of annual revenues, and we must receive an unmodified financial opinion on annual, independently audited financial statements. In addition, all energy-efficiency investments, excluding pilots and limited activities exempted by the OPUC, are required to be cost effective, meaning that long-term project savings must exceed related costs and be of net financial benefit to the customer. The board of directors reviews monthly financial statements, program impact evaluations and program process evaluations, and updated evaluation factors are applied to our results during an annual true-up process.

How do you report on expenditures and progress to goals and performance measures?

We report quarterly and annually to the board and OPUC on progress to goals, revenues and expenditures, and program and operations activities. We also provide information for a public purpose charge report that is submitted to the Oregon Legislature every two years by the OPUC.

What do you take into account when setting the budget?

We work closely with all five utilities to update their plans to meet future energy needs for their customers with the goal of acquiring all available cost-effective energy efficiency. Additional information is drawn from renewable resource assessments and the most recent studies produced by the Northwest Power and Conservation Council, which identify energy efficiency and renewable energy potential throughout the Pacific Northwest. These resources drive our five-year strategic plan and guide our two-year action plan and annual budget.

Annual activities are guided by third-party program evaluations, market research, our experience delivering programs, feedback from on-the-ground contractors and customers, and input from our funding utilities, two advisory councils, the OPUC and the board of directors.

What happens when funds are not spent by the end of the year?

At year end, any unspent funds are carried over into the following year's budget and offset future revenue needs. Carryover of unspent funds can be a result of many factors, including meeting our savings goals at lower than expected costs or revenue forecasts being lower than projected due to unexpected weather changes. Renewable energy project development often occurs over multiple years and requires an upfront funding commitment.

Why does Energy Trust maintain reserves?

Reserves are set aside for unexpected occurrences and emergencies. They help ensure we can continue to provide programs and services for customers throughout the year. We have a minimum reserve amount for all five utilities, negotiated and set annually with each utility during the budget process.

FINAL PROPOSED 2017 Annual Budget & 2017-2018 Action Plan

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Final Proposed 2017 Budget & 2017-18 Action Plan

December 16, 2016



Today's Presentation

- Projected 2016 Results and 2017 Context
- Outreach and Comments
- Final Proposed Budget and Action Plan Summary
- Customer Benefits
- Reserves and Revenue Context
- 2018 Budget Projection



Projected 2016 Results

- ✓ Forecasting to exceed savings goals for all utilities
- ✓ Expenditures are up; levelized costs remain low
- ✓ Two large renewable energy projects are delayed, causing generation shortfall
- ✓ Projecting reserves will be reduced by \$35.9 million—more than planned
- ✓ Large pipeline of projects
- ✓ Avista collaboration on track



Projected 2016 Results by Utility

	Budgeted 2016 Savings Goal (Net) aMW or MMTh	Budgeted 2016 Levelized Cost Per kWh or Therm	Projected 2016 Savings (Net) aMW or MMTh	Projected % of 2016 Savings Goal (Net)	Projected 2016 Levelized Cost Per kWh or Therm
PGE (Efficiency)	33.66	2.9¢	35.31	105%	2.9¢
Pacific Power (Efficiency)	21.42	3.0¢	22.65	106%	2.7¢
NW Natural (Oregon)	5.25	32.3¢	5.64	107%	30.8¢
NW Natural (Washington)	0.27	33¢	0.33	124%	41¢
Cascade Natural Gas	0.47	41.1¢	0.53	113%	32¢
PGE (Renewable Energy)	1.09	N/A	1.44	132%	N/A
Pacific Power (Renewable Energy)	3.04	N/A	0.98	32%	N/A

MMTh: million annual therms aMW: average megawatts

Context Driving 2017 Savings & Expenditures

- Stronger economy, driving project volume
- Increased savings opportunity with booming new construction markets
- More challenging business case for some customers, driving delivery cost



Outreach Activities Completed

Presentations by Audience	Date(s)
PGE, Pacific Power, NW Natural, Cascade Natural Gas, Avista	July - Nov
Renewable & Conservation Advisory Councils	Oct. 21
Oregon Public Utility Commission informal workshop	Oct. 31
Board of Directors	Nov. 2
Public webinar	Nov. 4
Renewable & Conservation Advisory Councils	Nov. 16
Oregon Public Utility Commission public hearing	Nov. 22

Themes from Budget Comments

- Support for plans to acquire all cost-effective savings to benefit utility customers
- Concern about revenue increase needed in 2017, resulting from low reserves and high program activity/opportunity
- Stakeholders would prefer earlier forecast of revenue requirements, especially given low available reserves
- Desire for more detail about revenue and reserves in draft budget
- Desire for planning assumptions to have more prominence in the draft budget materials

OPUC Comments

- Summarized status of last year's recommendations, noting 11 of 12 requests were addressed and one is in progress
- Supported 2017 budget and 2017-18 action plan, including new staff positions
- Requested prioritization of the following activities in 2017:
 - Budget process improvement, including earlier stakeholder communication and scenario development for significant changes
 - Continued focus on demand management, improving forecasting methods and communicating program/planning budget drivers
 - Assessment of strategies and structure needed to handle future challenges and opportunities
 - Assessment of staffing, and collaboration with OPUC to revise minimum performance measure for staffing costs
 - Continued engagement on OPUC dockets

2017 Final Proposed Budget

- Investing \$198.6 million
- Saving 56.40 aMW and 7.41 MMTh
 - Electric savings up by 2.4%
 - Gas savings up 23.8%
- Delivering highly cost-effective energy
 - 3.0 cents/kWh levelized
 - 31.3 cents/therm levelized
- Generating 2.86 aMW
 - Overall renewable generation down 30.8%



2017 Final Proposed Budget

- Overall spending up 5% due to increased project volume and growth in incentives, delivery and internal costs
- Incentives up 5.5% and represent 57.5% of total planned expenditures
- Need for revenue up significantly; reserves on target, down from prior years
- Staffing costs at 6.6%, well below OPUC performance measure
- Low administrative and program support costs at 5.8%



Reductions to Draft 2017 Budget

- Expenditures reduced about \$2.6 million
- Adjusted administration, program support and other efforts not directly tied to short-term savings
- Very small reductions in electric and gas savings
- Small reduction in Pacific Power solar budget



Areas of Emphasis



Action Plan Highlights

- Driving efficiency in new construction
- Supporting new markets, approaches
- Serving new Avista customers
- Continuing strategies to reach rural customers
- Expanding informational resources for customers
- Focusing on cost-saving process improvements
- Increasing use of data and analytics
- Expanding renewable project development
- Preparing for residential program changes



2017 Utility Savings & Generation Summary

	2016 Budget Goal (Net) aMW or MMTh	2017 Budget Goal (Net) aMW or MMTh	IRP Target for 2017 (Net) aMW or MMTh	2017 Budget (\$ Million)	2017 Budget Levelized Cost Per kWh or Therm
PGE (Efficiency)	33.66	34.97	31.87*	\$93.61	3.0¢
Pacific Power (Efficiency)	21.42	21.43	19.94*	\$55.80	2.9¢
NW Natural (OR)	5.25	6.25	4.40*	\$23.89	30.6¢
NW Natural (WA)	0.27	0.28	0.26*	\$2.08	55.9¢
Cascade Natural Gas	0.47	0.56	0.36*	\$2.47	34.0¢
Avista	-	0.32	0.32	\$0.90	19.8¢
PGE (Renewable)	1.09	1.23	N/A	\$10.03	N/A
Pacific Power (Renewable)	3.04	1.63	N/A	\$9.80	N/A

*MMTh: million annual therms
aMW: average megawatts*

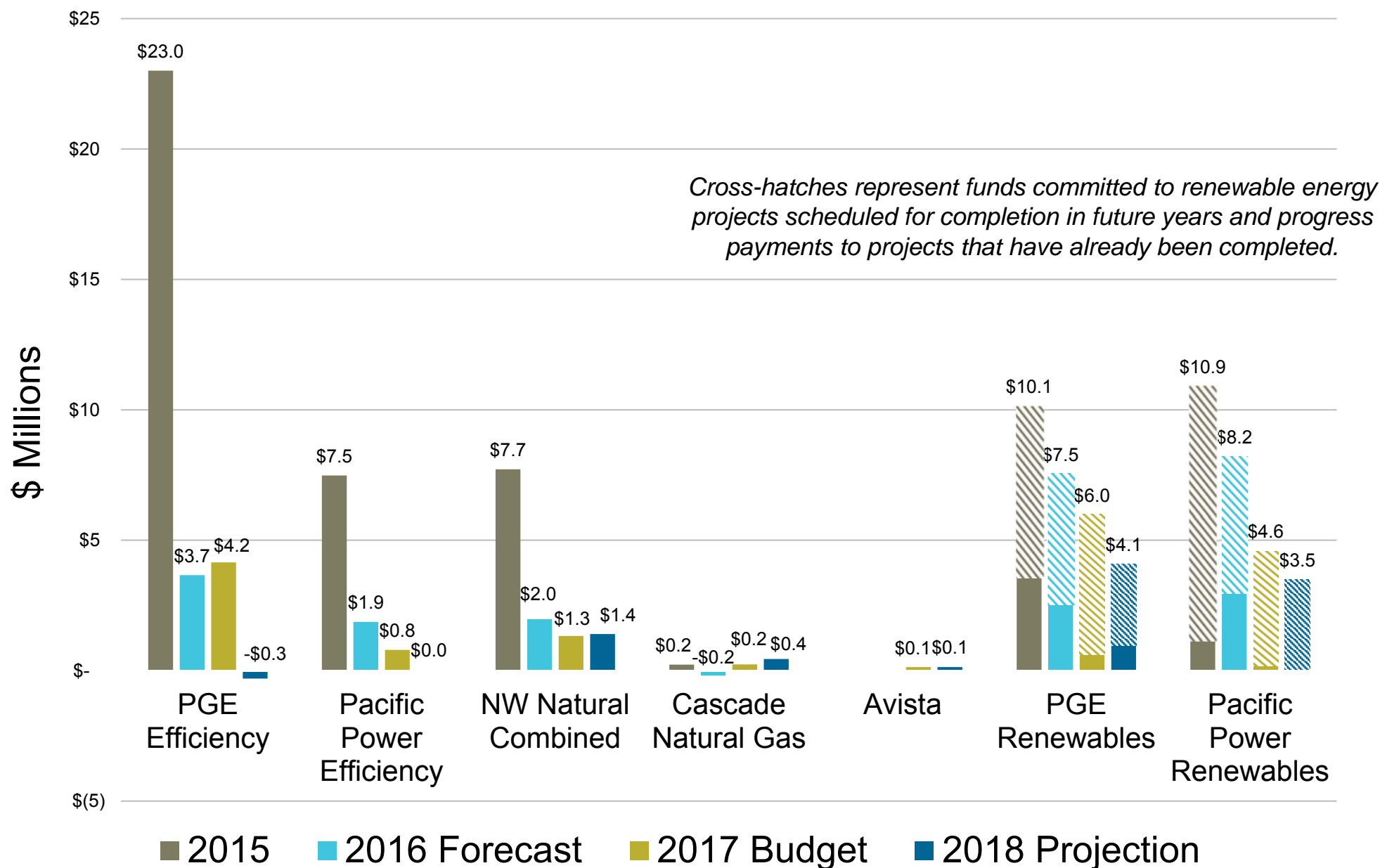
** Energy Trust IRP targets submitted to utilities for inclusion in their current IRP filings. Additional savings opportunities have been identified above these targets and are under consideration for future IRP acknowledgment proceedings.*

Customer Benefits from 2017 Investments

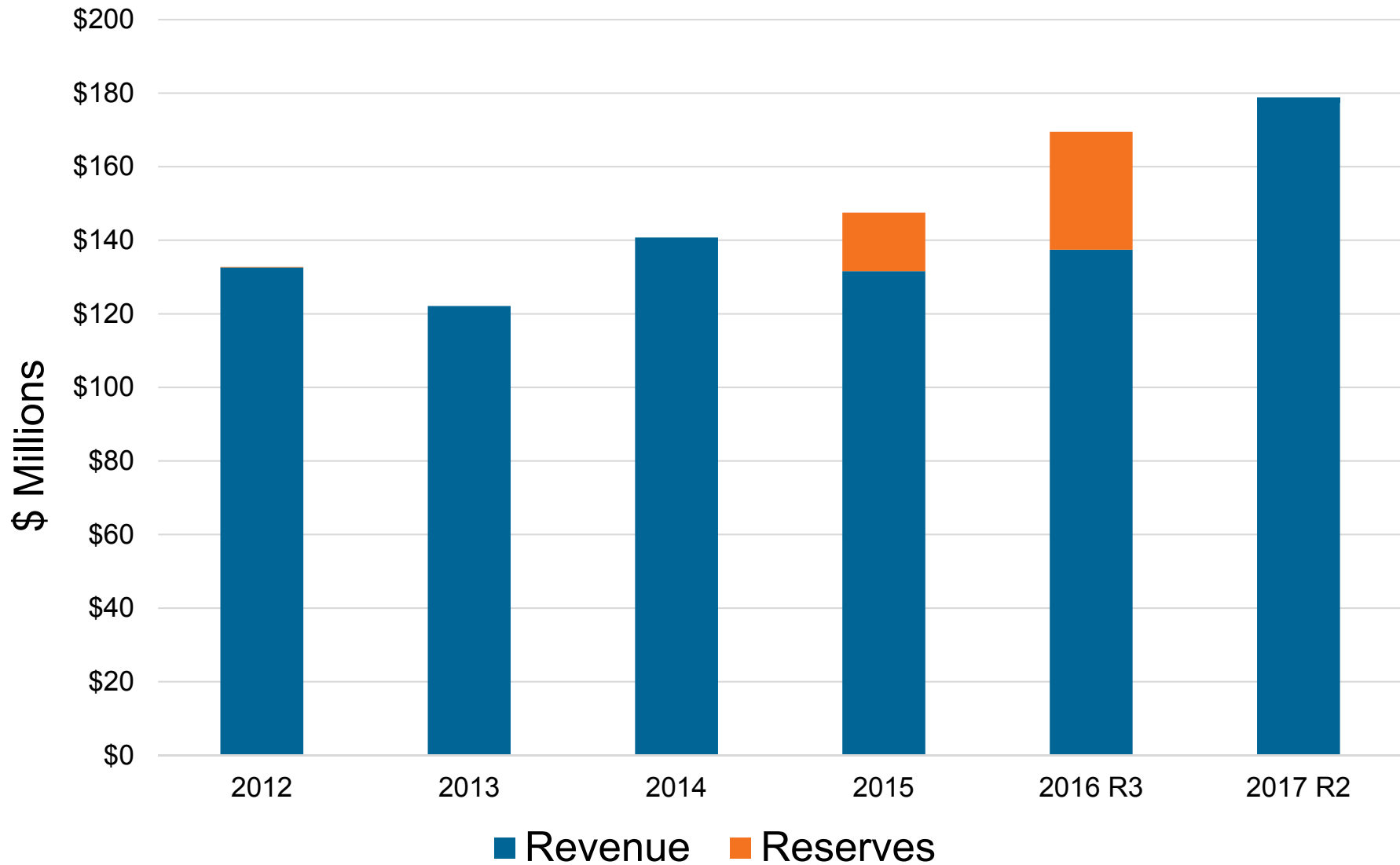
- **\$713 million in future bill savings** from energy improvements made in 2017 with help from Energy Trust
- Improved air quality by avoiding 4 million tons of carbon dioxide
- Enough energy to power 46,000 homes and heat 14,000 homes
- Continued high customer satisfaction
- Expanded access and participation statewide
- Training and support for 2,400 local businesses



Projected Year-End Reserves



Historical Funding of Efficiency Expenditures



Utility Rate Information

	PGE	Pacific Power	NW Natural	Cascade Natural Gas	Avista
Estimated incremental collection adjustment	\$23.3M	\$3.2M	\$3.6M	\$900K	N/A
Estimated PPC* for Energy Trust efficiency only	5.8%	4.6%	3.2%	4.3%	1.1%
Estimated PPC* for Energy Trust efficiency and renewable generation	6.3%	5.1%	N/A	N/A	N/A
Estimated total PPC* (includes schools, low-income and Energy Trust for electric utilities)	7.1%	5.9%	3.2%	4.3%	1.1%
Anticipated effective date, pending OPUC action	Jan. 1	Jan. 11	Jan. 1	Dec. 1	Jan. 1

*Public Purpose Charge (PPC) is a percentage charge on utility customer bills.

Note: PPC rates shown above are based on best available estimates at time of final proposed budget publication. Actual rates may vary. These estimated rates do not include utility administered low-income program funds.

Summary

- Surpassing 2016 energy efficiency goals at low levelized cost
- Strong economy and new construction market led to more savings opportunity in 2017
- 2017 savings goals up
- Levelized costs remain low
- Brought down reserves in 2015 and 2016, as planned
 - Reserves supported increased savings acquisition, without significant new revenue since 2014
- For 2017, revenue needs are again on par with expected expenditures and savings

2018 Annual Budget Projection

- Expenditures in 2018 projected to increase 3.5%
- Electric savings expected to increase by 12.5%
- Gas savings projected to increase by 8%
- Levelized cost projections:
 - Electric 2.7¢/kWh in 2018 vs 3.0¢/kWh in 2017
 - Gas 31.4¢/therm in 2018 vs 31.3¢/therm in 2017
- Total renewable generation is expected to decrease 9%



Discussion and Feedback

Questions/discussion?

Staff recommends the Board of Directors adopt:

The Final Proposed 2017 Budget,
2018 Projection and 2017-2018 Action Plan



Thank You

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Supplemental slides:
Final Proposed
2017 Budget and
2017-2018 Action Plan

14 Years of Affordable, Clean Energy

\$1.3 billion investment delivers these customer benefits:



Nearly 600,000 sites transformed into energy-efficient, comfortable and productive homes and businesses

10,000 clean energy systems generating renewable power from the sun, wind, water, geothermal heat and biopower

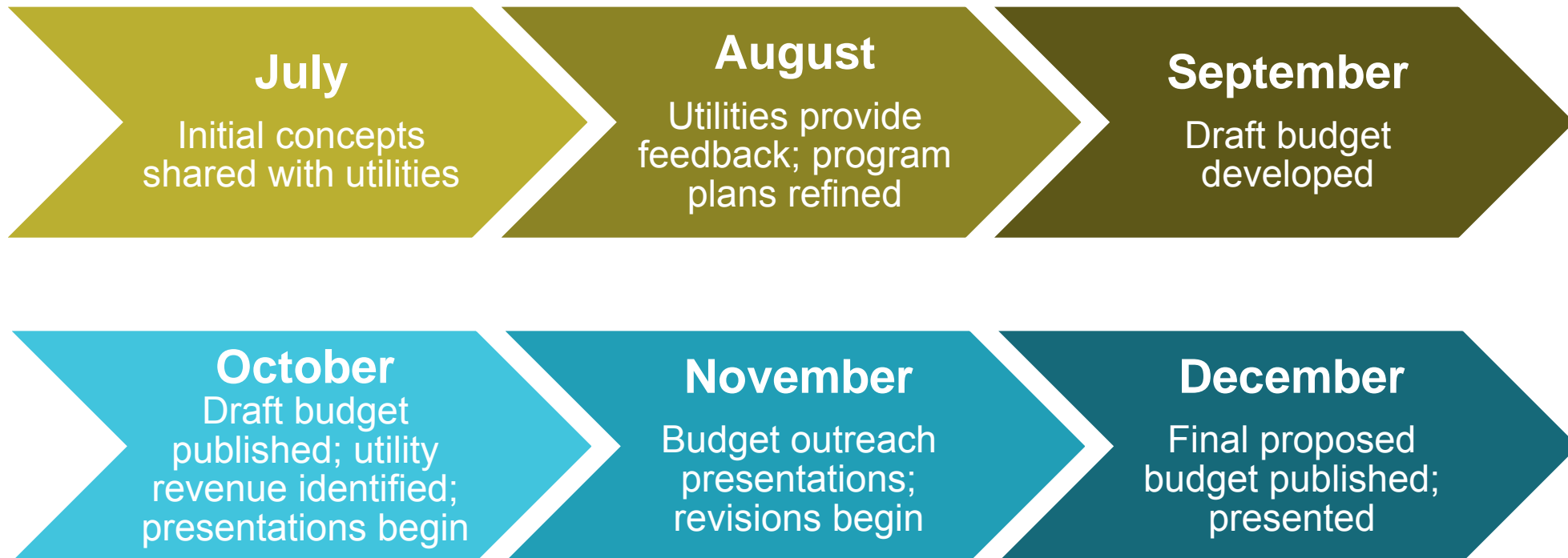


\$5.6 billion in savings over time on participant utility bills from their energy-efficiency and solar investments

17.4 million tons of carbon dioxide emissions kept out of our air



Budget and Action Plan Development



Building Blocks for Budget & Action Plan

1

2015-2019
Strategic Plan
Goals

2

Utility
Integrated
Resource
Plans

Renewable
resource
assessments

3

Market
knowledge
and context

4

Areas of
emphasis

Linked to
Strategic Plan
strategies

Programs for All Customers

Residential

**New & Existing Homes
Products**

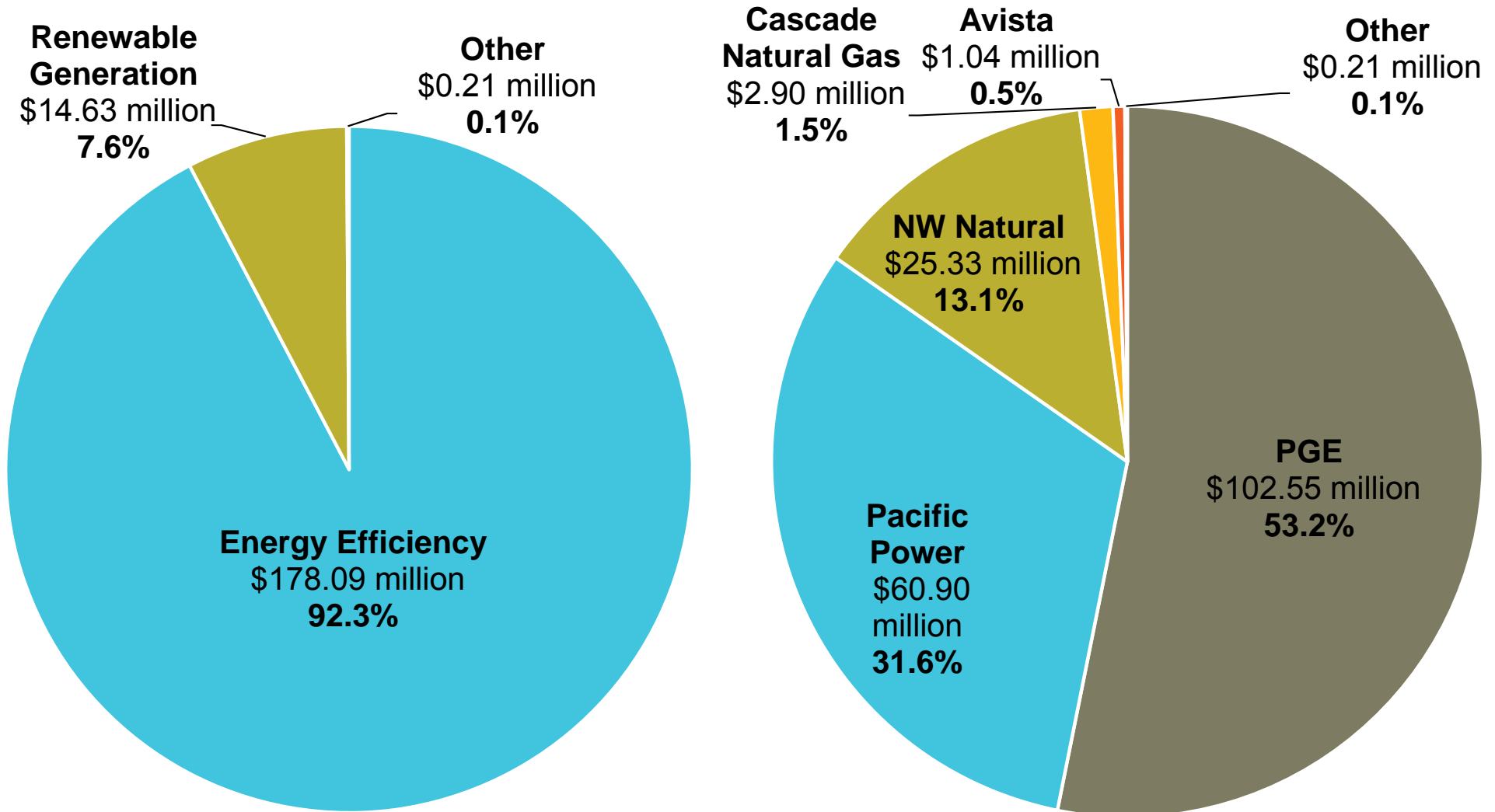
Commercial

**New & Existing
Buildings**

Industrial & Agricultural

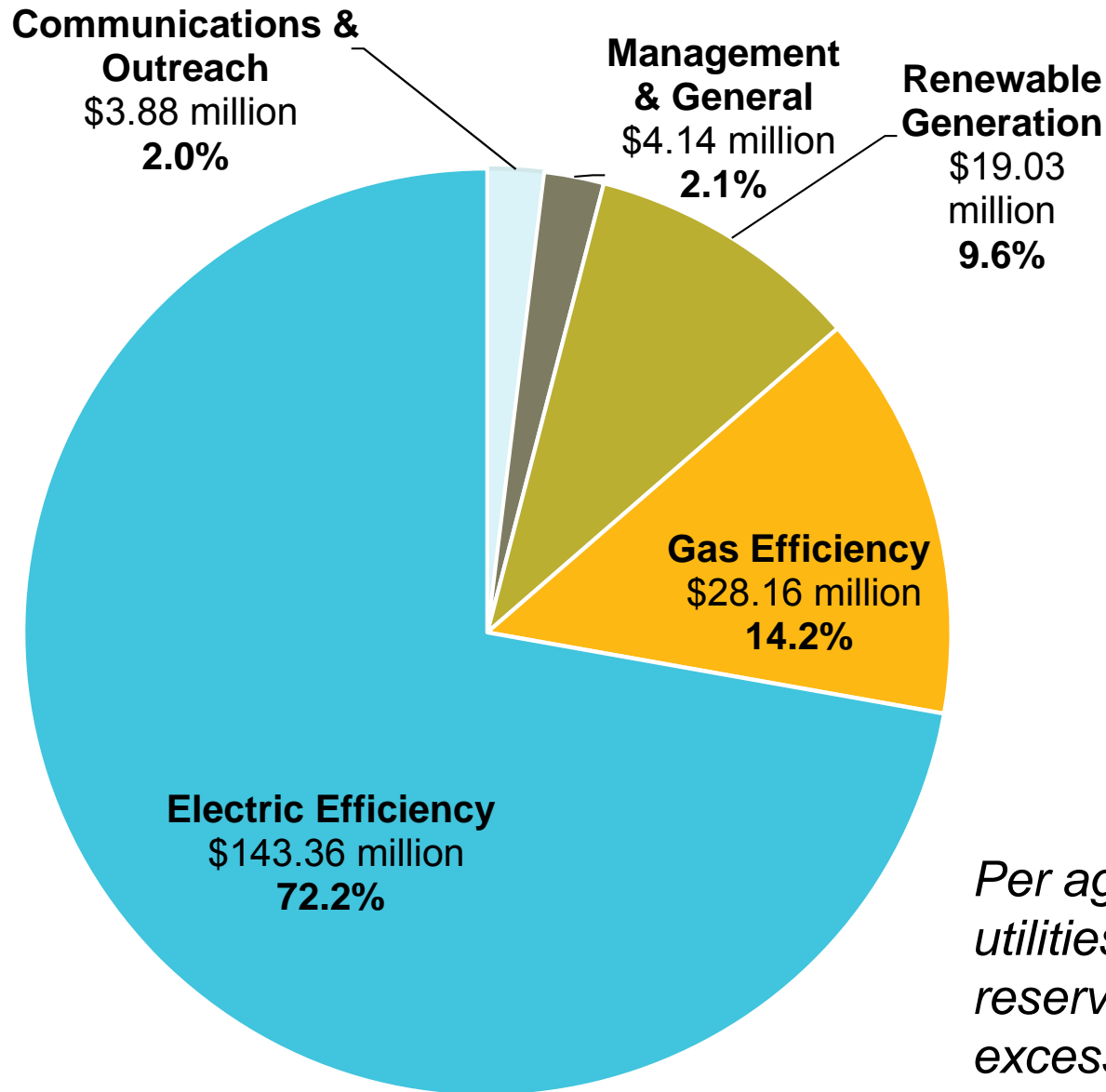
**Renewable
Solar, Biopower,
Geothermal, Small Wind
& Hydropower**

2017 Budgeted Revenues



Total 2017 revenue \$192.9 million, up 24.7%

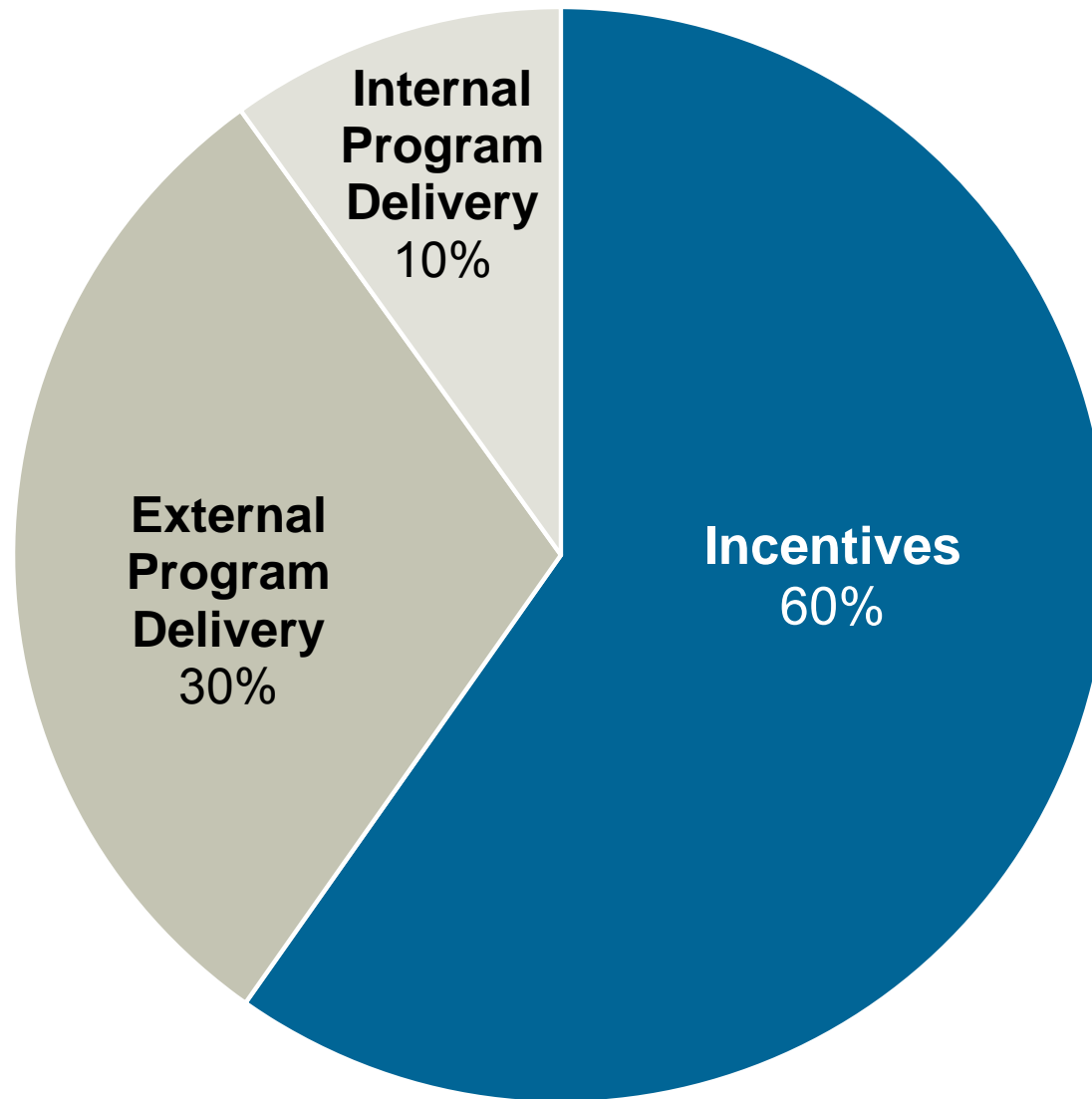
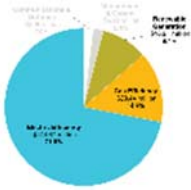
2017 Budgeted Expenditures



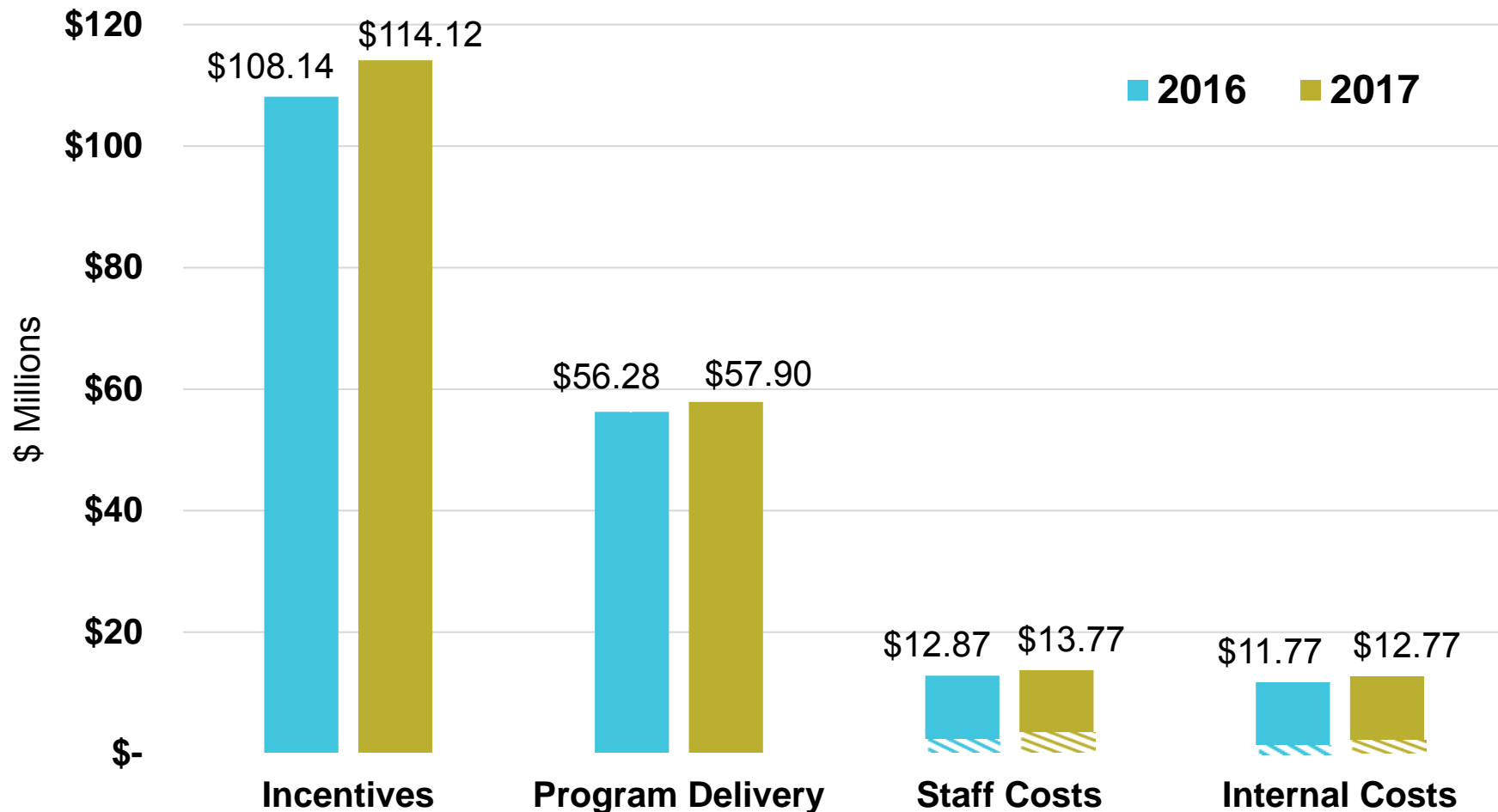
\$198.6 million
Up 5% from 2016

Per agreement with our affiliated utilities, the 2017 budget utilizes reserves to cover planned expenses in excess of anticipated revenue.

2017 Program Expenditures Detail

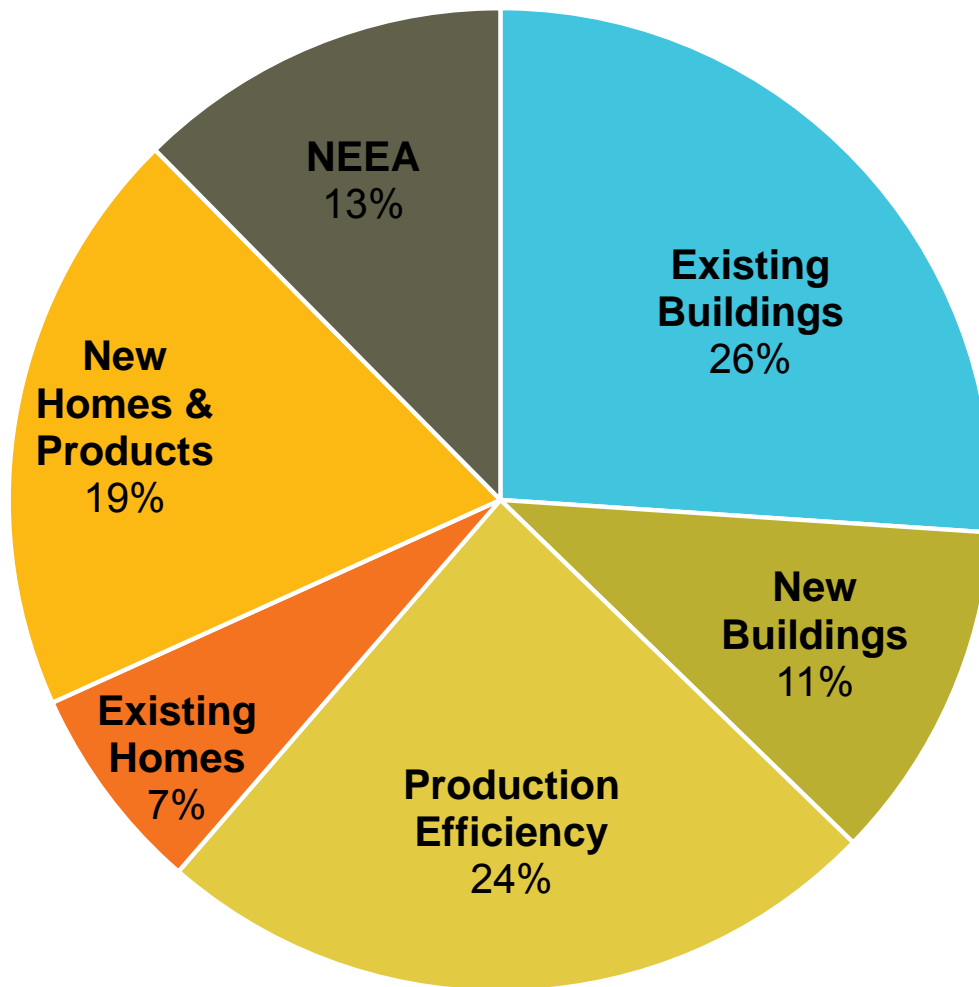


2016 Budget Compared to 2017 Budget



Cross-hatches represent Management & General and Communications & Outreach as a portion of Staff Costs and Internal Costs. The remaining portion represents Internal Program Delivery.

2017 Electric Savings by Program

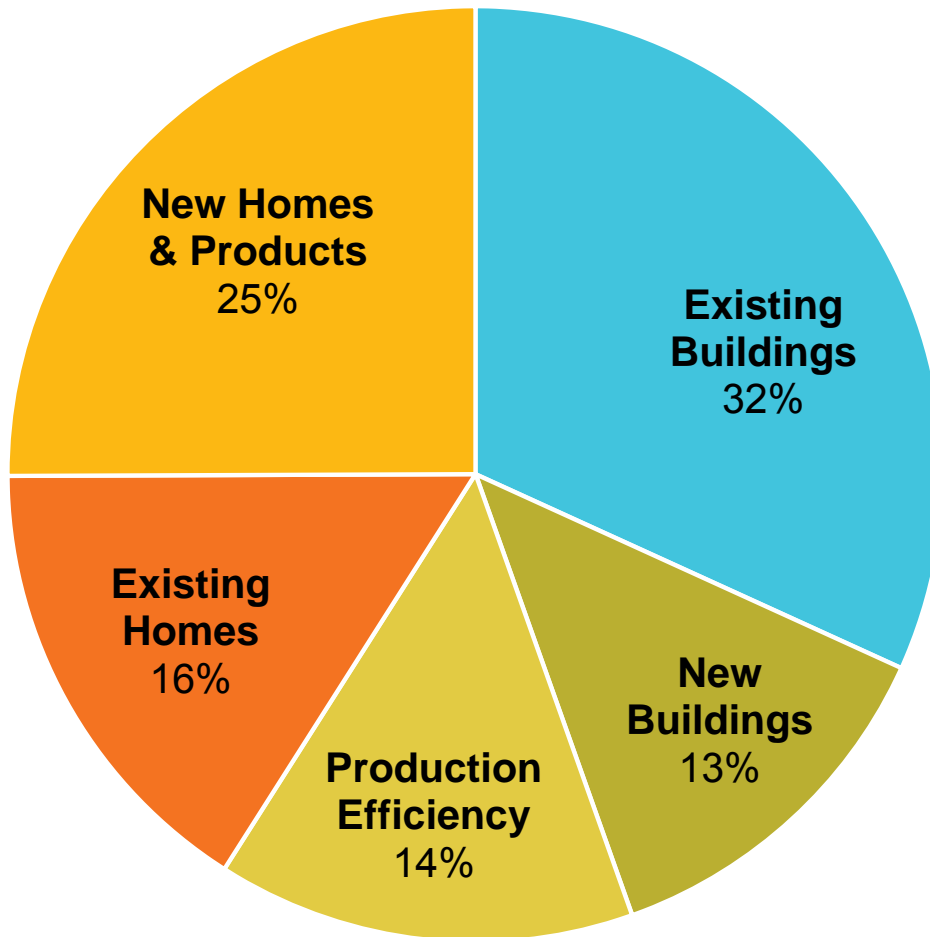


56.4 aMW goal
3.0 cents/kWh

- Up 2.4% from 2016
- \$143.4 million in customer incentives, services and delivery

aMW: average megawatts
Cost per kilowatt hour is levelized

2017 Natural Gas Savings by Program



7.41 MMTh goal
31.3 cents/therm

- Up 23.8% from 2016
- \$28.2 million in customer incentives, services and delivery

*MMTh: million annual therms
Cost per therm is levelized*

Net and Gross Savings

	2017 Budget Savings (Net) aMW or MMtherms	2017 Budget Savings (Gross*) aMW or MMtherms
PGE	34.97	39.17
Pacific Power	21.43	23.82
NW Natural (OR)	6.25	7.06
NW Natural (WA)	0.28	0.28
Cascade Natural Gas	0.56	0.64
Avista	0.32	0.33

- OPUC requested Energy Trust begin reporting net and gross savings totals (net savings are equivalent to Energy Trust's reportable savings)
- Provides holistic view of savings acquisition
- Aligns with regional and national reporting

* *Gross savings represent all savings from program participants, regardless of whether they are free-riders.*

NEEA Goals and Budget

	2016 Savings Goal	2016 Savings Re-forecast	2017 Savings Goal	2017 Budget (\$ Million)	2017 Levelized Cost (per kWh)
PGE (aMW)	4.12	4.25	4.12	\$4.32	1.3¢
Pacific Power (aMW)	2.86	2.95	2.87	\$3.00	1.3¢
NW Natural	-	-	-	\$1.07	N/A
Cascade Natural Gas	-	-	-	\$0.11	N/A

2017 Renewable Energy Programs

	Total Budget 2016		Total Budget 2017	
	\$ Million	aMW	\$ Million	aMW
Other Renewables	\$5.8	0.01	\$6.4*	0.001
Solar	\$15.6	4.12	\$13.4	2.86
Total	\$21.4	4.13	\$19.8	2.86

Overall generation down 30.8%

\$19 million in customer incentives, services and delivery

* Other Renewables expenditures include:

- Milestone payments on five projects completed, with generation claimed in prior years (29%)
- Project development assistance payments for potential generation in future years (49%)
- Staff, professional services, outreach and other allocated costs (22%)
- Commercial operation payment for two small wind projects scheduled for completion in 2017 (1%)

Expanding Participation

- Continuing successful 2016 activities
- Growing program outreach and adding business trade allies
- Increasing upstream, retail and direct installation approaches
- Enhancing stakeholder and community engagement
- Continuing strategies to reach rural customers
- Expanding informational resources for customers and capacity to respond
- More market research and planning



New Approaches, Emerging Technology

- Supporting new markets, including:
 - Cannabis production
 - Emission control technologies
 - Energy performance management
 - Smart thermostats and utility-led demand response
- Implementing 8+ pilots
- Investing in NEEA efforts
- Exploring roles in new areas linked to energy efficiency and renewable energy
- Developing educational approaches



Managing Transitions

- Responding to solar policy decisions
- Expanding project development
- Responding to rapidly changing LED market
- Implementing measure changes
- Implementing residential changes
- Engaging trade allies proactively
- Offering programs to Avista customers
- Continuing outreach to complete Executive Director transition



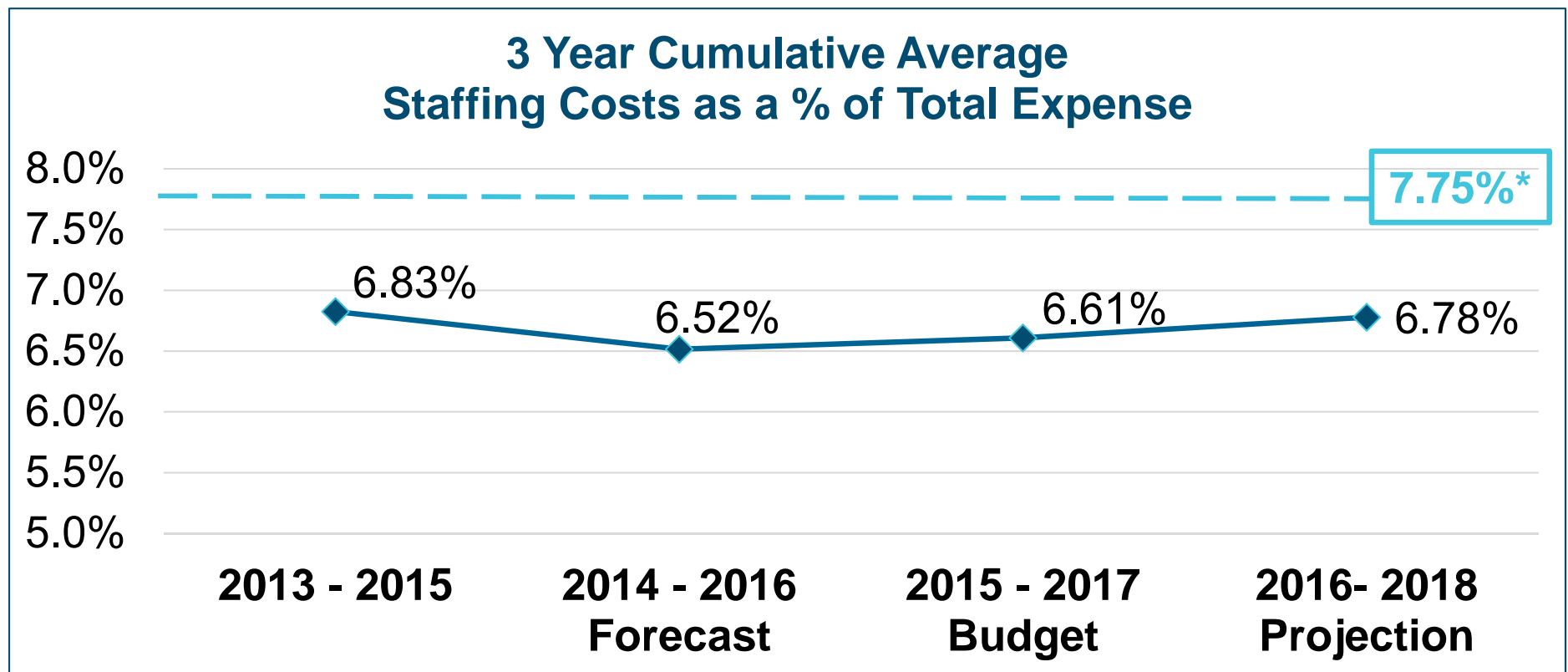
Efficient, Effective Operations

- Expanding instant incentives, upstream rebates and online forms
- Continuing data and system enhancements
- Increasing use of data and analytics
- Providing trade ally support
- Launching revised program packages
- Leveraging government and municipal initiatives
- Supporting utility engagements as a channel to customers
- Fostering a diverse workforce



Proposed 2017 Staffing

- 3.5 new FTE proposed
- Well below OPUC performance measure



Staffing costs are embedded in internal program delivery, general communications and outreach, and management and general.

*** 3-yr rolling average performance measure is 7.75%**

Summary of Outreach Activities and Comments Received on the Energy Trust Draft 2017 Budget and 2017-2018 Action Plan

Outreach Activities

Every year, Energy Trust initiates development of its annual budget and two-year action plan in the summer. Early program concepts are presented to each utility, and staff share proposed changes and directional information at the Conservation and Renewable Energy Advisory Councils through the fall. Feedback from these meetings is referenced by programs and support groups as the draft budget and action plan are developed. Outreach activities on draft budget and action plans occur in October and November, leading up to board consideration of the final proposed documents in December.

A summary of completed outreach activities is provided below. As started this past year, meetings with utility executives to review year-end results and focus on the adopted budget and future opportunities for strategic collaboration will occur in the early spring following board-adoption of the budget. The following draft budget and action plan presentations were made:

July	Energy-efficiency program concepts reviewed in meetings with PGE, Pacific Power, NW Natural, Cascade Natural Gas and Avista
September	9/7: Draft program action plans reviewed at the Conservation and Renewable Energy Advisory Councils Received detailed written comments, suggestions and requests from utilities on 2017 energy-efficiency program concepts. Feedback incorporated and program plans adjusted; clarified information provided in written responses. Informal discussion continued with utilities throughout preparation of the draft annual budget and action plan. 9/28: Draft program action plans presented to Energy Trust Board of Directors
October	10/21: Draft budget presented to Conservation and Renewable Energy Advisory Councils 10/31: Draft budget and action plans presented to Oregon Public Utility Commission staff at an informal work session
November	11/2: Draft budget and action plans presented to Energy Trust Board of Directors 11/4: Draft budget and action plans presented via webinar, open to the public 11/16: Budget updates reviewed at the Conservation and Renewable Energy Advisory Councils 11/22: Revised budget presented to OPUC at its public hearing

Public Comments

The draft budget and action plans are on the website at www.energytrust.org/about/budget. Budget presentations and action plan documents are also included in the public meeting packets posted online for the Conservation Advisory Council and Renewable Energy Advisory Council meetings, and for the board of directors meetings at www.energytrust.org/about/public-meetings. Public comments on the draft budget and action plan were accepted from October 26 to November 9, 2016. Written comments were invited from all parties engaged in outreach meetings, as well as the public. Comments received are summarized in the table below, followed by copies of actual comments received.

Respondent: Oregon Public Utility Commission (OPUC)**Comment topics****Energy Trust staff responses**

Commission adopted OPUC staff comments on Energy Trust's proposed budget and action plan, with comments and recommendations summarized below.

Energy Trust appreciates the time and effort of OPUC staff and commissioners to review and comment on our draft budget and action plan. We acknowledge OPUC staff member and liaison JP Batmale for his work to question, understand and thoughtfully comment on the detailed content of our draft budget and action plan.

Summarized Energy Trust follow-up actions on OPUC recommendations provided on the 2016 (current year) budget:

- Include a higher level market context, summary of major planning assumptions and list of measures with OPUC cost-effectiveness exceptions in 2017 budget (complete)
- Report gross annual savings in addition to net savings (completed for 2015 annual report; planned for 2016 annual report)
- Use net and gross savings in 2017 budget planning (complete)
- Engage stakeholders in a discussion on gross savings (complete)
- Engage stakeholders and utilities in identifying ways to support demand management and report to OPUC (complete)
- Launch residential sector redesign work (complete)
- Complete development of and start tracking on metrics for expanding participation and administratively focused productivity (complete)
- Provide ongoing annual reports on NEEA activities separate from Energy Trust's reports (complete)
- Review 2016 reserves and funding assumptions for Pacific Power energy efficiency (complete)

We appreciate OPUC staff acknowledgement of our completed and in-progress activity in responding to budget comments received for the current budget and action plan cycle.

Supported the 3.5 additional staff positions included in the budget.

We acknowledge the OPUC's support for these position requests.

Requested budget process be modified to improve communication and coordination with stakeholders and the OPUC, particularly in budget years that could result in sizeable rate increases. In such cases, directed staff to demonstrate cost-cutting efforts in the non-incentive budget category and communicate earlier with the OPUC.

We acknowledge the OPUC's comments regarding coordination and communication with stakeholders, and will review the process to identify and propose improvements in future years.

Directed staff to work with OPUC staff in 2017 to develop alternative budget scenarios that are triggered by key events, such as rapid, year-over-year increases in revenue requests.

We will work with OPUC staff as requested to identify when alternative scenarios are needed, and outline those scenarios.

Requested demand management efforts be continued as well as reported on in the 2016 annual report and the Q2 2017 presentation to the Commission.	We will continue our efforts to identify areas to support demand management activities, and will report on those activities in the 2016 Annual Report, during the Q2 2017 presentation to the OPUC and ongoing as milestones are met. We will also provide a report on these activities during the May 2017 board strategic planning workshop as part of an update on progress made to the 2015-2019 Strategic Plan goals.
Requested additional communications related to net-to-gross factors, including a Conservation Advisory Council presentation on declining realization rates and continuing to report gross and reportable (net) savings in the 2016 Annual Report and 2018 budget.	As part of our budget processes going forward, we will incorporate a presentation and discussion with Conservation Advisory Council on net-to-gross factors, including declining realization rates. We will continue to report total gross savings, in addition to net savings, in annual reports and budget documents.
Requested steps be taken to stabilize operations and infrastructure from short-term savings uncertainty in 2019-2020 by smoothing acquisition of savings from select measures where possible while continuing to focus on program and measure innovations.	We will address this topic starting in early 2017 to ensure the organization can manage through short-term savings uncertainties.
Requested an organizational assessment in 2017 of staffing allocations, staffing costs and the alignment of staffing with future program design and savings opportunities.	<p>We will complete an organizational staffing assessment, building from the administrative support staffing level needs assessment completed in 2015 as follow-up to the 2014 Management Review.</p> <p>We remain committed to securing all cost-effective energy efficiency and will work with OPUC staff to share information about staffing alignment and costs.</p>
Requested the 7.75 percent (over a 3-year rolling average) staffing performance measure be revised.	We will review the staffing performance measure with OPUC staff in 2017 and propose any revisions to be incorporated into the 2018 performance measures for Commission approval.
Requested Planning Group resources be dedicated in 2017 to improve forecasting methods and tools, and progress made presented to the Commission no later than Q2 2017.	While our forecasts for the current year are proving reasonably accurate, we are experiencing more difficulty in forecasting savings two and three years out. This is a period which is subject to economic changes, shifts in product pricing and other elements which are difficult to predict. We will re-examine this issue from a forecasting perspective in 2017 and report to the Commission, as requested. We also believe that there may be opportunities for clearer communication as events come closer and our knowledge evolves. Additional Planning staff time will be allocated will address forecasting process improvements.

Requested continued engagement on OPUC dockets related to community solar, resource value of solar and in the redesign of above-market cost incentives.

We remain a resource to the OPUC on all docket proceedings, including those related to renewable energy programs.

Respondent: Pacific Power
Comment topics

Energy Trust staff responses

Acknowledged Energy Trust's presentation of the draft budget and action plan to Pacific Power staff, and noted willingness to work with Energy Trust on several initiatives under development.

Energy Trust appreciates the time and effort of Pacific Power staff to carefully review, discuss and provide thoughtful feedback on our draft budget and action plan throughout the late summer and fall. We especially value the ongoing collaboration and communication with Kari Greer, Don Jones, Scott Bolton and Cory Scott.

Acknowledged Energy Trust's forecasted year-end savings for Pacific Power, expected to be slightly greater than the IRP target, and supported Energy Trust's efforts to align forecasting, delivery and expenditures.

We appreciate this comment and the flexibility to pursue additional cost-effective electric savings for the benefit of Pacific Power and its customers.

Noted the 2017 IRP target in the draft 2017 budget is not aligned with the utility's 2015 IRP.

IRP targets in the immediate 2-3 years are our best projections of what is feasible and are an outcome of developing our annual two-year action plans as part of our annual budget development exercise. Energy Trust received OPUC staff guidance to use the most current IRP energy efficiency resource provided to utilities as the IRP target in our budget, rather than using acknowledged utility IRP figures. The projections are subject to refinement as we learn and adapt to changing market conditions, such as economic trends and evolving baselines.

Supported efforts to manage savings acquisition by capturing any "lost opportunity" savings resources in the near-term, modestly redistributing savings into future years if possible, and utilizing existing reserves to mitigate year-over-year revenue changes.

We mutually place a high priority on achieving all cost-effective energy efficiency resources and the savings goals in our draft and final proposed budgets reflect all cost-effective resources identified for Pacific Power. We appreciate Pacific Power's willingness to work with us on leveraging reserve tools to mitigate rate impact.

Encouraged Energy Trust to promote less mature, non-solar renewable energy technologies. Supported OPUC Docket 1758 recommendation in response to HB 2941 to direct support to solar applications with high-value benefits to the utility system while continuing to lower solar soft costs.

We do not expect any significantly sized custom, non-solar projects to reach commercial operation in 2017. We acknowledge non-solar work is difficult to discern in the budget because it does not result in generation in the current year. The Other Renewables program is budgeting to deliver more than \$2.5 million in project development assistance incentives in 2017 to continue to build and support our project pipeline for non-solar projects. This is in

	<p>accordance with our OPUC performance measure. Project development assistance over the last two years has built the largest ever pipeline of custom projects—more than 40 hydropower, biogas, geothermal and small wind projects. These projects may apply for installation incentives in the future.</p> <p>We will work with the OPUC to understand the effects and timing of the UM 1758 recommendations.</p>
Respondent: Cascade Natural Gas Comment topics	
Energy Trust staff responses	
Reviewed and supported the draft 2017 budget and 2017-2018 action plan.	Energy Trust appreciates the time and effort of Cascade Natural Gas staff to carefully review and discuss our draft budget and action plan throughout the late summer and fall. We especially value the ongoing contributions from Jim Abrahamson and Allison Spector.
Appreciated the approval by the board of directors to draw from Energy Trust's organizational contingency reserve to cover a temporary revenue shortfall due to the timing of the public purpose charge and additional forecasted activity. Noted the utility has already filed for recovery of those funds.	Energy Trust reserves are available for prudent and appropriate needs like this, and allow us to pursue all identified, cost-effective energy efficiency we may not have forecasted earlier in the year or weather shortfalls in collected revenues. Energy Trust appreciates the swift action by Cascade Natural Gas to file a tariff adjustment to replenish the organization contingency reserve pool and provide the needed revenue contemplated in the 2017 budget.
Respondent: Portland General Electric (PGE) Comment topics	
Energy Trust staff responses	
Acknowledged Energy Trust's presentation of the draft budget and action plan to PGE staff.	Energy Trust appreciates the time and effort of PGE staff to review and discuss our draft budget and action plan throughout the late summer and fall. We value and appreciate the work of Garrett Harris, Anne Snyder-Grassmann, Joe Barra, Jim Cox and Carol Dillin.
Commented the request for a significant increase in revenue was unanticipated. Acknowledged Energy Trust's willingness to explore how customer rate impacts could be mitigated. Requested staff revisit the forecasting process to determine the cause for the underestimation of funding through this budget cycle, and the timing of revenue requests to allow for an appropriate amount of time for discussion, preferably before	The savings goals in our draft and final proposed budgets reflect all cost-effective energy efficiency resources identified for PGE. We appreciate PGE's flexibility and feedback as we worked to refine the revenue request associated with our budgeted energy savings goals. The revenue needs are significantly higher in 2017 because of our agreed upon approach of utilizing reserves to cover

the public comment process starts.

a portion of expenditures over the past two years, coupled with continued opportunity in the new construction market. We recognize the implications of the timing of our budget and forecasting process and will work with PGE and OPUC staff as we re-examine the process before the start of the 2018 budgeting process.

Respondent: NW Natural
Comment topics

Energy Trust staff responses

Reviewed the draft 2017 budget and appreciated the engagement. Supported the budget for the Oregon and Washington residential and commercial customers. Noted the budget is reasonable to acquire saving opportunities presented during a strong economy with high construction activity.

Energy Trust appreciates the time and effort of NW Natural staff to review and discuss our budget and action plan, from budget concepts to the draft budget and action plan. We value and appreciate the work of Holly Braun, Bill Edmonds, Gail Hammer, Keith White and David Anderson.

Expressed concern over the draft budget for Oregon industrial customers. Commented on the utility's desire to sustainably acquire cost-effective savings without undue impact on customer rates, particularly for a customer class that has other options to obtain gas service. Noted support for a revised budget figure of \$6.3 million for Oregon industrial customers communicated to NW Natural as the draft budget was being refined into the final proposed budget. Observed revenue requests for this customer class should be watched closely over 2017 as the 2018 budget is developed.

We recognize that significant success can impact rates and appreciate NW Natural's support to reach all cost-effective savings we are reasonably sure we will be able to acquire. After reviewing our forecast of projects for 2017, we modified the final proposed budget to better ensure there would not be an over collection of funds for 2017. We will review project activity for this customer class at coordination meetings on a quarterly basis to ensure we are closely coordinated with NW Natural staff.

Respondent: Avista
Comment topics

Energy Trust staff responses

Reviewed the draft 2017 budget and commented this first year of service to Avista's customers will be a learning experience.

Energy Trust appreciates the time and effort of Avista staff to review and discuss our draft budget and action plan throughout the late summer and fall. We value and appreciate the work of Kerry Shroy, Lisa McGarity, Shawn Bonfield and Dan Johnson.

Respondent: Attic Access
Comment topics

Energy Trust staff responses

Commented on the total therm savings and cost per therm for Oregon and Washington residential customers in the draft budget, and suggested there is a discrepancy in the method of counting savings.

The focus of the comment appears to be on the natural gas savings and cost per therm for the residential sector. In addition to services for existing homes, the residential budget includes program expenditures and savings for new home construction,

	consumer products and market transformation activities. The 30.2 cents/therm cited is in line with the levelized cost projection for Energy Trust gas savings across all programs, including residential, commercial and industrial programs. Levelized cost amortizes the value of the savings over the average future measure life of all technologies that Energy Trust expects to install in 2017.
Requested residential and industry public purpose charge funds be moved into a loan fund for all households to equally benefit.	Energy Trust deploys a variety of offerings to help residential, commercial and industrial customers access incentives to pursue energy-efficiency as they improve homes and businesses. Energy Trust offers an on-bill energy loan to residential customers along with direct incentives and other consumer products offerings.

Respondent: Citizens' Utility Board of Oregon**Comment topics****Energy Trust staff responses**

Supported the draft 2017 budget, citing Energy Trust's effectiveness in delivering cost-effective energy efficiency and renewable energy, meeting OPUC performance measures, and keeping administrative and program support costs below OPUC performance measures while striving to diversify its workforce and adding services to a fifth utility. Noted Energy Trust is a national leader and achieved \$5.6 billion in participant bill savings and 17.4 million tons of carbon dioxide avoided.	Thank you for your participation and comment. We value the working relationship we have with CUB in ensuring expenditures and rate impacts are reasonable and beneficial to customers.
Noted year-to-year fluctuations in the timing of large renewable energy projects is acceptable.	While the budget reflects generation from solar, we have a strong pipeline of larger-scale, non-solar renewable projects we expect will apply for installations incentives in future years. This robust project pipeline is bolstered by project development assistance support provided in years past and slated in 2017.
Supported the drawdown of reserves and suggested Energy Trust highlight this as a contributor to the revenue increase.	Thank you for the feedback. We added additional detail to our final proposed budget presentation on use of reserves and relationship to the increased need for revenue to meet 2017 savings goals.
Noted the increase in energy-efficiency projects is an acceptable contribution to the budget increase.	Thank you for your comment. Energy Trust is mandated to acquire cost-effective energy efficiency, which is a fraction of the cost of fossil fuel generation. We value your comment that Energy Trust programs should acquire all identifiable energy efficiency. In the course of refining the budget, as is typical after posting a draft and developing a final proposed for the board, we made small reductions in electric and gas savings due to aligning to updated or

	revised measure and market analyses and updated projections from the Production Efficiency program. This also led to parallel expenditure reductions.
Noted the cost to acquire energy efficiency is lower than the cost of other energy resources.	In our 2017 budget, Energy Trust estimates levelized costs for gas and electric energy savings will remain low at 3.0 cents/kWh and 31.3 cents/therm.
Commented the energy-efficiency costs will benefit utility customers, and those benefits should be acquired when available. Noted not acquiring the savings will likely result in higher future costs.	Thank you for your comment. Our 2017 budget and 2017-2018 action plan are designed to acquire all cost-effective energy efficiency. We have weighed feedback from various parties on the revenue needed for savings acquisition, and slightly modified the budget to lower costs in areas that will not impact the acquisition of savings in 2017-18. In the course of refining our draft budget, we also made small reductions in electric and gas savings due to aligning to updated or revised measure and market analyses and updated projections from the Production Efficiency program. This also led to parallel expenditure reductions.

Respondent: Natel Energy**Comment topics****Energy Trust staff responses**

Commented on the potential for Energy Trust to continue playing a leading role in water and energy innovation and investment. Encouraged Energy Trust to identify and support projects that can deliver multiple outcomes, like water, energy and environmental outcomes.	Thank you for your comment. As guided by our 2015-2019 Strategic Plan, we pursue projects that can provide benefits in addition to other benefits, including water conservation, habitat restoration, waste management and others.
Noted the importance of distributed hydropower, and commented Energy Trust should support renewable systems beyond solar projects. Commented hydropower projects should receive the same incentives as other technologies, including solar.	Thank you. This comment aligns with how we have structured and focused the efforts of our Other Renewables program. Project development assistance is and will remain the center of the program's budget in 2017 and it is focused on building the pipeline of projects that attempt to leverage multiple benefits related to water, energy and the environment.
Supported Energy Trust's project development assistance strategy, and commented the incentives provide the needed early risk dollars for projects.	Thank you, we appreciate the support.

Respondent: Northwest Energy Coalition**Comment topics****Energy Trust staff responses**

Supported the draft 2017 budget and strategy to achieve all cost-	Thank you for your support and feedback. We value the NW
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effective conservation. Cited Energy Trust's delivery of cost-effective energy efficiency has resulted in more than \$2 billion in participant utility bill savings so far. Noted the increase in energy-efficiency savings and adding a fifth utility are acceptable contributions to the budget increase. Highlighted the 2017 investments will save \$707 million on future utility bills, and Energy Trust is projected to acquire the savings at low costs while keep staffing and internal costs below the OPUC performance measure.	Energy Coalition's review of our budget and action plan and wish to thank Wendy Gerlitz for active engagement in our budget process through participation as a member of our Conservation Advisory Council.
Noted the increase in energy-efficiency savings is coming at a beneficial time, lowers the need for utilities to procure other energy and costs less than other energy resources. Commented the energy-efficiency costs will benefit utility customers, and those benefits should be acquired when available. Noted not acquiring the savings will likely result in higher future costs or lost opportunity to capture the savings.	The savings goals in our draft and final proposed budgets reflect all cost-effective energy efficiency resources available for the benefit of the utility customers we serve.
Noted year-to-year fluctuations in the timing of large renewable energy projects is acceptable, and suggested the nature of project timing should be highlighted in budget communications.	Thank you. While the budget reflects generation from solar, we have a strong pipeline of larger-scale non-solar projects, which is bolstered by project development assistance support provided in years past and slated in 2017.
Supported the drawdown of reserves and suggested Energy Trust highlight this as a contributor to the revenue needs in 2017. Commented the use of reserves in previous years kept collection amounts low in those years.	We appreciate the feedback. We added additional detail to our final proposed budget presentation on use of reserves and relationship to the increased need for revenue to meet 2017 savings goals.
Recommended budget materials be revised to clarify how reserves were built up over time due to high acquisition of low-cost savings in prior years, how the reserves have been used to keep collections low in subsequent years and how their use has led to the 2017 budget needing revenue to now maintain the reserves.	Thank you for your comment. Reserves targets are set with individual utilities with OPUC staff participation. These reserves have exceeded targets for most utilities over the years as we have captured very low-cost energy efficiency. To minimize rate fluctuations in agreement with the OPUC and utilities, we have steadily drawn down those reserves over the past three years. Due to strong program activity in this current year, we acquired greater savings and drew down more reserves than planned. Our 2017 budget includes a revenue request to bring the reserve levels back to agreed-upon levels. While it will result in rate impact to customers, we were successful in keeping rates stable in prior years.
Recommended the draft budget be maintained, and energy efficiency acquisition should not be delayed or reduced.	The final proposed budget reflects all cost-effective energy-efficiency resources available. In the course of refining the draft budget, we made some expenditure reductions in support group

	activities, which did not impact savings acquisition. We also made modest reductions in electric and gas savings due to updated measure and market analyses and updated projections from the Production Efficiency program. These adjustments also led to some parallel expenditure reductions.
Respondent: Northwest Energy Efficiency Council	
Comment topics	Energy Trust staff responses
Supported the draft 2017 budget. Noted the increase in energy-efficiency projects and the addition of a fifth utility are acceptable contributions to the budget increase.	Thank you for your support and feedback. We also wish to express our gratitude to Stan Price for participating as a member of our Conservation Advisory Council.
Noted the budget increase is largely to acquire energy efficiency and there is not a significant increase in staffing and administrative costs.	Thank you for your comment, we strive to keep costs low for both energy efficiency levelized costs and our internal support and administrative costs.
Commented energy efficiency is the lowest cost and most reliable energy resource, and should be acquired as it is identified.	The savings goals in our draft and final proposed budgets reflect all cost-effective energy-efficiency resources available for the benefit of the utility customers we serve.
Suggested the benefits of energy efficiency achievements be highlighted for stakeholders, as well as the role of energy efficiency as a contributor to the future utility system supply.	We appreciate the feedback. We will strive to highlight the direct and broad benefits of energy efficiency to participants, all utility customers, the utility system, the economy and the environment.
Respondent: Northwest Industrial Gas Users	
Comment topics	Energy Trust staff responses
Expressed concern with the budget, and inability to support it in its current draft form. Provided projections of rate impacts to NW Natural industrial demand-side management customers, and noted the current year's rate is at the highest acceptable level.	Thank you for your comment. After posting our draft budget for public feedback, we continued to review accuracy of the savings projections through our standard process. Based on the review, we modified savings projections for the Production Efficiency program to better align with the market potential. We worked in coordination with NW Natural to revise the savings and cost projections down \$913,000 and 246,000 therms.
Supported cost-effective demand-side management programs in general, and suggested ability to support further investments that do not lead to rate shock for this class of customers.	Energy Trust is required to acquire cost-effective energy efficiency for all funding ratepayers. The reduction from the draft to the final proposed budget in costs and savings for demand-side management customers is based on the built-in review process in going from the draft to the final proposed budget. We appreciate the concern regarding customer rate impacts associated with

	attaining all the cost-effective savings in a sector. We work closely with our affiliated utilities to ensure we do not retain more funds than needed to respond to customer demand.
Encouraged Energy Trust to continue working with NW Natural to develop the final budget.	Thank you for your comment, we value our collaborative relationship with NW Natural and our joint efforts to serve customers.

Respondent: Oregon Energy Green**Comment topics****Energy Trust staff responses**

Commented a future challenge for Energy Trust is to adjust to technological changes. Noted Energy Trust currently funds projects based on their ability to save kilowatt hours. This approach doesn't consider power factor, Var, pulse modulating controllers or harmonics, which provide for a more sophisticated view of energy efficiency and new technology features that impact site-source efficiency. Recommended Energy Trust look beyond kWhs when evaluating energy efficiency. Provided charts of a lighting project run by a pulse modulating controller to demonstrate this suggestion.

Thank you for your comment and concern. Energy Trust takes into consideration power factor, VAR, as well as power quality and harmonics when evaluating energy-efficiency measures and projects. We have a process for developing standard measures for common simple opportunities. For more complex projects we work with multiple contractors, trade allies and engineers that provide technical expertise to evaluate each situation to allow us to adapt as technology and markets change. We believe our current approach is effective and has been validated by multiple independent third-party evaluation studies. Staff in our Planning and Evaluation Group would be happy to meet with you to discuss this topic further.



Oregon

Kate Brown, Governor

Public Utility Commission

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503-373-7394

December 5, 2016

Michael Colgrove, Executive Director
Energy Trust of Oregon
421 SW Oak, Suite 300
Portland, OR 97204

Dear Michael,

We appreciate the opportunity to comment on your 2017 Budget and 2017-2018 Action Plan. We adopt the recommendations of the OPUC Staff, summarized in more detail in the attached memo and discussed at the November 22 public meeting.

We applaud the Energy Trust for results achieved for customers in 2016 and look forward to working with Energy Trust and stakeholders to achieve the targets in the budget.

OREGON PUBLIC UTILITY COMMISSION

Lisa Hardie
Chair

John Savage

Stephen Bloom

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: November 22, 2016**

REGULAR X **CONSENT** **EFFECTIVE DATE** N/A

DATE: November 15, 2016

TO: Public Utility Commission

FROM: JP Batmale 

THROUGH: Jason Eisdorfer and John Crider 

SUBJECT: ENERGY TRUST OF OREGON: Presentation of 2017 Draft Budget and 2017-18 Action Plan.

STAFF RECOMMENDATION:

Staff recommends that the Commission adopt Staff's comments as Commission comments on the Draft 2017 Budget and Draft 2017-2018 Action Plan for Energy Trust of Oregon.

DISCUSSION:

The Oregon Public Utility Commission (PUC or Commission) oversees Energy Trust of Oregon (Energy Trust) to ensure that it acquires all achievable cost effective conservation savings and accelerates small scale renewable resource generation while keeping its administrative costs down and providing a high level of customer satisfaction. As part of the oversight, the Commission reviews and provides comments on Energy Trust's action plan and annual budget.

Energy Trust presented an overview of the 2017 Budget (Budget) and Draft 2017-2018 Action Plan (Action Plan) to the Conservation and Renewable Energy Advisory Councils (CAC and RAC) on October 21, 2016. The draft Budget and Action Plan were released on October 26th. Energy Trust discussed the Budget and Action Plan with staff on October 31st and then presented both to the Energy Trust Board on November 2, 2016.

The public meeting scheduled for November 22, 2016, is the opportunity for the public and the Commission to consider and comment on Staff's assessment of the Budget and Action Plan. A final review of the Budget and Action Plan will be made by the CAC and

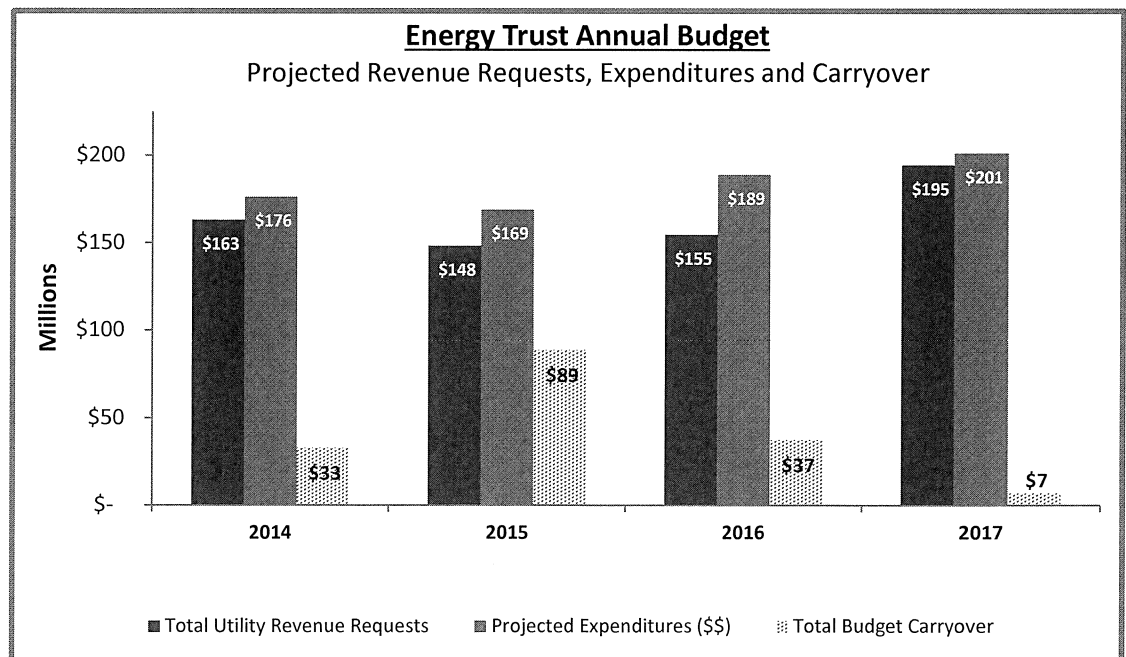
RAC on November 16, 2016. The Energy Trust Board will adopt the final Action Plan and Budget on December 16, 2016.

Summary

While there are no major changes in strategy for this year's Budget and Action Plan there are increases in revenues and savings for most utilities. For Energy Trust's electric utilities these increases are driven by both savings growth opportunities and the successful draw down of Energy Trust's reserves over the past two years. For the gas utilities, these increases are almost entirely due to savings growth.

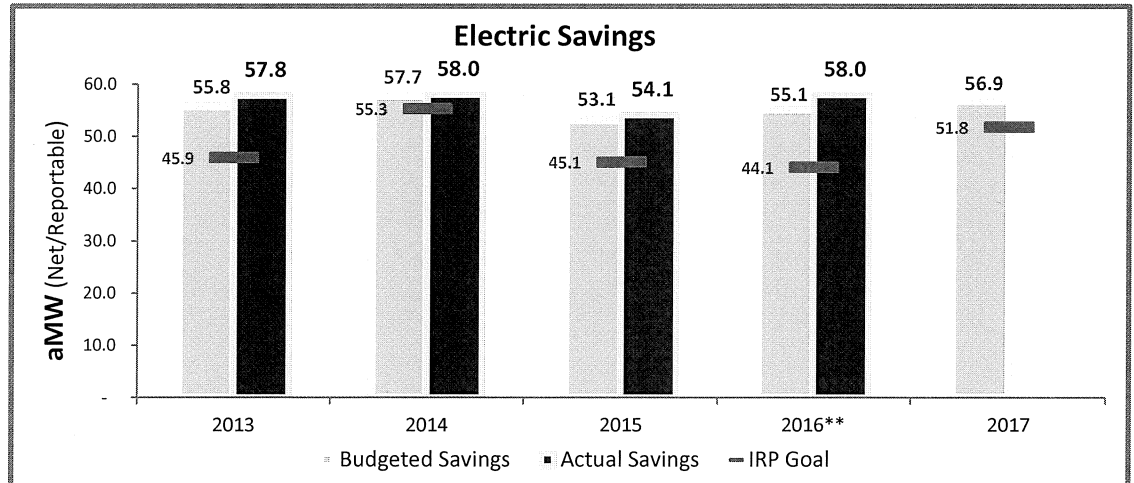
The following are key points to the 2017 budget and 2017-2018 action plan:

- **Revenue, Expenditures and Carryover**
 - Total revenue is budgeted to increase ~ \$39.9 million to \$194.5 million; an increase of 25.8 percent over 2016.
 - Total expenditures are budgeted to increase ~\$12.1 million to \$201.2 million; an increase of 6.4 percent over 2016.
 - Through agreements with the utilities and OPUC Energy Trust implemented aggressive budget and cost management practices in 2015 and 2016 that have reduced Energy Trust's year-over-year carryover to its lowest level in several years.



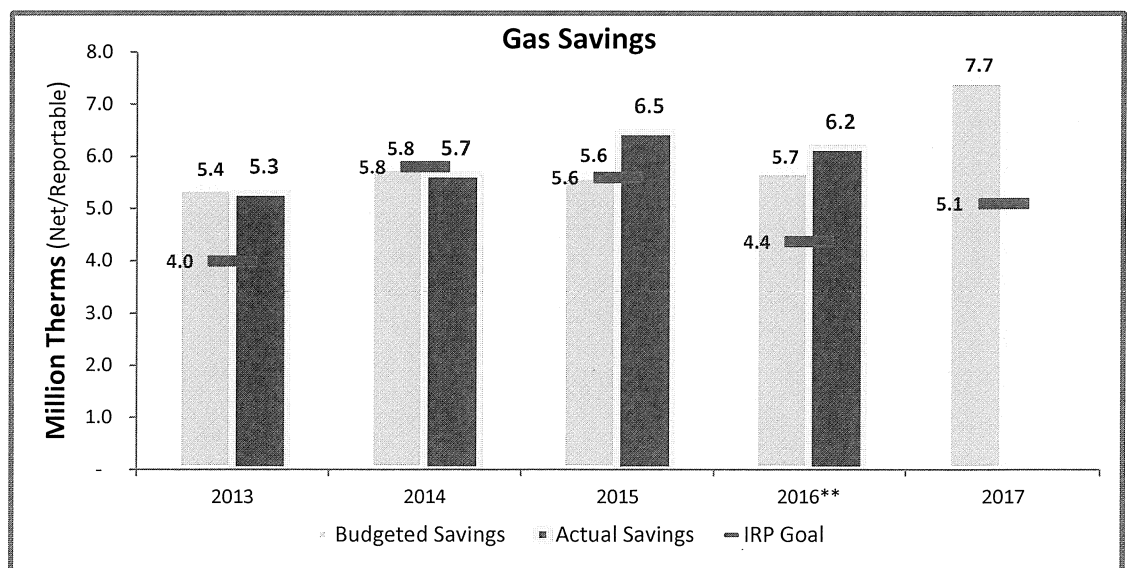
- **Savings**

- Total electric savings are projected to be 56.9 aMW, an increase of 3 percent from the 2016 budget. Projected 2017 savings are on par with recent years when Energy Trust was implementing a mega-project.



** - 2016 actual savings are projected

- Total gas savings are projected to be 7.74 million therms (MMth), a very large increase of 29 percent from the range of past budgets. This is due to increases in regional new construction, the addition of Avista and improved outreach by the Commercial sector to large, non-transport customers.



** - 2016 actual savings are projected

- The table below compares energy savings metrics used by Energy Trust. The utilities served by Energy Trust are: Portland General Electric (PGE), PacifiCorp, NW Natural, Cascade Natural Gas (Cascade), and Avista¹. The first energy savings metrics are the Integrated Resource Plan (IRP) targets. These targets are a collaborative effort between the utilities and Energy Trust to model projections of energy savings potential over a long-term horizon.

	<i>2017 IRP Target</i>	<i>2017 Savings Goal</i>
PGE (aMW)	31.9	35.0
PacifiCorp (aMW)	19.9	23.8
NW Natural (MMTh)	4.4	6.5
Cascade (MMTh)	0.4	0.6
Avista (MMth)	0.3	0.3

IRP targets can be submitted for inclusion in the utility's IRP filings a year or longer before Energy Trust's annual budget is constructed for the target year. In between the IRP filing and Energy Trust's budget a "bottom-up" savings goal is developed independently by Energy Trust staff, using best available market data and program trends. This near-term, bottom-up approach can identify additional savings opportunities beyond the modeled savings projections developed earlier as part of an IRP. Energy Trust has a history of under-forecasting future savings; 2017 is no exception as the table shows.

- **Generation**

- Renewables generation target in 2017 is 2.75aMW, a decline from 4.13 aMW budgeted in 2016.
- The overall renewables budget for 2017 is down from \$21.4 million to \$19.7 million as the budget is a fixed percent of utility revenues.

¹ 2017 reflects the first full year of Energy Trust serving Avista customers since the company's decoupling last year, UG 288, Order No. 16-076

- **Cost-Effectiveness**

- Energy Trust savings remain cost-effective. This is important as the acquisition of cost-effective energy efficiency stands as the priority resource to developing and maintaining a least-cost utility resource portfolio.
- One of the main metrics used by Energy Trust to determining cost-effectiveness and tracking cost performance over time is levelized cost. This can be compared to utility system costs that are avoided over the life of the measure due to energy efficiency investments.
 - Levelized costs for electric energy efficiency in 2017 will hold steady at about 3.0¢/kWh. This is approximately the same as in 2016. Generally, Energy Trust's levelized cost goal for electric energy efficiency is below 3.5¢/kWh, the current levelized OPUC performance metric for Energy Trust.
 - Levelized costs for gas energy efficiency in 2017 will also hold steady at about 30¢/therm. This is approximately the same as in 2016. Generally, Energy Trust's levelized cost goal for gas energy efficiency is below 35¢/therm and below the OPUC performance metric for Energy Trust of 47¢/therm.

- **Operations**

- This year's Energy Trust budget includes 3.5 new full-time equivalent employees (FTE). 2017 staffing costs are still below the new OPUC performance measure of 7.75% of total expenditures.² Total staff count will increase from 105 to 108.5 FTE. Additional details on these staffing issues are described in more detail further in this memo.
- Administrative and program support remains below the 2016 OPUC performance measure of 8% at 5.8%.³

- **Action Plans**

- Energy Trust's proposed actions for 2017 to meet goals and address future growth challenges and opportunities in each sector and program are strategic and prudent.

² In 2015, Energy Trust staff and the OPUC created a new performance measure for staffing expenses to not exceed 7.75% of total expenses, to be calculated on a three year cumulative average.

³ Per an agreement with OPUC, Energy Trust's administrative and program support costs should be at or below 8% of total, annual expenses.

- Each 2017-2018 program Action Plan is organized around the same areas of emphasis as last year:
 - Expanding Participation
 - Emerging Technologies and Approaches
 - Managing Transition
 - Efficient and Effective Operations

Status of 2016's Recommendations

Every year staff recommends actions to Energy Trust to take as part of their budget and action plan. The table below summarizes last year's Staff recommendations that were adopted by the Commission.

2016 Budget OPUC Staff Recommendation	Completed by Energy Trust
1. Include a higher level market context in 2017 budget	Yes
2. Summary of major planning assumptions in 2017 budget	Yes
3. Provide an exception & removed measure list prior to 2017 budget	Yes
4. Report energy savings "Net to Gross" for 2016	Planned
5. Using "Net to Gross" in 2017-18 planning	Yes
6. Engaging stakeholders in a discussion of "Net to Gross"	Yes
7. Begin engagements with utilities on Demand Management	Yes
8. Report on 2016 Demand Management activities and those planned for the future	Yes
9. Launch residential redesign work with stakeholders	Yes
10. Define new metrics and begin tracking customer participation and administrative productivity	Yes
11. Breakout NEEA	Yes
12. PAC Reserves return to 3%	Yes

Energy Trust implemented Staff's suggested recommendations for 2016. Fully accomplishing some of the recommendations will extend into 2017. Staff has the following general comments:

- Report energy savings "Net to Gross" for 2016: Staff notes that Energy Trust did report net and gross savings in the 2015 annual report. Staff recommends that Energy Trust reports "Net to Gross" in the final report on 2016 savings, as it did for 2015, and to also use these figures in future budget documents.

- 2017 Budget Additions: The summary of major planning assumptions and exception measure list were well done and useful additions to the 2017 draft budget.
- Report on 2016 Demand Management activities and those planned for the future: Energy Trust now has several Demand Management initiatives underway. They also finished a comprehensive report that was reviewed by OPUC staff. Energy Trust should include their Demand Management report in their final 2017 budget, post it on their website and continue with their current suite of activities.

2017 Draft Budget Overview

Oregon's growing economy has placed Energy Trust in a position to secure more, cost-effective savings than previously forecasted for 2017. This latest budget shows continued savings growth through 2018. Just last year Energy Trust had projected savings in 2017 and beyond to begin decreasing.⁴

Increased incentive and overall program delivery spending in 2017 appears to be commensurate with savings growth. Administrative costs do appear to be increasing at a somewhat faster rate than program spending overall as do overall staffing costs (discussed in greater detail below).

The Residential Sector is comprised of three programs: Existing Homes, Products and New Homes. All three programs have outlined a series of new approaches and delivery innovations. They range from moving further upstream to engage with distributors to leveraging demand response activities by incentivizing select thermostats. The goal is to rapidly develop a pipeline of new/enhanced savings opportunities because the Sector is preparing for a potentially large reduction in savings from lighting and water conservation measures beginning as early as 2018.⁵ Electric and gas savings are up for the sector overall and their annual expenditures track with the saving increases.

The Commercial Sector is comprised of three programs: Existing Buildings, Multifamily and New Buildings. The Existing Buildings program is the largest Energy Trust program both by savings and by expenditures. For budgeting purposes, the Multifamily program is included under the Existing Building program's line item. Since 2015 the budgeted electric and gas savings for the New Buildings program has risen 55% and 149%,

⁴ Energy Trust's 2016 budget called for a slight increase in savings in 2017 due to a mega-project. The mega-project was pushed to 2018, but 2017 savings remained as high as previously projected. See the 2016 budget

⁵ Lighting savings are being greatly impacted by the rapid market adoption of LEDs. The reduction in savings from water conservation measures is due Energy Trust activities saturating the market.

respectively as the Oregon economy grew and new construction boomed. New Building's costs have tracked with these increases. Part of the New Building program success in 2017 is due to its previous work cultivating relationships among developers, architects and construction firms through pilots like Path-to-Net-Zero and the development of design resources and promotion of new technologies. The Existing Building program continues to be Energy Trust's largest program with many innovative offerings and tracks. 2017 will be the first year of a newly re-competed Program Management Contractor (PMC) contract. The PMC has raised gas savings goals tremendously for 2017 and expenditures are up commensurately. Electric savings goals for the Existing Building program will fall in 2017 but overall expenditures will increase. This is partially due to a reduction in the program's realization rate.⁶ The Existing Building program's leveled costs for electric savings will be higher than most other programs in 2017.

The Industrial Sector functions as one program with three tracks. The tracks are standard, custom, and energy performance management track. The Industrial Sector is experiencing a transition in the type of projects it services: from high-savings and low-volume to high-volume and lower-savings. This has necessitated an evolution in the Sector's approach to the industrial market. More time and effort are now spent by program delivery contractors in broadening participation among smaller manufacturers and by the Sector staff in developing infrastructure – like tablet-based scoping tools – to improve customer interactions and outcomes. Like the Existing Building program, electric savings expenditures have risen somewhat more quickly than savings and one contributing factor is the declining realization rates for both electric and gas savings.

Available funding from utility revenues and carryover funds for the Renewable Energy Sector will be down from \$21.4 million to \$19.7 million in 2017. While solar savings are projected to rise in 2017, overall generation will be down 33% in 2017. This is natural as the Sector's mix of smaller, standard solar projects and larger custom projects tends to form a lumpy and uneven investment pattern year over. There are no large, non-solar renewable projects scheduled for completion in 2017. Overall the Sector faces other some challenges in 2017. Reductions in the costs of solar systems can create budgeting challenges as program volume increases, while market costs for most transactions are not yet at a level where sales are sustainable without Energy Trust support. . For large solar and other renewable projects the continued decline in the avoided costs paid to Qualified Facilities will make project economics even more challenging in 2017 as projects are compensated less by the utilities purchasing the projects' power.

⁶ The realization rate – also known as SRAF – is the difference between savings incented and savings claimed; akin to gross and net. Evaluations and customer feedback determine a program's annual realization rate.

Support Group activities include customer service, trade ally management, planning and evaluation, IT, general communications, finance, HR and executive management. The Support Group Sector comprises approximately \$18.5 million of Energy Trust's 2017 expenditures⁷ and are critical to the functioning of the Energy Trust programs.

Energy Trust's planning assumptions for efficiency and renewable programs in 2017 were all reasonable and prudent. Despite uncertainty in such things as pace of technology development and economics, future sources of savings and the direction of state policy, Energy Trust plans to continue its engagement in all market sectors for both efficiency and renewable programs throughout the year. Further, all Energy Trust programs plan to use 2017 to assess, prepare and/or respond to continued changes and on-going uncertainty around future sources of savings.

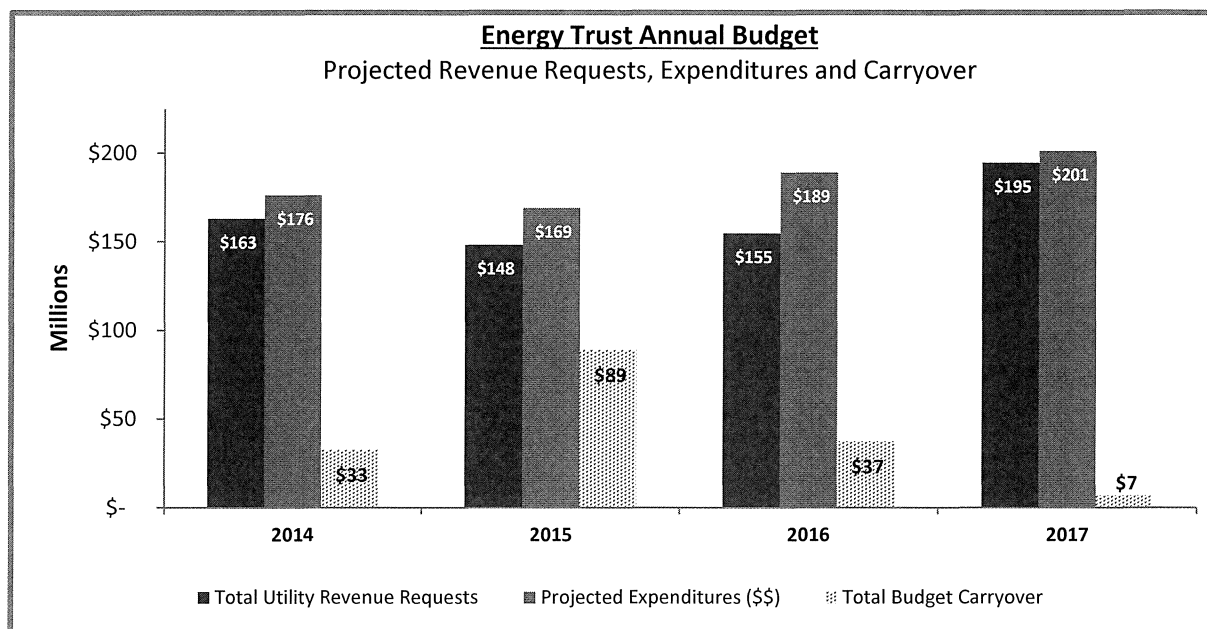
There will be notable firsts for Energy Trust in 2017. In 2017 Energy Trust officially takes over administration and delivery of Avista's Oregon energy efficiency programs. Energy Trust anticipates that this may also be the first year of administering a Federal loan program for replacing and upgrading manufactured homes.

Carryover Reduction

In past years Energy Trust has had a sizeable budget carryover. Beginning in 2014 Energy Trust implemented practices to significantly reduce its level of annual carryover.⁸ One of the most effective actions implemented by Energy Trust was to reduce income (revenue from the utilities) below budgeted expenditures. Energy Trust's carryover is now less than 4% of the total budget and will serve as a reserve fund if needed to cover unanticipated funding risks such as lower than forecasted utility revenues or short term savings opportunities.

⁷ See pages 134 -151 of Energy Trust 2017 Draft Budget.

⁸ For more information on Energy Trust's carryover and OPUC comments, see previous staff memos on Energy Trust's annual budget: 2016 staff memo on Energy Trust Annual Budget; 2015 staff memo on Energy Trust Annual Budget.



Increased Savings Goals for 2017 and 2018

Energy Trust strives to acquire all cost-effective energy efficiency for ratepayers of the five utilities. Energy Trust's 2017 and 2018 savings goals are higher than previously forecasted, reflecting current market trends and program data.

For electric savings in 2017, the movement of a mega-project to 2018 did not reduce savings over previous forecasts. Regional growth is stimulating new construction and driving much of the electric savings increase; upwards of 3% growth over 2016. The table below attempts to capture the trend over the past three years.

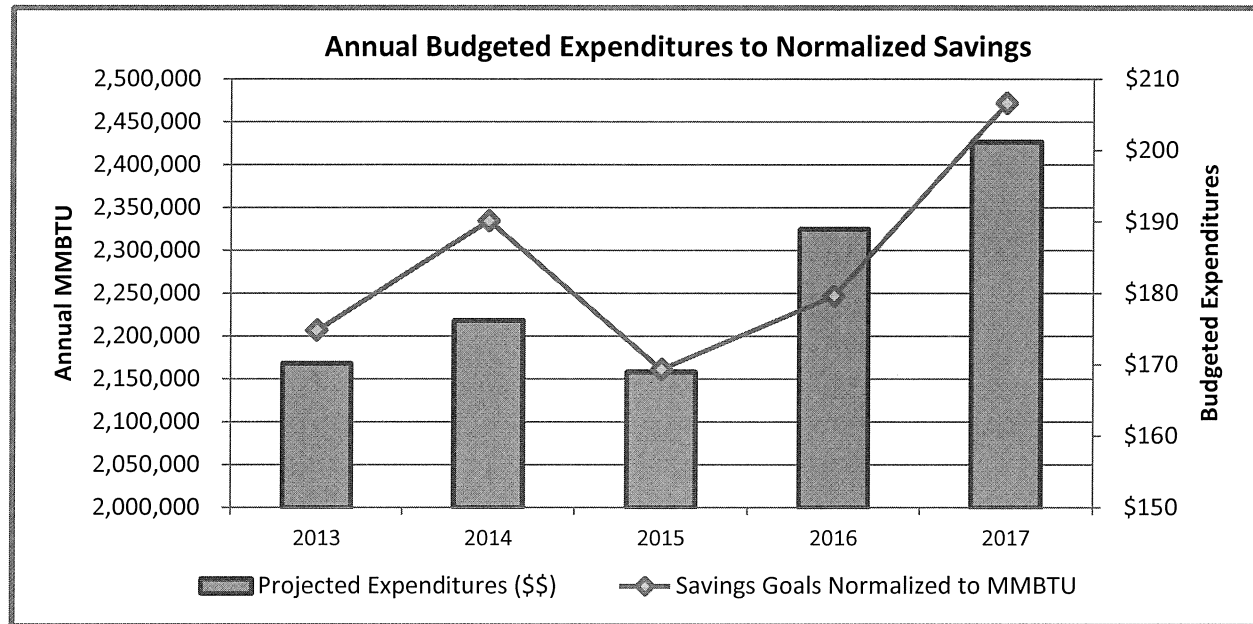
Budgeted Electric Savings (aMW) Since 2015			
	2015	2016	2017
Existing Buildings	15.22	15.48	14.70
New Buildings	4.14	5.30	6.44
NEEA - commercial	0.97	1.02	1.50
Commercial Total	20.33	21.80	22.64
Production Efficiency	15.34	13.45	13.86
NEEA - Industrial	0.17	0.15	0.08
Industrial Total	15.51	13.60	13.94
Existing Homes	4.67	4.00	3.92
New Homes and Products	8.90	9.88	10.97
NEEA - residential	3.70	5.81	5.41
Residential Total	17.27	19.69	20.30

For the gas programs, improved outreach and program innovations are combining with fast regional growth to increase gas savings significantly in 2017; upwards of 29% growth. It is worth noting that just over a year ago Energy Trust forecasted gas savings in 2017 would be down over 500,000 therms compared to 2016.⁹⁹ The table below attempts to capture gas savings trends over the past three years.

Budgeted Gas Savings (Therms) Since 2015			
	2015	2016	2017
Existing Buildings	2,187,762	2,001,169	2,445,871
New Buildings	396,086	597,301	986,074
Commercial Total	2,583,848	2,598,470	3,431,945
Production Efficiency	1,065,576	1,036,453	1,071,174
Industrial Total	1,065,576	1,036,453	1,071,174
Existing Homes	878,334	787,964	1,132,589
New Homes and Products	1,058,457	1,292,258	1,818,382
Residential Total	1,936,791	2,080,222	2,950,971

⁹⁹ See 2016 Budget, page 29
http://assets.energytrust.org/api/assets/plans/2016_Annual_Budget_Action_Plan.pdf

Overall, Energy Trust continues to budget its expenditures in line with its annual savings growth. 2017 is no exception.



Again, this does come at a cost. The table below attempts to characterize the financial impact of the increased levels of savings and associated revenue increases. It uses 2015 utility customer revenues as a base for comparison.

Utility	2015 Customer Revenues ¹⁰	Energy Trust 2016 Budgeted Revenue Request	2016 Request as % of 2015 Revenues	Energy Trust 2017 Budgeted Revenue Request	2017 Request as % of 2015 Revenues	Est. 2017 Rate Increase for all Customers
PGE	\$1,735,582,869	\$ 70,002,326	4.56%	\$101,042,174	5.82%	1.26%
PacifiCorp	\$1,265,741,624	\$ 47,589,764	4.23%	\$62,096,562	4.91%	0.67%
NWNatural	\$ 653,343,185	\$ 19,496,178	2.98%	\$27,212,524	4.17%	1.18%
Cascade	\$ 67,650,227	\$ 2,114,889	3.13%	\$2,912,303	4.30%	1.18%

¹⁰ Source: OPUC 2015 Utility Stat Book

Structure of 2017 Revenue Requests

Another driver of the increased utility revenue requests in 2017 was a desire by Energy Trust and some utilities to reduce rate impacts in 2018.¹¹ Budget documents shared with Staff show that the 2017 revenue requests for PGE and PacifiCorp were “front-loaded” so as to avoid any rate increases in 2018. This practice raises rates in the short term for customers in anticipation of future year budget forecasts increasing. Based on the year to year variation across past budgeting cycles, Staff does not see the benefit of this dynamic and recommends that the Commission encourage Energy Trust to avoid this practice in the future.

Staffing

Energy Trust is proposing to add 3.5 new full time equivalent (FTE) positions. This would bring Energy Trust total FTE count to 108.5. The table below lists the positions and the rationale for adding them.

Position Name	FTE	Rationale	Established Need?
Planning Project Manager	1	Expanded IRP and more complex regulatory work and reporting for both efficiency and renewables; advanced research using utility data; improved forecasting.	Yes
Human Resources (HR) Generalist	1	Currently 2 FTE HR staff cannot fully support organization's HR needs.	Yes
Communications Project Manager	1***	Documentable increase in Communications workload associated with information request fulfillment, in addition to new initiatives needed to support program's more strategic marketing and outreach using data and partnerships.	Yes
Attorney	0.5	Current staffing level cannot fully support organization	Yes

*** Temporary staff; two-year contract only

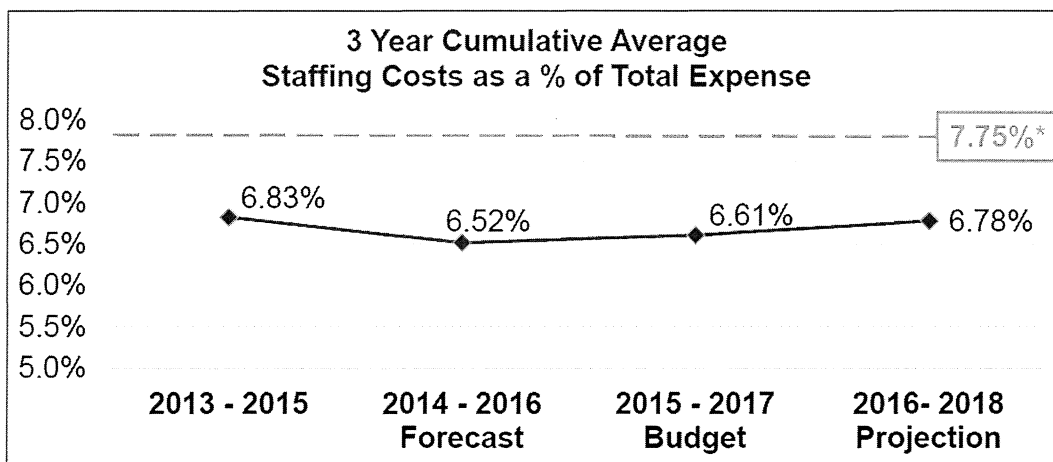
Staff believes Energy Trust has demonstrated a legitimate need for the added positions.¹² Savings growth trends in 2017-2018 are combining with long-term trends to

¹¹ Budgets are linked in so far as one year's total revenue request and carryover become the basis for the next year's revenue request.

¹² Appendix A includes a memo from Energy Trust's Executive Director detailing the need and activity for each proposed position.

create the need for greater infrastructure. These trends include: upcoming shifts in sources of savings,¹³ greater operational complexity and increasing customer interactions.

The addition of 3.5 FTE in 2017 will raise staffing costs to 6.9% of total expenditures. On a three-year rolling average staffing costs will be at 6.6% of expenditures. Both of these percentages remain under the OPUC's metric of 7.75% of total expenditures on a three-year, rolling average.



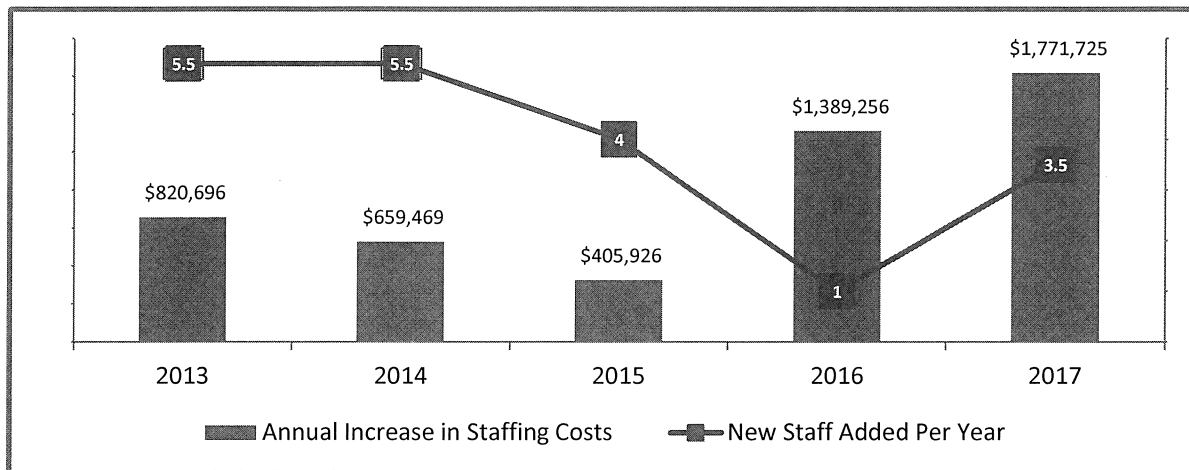
In terms of absolute dollars, Energy Trust's staffing costs continue to grow at a steady pace.

Year	Annual Staff Costs	Rolling Average Staff Costs Used for 7.75 Metric	Maximum Allowable Staff Costs under 7.75% Rolling Average Metric
2012*	\$ 8,842,887	n/a	n/a
2013*	\$ 9,663,583	n/a	n/a
2014*	\$10,323,052	\$9,609,841	\$11,366,183
2015*	\$10,728,978	\$10,238,538	\$11,625,426
2016	\$12,118,234	\$11,056,755	\$13,149,126
2017	\$13,889,959	\$12,245,724	\$14,360,241

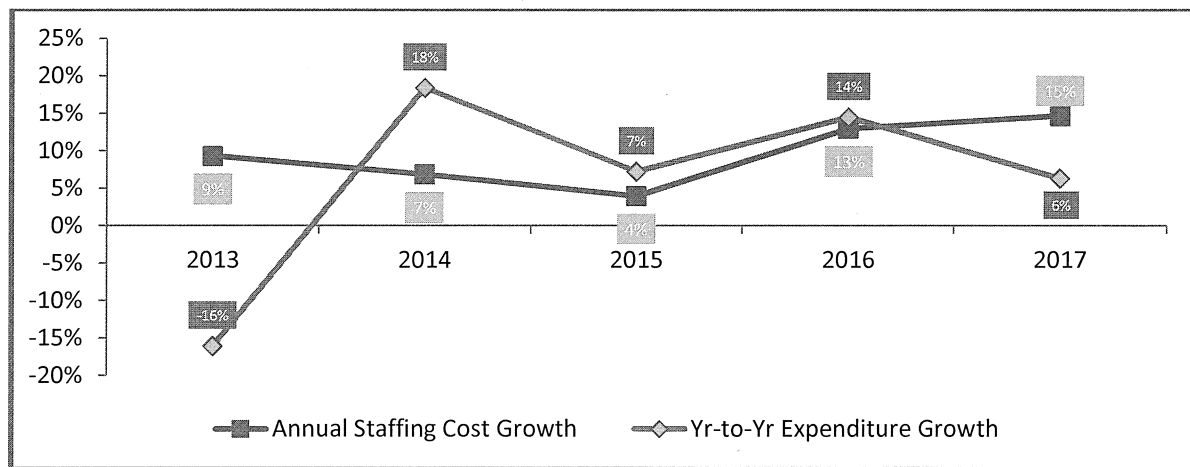
* = Actual expenses

¹³ CAC presentation by Residential Sector on July 27, 2016 and Board meeting on Nov. 2, 2016

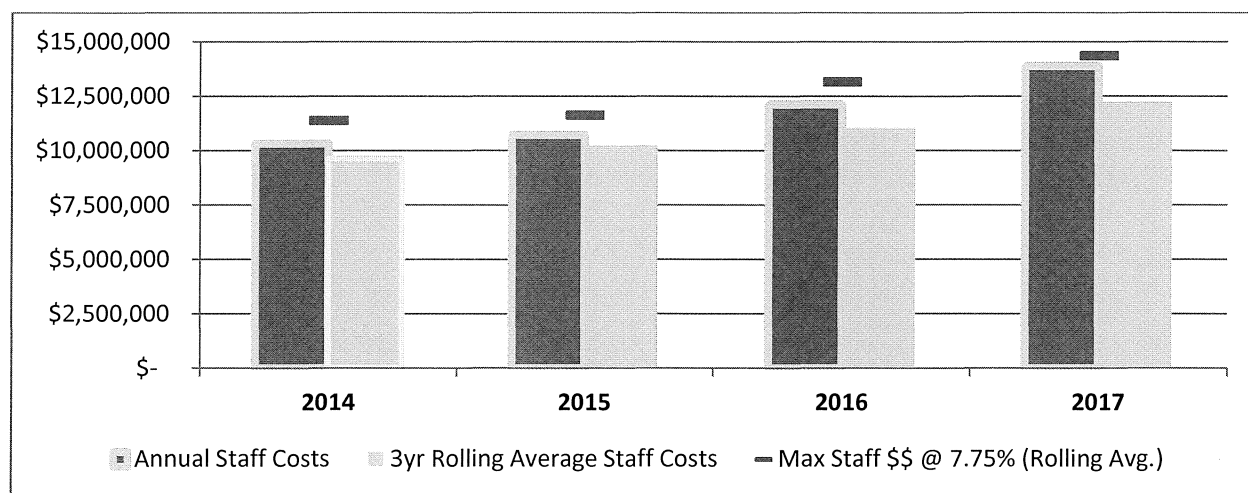
2017's staffing costs grew by \$1.77 million to a projected \$13.9 million. This is the largest staffing cost increase in five years.



Relative to expenditure growth, 2017 staffing costs grew by 15% while expenditures grew at only 6%.



So while Energy Trust's 6.6 percent average staffing costs remains below the OPUC's expenditure cost metric of 7.75 percent there would appear to be upward pressure on staffing costs independent of additional staff.



Part of the increase in salary costs may be attributable to the Portland job market. Energy Trust must compete for staff within a larger network of energy services firms and utilities located in the Portland metro area. Energy Trust should take steps in 2017 to assess staffing needs and staffing allocations to ensure human resources are most appropriately aligned with organizational needs. It should be noted that increases in total Energy Trust expenditures raise the absolute dollar amount available under the 7.75% performance metric for staffing. Since this performance measure was created just two years ago it may still be considered to be in the pilot phase. Staff recommends revisiting this metric prior to the 2018 budget development to ensure it provides useful guidance.

Timing

Staff has received comments from some stakeholders, including Commissioners, about this year's timing of the Energy Trust budget process. Given the size of the budget and the extent of the increased revenue requests these commenters felt rushed and somewhat overwhelmed. Staff would encourage Energy Trust to take steps in the 2018 budget process to engage with the OPUC earlier and to release round 1 (R1) budget documents at least ten business days before the first public budget presentations at the Renewable Advisory Council (RAC) and Conservation Advisory Council (CAC) meetings in October.

Forecasting

In last year's staff comments there was a discussion on the need to improve forecasting, especially as it relates to the discrepancy between IRP savings forecasts and budgeted forecast savings. While this remains an issue in 2017, it was overshadowed by the rapid and unexpected increases in savings and expenditures

within the 2017 budget development cycle. Improving forecasting capabilities in the era of limited carryover takes on a heightened significance as variances in forecasting can immediately reverberate within customers near-term rates.

Sustaining Infrastructure into the Future

Energy Trust's sources of savings appear to be poised to shift over the next five years. This past year Energy Trust staff has been forthcoming in meetings and in this year's Action Plans about near-term threats and long-term opportunities to maintain the current level of savings in 2018 and beyond. Threats range from the rapid market adoption of LED lights and the market saturation of showerheads to decreasing realization rates and the pressure on both the Commercial and Industrial sectors to increase project volume to compensate for decreasing project size. Longer term opportunities include better harnessing of data and market intelligence, exploring new market channels for certain technologies and new approaches to savings. Simply scaling budgets to match an upcoming year's savings goals could subject Energy Trust to an unnecessary and detrimental budgeting whipsaw in 2019 and beyond. It is important to ratepayers that the savings and generation infrastructure Energy Trust has built be able to weather short-term but rapid transitions in sources of savings while maintaining a stable level of staffing and infrastructure to fully capture future savings opportunities. Energy Trust should continue its dialogue with the Commission and stakeholders regarding how sources of savings will change and how Energy Trust could best evolve and adapt. In addition, Energy Trust should consider exploring how it could "smooth" savings from select retrofit opportunities over multiple years so as to lessen the impact from events that create negative budget shocks.

Recommendations

Overall, PUC Staff supports Energy Trust's draft 2017 Budget and 2017-18 Action Plan and commends Energy Trust for its efforts in 2016.

However, we should note that this budget includes a sizeable rate increase to acquire cost-effective energy efficiency. Yet, the structure of the rate impacts and the timing of the communication of the impacts indicate a need for process improvement. In the future, if there are sizeable rate impacts associated with a proposed budget the OPUC expects earlier communication and demonstration by Energy Trust of real cost cutting exercises in its non-incentive budget to mitigate the size of a rate increase.

Staff recommends the Commission support the budget and action plan subject to the following conditions:

1. *Update budget procedures to improve communication, coordination and collaboration with stakeholders. Work with OPUC staff in 2017 to develop alternative budget scenarios that are triggered by key events, such as rapid, year-over-year increases in revenue requests.*
2. *Continue demand management work and raise the level of reporting on this issue by presenting progress on this work in the 2016 annual report and in the Q2 presentation to the Commission.*
3. *Expand communications around the issue of “net to gross” including drivers for key assumptions such as declining realization rates at CAC and include both gross and reportable (net) in the 2016 Annual Savings report and the 2018 budget.*
4. *Explore in 2017 steps that could be taken to stabilize operations and infrastructure from short-term savings uncertainty in 2019-2020 by smoothing acquisition of savings from select measures where possible while continuing to focus on program and measure innovations.*
5. *Undertake in 2017 an organizational assessment of staffing allocations, staffing costs and the alignment of staffing with future program design and savings opportunities*
6. *Work with OPUC Staff to revise the 7.75 percent staffing metric.*
7. *Continue efforts to improve forecasting methods and tools by dedicating more Planning resources to this work in 2017 and report on progress to this effort no later than the Q2 presentation to the Commission.*
8. *Continue engagement with OPUC in dockets related to community solar, resource value of solar and in the redesign of Above-Market Cost incentives.*

PROPOSED COMMISSION MOTION:

Staff's comments be adopted as Commission comments on the Draft 2017 Budget and Draft 2017-18 Action Plan for Energy Trust of Oregon.

Appendix A – Staffing Addition Memo from Energy Trust

*This document can be found on page 67 of Energy Trust's Draft 2017-208 Budget at:
http://assets.energytrust.org/api/assets/plans/2017-18_draft_budget_and_action_plan.pdf*



MEMO

Date: October 26, 2016
To: Board of Directors
From: Michael Colgrove, Executive Director
Subject: Staffing for the Draft 2017 Budget and 2017-2018 Action Plan

Energy Trust proposes to add 3.5 full-time equivalent staff positions (FTE) in 2017, increasing from the current approved level of 105 to 108.5. All proposed positions provide direct support to energy program and organizational goals. Each is linked to Energy Trust's key budget and action plan focus areas: expanding participation, innovating with emerging technologies and new approaches, managing transition, and operating an efficient and effective organization. One position is proposed with a limited term not to exceed two years. Detail on each position is provided below.

In 2017, Energy Trust anticipates continued and full compliance with key OPUC minimum performance metrics related to administrative support and staffing costs as a percent of expenditures.

Administrative and program support costs are at 5.8 percent of the draft budget, remaining well under the OPUC administrative and program support metric of 8 percent. Staffing as a percent of total expenditures is 6.6 percent and remains well under the 7.75 percent metric, calculated on a three-year rolling average.

1. Planning Project Manager (new position – 1 FTE)

The proposed planning project manager position is linked to Energy Trust's focus on expanding participation, innovating with emerging technologies and new approaches, and managing transition. The position will enable expansion of utility planning work and support for regulatory processes, including the addition of a fifth utility IRP for Avista, transmission and distribution (T&D) deferral analysis, and increased focus on peak management through energy efficiency and renewable energy. It will allow the planning team to provide enhanced strategic planning support and advice to programs and marketing staff by improving mapping of resource and technology planning tools into concrete inputs for program design.

Additionally, it will create a coordination mechanism for identifying and communicating insights gained from existing and planned market research, identifying which program services may benefit from the insight, establishing priorities and disseminating results.

This position will provide benefit to utility customers by supporting program efforts to expand participation and be ready for new opportunities. Specifically, this position will deliver benefits to customers by helping Energy Trust:

- Support energy efficiency and renewable energy resource opportunities that provide other benefits and align with the priorities of governments and other organizations, such as projects with energy and water benefits, biopower projects that manage waste streams, and projects that save gas or electricity and transportation fuel.
- Pursue initiatives with government, utility and other entities in response to new state and national policy initiatives that complement and promote clean energy development.
- Collaborate as appropriate with utility-led peak load management programs to identify activities that will benefit customers and support program development to that end.
- Track and report utility customer benefits from Energy Trust activities related to state and federal greenhouse gas emission goals.
- More effectively utilize insights of market research to reach customers that have not previously been served.

2. Human Resources Generalist (new position – 1 FTE)

The proposed human resources generalist supports Energy Trust's focus on expanding participation, managing transition and operating an efficient and effective organization. This position will enable the human resources team to focus on strategic and operational initiatives to ensure Energy Trust is able to recruit and retain critical staff expertise as energy efficiency and renewable energy programs evolve. Strategic focus areas include career development planning, professional development and training, workforce diversification and employee engagement.

The position will also allow the human resources team to improve efficient business practices and systems while maintaining day-to-day operations to meet the needs of the organization. The human resources generalist will be responsible for the day-to-day operations of the human resources team, including management of human resources policies and processes, recruitment, onboarding, compensation, benefits, talent management and compliance. This will enable the current human resources manager and senior finance project manager to focus on strategic initiatives and process improvement.

This position will provide benefit to utility customers by supporting all Energy Trust programs and operations that deliver utility customer benefits. Specifically, this position will deliver benefits to customers by helping Energy Trust:

- Ensure we have the staff expertise needed to design and deliver current and future customer programs and services.
- Support efficient and effective use of ratepayer dollars through retention of employee talent as the organization evolves.
- Diversify Energy Trust's workforce to ensure customer programs and services are optimized for all eligible customers.

3. Communications & Outreach Project Manager (new limited term position – 1 FTE through 2018)

The proposed communications and outreach project manager is linked to Energy Trust's focus on expanding participation, managing transition and operating an efficient and effective organization. This position will enable the marketing and outreach teams to expand strategic work in support of program efforts to reach customers not yet served: market research, diverse customer outreach and engagement, rural community outreach and development of new informational content and targeted educational strategies.

Additionally, this proposed position will enable Energy Trust to communicate proactively with stakeholders as major customer programs and services evolve, and to ensure Energy Trust's new executive director is known and accessible in all regions of the state. Finally this position will support accurate and timely responses to increased media, legislative and stakeholder information requests related to an active policy and regulatory docket landscape.

This position is proposed for a limited term not to exceed two years through 2018 because the additional marketing, outreach and communications work is related to current development needs, transition, and policy activity that may not be sustained beyond the two-year time frame. It is difficult to successfully contract for this work given the continuity of knowledge needed to manage stakeholder engagement and communication projects efficiently and effectively.

This position will provide benefit to utility customers by supporting program efforts to reach and serve new customers and ensuring Energy Trust continues to be accessible and responsive to their needs and interests. Specifically, this position will deliver benefits to customers by helping Energy Trust:

- Better understand and address diverse customer barriers to engagement in energy efficiency and renewable energy offers and services.
- Connect with rural and diverse communities to provide information and resources needed to support engagement.
- Support community activities with multiple goals and customer benefits, including saving energy and generating renewable energy.
- Communicate clearly regarding changes in program offers affecting customers, contractors and other stakeholders.
- Respond in a timely manner to policy questions so customers, contractors and stakeholders will understand potential energy efficiency and renewable energy opportunities, and the services available to them.
- Establish connections between customers and stakeholders throughout the state and Energy Trust's new executive director, so he can lead the organization with specific knowledge of customer needs and interests.

4. Attorney (new position – 0.5 FTE)

The proposed half-time attorney position is linked to Energy Trust's focus on operating an efficient and effective organization, expanding participation and managing transition. The organization's near 15 year history of engaging with customers has resulted in an increasing inventory of customer data and customer projects. Engaging additional internal legal resources will help ensure that Energy Trust has or will put in place the policies, procedures and practices to safeguard customer interests and ratepayer funds cost effectively. This position will provide a small expansion of the legal team to support the organization with legal services needed for expanding business operations, programs and services to deliver energy efficiency and renewable energy to all eligible customers, and guide the organization's efforts to diversify its workforce and contracted services.

This position will support the legal team in drafting contracts, contract negotiation and strategy. The attorney will provide legal oversight for large contracts and competitive solicitations in the residential, renewables and operations group, and will provide backup support to the legal contracts manager on commercial, multifamily, industrial and agriculture groups. The position will also work with senior counsel on contracts with funding utilities and provide legal counsel on customer service complaints.

Through the creation of this position, the current general counsel will have the capacity to focus on the increased workload in policy and legislative matters, employment and business transaction law, and enterprise and organization-wide risk management coverage.

This position will provide benefit to utility customers by supporting program contracting essential to delivering services to customers, and by ensuring Energy Trust follows policies to protect customers and minimize risk to ratepayer funded investments. Specifically, this position will deliver benefits to customers by helping Energy Trust:

- Provide timely responsiveness in negotiation of customer project incentive funding agreements and forms.
- Ensure and support processes for greater accountability in contract and vendor performance.
- Ensure customer dollars are invested wisely and protected from risk.
- Resolve customer complaints in a timely manner.
- Secure and protect customer data.



Portland General Electric
121 SW Salmon Street • Portland, Ore. 97204
PortlandGeneral.com

November 9, 2016

Michael Colgrove
Executive Director
Energy Trust of Oregon
421 SW Oak St., Suite 300
Portland, OR 97204

Dear Michael,

PGE values the ETO's contribution to our Integrated Resource Plan, helping PGE meet our customers' energy needs with cost-effective energy efficiency in order to delay or avoid more costly alternatives. Our interests are aligned on acquiring all cost effective energy efficiency. While we appreciate the ongoing conversation we've had about the ETO's resource acquisition forecast and expected funding requirements over the next few years, we felt blindsided by your \$24.5 million annual funding need request, which was three times higher than the previously forecasted amount provided three weeks prior. This change would have resulted in energy efficiency and renewables funding constituting over 7% of a typical residential customer's bill – an increase that we believe was too big a price impact for our customers to bear. We appreciate the ETO's willingness to work together to mitigate the price impact to our customers while not sacrificing the acquisition of all cost-effective energy efficiency.

PGE requests that the ETO evaluate its forecasting methods and improve the accuracy of future forecasts to avoid the types of swings we experienced in this cycle. Ideally, we would be in a position to assess an accurate forecast of budget requirements with ample time to provide feedback before the public budget process commences. We ask the ETO to examine the cause for such a significant initial underestimation for funding and look forward to learning about the proposed actions the ETO will take to avoid this outcome in the future.

Sincerely,

A handwritten signature in cursive script that reads "Carol Dillin".

Carol Dillin

CC: Steve Lacey



Let's turn the answers on.

825 NE Multnomah
Suite 1500
Portland, OR 97232

November 9, 2016

Michael Colgrove
Executive Director
Energy Trust of Oregon
421 SW Oak Street, Suite 300
Portland, OR 97204

RE: Comments on Energy Trust 2017 Annual Budget and 2017-2018 Action Plan

Dear Mike,

We appreciate the work Energy Trust of Oregon (ETO) has invested in developing and presenting your 2017 draft budget and action plan to Pacific Power and other stakeholders around the state. We are very much looking forward to working closely with your team on several initiatives under development.

We would like to offer the following comments and have identified the following opportunities for the upcoming year:

- Pacific Power appreciates the close alignment between the 2016 target, as noted in the funding agreement, and the latest year-end forecast from ETO. We believe this relatively small variance demonstrates recent ETO success in more closely aligning forecasting, delivery and expenditures.
- The “2017 IRP Target” for Pacific Power in ETO’s board presentation does not tie to Pacific Power’s integrated resource plan (IRP). For 2017, Pacific Power’s 2015 IRP selected 17.6 gross aMW (average megawatts) of energy efficiency savings, or roughly 15.8 net aMW.
- We appreciate ETO’s efforts underway to manage costs by ensuring all lost opportunity resources are acquired when they are available, redistributing a modest share of the elective opportunities into future years as market conditions dictate, and utilizing existing reserves to mitigate year-on-year changes in revenue requirements. This will help mitigate market swings and manage the overall budget while still capturing the full opportunities available.



Let's turn the answers on.

825 NE Multnomah
Suite 1500
Portland, OR 97232

- ETO's draft action plan indicates that 99.9 percent of renewable generation projects in 2017 will come from solar. We encourage ETO to continue to look for opportunities to promote less mature renewable technologies. We would also encourage ETO to target solar efforts to support applications that yield high-value benefits to the utility system in addition to focusing on lowering the "soft costs" of solar projects, as recommended in the Commission's HB 2941 Solar Incentives Report.

Pacific Power continues to value the resource acquisitions and customer benefits delivered by Energy Trust of Oregon on behalf of our customers. We are looking forward to continued good work in 2017.

Sincerely,

A handwritten signature in black ink that reads "Cory Scott". The signature is fluid and cursive, with a long horizontal stroke extending from the end.

Cory Scott
Director, Customer Solutions

From: Braun, Holly <Holly.Braun@nwnatural.com>
Sent: Wednesday, November 9, 2016 5:51 PM
To: Energy Trust of Oregon Info
Cc: Edmonds, Bill
Subject: NW Natural comments on Energy Trust 2017 budget

Hello Steve, Amber and Peter,

Thank you for keeping NW Natural apprised during each phase of 2017 budget creation and making this as interactive as possible. As you know, we track three distinct budgets: (1) Washington- Residential & Commercial, (2) Oregon- Residential & Commercial and (3) Oregon-Industrial. Increases in all of these are expected as we are operating in a strong economy with significant construction and growth. It is reasonable and expected to scale the efficiency programs to mirror this growth which you have done. We fully support the increases in both Oregon and Washington Residential and Commercial programs; however we have concern over the more dramatic increases in Oregon-Industrial. We are committed to obtaining all call cost effective conservation but also want to make sure this is achieved at a pace that is sustainable and does not produce rate shock. Customers in these rate classes have the option to buy natural gas directly from gas marketers and bypass NW Natural. If they do, they are no longer eligible for efficiency programs and we lose potential savings all together. The more efficiency we do, the more expensive their rate gets and the delta between buying direct and buying from NW Natural increases. We are concerned that too steep an acquisition curve can relate in rate shock that would send some customers to an alternate service where they bypass efficiency programs all together. We believe this concern needs to be weighed as incentive levels are set and budgets are created. We believe the final budget for industrial is \$6.3M (this has not been confirmed as of 5:50p on 11/9, however) and support this figure but need to proceed with much caution and observation on 2017 before setting targets for 2018 as this will have a dramatic rate impact.

Thank you for all the work and care that goes into creating these programs and the budgets that support them. We greatly value our partnership with you.

Holly Braun (Meyer) | Energy Policy & Sustainability Manager | NW Natural 220 NW Second Avenue | Portland, Oregon 97209 |
☎: 503.226.4211 x5717 | 📠: 503.220.2587 | ✉: holly.braun@nwnatural.com



From: Abrahamson, Jim [<mailto:Jim.Abrahamson@cngc.com>]
Sent: Monday, November 14, 2016 11:44 AM
To: Steve Lacey <Steve.Lacey@energytrust.org>; Spector, Allison <Allison.Spector@cngc.com>
Cc: Amber Cole <amber.cole@energytrust.org>; Parvinen, Michael <Michael.Parvinen@cngc.com>
Subject: RE: ETO budget comments

Hi Steve,

The following are our comments regarding ETO's draft 2017-18 budget. Please let me know if you need this statement in a different format.

Cascade Natural Gas Corporation has participated in, and closely reviewed, the materials and discussions leading to the development of the Energy Trust of Oregon's draft 2017 / 2018 energy efficiency budget. ETO's assumptions and projections of the drivers of CNGC's customer activities that lead to the acquisition of natural gas energy efficiency are reasonable reflections of the current and expected levels of economic activity and customer's actions. Cascade supports ETO's current 2017 / 2018 projections of natural gas energy efficiency acquisition and the resulting budget.

Additionally, CNGC very much appreciates the willingness and flexibility of ETO staff, and the ETO board of directors, in developing and approving the financial mechanism that allows Cascade to draw upon ETO's monetary reserves to insure that the final months of the 2016 program year continue without interruption. Cascade has already filed for a change in its Oregon public purposes charge to collect from customers the funds necessary to complete all projected 2016 energy efficiency program activity, fund the projected 2017 program budgets, and to replenish whatever drawdown of ETO reserves might have been necessary in 2016.

Thanks,

Jim Abrahamson
Manager, Conservation Policy
Cascade Natural Gas Corporation
503-230-9607 (office)
206-484-8985 (mobile)
jim.abrahamson@cngc.com
<http://www.cngc.com>



580 Business Park Drive
Medford, OR 97501

11/09/2016

Re: Avista's Comments on the 2017 ETO Budget

In consideration of this being Avista's first year with the Energy Trust and the conservative nature of the 2017 goal and budget, the Company has no significant comments of offer at this time. The Company realizes that this first year is a learning experience for both Avista and the Energy Trust. Avista appreciates the opportunity to participate in this process and looks forward to future opportunities to collaborate with the Energy Trust.

Kerry Shroy
Manager DSM
Avista

From: Phillip Norman <pjnorman@gmail.com>
Sent: Sunday, October 30, 2016 4:17 PM
To: Energy Trust of Oregon Info
Subject: Attic Access Comments, Energy Trust Draft 2017 Budget

First Comment Offered:

Energy Trust and Attic Access Math Comparisons, Residential Customers, Natural Gas

Energy Trust Numbers:

From 2017-2018 Draft Budget: Save 3.08 million therms at \$0.302 per therm.

Attic Access Numbers:

About 1000 homes are served, saving not more than \$500 per year each at \$2 per therm basis, less than \$500,000 total new savings in a year. Savings are: 250,000 therms.

Where savings are compared to current-year expenditures, savings from years past may not be counted. An order-of-magnitude discrepancy is found.

Phillip Norman
Attic Access
1234 NE 118th Avenue
Portland, OR 97220-2129
Phone [503-255-4350](tel:503-255-4350)
pjnorman@gmail.com
Bonded and Insured, CCB #165715
<http://sites.google.com/site/phillipnormanatticaccess/>
<http://sites.google.com/a/r5portals.com/www/home>
<http://energyconservationhowto.blogspot.com/>
<http://plasterrepairhowto.blogspot.com/>
<https://www.pinterest.com/phillipnorman52/residential-led-downlighting/>

<https://plus.google.com/communities/116610711167978915311>
<https://plus.google.com/108533770292578040917/posts>

From: Phillip Norman <pjnorman@gmail.com>
Sent: Wednesday, November 9, 2016 6:15 AM
To: Energy Trust of Oregon Info
Subject: Draft Budget Added Comments

Where Energy Trust does little to weatherize homes and gives false claim of achievement, I ask that the majority of Public Purpose Funds hereafter be held in reserve as a loan fund available to equally benefit all households. Take too the contributions from Industry, for a decade of mispending funds with them, contributed by residential ratepayers. Funds should always been placed in loans to be repaid, not given out forever to a select few. There was never a need to pay out incentives always to the more affluent and nothing to renters. I have a customer who still will not fix dangerous wiring and put adequate attic insulation in the home he first owned, and now holds as a rental. It would be a bad investment, he says. There are means to require safety and efficiency in every home rented or sold.

We must change our ways when they do not work. Weatherizing 1500 existing homes from the take of 200 million dollars, is criminal. Poor policing of new home construction, is another matter, not to be addressed with Public Purpose funds.



Phillip Norman
Portland, Oregon

November 9, 2016

To: Michael Colgrove, Energy Trust of Oregon
From: Janice Thompson, Citizens' Utility Board of Oregon
Re: CUB comments on 2017 budget
Submitted: Via email – info@energytrust.org

The Citizens' Utility Board of Oregon (CUB) has been a long-time supporter of the Energy Trust of Oregon (ETO) and its effectiveness in delivering cost-effective energy efficiency and renewable energy projects that benefit the customers of its utility partners. Providing the needed revenue for ETO's efforts can affect the rates charged by its utility partners, a dynamic that is particularly well understood by CUB. We take a least cost-least risk analytical approach to evaluating rates. Based on these principles we strongly support the ETO's 2017 budget.

Key points contributing to CUB's support for ETO's budget include:

- ETO continues to meet performance measure requirements set by the Oregon Public Utility Commission (OPUC). Indeed, staffing costs at 6.6% are well below the spending limit set by OPUC and administrative and program support costs of 5.8% are also significantly below the limit set by OPUC. This is particularly commendable as ETO strives to diversify its workforce and takes on additional responsibilities such as adding Avista as a natural gas utility partner.
- Year-to-year fluctuations due to uneven timing of large renewable energy projects are acceptable, should not be surprising, and by no means should be viewed as a reason to not move forward with cost effective renewable energy efforts.
- Spending down reserves has been appropriate and should be highlighted as being a significant and acceptable factor in the 25.8% increase in revenues to be collected from utilities.
- A 6.4% increase in available energy efficiency projects also contributes the utility revenue increase and reflects cost-effective opportunities that benefit customers of ETO's partner utilities.
- The cost for this energy efficiency is quite low in marked contrast to the cost of other energy resources:
 - 3.0 cents/kWh
 - 31.5 cents/therm
- These energy efficiency costs underscore the importance of continual and aggressive acquisition of cost effective efficiency opportunities. Utility customers will benefit as energy efficiency provides great value. These benefits should be obtained when available since the risk of not acquiring these savings due to the likelihood of higher future costs is unacceptable.
- The ETO budget merits solid support since it has proven itself as a national leader having achieved over the last 14 years:
 - \$5.6 billion in savings on participant utility bills due to energy-efficiency and solar investments.
 - 17.4 million tons of carbon dioxide emissions were kept out of the air.

Thanks for the outreach and education efforts on your proposal and providing this opportunity for input on the ETO 2017 budget.

From: Meghan Harwood <meghan@natelenergy.com>

Sent: Tuesday, November 8, 2016 3:18 PM

To: Energy Trust of Oregon Info

Subject: Comments, Natel Energy: Energy Trust of Oregon's draft 2017 budget and 2017-2018 action plan

Dear Energy Trust of Oregon,

On behalf of Natel Energy, I would like to provide comments related to the ETO's draft 2017 budget and 2017-2018 action plan. As a distributed, low-impact and low-head hydropower company with a portfolio of irrigation hydropower projects in Central Oregon that we have worked directly with the ETO on, we believe that there is substantial potential for the ETO to continue to play a leading role in driving essential water and energy innovation, investment, and progress over the next years. Our comments on the draft proposals are as follows:

Investment Coordination

- Natel feels strongly that coordinating investments oriented toward water, energy, and environmental outcomes is essential. Coordinating investments in both water infrastructure, such as wastewater treatment plant or irrigation maintenance, modernization, or upgrades, as well as renewable energy projects and environmental directives including ecosystem services or fish habitat restoration, improves overall project returns and value for water entities, state agencies, project developers and more. The ETO should seek out and invest in innovative projects that are able to deliver on multiple outcomes: water, energy, and environmental outcomes.

Customer Activity and Community Renewable Energy Incentives

- Incentives should be provided for renewable energy projects for customers that are not limited to solar projects, but that also include small hydropower and other renewable technologies. Distributed hydropower is an essential resource in the renewable energy portfolio mix, as it delivers reliable, flexible, and predictable renewable generation, essential for balancing a grid with increasing intermittent resource penetration. Customers pursuing low-impact and cost-effective hydropower solutions should receive incentives as well, and the same incentives as other technologies, including solar.

Project Development Assistance

- Natel would like to highlight our support for and the importance of project development assistance, vital in achieving the ETO's goals for delivering cost-effective renewable power. These very early first risk dollars are the hardest to raise, and assistance in this front can help unlock new potential and scaleable technology solutions.

Thank you in advance for the opportunity to provide feedback.

Best,
Meghan Harwood
Commercial Associate and Government Affairs
Natel Energy, Inc.
508-314-6400
www.natelenergy.com

Advocates for the West
 Affiliated Tribes of Northwest Indians
 AirWorks, Inc.
 Alaska Housing Finance Corporation
 Alliance to Save Energy
 Alternative Energy Resources Organization
 American Rivers
 A World Institute for a Sustainable Humanity
 Beneficial State Bank
 BlueGreen Alliance
 Bonneville Environmental Foundation
 Centerstone
 Citizens' Utility Board of Oregon
 City of Ashland
 City of Seattle Office of Sustainability & Environment
 Climate Solutions
 Community Action Center
 Community Action Partnership Assoc. of Idaho
 Community Action Partnership of Oregon
 David Suzuki Foundation
 Drive Oregon
 Earth and Spirit Council
 Earth Ministry
 Ecova
 eFormative Options
 Emerald People's Utility District
 EnergySavvy
 Energy Trust of Oregon
 Enhabit
 Environment Oregon
 Environment Washington
 HEAT Oregon
 Home Performance Guild of Oregon
 Home Performance Washington
 Housing and Comm. Services Agency of Lane Co.
 Human Resources Council, District XI
 Idaho Clean Energy Association
 Idaho Conservation League
 Idaho Rivers United
 Interfaith Network for Earth Concerns
 League of Women Voters Idaho
 League of Women Voters Oregon
 League of Women Voters Washington
 Montana Audubon
 Montana Environmental Information Center
 Montana Renewable Energy Association
 Montana River Action
 National Center for Appropriate Technology
 Natural Resources Defense Council
 New Buildings Institute
 Northern Plains Resource Council
 Northwest Energy Efficiency Council
 NW Natural
 NW SEED
 OneEnergy Renewables
 Opower
 Opportunities Industrialization Center of WA
 Opportunity Council
 Oregon Environmental Council
 Oregon Solar Energy Industries Association
 Oregonians for Renewable Energy Progress
 Pacific Energy Innovation Association
 Pacific NW Regional Council of Carpenters
 Physicians for Social Responsibility Oregon Chapter
 Physicians for Social Responsibility Washington Chapter
 Portland General Electric
 Puget Sound Advocates for Retired Action
 Puget Sound Cooperative Credit Union
 Puget Sound Energy
 Renewable Northwest Project
 Save Our Wild Salmon
 Sea Breeze Power Corp.
 Seattle City Light
 Seinerger
 Sierra Club
 Sierra Club, Idaho Chapter
 Sierra Club, Montana Chapter
 Sierra Club, Washington Chapter
 Smart Grid Northwest
 Snake River Alliance
 Solar Installers of Washington
 Solar Oregon
 Solar Washington
 South Central Community Action Partnership
 Southeast Idaho Community Action Agency
 Spokane Neighborhood Action Partners
 Sustainable Connections
 The Climate Trust
 The Energy Project
 Union Of Concerned Scientists
 United Steelworkers of America, District 12
 US Green Building Council, Idaho Chapter
 Washington Environmental Council
 Washington Local Energy Alliance
 Washington State Department of Commerce
 Washington State University Energy Program
 YMCA Earth Service Corps



November 8, 2016

Michael Colgrove
 Energy Trust of Oregon
 VIA EMAIL: info@energytrust.org

RE: 2017 Budget

Dear Mr. Colgrove:

The NW Energy Coalition (Coalition) appreciates the opportunity to provide comments on the Energy Trust of Oregon's (ETO) draft 2017 budget. The Coalition has a long history of participation on the ETO Conservation Advisory Committee; I myself have served on this committee since 2011. The Coalition strongly supports the work of the Energy Trust of Oregon. Aggressive pursuit of cost-effective energy efficiency under the ETO has already saved Oregon utility customers over 2.2 billion dollars, not to mention the tremendous GHG emission reductions attributable to your work and numerous other benefits.

The Coalition is writing in support the draft 2017 budget and the overall commitment to acquiring all cost-effective conservation. The \$201.2 budget represents an increase from past years due to increasing amounts of energy efficiency availability and adding a new gas utility (Avista). As reflected in the draft budget materials, ETO projects that these investments will save customers \$707 million dollars on their future bills. At the same time that ETO is adding a new utility and taking on increased project load, the organization is keeping staffing and internal (administrative and project support) costs well below the threshold required by the Oregon Public Utility Commission. Additionally, this energy efficiency is coming at a very low cost, \$.03 for electric savings, while gas energy efficiency prices are projected to drop 7% from last year to \$.315 per therm in 2017.

Overall spending in 2017 will rise 6.4% due to the increase in available cost effective energy efficiency. This increase in available energy efficiency is great news, particularly because some of the electric savings increase is in Portland General Electric Service territory. PGE is currently facing a large, looming resource need as it retires the Boardman Coal Plant. Every kWh of energy efficiency savings is energy that PGE will not need to procure new resources to provide. Compared to the cost of procuring other resources, \$.03 energy efficiency is a bargain that will save bill payers money. Of course, the additional savings in other utility service territories is also important as it will reduce system costs and customer bills.

Much of the increase in savings is coming from new construction and these “lost opportunity” savings are much less likely to be captured if not done so as the new infrastructure is constructed. Additionally, the savings are considerably more expensive if captured later, so it is especially important to aggressively pursue cost effective conservation in this sector. It is also encouraging to see industrial customers are benefitting from an increase in projects in 2017.

Renewable energy funding is down from last year, but these projects are inherently lumpy, so it is understandable that the timing is off in 2017. Energy Trust should be sure to communicate this effectively so that parties are prepared for possible future budget increases in this area as project availability increases.

The amount of revenue collected from utilities will increase this year by 25.8%, not only due to the 6.4% increase in energy efficiency availability, but also primarily because ETO has been spending down reserves the last couple of years and keeping the amount collected lower than actual spending on energy efficiency. Reserves are now spent down to the targeted level, resulting in an increase in the amount collected from utilities. I am aware of this dynamic due to my participation in the Conservation Advisory Committee, but did not see anything explaining this in the budget overview materials. This is surprising, as it is an important driver of the revenue increase.

We want to emphasize that overall, all of the factors leading to this increase are a good thing: prior year financial savings built up reserves that led to lower amounts collected from customers for several years, and enough energy efficiency in the pipeline to increase spending slightly in 2017.

The Coalition recommends the following actions to ensure that the revenue increase is clearly understood and appropriately managed throughout the budget process.

- 1) **Improve budget material representation of revenue increase:** The Coalition recommends that the ETO give more thought to how the factors that influence the overall budget are reflected and explained. In particular, it might be helpful to better illustrate the draw-down of reserves from the last couple of years, what impact that has had on keeping revenues collected from utilities down and thus, how this has contributed to the 2017 increase in revenues needed.
- 2) **Maintain current proposed level and pace of acquisition:** Energy efficiency is extremely valuable to Oregon customers. It is also a resource that needs to be acquired on a continuous basis, as opportunities arise. We recommend that ETO NOT delay or reduce energy efficiency acquisition in 2017. A delay of energy efficiency reduces overall savings in the long run and also runs the risk of those savings not being available when you return to acquire them, particularly, in this case, due to the significant amount of savings identified from new construction.

The 2017 draft budget represents a tremendous amount of work by the ETO staff. Included in the budget documents is an enormous amount of detailed information about Energy Trust programs and expected expenditures. Thank you for your dedication to providing detailed information for stakeholder review and comment.

Please do not hesitate to contact me to discuss any of the recommendations contained in this letter, or about other matters pertaining to the 2017 budget.

Sincerely,



Wendy Gerlitz
Policy Director
NW Energy Coalition
Portland, Oregon
wendy@nwenergy.org
503-449-0009



November 9, 2016

Mr. Michael Colgrove
Energy Trust of Oregon
Sent via email

Dear Mr. Colgrove,

The Northwest Energy Efficiency Council (NEEC) is a non-profit industry association representing companies that provide energy efficient products and services in Oregon. Many of our members have been long-time partners of the Energy Trust helping to achieve the common mission of reducing energy costs of Oregon homes and businesses through energy efficiency. We are writing in support of the Trust's 2017 draft budget.

NEEC recognizes that the draft budget represents an increase in energy efficiency spending from the previous year and that this increase reflects the good news that even more cost effective efficiency resources are available in Trust service territory. Of course, the budget also reflects that this service footprint is expanding by offering services in Avista natural gas areas.

Energy efficiency has been and will continue to be the lowest cost and most reliable energy resource for the citizens of Oregon. It makes economic sense to pursue and acquire that resource as it is identified and for the budget to expand along with that effort. NEEC sees that the increased budget is dedicated in majority part to achieving the resource and without significant increases in staffing and administrative costs. As such, the clear beneficiaries of this achievement will be Oregonians and the utility systems that serve them.

While we recognize that the Trust funds originate through utility rate collections, it is vitally important that all stakeholders understand that these funds will be used to acquire energy resources that are low cost, environmentally prudent, and contributors to future utility system supply, for example, as PGE retires existing coal fired resources.

NEEC would suggest the Trust budget documents highlight these specific issues for stakeholders to better appreciate the value that accrues to Oregonians through these energy efficiency achievements.

A handwritten signature in black ink, appearing to read "Stan Price", with a stylized flourish at the end.

Stan Price, Executive Director



CABLE HUSTON^{LLP}

TOMMY A. BROOKS

tbrooks@cablehuston.com
www.cablehuston.com

November 9, 2016

VIA E-MAIL

Amber Cole
Director of Communications & Customer Service
Energy Trust of Oregon
421 SW Oak St., Suite 300
Portland, OR 97204
amber.cole@energytrust.org

RE: NWIGU's Comments on 2017 Annual Budget and 2017-2018 Action Plan

Dear Ms. Cole:

These comments are being submitted to the Energy Trust of Oregon ("ETO") on behalf of the Northwest Industrial Gas User ("NWIGU"). NWIGU appreciates the opportunity to review and provide comment on ETO's 2017 Annual Budget and 2017-2018 Action Plan ("Budget and Action Plan").

NWIGU members include a wide variety of large industrial and commercial gas users as well as smaller industrial gas customers. No other party actively advocates for NW Natural's large volume customers. NW Natural has approximately 600 industrial firm sales customers in addition to industrial interruptible sales customers on its system. Through coordination with NWIGU, NW Natural voluntarily contracts with ETO to fund energy-efficiency programs through demand side management ("DSM") efforts. Those funds are recovered through DSM charges embedded in the service rates for industrial sales customers, which are updated each year as part of NW Natural's Purchased Gas Adjustment ("PGA") filings.

In its current form, NWIGU cannot support, and indeed has serious reservations about, ETO's Budget and Action Plan. NW Natural's 2016-17 PGA filing included adjustments to recover \$3.5 million in DSM charges from industrial sales customers. According to NW Natural, that amount equates to anywhere between 3.5% and 7.3% of those customers' total billing rate. Based on the information provided in ETO's Budget and Action Plan, NW Natural would need to recover \$4 million in its 2017-18 PGA filing, and \$6.5 million in its 2018-19 PGA filing. This equates to DSM rates comprising between 4.1% and 8.4% (2017) and 6.5% and 12.9% (2018) of the customers' total billing rate.

CABLE HUSTON

November 9, 2016

Page 2

The current rate level is at the ceiling of what industrial sales customers should be surcharged to fund DSM programs. Large rate increases necessitated by ETO's Budget and Action Plan are not reasonable and would cause severe rate shock. Further, such high increases are unreasonable for a voluntary program, especially when compared to the mandated programs for electric utilities that are capped at 3% of a customer's bill. At the proposed budget of \$6.5 million in 2018-19 industrial sales customers would be paying more for DSM programs than they pay to be moved the gas by the interstate pipeline from Canada or the Rockies to the gate station.

To be clear, NWIGU does not oppose funding cost effective demand side management programs in general or NW Natural's participation in DSM programs specifically. However, these programs must be implemented in a way that does not cause excessive charges for DSM being incurred by NW Natural's 600 industrial firm sales customers or its industrial interruptible sales customers. Those programs may just need to be phased in over a longer period of time. Natural gas prices matter for high volume users. A three to four percent ceiling on the rate surcharge is reasonable at this time, but higher rate impacts must be avoided.

We hope you will take these comments into consideration as you develop a final work plan and work with NW Natural when determining which programs will get implemented. NWIGU will continue to review ETO's efforts and track how the funding for these programs eventually gets recovered from NW Natural's customers.

Sincerely,



Tommy A. Brooks

From: Buzz Thielemann <buzz@oegreen.com>

Sent: Wednesday, November 2, 2016 10:59 AM

To: Energy Trust of Oregon Info

Cc: Tom McDowell; Scott Morris - Oregon Energy Green; 'OEG - Amber Peavyhouse'; Scott Scheuneman

Subject: Public comments

I am Buzz Thielemann and the President of Oregon Energy Green. I also was the past president of RHT Energy Solutions until it was sold to Scott Scheuneman in July of 2015. Being the first PDC hired for the Production Efficiency program was a thrill and I was very happy to add RHT delivery services to the Existing Building program as well as representing the New building program. I am very happy to be part of Energy Trust's success is shaping the energy future of Oregon.

I think the biggest challenge in the future for Energy Trust will be staying abreast of technological advancements. This is because SB 1149 only looked at saving kWhs and nothing beyond that. This was okay in 2001 because SB 1149 was a giant step in how we look at conservation as resource, but it unfortunately it overlooked a more sophisticated view of conservation and energy efficiency that is becoming more paramount with today's technology. Specifically, power factor, Var, pulse modulating controllers and harmonics. All of these electrical components put burdens on the generation of power and impact TRUE site-source conservation and efficiency.

The CFLs that Energy Trust offered to customers only had a 50% power factor. That really meant the 13 watt CFL really pulled the energy of a 26 watt incandescent lamp. And although there was true savings from the 60 watt incandescent it replaced, the savings of 47watts was really overstated and should have calculated at 34 watts. It is VA, not watts that goes back to the generator. However, The OPUC measures the performance of ET on aMWHs, and not VA hours, which is an error in today's world.

As our electrical development continues, we advance more products that offer more efficiency, comfort and control, but we need to look beyond the kWh to evaluate true efficiency.

Attached you will find data logging that was taken from a typical marijuana indoor grow operation that used LED lights run by a pulse modulating controller. Please notice that at one time the power factor was ZERO! This means 100% of the kWh power was not being recorded by the standard electric meter. To award this customer an incentive for going from HID lighting to LED and ignoring the horrible PF and harmonics of this load is truly misrepresenting conservation and efficiency and promoting a terrible load for the utilities.

My suggestions for the Draft plan is to expand the role and goal of Energy Trust to include more modern day challenges that impact true Site-Source conservation and efficiency and include PF, Var, harmonics and resiliency.

Buzz

President

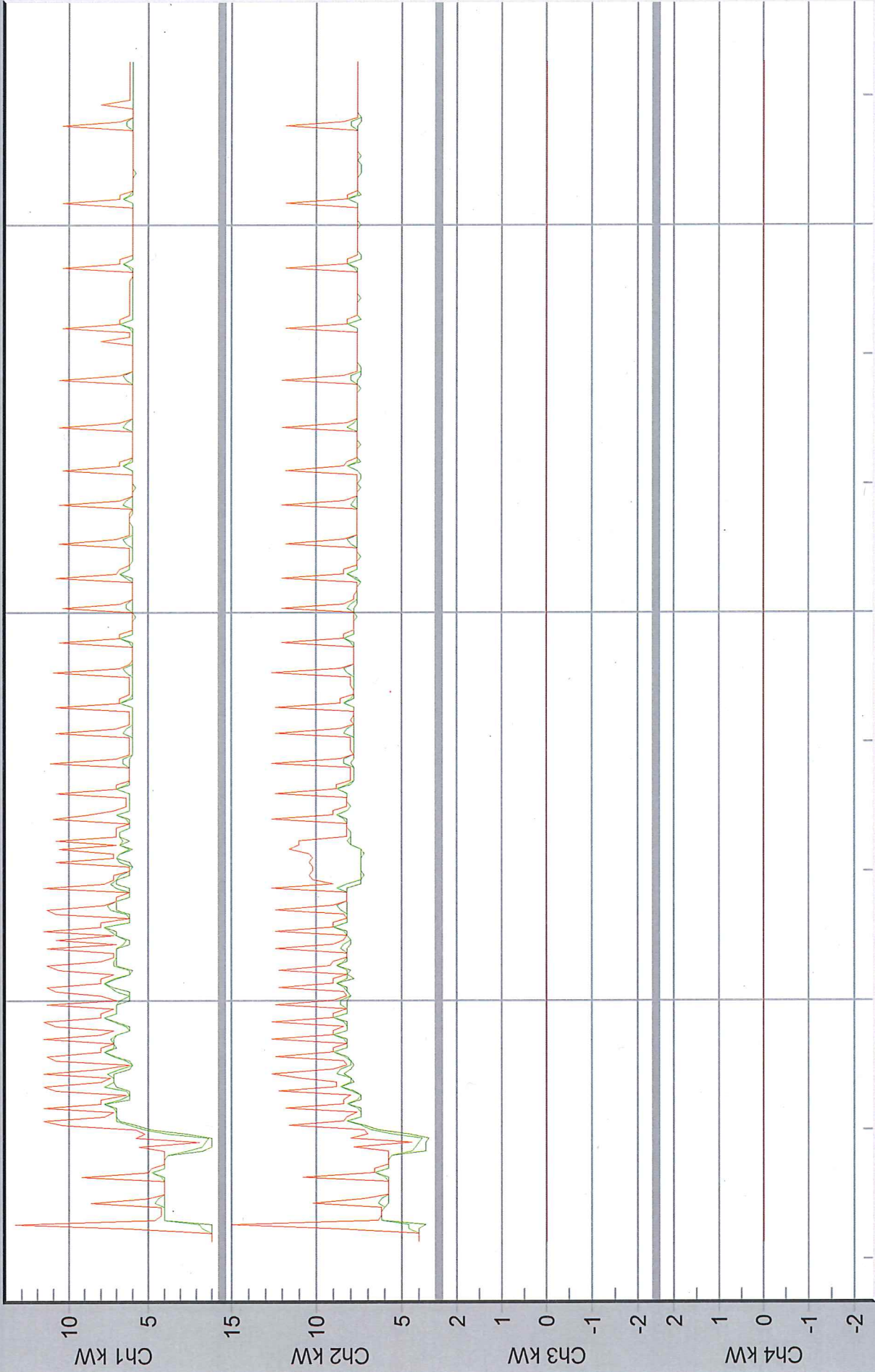
Oregon Energy Green
1215 Stowe Ave, Suite B
Medford, OR 97501
541.200.2000

Real Power

Min

Ave

Max



Jul 25 Sat 2015

9PM

26 Sun

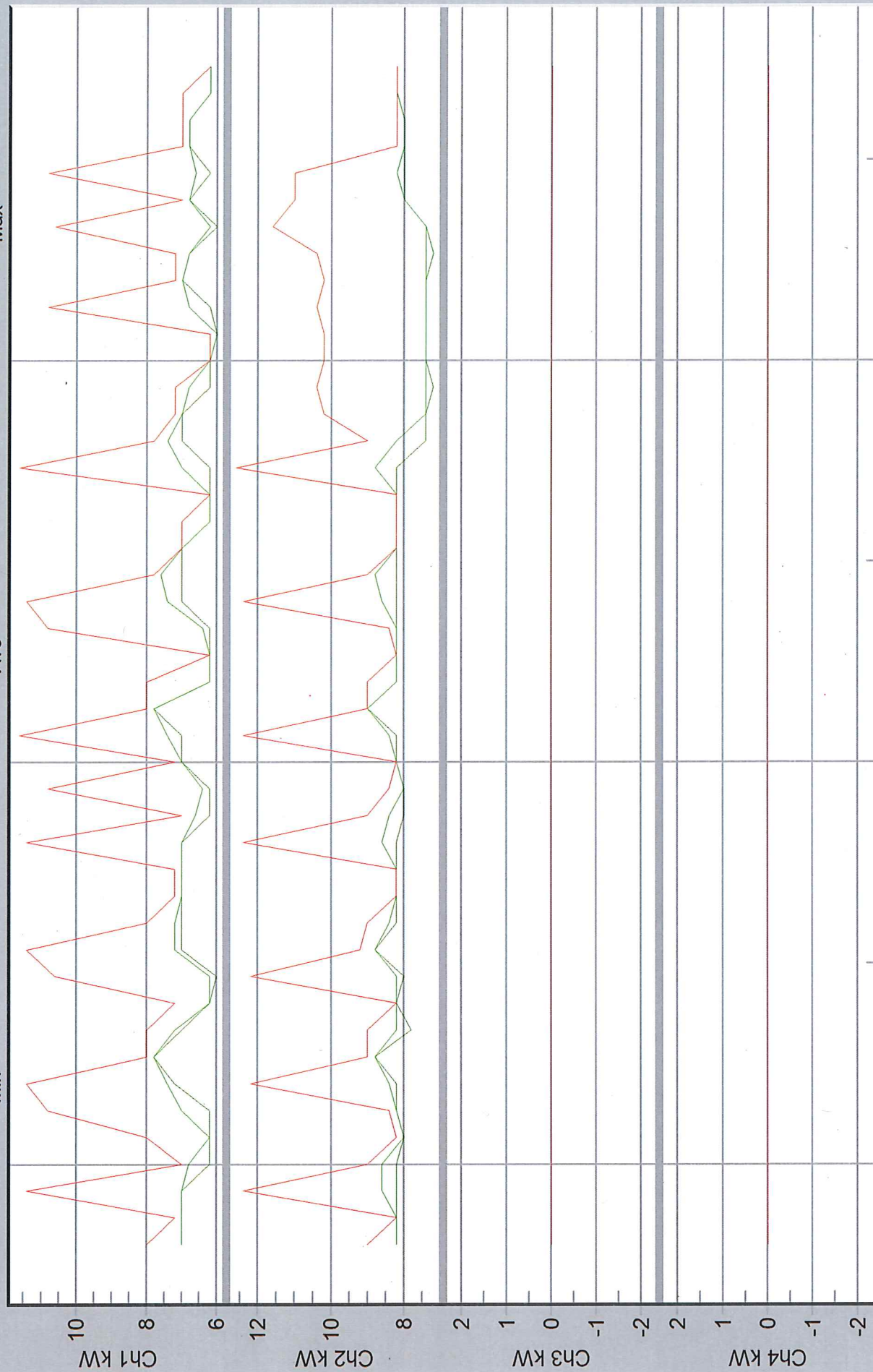
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Real Power

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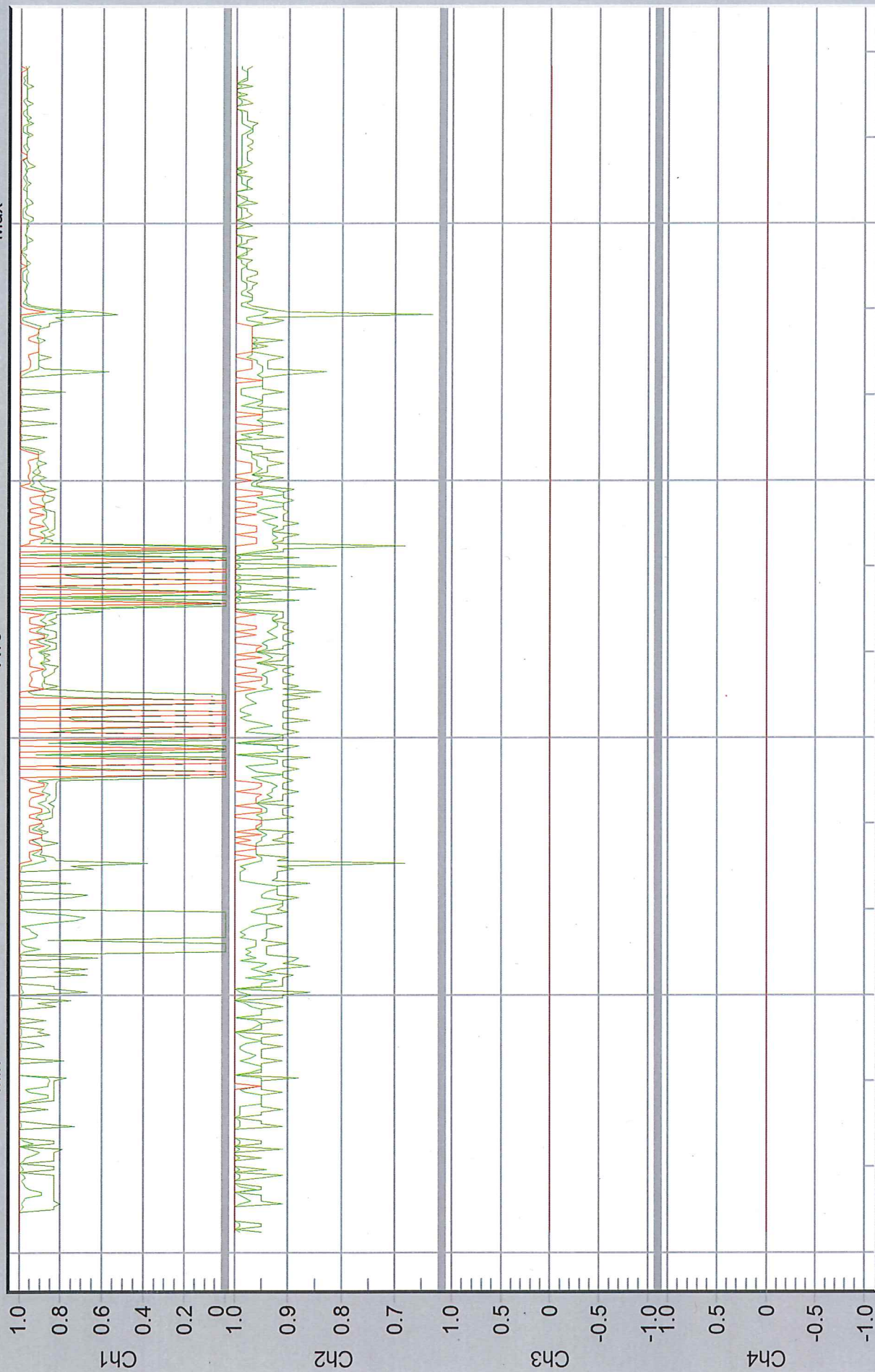
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Jul 25 Sat 2015

Power Factor



9AM
Jul 25 Sat 2015

12PM

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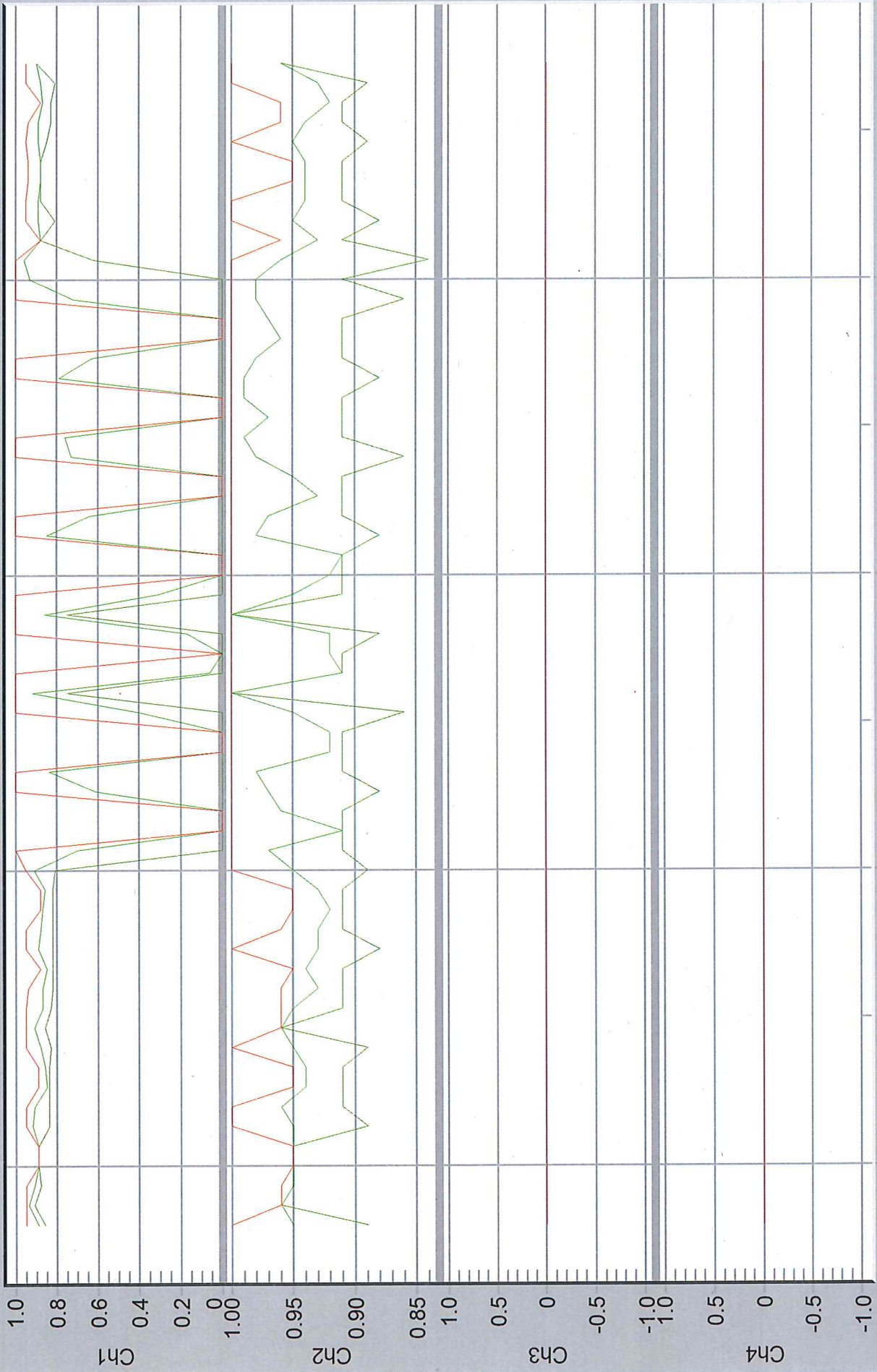
9PM

Power Factor

Min

Ave

Max



14:00

14:30

15:00

15:30

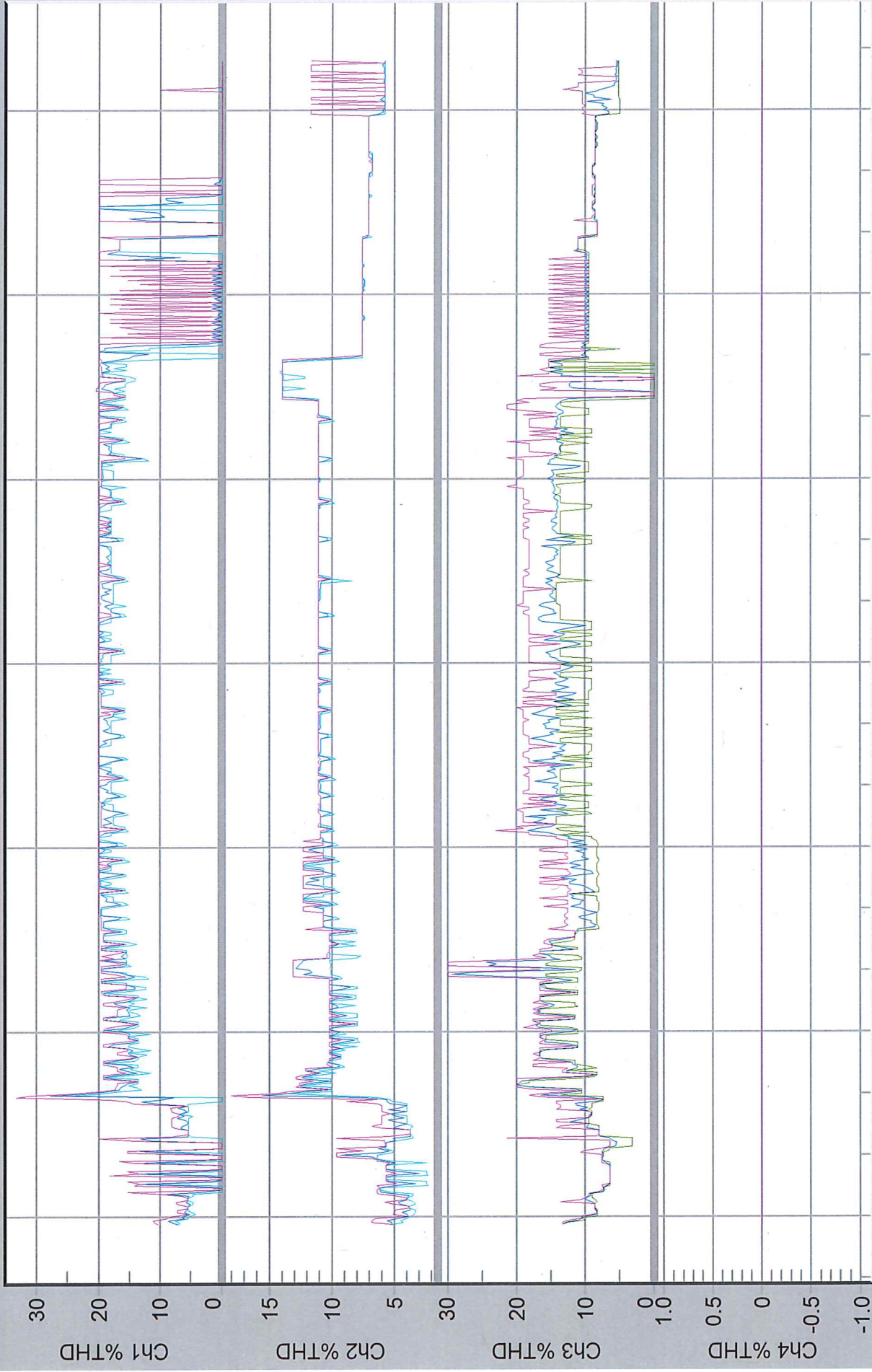
Jul 25 Sat 2015

Current THD

Min

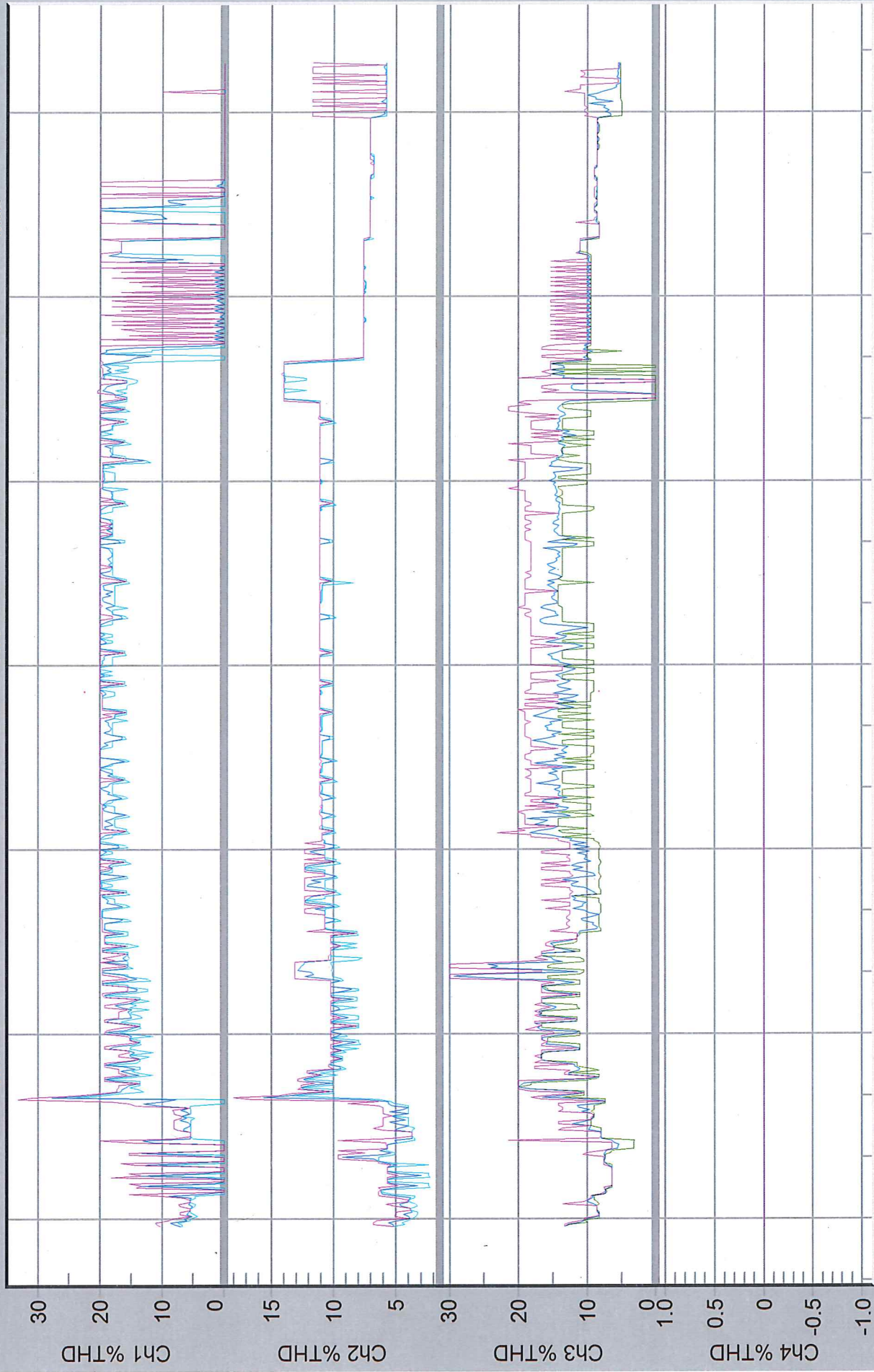
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6PM
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Current THD



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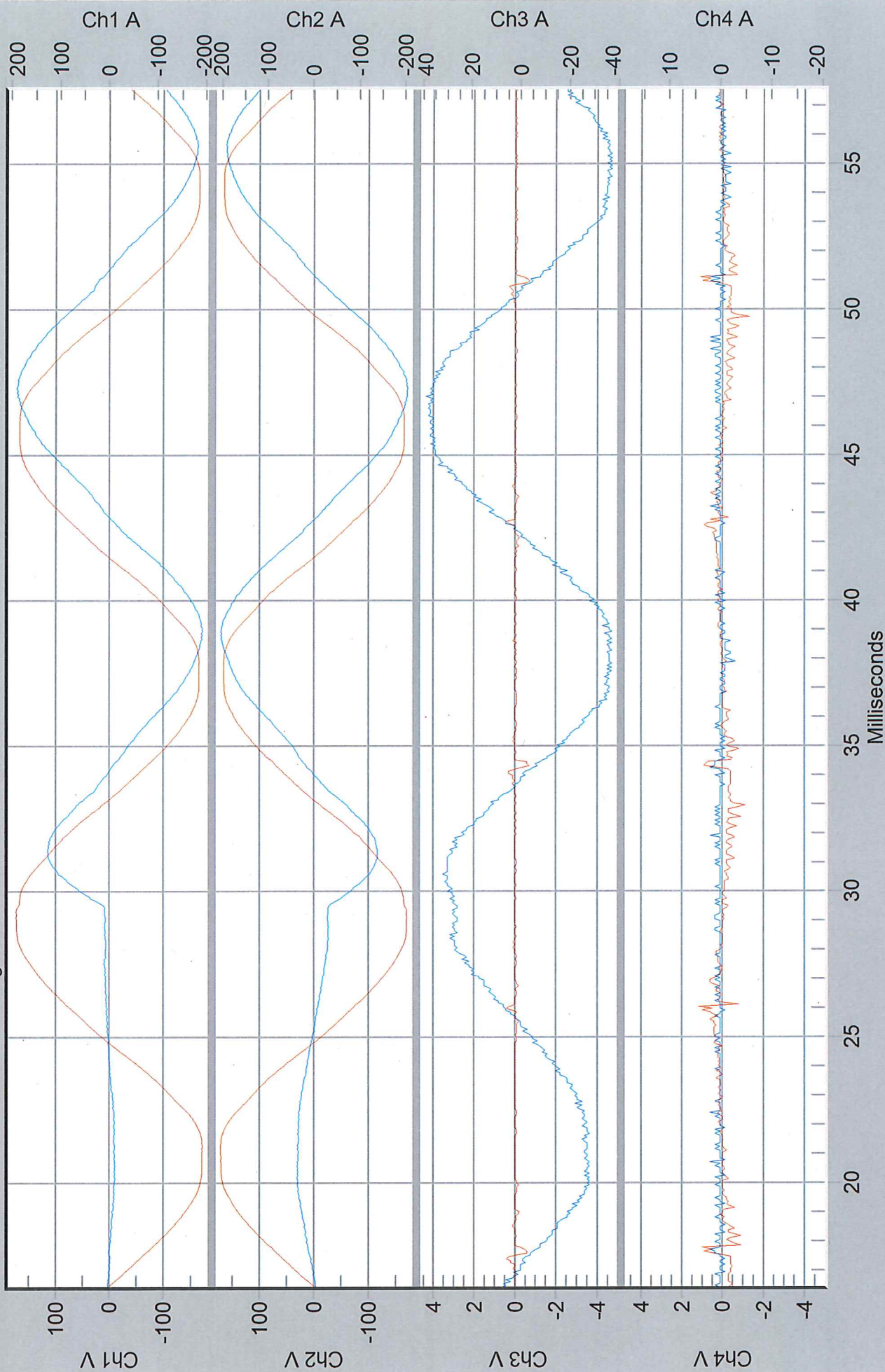
Jul 25 Sat 2015

Voltage and Current Waveform Capture

Waveform Capture #10, Jul 25 2015, 17:13:45, Cycle 29

Voltage

Current

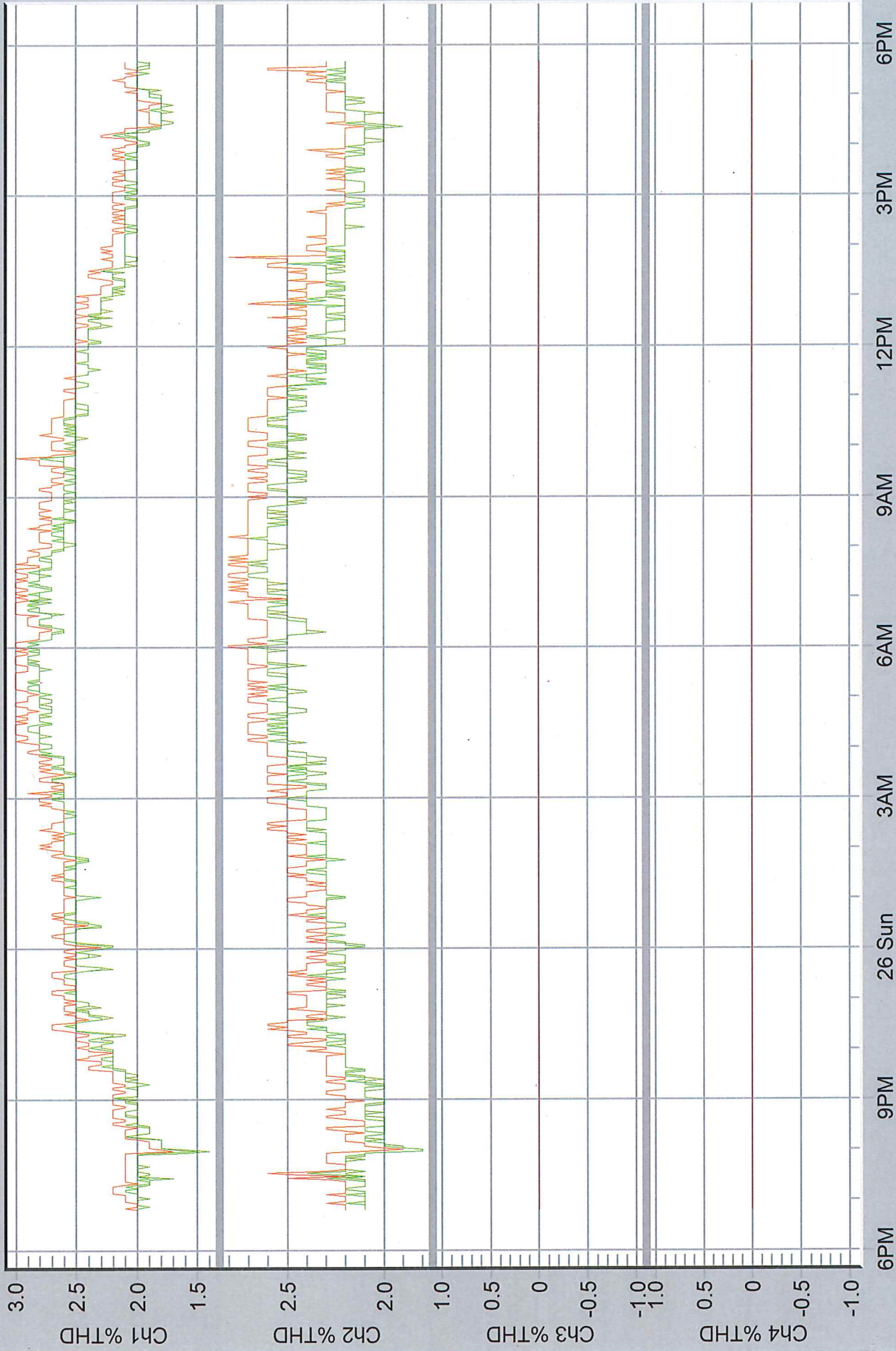


Voltage THD

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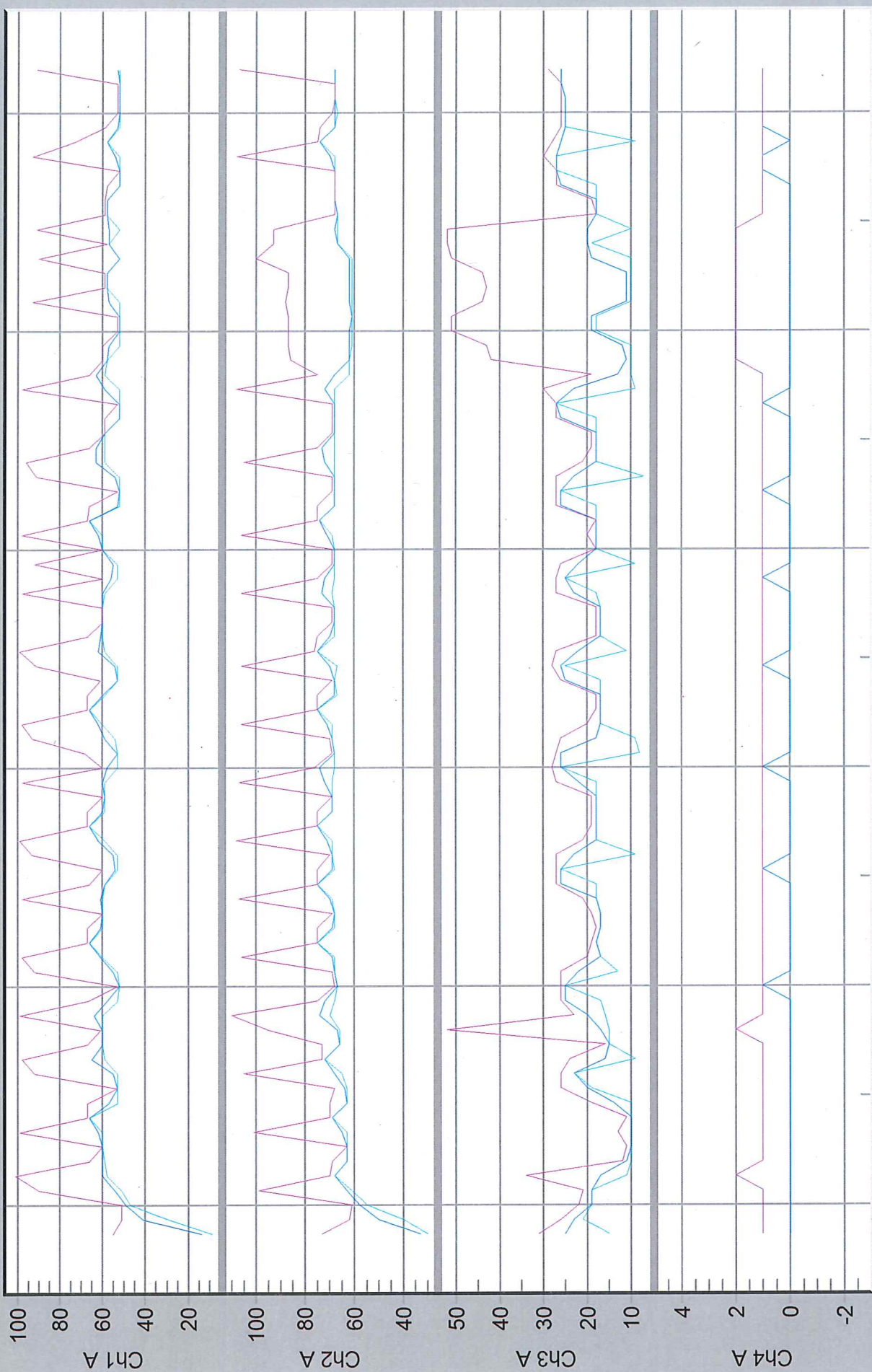
Jul 25 Sat 2015

RMS Current

Min

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Max



20:00 20:30 21:00 21:30 22:00 22:30

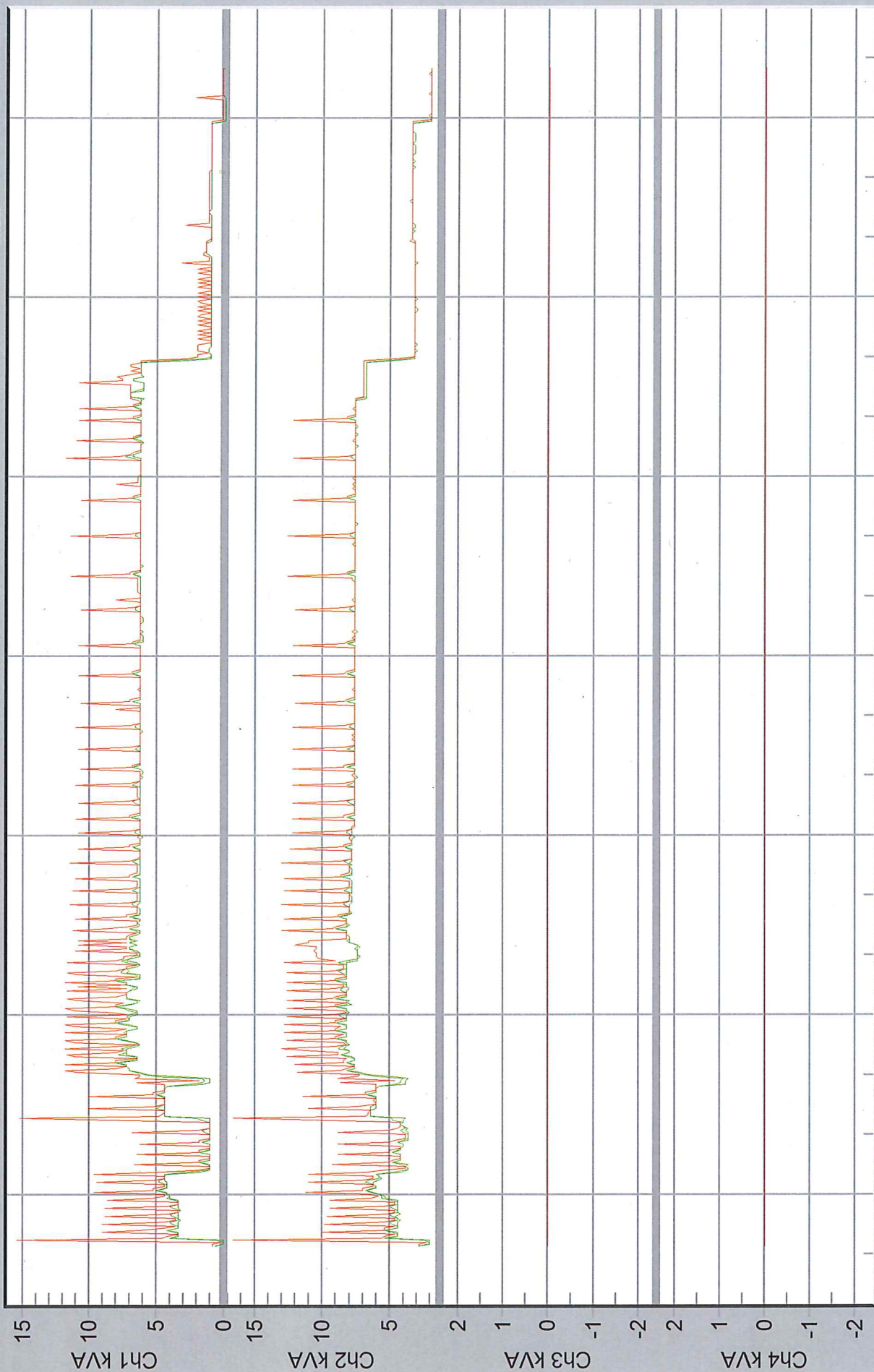
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Apparent Power

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12PM

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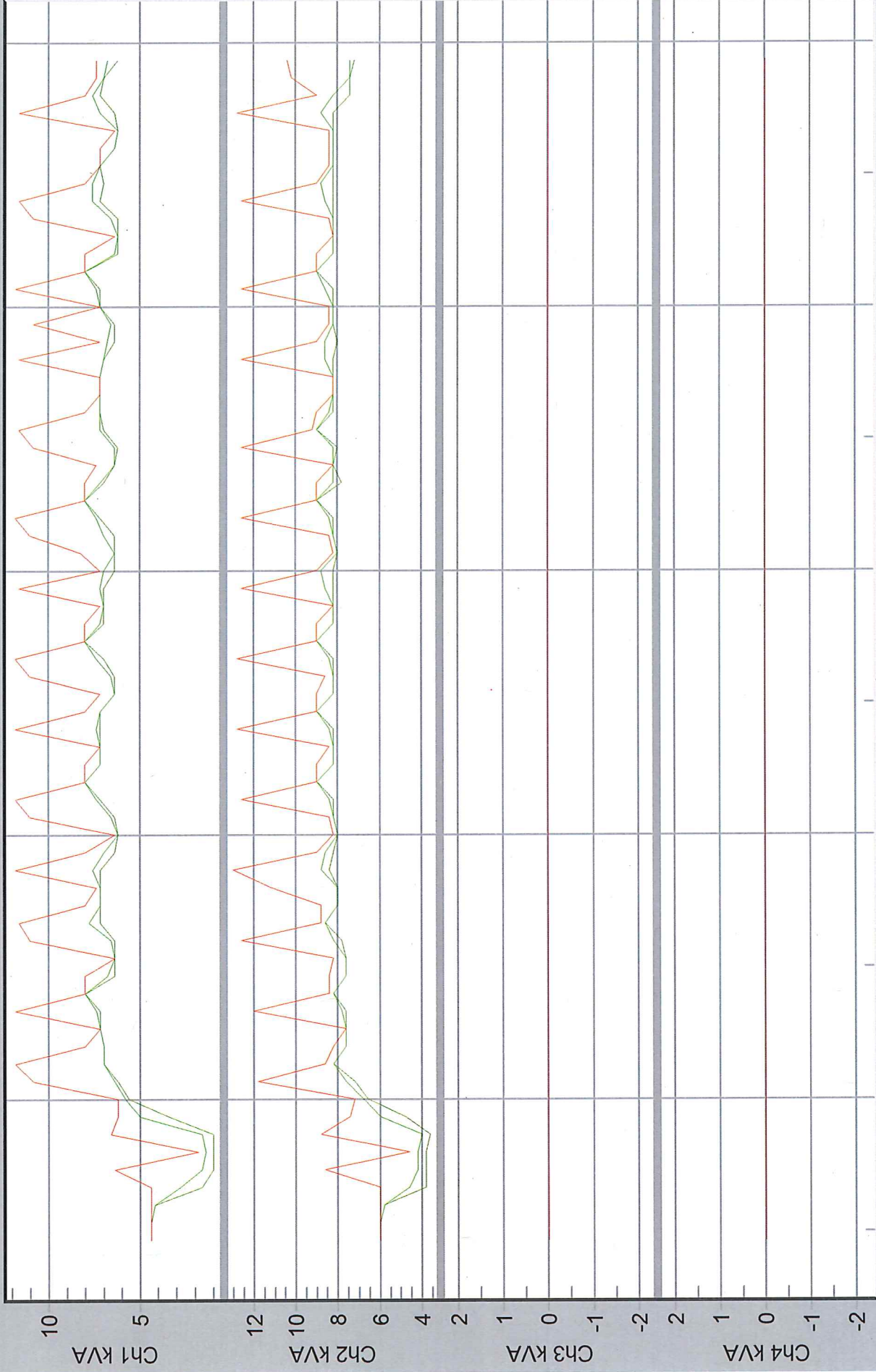
Jul 25 Sat 2015

Apparent Power

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Jul 25 Sat 2015

20:00

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TAB Planning Memos

MEMO

Date: December 6, 2016
To: Board of Directors
From: Mike Colgrove, Executive Director
Subject: Measure Exceptions as of November 30, 2016

In the Oregon Public Utility Commission's comments on the Energy Trust Final Proposed 2016-17 Budget and Action Plan, dated November 17, 2015, the Commission requested that Energy Trust summarize energy-efficiency measure exceptions incorporated into the 2017-2018 Draft Budget and Action Plan, and include this information in future draft budget and action plan materials so it is readily available to OPUC staff and stakeholders. In response to this request, Energy Trust has compiled the information below pertaining to measure exceptions, including a list of all current measure exceptions.

Background

Commission Order No. 94-590 in Docket UM 551 specifies that the total resource cost test (TRC) must be used to determine if energy-efficiency measures and programs are cost-effective. The same order allows for measures that are not cost-effective to be included in utility programs if it is demonstrated that:

- A. The measure produces significant non-quantifiable non-energy benefits. In this case, the incentive payment should be set at no greater than the cost-effective limit (defined as present value of avoided costs plus 10%) less the perceived value of bill savings, e.g., two years of bill savings
- B. Inclusion of the measure will increase market acceptance and is expected to lead to reduced cost of the measure
- C. The measure is included for consistency with other demand-side management programs in the region
- D. Inclusion of the measure helps to increase participation in a cost-effective program
- E. The package of measures cannot be changed frequently and the measure will be cost-effective during the period the program is offered
- F. The measure or package of measures is included in a pilot or research project intended to be offered to a limited number of customers
- G. The measure is required by law or is consistent with Commission policy and/or direction

Summary of Current Exceptions

- The OPUC has granted exceptions on 52 measures that are currently being offered in 10 programs including:
 - 1. Existing Buildings
 - 2. Multifamily
 - 3. New Buildings

4. Existing Single Family Homes
 5. New Buildings
 6. Production Efficiency
 7. Existing Manufactured Homes
 8. Irrigation
 9. New Homes
 10. Residential Products
- The following tables represent the portion of total Energy Trust savings from measures with exceptions for 2015 and 2016 (year to date through October 21, 2016):

2015 Measures	kWh	kWh % of total	Therms	Therms % of total
Measures with exceptions that are not currently cost-effective	7,505,913	1.50%	104,260	1.63%
Measures with exceptions that are currently cost-effective	669,783	0.13%	666	0.01%
Packages that contain measures with exceptions	1,314,351	0.26%	21,062	0.33%
Savings from measures that do not have exceptions	489,656,934	98.10%	6,276,451	98.03%
Grand Total	499,146,981	100.00%	6,402,438	100.00%

2016 (year to date through 10/21/16)	kWh	kWh % of total	Therms	Therms % of total
Measures with exceptions that are not currently cost-effective	9,329,614	3.09%	53,367	1.52%
Measures with exceptions that are currently cost-effective	328,489	0.11%	12	0.00%
Packages that contain measures with exceptions	1,030,925	0.34%	14,941	0.43%
Savings from measures that do not have exceptions	291,725,514	96.47%	3,431,591	98.05%
Grand Total	302,414,542	100.00%	3,499,911	100.00%

- Of the 52 measures that are on record with an exception from the OPUC:
 - 43 of these measures are currently being offered by programs.
 - 39 of these measures are not cost-effective based on the most recently updated cost-effectiveness calculations applied for that measure.
 - 11 of these measures are cost-effective and are being offered by the programs.
 - 19 of these measures are considered "minor measures". A "minor measure" is one where the total dollars and savings associated with the measure are less than 5 percent of total annual program activity or the total resource cost (TRC) for the measure is greater than 0.8, regardless of the total dollars and savings associated with the measure on an annual basis. As such, these measures do not require Commission approval and are typically approved via email from OPUC staff.

- Only two of these measure exceptions have expiration dates. Other measures will be reviewed for cost-effectiveness as they are updated, and as market conditions and other variables affecting baselines change. Energy Trust may request further exceptions from the OPUC for these measures if they seem warranted:
 - Gas storage water heaters with energy factors of 0.67 and 0.70: Current exception will expire at the end of 2016. This measure is being offered by the Multifamily program.
 - Window installations in Multifamily buildings with electric heat: Current exception will expire at the end of 2017.
- Measure exceptions were approved by the OPUC according to the criteria outlined in the “Background” section above. The following table identifies how many measures qualified for each criteria listed above

Criteria for Exception	Number of Instances (some measure exceptions meet multiple criteria)
A	13
B	11
C	18
D	22
E	7
F	5
G	0

- A complete list of all measures that currently have exceptions from the OPUC follows:

**Energy Trust program measures with current exceptions from the OPUC
October 21, 2016**

Program(s)	Measure	Exception Criteria	Date Granted	Expiration Date	Minor Measure?	Currently Cost-effective?	Current Measure?	Additional Comments
Existing Buildings Multifamily	DHP in Existing Multifamily (Portland) 3/4 ton	d	10/19/16	09/30/17	Yes	No	Yes	Expiration date may be revised upon update of the measure
Existing Buildings Multifamily (≤ 4 units or side-by-side)	Ceiling Insulation (Gas)	a	09/08/16	N/A	Yes	Yes	Yes	
Existing Buildings Multifamily (≤ 4 units or side-by-side)	Floor Insulation Incentive Cap (Gas)	a	09/08/16	N/A	Yes	No	Yes	
Existing Buildings Multifamily (≤ 4 units or side-by-side)	Wall Insulation Incentive Cap (Gas)	a	09/08/16	N/A	Yes	No	Yes	
New Homes	Path 4 (EPS) Advanced Whole Home Subtype Weighted	b, c, d	08/18/16	N/A	Yes	No	Yes	
Existing Buildings Multifamily (> 4 units)	Windows (Electric)	a	04/29/16	12/31/17	Yes	No	Yes	
New Buildings	Market Solutions - Retail Building Type Good-to-Better	d	11/02/15	N/A	Yes	No	Yes	
New Buildings	Market Solutions - Schools Lighting Reduction	d, e	11/02/15	N/A	Yes	No	Yes	
Existing Buildings, New Buildings	Oversized Air Cooled Condenser w/VFD compared to VFD on standard (CZ2) per ton	d	10/28/15	N/A	Yes	No	Yes	
Existing Buildings Multifamily, Residential	Gas Storage Water Heaters: 0.67, 0.70	b	09/02/15	12/31/16	Yes	No	Yes	
Existing Single Family	Ductless Heat Pumps	b, c	09/02/15	N/A	Yes	No	Yes	Measure is in the process of

**Energy Trust program measures with current exceptions from the OPUC
October 21, 2016**

Program(s)	Measure	Exception Criteria	Date Granted	Expiration Date	Minor Measure?	Currently Cost-effective?	Current Measure?	Additional Comments
								being revised
New Homes, Products	Clothes Washers (Gas only)	c	09/02/15	N/A	Yes	No	Yes	
Existing Buildings Multifamily (≤ 4 units), Existing Single Family	Ceiling Insulation Incentive Cap (Gas)	a	04/30/15	N/A	No	No	Yes	
Existing Buildings Multifamily (≤ 4 units), Existing Single Family	Floor Insulation Incentive Cap (Gas)	a	04/30/15	N/A	No	No	Yes	
Existing Buildings Multifamily (≤ 4 units), Existing Single Family	Wall (Including Knee Wall) Insulation Incentive Cap (Gas)	a	04/30/15	N/A	No	No	Yes	
Existing Buildings, New Buildings	LED Refrigeration Case Lighting (T12 to LED low power)	d	03/12/15	N/A	Yes	Yes	Yes	Measure will be cancelled March 2017
Existing Buildings Multifamily	Ceiling Insulation (Electric)	a, c	01/29/15	N/A	No	Yes	Yes	
Existing Buildings Multifamily	Floor Insulation (Electric)	a	01/29/15	N/A	No	Yes	Yes	
New Buildings Multifamily	Pilot - Gas Condo Pack	f	01/29/15	N/A	Yes	No	No	Not currently offered, but available if there is market interest
Existing Buildings, New Buildings, Production Efficiency	Zero Loss Drains	c	01/15/15	N/A	Yes	No	Yes	
Existing Buildings, New Buildings, Production Efficiency	Receiver Capacity Addition (Retrofit)	c	01/15/15	N/A	Yes	Yes	Yes	
Existing Buildings	2 lamp 4 foot T8 to 25W LED	e	11/10/14	N/A	Yes	Yes	Yes	

**Energy Trust program measures with current exceptions from the OPUC
October 21, 2016**

Program(s)	Measure	Exception Criteria	Date Granted	Expiration Date	Minor Measure?	Currently Cost-effective?	Current Measure?	Additional Comments
Existing Single Family	Pilot - Air Sealing as Added Requirement for Ceiling Insulation	f	10/01/14	N/A	No	No	No	
Existing Manufactured Homes	Manufactured Home Duct and Air Sealing (Gas)	c	10/01/14	N/A	No	No	Yes	
Existing Buildings, Existing Single Family, New Homes, Products	Spa Covers (Gas)	c	10/01/14	N/A	No	Yes	Yes	
New Homes	New Homes Builder Option Package with 0.67 Water Heater	b, c	10/01/14	N/A	No	N/A	No	Measure redesigned to EPS in 2017
Existing Buildings Multifamily	Ceiling Insulation (Gas)	a	10/01/14	N/A	No	No	Yes	
New Buildings	New Commercial Buildings Condensing Tank Water Heater - Schools	b	10/01/14	N/A	No	No	Yes	
Existing Buildings Multifamily, New Buildings Multifamily	Market Solutions - Good-to-Better and Better-to-Best (Gas)	a, b, d, e	10/01/14	N/A	No	Yes	Yes	
New Buildings	Market Solutions - Tankless Water Heat in Offices	a, b, d, e	10/01/14	N/A	No	No	Yes	
Existing Buildings Multifamily (≤ 4 units), Existing Single Family	Pilot - Condensing Gas Furnace (Rental)	f	08/20/14	N/A	Yes	No	Yes	
Existing Buildings Multifamily, Existing Single Family	Duct Insulation (Electric)	a, d	07/22/14	N/A	No	Yes	Yes	Measure is only offered by Multifamily currently

**Energy Trust program measures with current exceptions from the OPUC
October 21, 2016**

Program(s)	Measure	Exception Criteria	Date Granted	Expiration Date	Minor Measure?	Currently Cost-effective?	Current Measure?	Additional Comments
New Homes	Zonal Electric Advanced Electric Resistance Home	c, d	07/22/14	N/A	No	No	Yes	Measure redesigned to EPS
Existing Buildings, New Buildings	LED A-Lamp (omnidirectional 310 to 749 lm)	b	07/22/14	N/A	No	Yes	Yes	
Existing Buildings, New Buildings	Ozone Laundry - Motel	d	07/22/14	N/A	No	No	No	
New Buildings, New Buildings Multifamily	HVAC - AAHP 5 ton	d	07/22/14	N/A	No	No	No	Measure cancelled in 2016 midyear
New Buildings, New Buildings Multifamily	HVAC - GSHP 2 ton	d	07/22/14	N/A	No	No	Yes	
New Buildings, New Buildings Multifamily	HVAC - WSHP 2 ton	d	07/22/14	N/A	No	No	Yes	
New Buildings, New Buildings Multifamily	HVAC - AC Unit 12.5 ton	d	07/22/14	N/A	No	No	No	Measure cancelled in 2016 midyear
New Buildings	Market Solutions - Radiant Heating and Cooling in Offices	a, b, e	07/22/14	N/A	No	No	Yes	
New Buildings	Market Solutions - Air Barriers in Offices	c, d, e	07/22/14	N/A	No	No	Yes	
New Buildings	Market Solutions - Fan Static Pressure in Offices and Retail	b, e	07/22/14	N/A	No	No	Yes	
New Buildings	Market Solutions - Phantom Plug Load in Offices	b, c	07/22/14	N/A	No	No	Yes	
Existing Single Family	Pilot - Nest Thermostat	f	07/22/14	N/A	No	Yes	No	Pilot revised into a cost-

**Energy Trust program measures with current exceptions from the OPUC
October 21, 2016**

Program(s)	Measure	Exception Criteria	Date Granted	Expiration Date	Minor Measure?	Currently Cost-effective?	Current Measure?	Additional Comments
								effective measure
Existing Buildings, New Buildings	Commercial Vent Hoods with VFD < 2HP (Electric)	d	07/22/14	N/A	No	No	Yes	
Irrigation	Irrigation - Drain Replacement	c, d	07/22/14	N/A	No	No	Yes	
Irrigation	Irrigation - Drop Tube or Hose Extension	c, d	07/22/14	N/A	No	No	Yes	
Irrigation	Irrigation - New or Rebuilt Brass Impact Sprinkler	c, d	07/22/14	N/A	No	No	Yes	
Irrigation	Irrigation - Rotating Sprinkler for low-pressure	c, d	07/22/14	N/A	No	No	Yes	
Existing Buildings, Production Efficiency	Various High Performance 4' T8 Lamps	c, d	07/22/14	N/A	No	N/A	No	
Existing Buildings, New Buildings	Street Lights for PacifiCorp - Schedule 51 70W HPS / 48W LED	c, d	05/02/14	N/A	Yes	No	Yes	
Existing Buildings	Pilot - Pay for Performance	f	02/18/14	N/A	No	No	No	This project was granted an exception and did not move forward to implementation

MEMO

Date: October 26, 2016
To: Board of Directors
From: Mike Colgrove, Executive Director
Subject: Planning Assumptions for 2017-2018 Draft Budget and Action Plan

In the Oregon Public Utility Commission's comments on the Energy Trust Proposed Final 2016-17 Budget and Action Plan, dated November 17, 2015, the commission requested that Energy Trust document major planning assumptions and changes, and include this information in future draft budget and action plan materials so it is readily available to OPUC staff and stakeholders.

In response to this request, Energy Trust has compiled the following list of major planning assumptions that shape the direction and content of Energy Trust's 2017-18 Draft Budget and Action Plan. Additionally, each of the individual program action plans contained in the 2017-2018 Draft Budget and Action Plan package contain a section highlighting "Key Assumptions, Risks and/or Challenges" specifically related to the program. We welcome your feedback on this information and how best to integrate it in future budget materials.

- Oregon has experienced robust economic growth for the last few years and it is assumed that the current favorable economic environment will continue, resulting in project activity in all sectors throughout 2017. The October 5th State of Oregon Economic Indicators report for August 2016, published by University of Oregon, notes that the economy remains strong, although it observes growth is starting to level out.
- Avoided Costs for energy efficiency in Oregon for 2017 will remain the same as Avoided Costs used for energy efficiency in Oregon for 2016. Energy Trust is aware that the Oregon PUC will run a docket on Avoided Costs in late 2016 that will continue into 2017. Outcomes from this docket will influence how Avoided Costs are formulated and updated for 2018.
- Avoided Costs for renewables decreased in Oregon for 2017 through updates to qualifying facilities (QF) rates in regulatory proceedings. The resulting lower price for purchased power from renewable energy projects increases the above-market costs for those projects, and therefore reduces the number of projects that can be funded within Energy Trust's budget for renewable generation. Further reductions in avoided-cost prices for renewable generation projects will make project economics even more challenging.
- Energy Trust assumes that all federal and state energy tax credit and incentive policies related to solar and other renewables projects will remain stable, either available as-is or expiring under current expected timelines. The planned expiration or reduction in some tax credits will raise above-market costs for affected renewable technologies.

- Energy Trust offers incentives for residential efficiency measures that are also eligible for the State of Oregon's residential energy tax credit (RETC). These measure include ductless heat pumps, heat pumps, gas furnaces in rentals and Savings Within Reach projects, heat pump water heaters, gas tank water heaters, gas water heaters, and solar. If changes to the current RETC occur, Energy Trust will likely experience impacts to savings and generation.
- Energy Trust anticipates continued engagement in all major efficiency market sectors, continuing all programs in 2016 with some measure adjustments as needed. A few notable measures are being discontinued for 2017, including appliance recycling and CFLs. Detailed program action plans included in Energy Trust's Draft 2017 Budget and 2017-2018 Action Plan note measures that are being discontinued.
- Baselines have been updated for measures due to changes in equipment efficiency standards, changes in market preferences, and new information from field tests. Measures with baseline changes include LED lighting, showerheads, and gas hearths.
 - Energy Trust will continue to track equipment standards and market trends, and these may result in additional adjustments for 2018-2019 budget cycle.
- Energy Efficiency program savings realization rates are down overall compared to 2016. This means that, on average, in 2017 Energy Trust will need to complete more projects to bring in the same amount of savings that the organization achieved in 2016.
- Successful market penetration and evolving market conditions are leading to an increased focus on mid-stream and up-stream approaches in residential and commercial sectors in 2017.
- Energy Trust expansion into Avista service territory will require additional resources across the organization. Pacific Power activity in areas that overlap with Avista territory may increase.
- Changing costs and current policy discussions related to solar electric installations may result in a need to transform Energy Trust solar offerings in 2018.
- The evolving landscape for demand response and electric vehicles may result in opportunities for Energy Trust to engage stakeholders in activities that have some linkage to energy efficiency and renewable generation objectives.

Memo



To: JP Batmale, Oregon Public Utility Commission
From: Spencer Moersfelder, Energy Trust of Oregon
Date: September 26, 2016
Re: **Summary of Energy Trust Demand Response Activity**

As part of the Oregon Public Utility Commission's comments on the Energy Trust 2016 Annual Budget, the commission requested the following information about Energy Trust's demand management activities be provided before receiving the draft 2017 Annual Budget:

Engage stakeholders in discussions to identify ways in which Energy Trust can provide further benefit to ratepayers by considering how modifications to energy use and distributed energy generation impacts local distribution system constraints and operations costs. A suggested approach is to break the conversations and resulting actions of this large, broad issue into three categories below. Report back to commissioners on progress prior to the next budget cycle.

1. Report the value of current program impacts more broadly, connecting to large grid efficiency contributions made.
 - Add expected winter and summer coincident peak capacity contribution estimates expected from energy goals for energy efficiency and renewable generation.
 - Work with utilities to identify where and how Energy Trust programs reduce demand on critical elements of the power delivery system.
2. Assess data and tools needed to link utility grid objectives to specific Energy Trust actions. These might include:
 - Actionable information about opportunities to avoid specific grid investments.
 - Tools for linking the areas where investments are needed to demographic and load data for program targeting.
 - Possible enhancements to cost-effectiveness analyses considering capacity and other values to the grid.
3. Identify 1-2 possible complementary pilots to achieve energy efficiency and equipment control to meet grid optimization objects, to be developed in coordination with utilities.

This memo provides a high-level summary of Energy Trust's demand management efforts in 2016.

1. Report the value of current program impacts more broadly, connecting to large grid efficiency contributions made.

Many energy-efficiency measures save energy during times of peak system demand and therefore reduce system demands. This value is captured in the electric avoided cost used in calculating measure and program Benefit Cost Ratios, and Energy Trust is taking several steps to improve the calculation of system demand reductions caused by energy-efficiency measures.

In 2016 (through September 8), Energy Trust electric efficiency programs have resulted in the following peak electric savings:

2016 Energy Trust Peak Electric Savings through September 8

Utility	Summer kW	Winter kW
Pacific Power	8,521	14,547
PGE	14,473	25,050
Total	22,994	39,596

Energy Trust calculated these savings by applying peak multipliers to load profiles associated with measures that are recorded in the Energy Trust Project Tracking database, using load shapes from the Northwest Power and Conservation Council Seventh Power Plan.¹

Demand reduction savings from the following activities are not included:

- Demand reduction impacts from renewable energy generation. Energy Trust needs to develop peak reduction factors for solar and other renewable applications.
- Demand savings from Northwest Energy Efficiency Alliance activities. Energy Trust has not yet disaggregated program savings into end uses to quantify demand savings.
- Demand savings from market transformation activities for New Homes and New Buildings programs. Energy Trust reports the results from these activities at year-end.

In addition, as Energy Trust builds deeper relationships regarding demand response in 2017, staff plan to work with utilities to identify where and how Energy Trust offerings could better reduce demand on critical elements of the power delivery system.

2. Assess data and tools needed to link utility grid objectives to specific Energy Trust actions.

Energy Trust has been engaged in preliminary conversations with Portland General Electric, Pacific Power and NW Natural regarding the value of implementing demand response programs to alleviate constrained portions of their distribution systems. The primary outcomes from these conversations are the pilots and activities outlined in Section 3 below.

In addition, Energy Trust has been approached by Kevala Analytics regarding a potential study in Energy Trust territory. Kevala Analytics is pursuing a U.S. Department of Energy grant to work on an analytical tool to establish

¹ Some known issues exist where load profiles currently in the Energy Trust Project Tracking database do not reflect the most accurate load profile. This is a function of the switch from the Sixth Power Plan to the Seventh Power Plan, which includes more detail on load profiles. The relative differences are likely to be minimal, and Energy Trust expects to update load profile names in the Project Tracking database in January 2017 and in time for Energy Trust's 2016 Annual Report to the OPUC.

the relative value of various Distributed Energy Resources, including renewable energy and energy efficiency projects in different areas of the distribution systems based on local grid constraints. Energy Trust has discussed this opportunity with the OPUC, PGE and Pacific Power. There is agreement that outcomes of a study focused in Energy Trust territory could be beneficial for expanding the collective knowledge base regarding Distributed Energy Resources in Oregon. As a result, if Kevala wins the grant award, Energy Trust will provide past renewable energy and energy efficiency project information for Kevala's work. All results will be shared with PGE and Pacific Power.

3. Identify 1-2 possible complementary pilots to achieve energy efficiency and equipment control to meet grid optimization objects, to be developed in coordination with utilities.

Energy-efficiency programs have the potential to help electric and gas utilities address demand-related challenges. Energy Trust may be able to provide further benefit to the utility system by increasing the saturation of efficient, demand response-capable equipment (such as internet connected thermostats and heat pump water heaters with built in Wi-Fi). Demand response programs can use this equipment as a resource in meeting peak demands. Doing so could take the form of providing additional incentives or services for demand response-capable equipment or providing incentives for such equipment that was not cost-effective based on energy savings alone. Energy Trust is exploring the following demand response opportunities in 2016:

Nest thermostat promotion with Portland General Electric

Energy Trust is working with PGE to support shared promotion of energy efficiency and demand response incentives for Nest thermostats. This included a coordinated promotion of a \$50 incentive bonus for customers purchasing Nest thermostats in July 2016, which resulted in a 470 percent increase in sales of Nest thermostats recognized by Energy Trust.

Pacific Power's demand response pilot

Staff are learning from Pacific Power's experience with its irrigation demand response pilot in Oregon. Energy Trust recently agreed to work with Pacific Power to explore the use of targeted efficiency to address long-term needs for capital investments in Pacific Power's Oregon grid. Energy Trust will include placeholders in its 2017 budget to work on specific project elements as opportunities emerge.

Quantifying peak natural gas savings with NW Natural

Energy Trust is working with NW Natural to quantify the value of natural gas saved on peak days. This may recognize previously unquantified value for heating system savings, helping offset continued declines in natural gas prices when applying cost-effectiveness tests. Work is also underway to determine whether energy efficiency could help defer capital projects to address constraints in NW Natural's distribution systems.

This work resulted in language for the following action item in NW Natural's 2016 Integrated Resource Plan: "Work with Energy Trust of Oregon to further scope a geographically targeted DSM pilot via accelerated and/or enhanced offerings ("Targeted DSM" pilot) to measure and quantify the potential of demand-side resources to cost-effectively avoid/delay gas distribution system reinforcement projects in a timely manner and make a Targeted DSM pilot filing with the Oregon Public Utility Commission (OPUC) in late 2017 or early 2018²."

The IRP states: "Contingent on Commission acknowledgment of the idea of a geographically targeted DSM pilot via accelerated or enhanced offerings ("Targeted DSM") to measure and quantify the potential

² NW Natural 2015 Integrated Resource Plan, page 1.18, https://www.nwnatural.com/uploadedFiles/2016_IRP.pdf

of demand-side resources as a capacity resource to address weaknesses in the NW Natural's distribution system, NW Natural and Energy Trust of Oregon will file a detailed pilot project for review³."

Heat pump water heater and demand response opportunities

Energy Trust is exploring the combined energy efficiency and demand response benefits of heat pump water heaters. More detail is available in a concept paper provided to OPUC staff on December 1, 2016.

³ NW Natural 2015 Integrated Resource Plan, page 6.33, https://www.nwnatural.com/uploadedFiles/2016_IRP.pdf

**Energy Trust of Oregon
Income Statement
2016 to 2018**

	Budget 2016	Forecast 2016	Budget 2017	Projection 2018
<u>REVENUES</u>				
Public Purpose Funds-PGE	36,660,651	35,901,203	37,255,027	37,255,027
Public Purpose Funds-PacifiCorp	27,664,181	28,379,891	27,524,599	27,524,599
Public Purpose Funds-NW Natural	14,539,218	13,413,038	17,392,246	19,092,246
Public Purpose Funds-Cascade	2,114,889	1,893,942	2,900,000	2,900,000
Public Purpose Funds-Avista			1,036,869	1,036,869
Total Public Purpose Funds	80,978,939	79,588,074	86,108,742	87,808,742
Incremental Funds - PGE	42,525,000	42,243,683	65,291,750	65,291,750
Incremental Funds - PacifiCorp	25,902,402	25,544,600	33,375,078	35,375,078
NW Natural - Industrial DSM	3,215,724	3,527,054	5,920,596	6,932,056
NW Natural - Washington	1,741,236	1,937,679	2,020,834	2,233,354
Revenue from Investments	300,000	527,756	210,000	120,000
TOTAL REVENUE	154,663,301	153,368,846	192,927,000	197,760,980
<u>EXPENSES</u>				
Program Subcontracts	56,275,209	55,507,596	57,903,505	58,998,767
Incentives	108,136,624	110,584,331	114,122,042	120,602,373
Salaries and Related Expenses	12,870,778	12,158,455	13,774,959	14,437,146
Professional Services	8,419,415	7,901,979	9,421,807	8,651,657
Supplies	46,450	45,950	48,600	48,500
Telephone	75,200	75,200	69,900	69,900
Postage and Shipping Expenses	16,500	18,500	18,000	17,500
Occupancy Expenses	771,332	771,332	950,433	940,133
Noncapitalized Equip. & Depr.	1,413,163	1,294,322	1,341,183	882,098
Call Center	187,400	187,400	200,000	200,000
Printing and Publications	98,500	15,500	16,550	8,800
Travel	211,800	198,300	228,700	217,300
Conference, Training & Mtng Exp	287,640	268,550	209,450	208,750
Interest Expense and Bank Fees	4,000	1,700	4,000	4,000
Insurance	110,000	110,000	110,000	110,000
Miscellaneous Expenses	2,750	2,750	3,000	2,750
Dues, Licenses and Fees	129,890	130,593	150,552	155,715
TOTAL EXPENSES	189,056,651	189,272,458	198,572,681	205,555,389
TOTAL REVENUE LESS EXPENSES	(34,393,350)	(35,903,612)	(5,645,681)	(7,794,409)

2017 Budget Recap Spending and Savings - R2: FINAL PROPOSED

ENERGY EFFICIENCY

	BUDGET (\$M)			ELECTRIC		GAS	
	ELECTRIC	GAS	TOTAL	ELECTRIC SAVINGS GOAL (aMW)	Levelized Cost per kWh (in cents)	Annual Therms	Levelized Cost per Therm (in cents)
Commercial							
Business Energy Solutions – Existing Buildings	52.8	9.5	62.3	14.70	3.8	2,200,792	41.44
Business Energy Solutions – New Buildings	17.5	2.4	19.9	6.32	2.7	946,372	20.69
Mkt Transformation (Alliance)	2.5	0.3	2.9	1.50	3.3		
Total Commercial	72.8	12.2	85.1	22.52	3.4	3,147,164	35.18
Industrial							
Production Efficiency	31.8	2.9	34.7	13.59	2.9	1,071,174	23.97
Mkt Transformation (Alliance)	0.2	0.0	0.2	0.08	5.4		
Total Industrial	32.1	2.9	34.9	13.66	2.9	1,071,174	23.97
Residential							
Home Energy Solutions – Existing Homes	13.6	6.8	20.4	3.88	3.7	1,112,252	48.75
Home Energy Solutions – New Homes & Products	26.3	4.6	30.9	10.92	2.8	1,799,715	16.57
Mkt Transformation (Alliance)	4.5	0.8	5.3	5.41	1.0		
Total Residential	44.5	12.2	56.6	20.21	2.5	2,911,967	28.82
Washington							
Business Energy Solutions – Existing Buildings		0.8	0.8			156,525	48.59
Home Energy Solutions – Existing Homes		0.5	0.5			68,253	54.09
Home Energy Solutions – New Homes & Products		0.6	0.6			57,761	64.07
Mkt Transformation (Alliance)		0.1	0.1			-	0.00
Total Washington		2.1	2.1			282,539	55.87
Total Energy Efficiency	\$149.4	\$29.3	\$178.7	56.40	3.0	7,412,844	31.29

RENEWABLE RESOURCES

	ACTIVITY BASIS		ACCOUNTING BASIS	ACTIVITY BASIS		ACCOUNTING BASIS	
	BUDGET (\$M)		BUDGET (\$M)	ELECTRIC GENERATION GOAL (aMW)	(\$mils/ aMW)	ELECTRIC GENERATION GOAL (aMW)	(\$mils/ aMW)
Other Renewables	7.6		6.4	0.81	9.43	0.00	5,367.70
Solar Electric	9.7		13.4	1.50	6.49	2.86	4.69
Total Renewable Resources	\$17.4		\$19.8	2.31	7.52	2.86	6.94

TOTAL BUDGET - ALL

\$198.6

* some columns may not add due to rounding

ENERGY TRUST OF OREGON
Income Statement by Service Territory
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	ENERGY EFFICIENCY									
	PGE	PacifiCorp	Total	NWN Industrial	NW Natural	Cascade	Avista	Oregon Total	NWN WA	ETO Total
REVENUES										
Public Purpose Funding	28,800,000	21,348,117	50,148,117	0	17,392,246	2,900,000	1,036,869	71,477,232	0	71,477,232
Incremental Funding	65,291,750	33,375,078	98,666,828	5,920,596				104,587,424	2,020,834	106,608,258
Contributions										
Revenue from Investments										
Gain or Loss on Investments										
TOTAL PROGRAM REVENUE	94,091,750	54,723,195	148,814,945	5,920,596	17,392,246	2,900,000	1,036,869	176,064,656	2,020,834	178,085,490
EXPENSES										
Program Management (Note 3)	3,395,783	2,034,504	5,430,287	226,020	693,695	83,206	36,502	6,469,710	140,343	6,610,053
Program Delivery	26,909,454	16,249,468	43,158,922	937,393	5,143,283	714,848	212,706	50,167,152	498,542	50,665,694
Incentives	51,548,009	30,502,386	82,050,394	4,506,771	9,208,679	1,374,656	504,567	97,645,067	889,597	98,534,664
Program Eval & Planning Svcs.	2,566,997	1,503,543	4,070,544	130,303	451,154	59,141	24,249	4,735,393	193,428	4,928,821
Program Marketing/Outreach	2,736,796	1,648,432	4,385,229	45,951	751,611	71,541	43,927	5,298,261	103,832	5,402,093
Program Legal Services	0	0	0	0	0	0	0	0	0	0
Program Quality Assurance	47,748	24,464	72,212	0	10,846	1,316	626	85,000	0	85,000
Outsourced Services	1,008,807	578,795	1,587,602	41,168	233,298	23,168	13,763	1,899,000	36,550	1,935,550
Trade Allies & Cust. Svc. Mgmt.	358,303	245,996	604,298	14,846	159,853	10,331	10,089	799,419	40,224	839,643
IT Services	989,058	595,075	1,584,133	54,457	243,687	26,904	13,899	1,923,081	47,366	1,970,447
Other Program Expenses - all	260,274	158,849	419,122	18,644	51,052	6,041	2,910	497,768	49,554	547,322
TOTAL PROGRAM EXPENSES	89,821,229	53,541,512	143,362,743	5,975,553	16,947,158	2,371,152	863,238	169,519,851	1,999,436	171,519,287
ADMINISTRATIVE COSTS										
Management & General (Notes 1 & 2)	1,953,819	1,164,651	3,118,471	129,982	368,641	51,578	18,778	3,687,450	43,492	3,730,942
Communications & Customer Svc (Notes 1 & 2)	1,830,668	1,091,243	2,921,912	121,790	345,404	48,328	17,593	3,455,026	40,751	3,495,777
Total Administrative Costs	3,784,487	2,255,894	6,040,383	251,772	714,045	99,906	36,371	7,142,476	84,243	7,226,719
TOTAL PROG & ADMIN EXPENSES	93,605,722	55,797,405	149,403,127	6,227,326	17,661,205	2,471,058	899,611	176,662,327	2,083,677	178,746,004
TOTAL REVENUE LESS EXPENSES	486,028	(1,074,210)	(588,182)	(306,730)	(268,959)	428,942	137,258	(597,671)	(62,843)	(660,514)
NET ASSETS - RESERVES										
Cumulative Carryover at 12/31/16 Forecast (Note	3,665,161	1,868,928	5,534,083	506,729	1,201,755	(190,841)		7,051,726	262,841	7,314,575
Change in net assets this year	486,028	(1,074,210)	(588,182)	(306,730)	(268,959)	428,942	137,258	(597,671)	(62,843)	(660,514)
Ending Net Assets - Reserves	4,151,189	794,718	4,945,901	200,000	932,796	238,101	137,258	6,454,055	200,000	6,654,061
Ending Reserve by Category										
Program Reserves (Efficiency and Renewables)	4,151,189	794,718	4,945,901	200,000	932,796	238,101	137,258	6,454,055	200,000	6,654,061
Emergency Contingency Pool										
TOTAL NET ASSETS CUMULATIVE	4,151,189	794,718	4,945,901	200,000	932,796	238,101	137,258	6,454,055	200,000	6,654,061

Note 1) Management & General and Communications & Customer Service Expenses (Admin) have been allocated based on total expenses.

Note 2) Admin costs are allocated for mgmt reporting only. GAAP for Not for Profits does not allow allocation of admin costs to program expenses.

Note 3) Program Management costs include both outsourced and internal staff.

Note 4) Cumulative carryover is from the 2016 Forecast.

ENERGY TRUST OF OREGON
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	RENEWABLE ENERGY			Other	TOTAL
	PGE	PacifiCorp	Total		All Programs
REVENUES					
Public Purpose Funding	8,455,027	6,176,482	14,631,510	0	86,108,742
Incremental Funding Contributions					106,608,258
Revenue from Investments				210,000	210,000
Gain or Loss on Investments					
TOTAL PROGRAM REVENUE	8,455,027	6,176,482	14,631,510	210,000	192,927,000
EXPENSES					
Program Management (Note 3)	580,916	605,122	1,186,038		7,796,091
Program Delivery	264,120	180,380	444,500		51,110,194
Incentives	7,841,370	7,746,007	15,587,377		114,122,041
Program Eval & Planning Svcs.	118,905	110,658	229,563		5,158,384
Program Marketing/Outreach	111,269	99,731	211,000		5,613,093
Program Legal Services	9,638	10,362	20,000		20,000
Program Quality Assurance	0	0	0		85,000
Outsourced Services	339,041	309,458	648,499		2,584,049
Trade Allies & Cust. Svc. Mgmt.	55,011	45,321	100,332		939,975
IT Services	140,302	144,737	285,040		2,255,487
Other Program Expenses - all	163,922	148,810	312,732		860,054
TOTAL PROGRAM EXPENSES	9,624,494	9,400,586	19,025,081	0	190,544,368
ADMINISTRATIVE COSTS					
Management & General (Notes 1 & 2)	209,355	204,485	413,840		4,144,782
Communications & Customer Svc (Notes 1 & 2)	196,159	191,595	387,754		3,883,531
Total Administrative Costs	405,514	396,080	801,594		8,028,313
TOTAL PROG & ADMIN EXPENSES	10,030,009	9,796,667	19,826,676		198,572,675
TOTAL REVENUE LESS EXPENSES	(1,574,982)	(3,620,185)	(5,195,166)	210,000	(5,645,675)
NET ASSETS - RESERVES					
Cumulative Carryover at 12/31/16 Forecast (Note 4)	7,541,335	8,206,134	15,747,469	9,267,641	32,329,685
Change in net assets this year	(1,574,982)	(3,620,185)	(5,195,166)	210,000	(5,645,675)
Ending Net Assets - Reserves	5,966,353	4,585,949	10,552,303	9,477,641	26,684,010
Ending Reserve by Category					
Program Reserves (Efficiency and Renewables)	5,966,353	4,585,949	10,552,303	4,477,641	26,684,010
Emergency Contingency Pool				5,000,000	
TOTAL NET ASSETS CUMULATIVE	5,966,353	4,585,949	10,552,303	4,477,641	26,684,010

Note 1) Management & General and Communications costs are allocated based on total expenses.

Note 2) Admin costs are allocated for management and program expenses.

Note 3) Program Management costs include both outsourced and internal staff.

Note 4) Cumulative carryover is from the 2016 Forecast.

Energy Trust of Oregon
Statement of Functional Expenses
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	Energy Efficiency	Renewable Energy	Total Program Expenses	Management & General	Communications & Customer Service	Total Admin Expenses	Total
Program Expenses							
Incentives	98,534,665	15,587,377	114,122,042				114,122,042
Program Management & Delivery	57,449,005	454,500	57,903,505				57,903,505
Payroll and Related Expenses	3,675,437	1,176,038	4,851,475	2,657,215	1,717,405	4,374,620	9,226,095
Outsourced Services	5,852,250	949,499	6,801,749	639,500	1,421,000	2,060,500	8,862,249
Planning and Evaluation	2,650,521	159,563	2,810,084	5,910	138,879	144,789	2,954,873
Customer Service Management	460,772	89,673	550,445				550,445
Trade Allies Network	378,869	20,659	399,528				399,528
Total Program Expenses	169,001,518	18,437,310	187,438,829	3,302,624	3,277,284	6,579,909	194,018,737
Program Support Costs							
Supplies	12,607	4,049	16,656	12,660	6,218	18,878	35,534
Postage and Shipping Expenses	4,299	1,499	5,799	4,967	1,933	6,899	12,698
Telephone	3,153	2,000	5,152	1,809	1,417	3,226	8,378
Printing and Publications	2,006	1,000	3,006	5,651	4,902	10,553	13,559
Occupancy Expenses	272,396	95,011	367,407	156,294	122,458	278,752	646,159
Insurance	31,526	10,996	42,522	18,089	14,173	32,262	74,784
Equipment	4,442	147,149	151,592	2,549	1,997	4,546	156,138
Travel	67,250	14,000	81,250	61,450	45,000	106,450	187,700
Meetings, Trainings & Conferences	41,500	11,200	52,700	75,850	12,500	88,350	141,050
Interest Expense and Bank Fees				4,000		4,000	4,000
Depreciation & Amortization	25,309	8,828	34,137	14,522	11,378	25,900	60,037
Dues, Licenses and Fees	81,972	6,700	88,672	14,930	16,500	31,430	120,102
Miscellaneous Expenses	860	300	1,160	493	387	880	2,040
IT Services	1,970,446	285,040	2,255,486	468,893	367,384	836,277	3,091,764
Total Program Support Costs	2,517,767	587,772	3,105,539	842,157	606,248	1,448,404	4,553,944
TOTAL EXPENSES	171,519,286	19,025,082	190,544,368	4,144,781	3,883,532	8,028,313	198,572,681

OPUC Measure vs. 8%

5.8%

Energy Trust of Oregon
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	PGE	Pacific Power	Subtotal Elec.	NWN Industrial	NW Natural Gas	Cascade	Avista	Subtotal Gas	Oregon Total	NWN WA	ETO Total
Energy Efficiency											
Commercial											
Existing Buildings	33,537,773	19,234,640	52,772,413	3,862,958	4,204,203	1,244,298	182,001	9,493,460	62,265,873	847,464	63,113,337
New Buildings	11,537,234	5,986,972	17,524,206	251,863	1,793,209	320,235	55,829	2,421,135	19,945,341		19,945,341
NEEA	1,504,011	1,045,160	2,549,170		273,210	30,356		303,566	2,852,737	30,875	2,883,612
Total Commercial	46,579,018	26,266,771	72,845,789	4,114,821	6,270,622	1,594,889	237,830	12,218,162	85,063,951	878,339	85,942,290
Industrial											
Production Efficiency	19,455,257	12,379,335	31,834,593	2,112,505	619,118	117,875	24,909	2,874,406	34,708,999		34,708,999
NEEA	141,800	98,538	240,338						240,338		240,338
Total Industrial	19,597,057	12,477,874	32,074,931	2,112,505	619,118	117,875	24,909	2,874,406	34,949,337	-	34,949,337
Residential											
Existing Homes	7,361,533	6,282,847	13,644,380	-	6,156,298	205,284	410,286	6,771,868	20,416,248	534,902	20,951,150
New Homes/Products	17,396,154	8,913,128	26,309,282	-	3,927,875	476,645	226,587	4,631,106	30,940,388	592,764	31,533,152
NEEA	2,671,960	1,856,786	4,528,746		687,292	76,365		763,658	5,292,404	77,671	5,370,075
Total Residential	27,429,647	17,052,760	44,482,407	-	10,771,465	758,294	636,873	12,166,632	56,649,040	1,205,337	57,854,377
Energy Efficiency Program Costs	93,605,722	55,797,405	149,403,127	6,227,326	17,661,205	2,471,058	899,611	27,259,200	176,662,327	2,083,677	178,746,004
Renewables											
Solar Electric (Photovoltaic)	7,373,951	6,035,995	13,409,946						13,409,946		13,409,946
Other Renewable	2,656,058	3,760,672	6,416,730						6,416,730		6,416,730
Renewables Program Costs	10,030,009	9,796,667	19,826,676	-	-	-	-	-	19,826,676	-	19,826,676
Grand Total Costs	103,635,731	65,594,073	169,229,803	6,227,326	17,661,205	2,471,058	899,611	27,259,200	196,489,003	2,083,677	198,572,681

Energy Trust of Oregon, Inc
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COMBINED SERVICE TERRITORIES: Energy Efficiency & Renewables

EXPENSES	New											
	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	Homes & Products	NEEA Residential	Washington (with NEEA)	Solar Renewables	Custom Renewables	ETO Total
Program Management	1,956,826	617,795	-	1,469,517	-	870,651	1,554,921	-	140,343	638,931	547,107	7,796,091
Program Delivery:	16,968,913	5,433,137	2,710,806	9,967,462	204,027	4,843,372	4,987,598	5,051,837	498,542	444,500	-	51,110,194
Incentives:	36,403,679	11,174,545	-	20,094,731	-	10,413,197	19,558,916	-	889,597	10,620,000	4,967,377	114,122,042
Program Eval & Planning Svcs.:	1,585,631	893,237	26,593	695,340	26,593	743,551	737,849	26,593	193,428	169,330	60,233	5,158,378
Program Marketing/Outreach:	1,561,800	541,169	-	324,500	-	1,405,784	1,465,005	-	103,832	183,000	28,000	5,613,090
Program Legal	-	-	-	-	-	-	-	-	-	10,000	10,000	20,000
Program Quality Assurance:	-	-	-	-	-	-	85,000	-	-	-	-	85,000
Outsourced Services:	403,999	135,001	-	270,000	-	395,000	694,999	-	36,550	296,499	352,000	2,584,048
Trade Allies & Cust. Svc. Mgmt.:	180,895	46,724	-	48,906	-	431,255	91,649	-	40,224	99,155	1,177	939,985
IT Services:	546,711	268,664	-	278,547	-	407,356	421,802	-	47,366	164,141	120,898	2,255,485
Other Program Expenses	140,004	28,675	-	156,708	-	80,659	91,724	-	49,554	242,224	70,508	860,056
TOTAL PROGRAM EXPENSES	59,748,458	19,138,947	2,737,399	33,305,711	230,620	19,590,825	29,689,463	5,078,430	1,999,436	12,867,780	6,157,300	190,544,369
ADMINISTRATIVE COSTS												
Management & General	1,299,667	416,315	59,545	724,476	5,017	426,146	645,816	110,467	43,492	279,904	133,936	4,144,781
Communications & Customer Svc	1,217,748	390,076	55,791	678,812	4,700	399,285	605,108	103,506	40,751	262,261	125,493	3,883,531
Total Administrative Costs	2,517,415	806,391	115,336	1,403,288	9,717	825,431	1,250,924	213,973	84,243	542,165	259,429	8,028,312
Total Program & Admin Expenses	62,265,873	19,945,338	2,852,735	34,708,999	240,337	20,416,256	30,940,387	5,292,403	2,083,679	13,409,945	6,416,729	198,572,681
Energy Savings (kwh)	128,739,447	55,392,392	13,165,095	119,026,665	672,410	33,963,318	95,702,832	47,378,717				494,040,876
Energy Savings (therms)	2,200,792	946,372	-	1,071,174	-	1,112,252	1,799,715	-	282,539			7,412,845
Energy Generation (kwh)										25,026,000	10,472	25,036,472

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ENERGY EFFICIENCY

PGE

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	1,097,363	364,802		748,015		303,375	882,228		3,395,783
Program Delivery:	9,618,454	3,279,963	1,427,513	5,439,080	120,376	1,719,602	2,756,224	2,548,242	26,909,454
Incentives:	18,991,136	6,302,658		11,475,395		3,762,152	11,016,668		51,548,009
Program Eval & Planning Svcs.:	878,567	522,966	15,690	401,676	15,690	300,686	416,032	15,690	2,566,997
Program Marketing/Outreach:	895,775	323,447		181,859		505,583	830,132		2,736,796
Program Legal									-
Program Quality Assurance:							47,748		47,748
Outsourced Services:	233,596	78,043		151,316		142,012	403,840		1,008,807
Trade Allies & Cust. Svc. Mgmt.:	97,358	27,011		27,409		155,042	51,483		358,303
IT Services:	294,240	155,314		156,106		146,454	236,944		989,058
Other Program Expenses	75,350	16,577		87,823		28,999	51,525		260,274
TOTAL PROGRAM EXPENSES	32,181,839	11,070,781	1,443,203	18,668,679	136,066	7,063,905	16,692,824	2,563,932	89,821,229
ADMINISTRATIVE COSTS									
Management & General	700,029	240,815	31,393	406,087	2,960	153,656	363,108	55,771	1,953,819
Communications & Customer Svc	655,906	225,636	29,414	380,491	2,773	143,971	340,221	52,256	1,830,668
Total Administrative Costs	1,355,935	466,451	60,807	786,578	5,733	297,627	703,329	108,027	3,784,487
Total Program & Admin Expenses	33,537,774	11,537,232	1,504,010	19,455,257	141,799	7,361,532	17,396,153	2,671,959	93,605,722
Energy Savings (kwh)	83,107,621	35,608,237	7,767,406	72,237,998	396,722	18,999,676	60,258,581	27,953,443	306,329,684

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ENERGY EFFICIENCY

Pacific Power

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	605,387	178,795		517,391		247,793	485,138		2,034,504
Program Delivery:	5,479,887	1,505,270	992,000	3,663,169	83,651	1,450,247	1,304,432	1,770,812	16,249,468
Incentives:	10,989,735	3,492,463		7,070,769		3,254,069	5,695,350		30,502,386
Program Eval & Planning Svcs.:	503,877	271,381	10,903	242,860	10,903	239,557	213,159	10,903	1,503,543
Program Marketing/Outreach:	496,391	153,295		115,717		433,894	449,135		1,648,432
Program Legal									-
Program Quality Assurance:							24,464		24,464
Outsourced Services:	113,899	40,499		96,282		121,203	206,912		578,795
Trade Allies & Cust. Svc. Mgmt.:	55,837	14,017		17,440		132,324	26,378		245,996
IT Services:	168,753	80,597		99,330		124,994	121,401		595,075
Other Program Expenses	43,215	8,602		55,882		24,750	26,400		158,849
TOTAL PROGRAM EXPENSES	18,456,981	5,744,919	1,002,903	11,878,840	94,554	6,028,831	8,552,769	1,781,715	53,541,512
ADMINISTRATIVE COSTS									
Management & General	401,482	124,965	21,815	258,392	2,057	131,141	186,043	38,756	1,164,651
Communications & Customer Svc	376,176	117,089	20,440	242,106	1,927	122,875	174,316	36,314	1,091,243
Total Administrative Costs	777,658	242,054	42,255	500,498	3,984	254,016	360,359	75,070	2,255,894
Total Program & Admin Expenses	19,234,639	5,986,973	1,045,158	12,379,338	98,538	6,282,847	8,913,128	1,856,785	55,797,405
Energy Savings (kwh)	45,631,826	19,784,155	5,397,689	46,788,667	275,688	14,963,642	35,444,251	19,425,274	187,711,192

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2017 Final Proposed Budget

ENERGY EFFICIENCY

NW Natural Industrial

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	77,056	4,160		144,804					226,020
Program Delivery:	260,170	7,363		669,860					937,393
Incentives:	3,185,433	212,019		1,109,319					4,506,771
Program Eval & Planning Svcs.:	82,678	10,287		37,338					130,303
Program Marketing/Outreach:	24,388	1,775		19,788					45,951
Program Legal									
Program Quality Assurance:									-
Outsourced Services:	22,992	1,712		16,464					41,168
Trade Allies & Cust. Svc. Mgmt.:	11,271	593		2,982					14,846
IT Services:	34,065	3,407		16,985					54,457
Other Program Expenses	8,724	364		9,556					18,644
TOTAL PROGRAM EXPENSES	3,706,777	241,680	-	2,027,096	-	-	-	-	5,975,553
ADMINISTRATIVE COSTS									
Management & General	80,631	5,257		44,094					129,982
Communications & Customer Svc	75,549	4,926		41,315					121,790
Total Administrative Costs	156,180	10,183	-	85,409	-	-	-	-	251,772
Total Program & Admin Expenses	3,862,957	251,863	-	2,112,505	-	-	-	-	6,227,326
Energy Savings (therms)	1,065,568	153,103	-	745,597	-	-	-	-	1,964,268

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ENERGY EFFICIENCY

NW Natural Gas

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	135,688	58,967		46,460		293,026	159,554		693,695
Program Delivery:	1,208,655	549,534	262,164	152,484		1,526,389	784,552	659,505	5,143,283
Incentives:	2,405,022	942,436		364,923		3,080,894	2,415,404		9,208,679
Program Eval & Planning Svcs.:	89,982	73,243		10,943		184,827	92,159		451,154
Program Marketing/Outreach:	111,021	53,272		5,799		423,637	157,882		751,611
Program Legal									
Program Quality Assurance:							10,846		10,846
Outsourced Services:	25,023	12,190		4,825		119,806	71,454		233,298
Trade Allies & Cust. Svc. Mgmt.:	12,267	4,219		874		130,799	11,694		159,853
IT Services:	37,075	24,259		4,978		123,554	53,821		243,687
Other Program Expenses	9,494	2,589		2,801		24,464	11,704		51,052
TOTAL PROGRAM EXPENSES	4,034,227	1,720,709	262,164	594,087	-	5,907,396	3,769,070	659,505	16,947,158
ADMINISTRATIVE COSTS									
Management & General	87,754	37,429	5,703	12,923		128,500	81,986	14,346	368,641
Communications & Customer Svc	82,223	35,070	5,343	12,108		120,400	76,818	13,442	345,404
Total Administrative Costs	169,977	72,499	11,046	25,031	-	248,900	158,804	27,788	714,045
Total Program & Admin Expenses	4,204,204	1,793,208	273,210	619,118	-	6,156,296	3,927,874	687,293	17,661,205
Energy Savings (therms)	869,708	678,500	-	274,773	-	974,456	1,486,406	-	4,283,843

Energy Trust of Oregon, Inc
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ENERGY EFFICIENCY

Cascade Natural Gas

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	35,473	9,551		10,522		9,005	18,655		83,206
Program Delivery:	349,450	79,804	29,129	36,039		49,419	97,729	73,278	714,848
Incentives:	728,187	188,969		60,795		104,896	291,809		1,374,656
Program Eval & Planning Svcs.:	26,632	13,080		2,083		6,163	11,183		59,141
Program Marketing/Outreach:	29,430	8,158		1,104		14,210	18,639		71,541
Program Legal									
Program Quality Assurance:							1,316		1,316
Outsourced Services:	7,406	2,177		919		3,995	8,671		23,168
Trade Allies & Cust. Svc. Mgmt.:	3,631	753		166		4,362	1,419		10,331
IT Services:	10,973	4,332		948		4,120	6,531		26,904
Other Program Expenses	2,810	462		533		816	1,420		6,041
TOTAL PROGRAM EXPENSES	1,193,992	307,286	29,129	113,109	-	196,986	457,372	73,278	2,371,152
ADMINISTRATIVE COSTS									
Management & General	25,972	6,684	634	2,460		4,285	9,949	1,594	51,578
Communications & Customer Svc	24,335	6,263	594	2,305		4,015	9,322	1,494	48,328
Total Administrative Costs	50,307	12,947	1,228	4,765	-	8,300	19,271	3,088	99,906
Total Program & Admin Expenses	1,244,299	320,233	30,357	117,874	-	205,286	476,643	76,366	2,471,058
Energy Savings (therms)	233,516	94,769	-	41,155	-	43,748	150,674	-	563,862

Energy Trust of Oregon, Inc
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ENERGY EFFICIENCY

Avista

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	5,859	1,520		2,325		17,452	9,346		36,502
Program Delivery:	52,297	11,203		6,830		97,715	44,661		212,706
Incentives:	104,166	36,000		13,530		211,186	139,685		504,567
Program Eval & Planning Svcs.:	3,895	2,280		440		12,318	5,316		24,249
Program Marketing/Outreach:	4,795	1,222		233		28,460	9,217		43,927
Program Legal									
Program Quality Assurance:							626		626
Outsourced Services:	1,083	380		194		7,984	4,122		13,763
Trade Allies & Cust. Svc. Mgmt.:	531	131		35		8,717	675		10,089
IT Services:	1,605	755		200		8,234	3,105		13,899
Other Program Expenses	411	81		113		1,630	675		2,910
TOTAL PROGRAM EXPENSES	174,642	53,572	-	23,900	-	393,696	217,428	-	863,238
ADMINISTRATIVE COSTS									
Management & General	3,799	1,165		520		8,564	4,730		18,778
Communications & Customer Svc	3,559	1,092		487		8,024	4,431		17,593
Total Administrative Costs	7,358	2,257	-	1,007	-	16,588	9,161	-	36,371
Total Program & Admin Expenses	182,000	55,829	-	24,907	-	410,284	226,589	-	899,611
Energy Savings (therms)	32,000	20,000	-	9,649	-	94,049	162,635	-	318,332

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
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ENERGY EFFICIENCY

NW Natural Washington

EXPENSES	Existing Buildings	NEEA Commercial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	51,951		45,392	43,000		140,343
Program Delivery:	160,000	29,627	96,511	137,873	74,531	498,542
Incentives:	414,087		216,817	258,693		889,597
Program Eval & Planning Svcs.:	63,188		75,007	55,233		193,428
Program Marketing/Outreach:	63,500		30,681	9,651		103,832
Program Legal						
Program Quality Assurance						
Outsourced Services:	1,000			35,550		36,550
Trade Allies & Cust. Svc. Mgmt.:	20,106		14,215	5,903		40,224
IT Services:	18,831		20,908	7,627		47,366
Other Program Expenses	20,540		13,745	15,269		49,554
TOTAL PROGRAM EXPENSES	813,203	29,627	513,276	568,799	74,531	1,999,436
ADMINISTRATIVE COSTS						
Management & General	17,689	644	11,165	12,373	1,621	43,492
Communications & Customer Svc	16,574	604	10,461	11,593	1,519	40,751
Total Administrative Costs	34,263	1,248	21,626	23,966	3,140	84,243
Total Program & Admin Expenses	847,466	30,875	534,902	592,765	77,671	2,083,677
Energy Savings (therms)	156,525	-	68,253	57,761		282,539

**Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2017 Final Proposed Budget**

RENEWABLE PROGRAMS

PGE Renewables

EXPENSES	Standard Solar	Custom Projects	Renewable Total
Program Management	351,441	229,475	580,916
Program Delivery:	264,120		264,120
Incentives:	5,820,000	2,021,370	7,841,370
Program Eval & Planning Svcs.:	93,112	25,793	118,905
Program Marketing/Outreach:	100,629	10,640	111,269
Program Legal	5,499	4,139	9,638
Program Quality Assurance:			-
Outsourced Services:	163,041	176,000	339,041
Trade Allies & Cust. Svc. Mgmt.:	54,524	487	55,011
IT Services:	90,259	50,043	140,302
Other Program Expenses	133,196	30,726	163,922
TOTAL PROGRAM EXPENSES	7,075,821	2,548,673	9,624,494
ADMINISTRATIVE COSTS			
Management & General	153,915	55,440	209,355
Communications & Customer Svc	144,214	51,945	196,159
Total Administrative Costs	298,129	107,385	405,514
Total Program & Admin Expenses	7,373,950	2,656,058	10,030,009
Energy Generation (kwh)	10,780,000	-	10,780,000

**Energy Trust of Oregon, Inc
Detail by Service Territory and Program
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RENEWABLE PROGRAMS

Pacific Power Renewables

EXPENSES	Standard Solar	Custom Projects	Renewable Total
Program Management	287,490	317,632	605,122
Program Delivery:	180,380		180,380
Incentives:	4,800,000	2,946,007	7,746,007
Program Eval & Planning Svcs.:	76,218	34,440	110,658
Program Marketing/Outreach:	82,371	17,360	99,731
Program Legal	4,501	5,861	10,362
Program Quality Assurance:			-
Outsourced Services:	133,458	176,000	309,458
Trade Allies & Cust. Svc. Mgmt.:	44,631	690	45,321
IT Services:	73,882	70,855	144,737
Other Program Expenses	109,028	39,782	148,810
TOTAL PROGRAM EXPENSES	5,791,959	3,608,627	9,400,586
ADMINISTRATIVE COSTS			
Management & General	125,989	78,496	204,485
Communications & Customer Svc	118,047	73,548	191,595
Total Administrative Costs	244,036	152,044	396,080
Total Program & Admin Expenses	6,035,995	3,760,671	9,796,667
Energy Generation (kwh)	14,246,000	10,472	14,256,472

MEMO

Date: October 26, 2016
To: Board of Directors
From: Michael Colgrove, Executive Director
Subject: Staffing for the Draft 2017 Budget and 2017-2018 Action Plan

Energy Trust proposes to add 3.5 full-time equivalent staff positions (FTE) in 2017, increasing from the current approved level of 105 to 108.5. All proposed positions provide direct support to energy program and organizational goals. Each is linked to Energy Trust's key budget and action plan focus areas: expanding participation, innovating with emerging technologies and new approaches, managing transition, and operating an efficient and effective organization. One position is proposed with a limited term not to exceed two years. Detail on each position is provided below.

In 2017, Energy Trust anticipates continued and full compliance with key OPUC minimum performance metrics related to administrative support and staffing costs as a percent of expenditures.

Administrative and program support costs are at 5.8 percent of the draft budget, remaining well under the OPUC administrative and program support metric of 8 percent. Staffing as a percent of total expenditures is 6.6 percent and remains well under the 7.75 percent metric, calculated on a three-year rolling average.

1. Planning Project Manager (new position – 1 FTE)

The proposed planning project manager position is linked to Energy Trust's focus on expanding participation, innovating with emerging technologies and new approaches, and managing transition. The position will enable expansion of utility planning work and support for regulatory processes, including the addition of a fifth utility IRP for Avista, transmission and distribution (T&D) deferral analysis, and increased focus on peak management through energy efficiency and renewable energy. It will allow the planning team to provide enhanced strategic planning support and advice to programs and marketing staff by improving mapping of resource and technology planning tools into concrete inputs for program design.

Additionally, it will create a coordination mechanism for identifying and communicating insights gained from existing and planned market research, identifying which program services may benefit from the insight, establishing priorities and disseminating results.

This position will provide benefit to utility customers by supporting program efforts to expand participation and be ready for new opportunities. Specifically, this position will deliver benefits to customers by helping Energy Trust:

- Support energy efficiency and renewable energy resource opportunities that provide other benefits and align with the priorities of governments and other organizations, such as projects with energy and water benefits, biopower projects that manage waste streams, and projects that save gas or electricity and transportation fuel.
- Pursue initiatives with government, utility and other entities in response to new state and national policy initiatives that complement and promote clean energy development.
- Collaborate as appropriate with utility-led peak load management programs to identify activities that will benefit customers and support program development to that end.
- Track and report utility customer benefits from Energy Trust activities related to state and federal greenhouse gas emission goals.
- More effectively utilize insights of market research to reach customers that have not previously been served.

2. Human Resources Generalist (new position – 1 FTE)

The proposed human resources generalist supports Energy Trust's focus on expanding participation, managing transition and operating an efficient and effective organization. This position will enable the human resources team to focus on strategic and operational initiatives to ensure Energy Trust is able to recruit and retain critical staff expertise as energy efficiency and renewable energy programs evolve. Strategic focus areas include career development planning, professional development and training, workforce diversification and employee engagement.

The position will also allow the human resources team to improve efficient business practices and systems while maintaining day-to-day operations to meet the needs of the organization. The human resources generalist will be responsible for the day-to-day operations of the human resources team, including management of human resources policies and processes, recruitment, onboarding, compensation, benefits, talent management and compliance. This will enable the current human resources manager and senior finance project manager to focus on strategic initiatives and process improvement.

This position will provide benefit to utility customers by supporting all Energy Trust programs and operations that deliver utility customer benefits. Specifically, this position will deliver benefits to customers by helping Energy Trust:

- Ensure we have the staff expertise needed to design and deliver current and future customer programs and services.
- Support efficient and effective use of ratepayer dollars through retention of employee talent as the organization evolves.
- Diversify Energy Trust's workforce to ensure customer programs and services are optimized for all eligible customers.

3. Communications & Outreach Project Manager (new limited term position – 1 FTE through 2018)

The proposed communications and outreach project manager is linked to Energy Trust's focus on expanding participation, managing transition and operating an efficient and effective organization. This position will enable the marketing and outreach teams to expand strategic work in support of program efforts to reach customers not yet served: market research, diverse customer outreach and engagement, rural community outreach and development of new informational content and targeted educational strategies.

Additionally, this proposed position will enable Energy Trust to communicate proactively with stakeholders as major customer programs and services evolve, and to ensure Energy Trust's new executive director is known and accessible in all regions of the state. Finally this position will support accurate and timely responses to increased media, legislative and stakeholder information requests related to an active policy and regulatory docket landscape.

This position is proposed for a limited term not to exceed two years through 2018 because the additional marketing, outreach and communications work is related to current development needs, transition, and policy activity that may not be sustained beyond the two-year time frame. It is difficult to successfully contract for this work given the continuity of knowledge needed to manage stakeholder engagement and communication projects efficiently and effectively.

This position will provide benefit to utility customers by supporting program efforts to reach and serve new customers and ensuring Energy Trust continues to be accessible and responsive to their needs and interests. Specifically, this position will deliver benefits to customers by helping Energy Trust:

- Better understand and address diverse customer barriers to engagement in energy efficiency and renewable energy offers and services.
- Connect with rural and diverse communities to provide information and resources needed to support engagement.
- Support community activities with multiple goals and customer benefits, including saving energy and generating renewable energy.
- Communicate clearly regarding changes in program offers affecting customers, contractors and other stakeholders.
- Respond in a timely manner to policy questions so customers, contractors and stakeholders will understand potential energy efficiency and renewable energy opportunities, and the services available to them.
- Establish connections between customers and stakeholders throughout the state and Energy Trust's new executive director, so he can lead the organization with specific knowledge of customer needs and interests.

4. Attorney (new position – 0.5 FTE)

The proposed half-time attorney position is linked to Energy Trust's focus on operating an efficient and effective organization, expanding participation and managing transition. The organization's near 15 year history of engaging with customers has resulted in an increasing inventory of customer data and customer projects. Engaging additional internal legal resources will help ensure that Energy Trust has or will put in place the policies, procedures and practices to safeguard customer interests and ratepayer funds cost effectively. This position will provide a small expansion of the legal team to support the organization with legal services needed for expanding business operations, programs and services to deliver energy efficiency and renewable energy to all eligible customers, and guide the organization's efforts to diversify its workforce and contracted services.

This position will support the legal team in drafting contracts, contract negotiation and strategy. The attorney will provide legal oversight for large contracts and competitive solicitations in the residential, renewables and operations group, and will provide backup support to the legal contracts manager on commercial, multifamily, industrial and agriculture groups. The position will also work with senior counsel on contracts with funding utilities and provide legal counsel on customer service complaints.

Through the creation of this position, the current general counsel will have the capacity to focus on the increased workload in policy and legislative matters, employment and business transaction law, and enterprise and organization-wide risk management coverage.

This position will provide benefit to utility customers by supporting program contracting essential to delivering services to customers, and by ensuring Energy Trust follows policies to protect customers and minimize risk to ratepayer funded investments. Specifically, this position will deliver benefits to customers by helping Energy Trust:

- Provide timely responsiveness in negotiation of customer project incentive funding agreements and forms.
- Ensure and support processes for greater accountability in contract and vendor performance.
- Ensure customer dollars are invested wisely and protected from risk.
- Resolve customer complaints in a timely manner.
- Secure and protect customer data.

Energy Trust of Oregon
Capital Budget
Final Proposed Budget 2017 - 2018

	Q1	Q2	Q3	Q4	Budget
2017 Capital Acquisitions					
Information Systems					
Information systems	135,000	335,000	-	-	470,000
Office Operations					
Office Operations	25,000	-	265,000	-	290,000
2018 Capital Acquisitions					
Information systems	-	35,000	-	-	35,000
TOTAL	160,000	370,000	265,000	-	795,000

Commercial sector—Existing Multifamily

Program Description

The Existing Multifamily program serves existing multifamily structures with two or more dwelling units across diverse market segments, including market rate housing, affordable housing, assisted living facilities, campus housing facilities, homeowners associations and individual unit owners. Offerings include free installation of LEDs, showerheads and faucet aerators and distribution of energy-saving advanced power strips in tenant units; 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.

2017 Strategic Focus

- Identify and implement program improvements based on 2016 process evaluation findings.
- Expand program participation in market segments and regions where participation has historically been low, using market and program participation data analysis and customized marketing and outreach strategies.
- Continue to foster long-term relationships with customers to drive repeat program participation and deeper energy savings per site.
- Continue to seek out new savings opportunities by developing and implementing pilots to test new measures as appropriate.
- Conduct ongoing monitoring of cost-effectiveness for program offerings, with close attention to challenges facing installation of free energy-saving measures in units.
- Streamline program participation requirements and processes, with a strong emphasis on cross-program collaboration to improve customer experience.
- Enhance relationships with market actors, including trade allies, distributors and manufacturers, and external partners such as Oregon Housing and Community Services, the City of Portland and the Portland Water Bureau.

2017 Activities—Ongoing

Deepen relationships with customers and expand participation

- Maintain account management approach with Program Management Contractor Lockheed Martin providing a team of business development representatives who conduct direct outreach to property owners and managers, including a dedicated representative serving rural areas.
- Continue successful marketing, communication and event strategies, including a quarterly customer newsletter, the My Business advertising campaign, direct marketing, development of materials to support customer outreach, and outreach events throughout the state.

Offer a wide range of incentives and services to participants

- Provide free installation of efficient LEDs, showerheads and faucet aerators and free distribution of energy-saving advanced power strips in individual dwelling units. This offering provides the majority of savings in each utility territory and serves as an initial engagement tactic.

2017-2018 Program Action Plan

- Promote common-area lighting solutions to gain additional electric savings, with emphasis on smaller multifamily properties that have lower program participation than larger properties.
- Focus on opportunities to gain savings from standard measures, which have seen modest growth.
- Continue and expand midstream incentive offerings, in which incentives are provided directly to distributors for appliances, water heating and HVAC equipment, with savings passed onto customers.
- Continue to work with assisted living facilities enrolled in commercial Strategic Energy Management.

Grow program offerings and seek new savings opportunities

- Partner with the Portland Water Bureau on a water sub-metering pilot to study the savings associated with shifting participants from master-metered to individually metered water billing.
- Conduct billing data analysis for a Cadet pilot to determine if energy-efficient wall heaters provide savings for multifamily customers who are not able to make other system upgrades.
- Continue testing GreenPSF, an online tool enabling customers to solicit multiple bids for custom projects via a competitive online request for proposals process. The test will determine if GreenPSF increases close rates and decreases timeframes for custom projects.
- Assist Multnomah County and the Portland Development Commission to market Commercial Property Assessed Clean Energy financing as appropriate for energy-efficiency and renewable energy projects.

2017 Activities—New

Streamline program design to improve customer experience

- Incorporate more analyses on motivations and barriers to participation in each market segment to potentially modify outreach and offerings.
- Simplify measure eligibility requirements among varying types of multifamily properties to develop a more streamlined structure that will be consistent across measures.

Refine outreach strategies to expand participation

- Analyze program and market data to identify customer groups and/or regions for targeted outreach.
- Launch program to Avista customers, reaching out to dual-fuel customers to participate in free installation of LEDs, showerheads and faucet aerators in units. Re-engage participants in Avista territory who have received electric incentives to introduce gas offerings.
- Recruit customers in Central Oregon and/or Portland for commercial SEM.
- Identify cross-program outreach opportunities, such as coordination with Existing Buildings to drive comprehensive projects on campuses.

Explore new savings opportunities

- Consider transition to tier 2 advanced power strips from tier 1 advanced power strips, pending results of the tier 2 advanced power strip pilot. Tier 1 power strips automatically shut down peripheral entertainment system devices, such as DVD players and speakers, when televisions are turned off. Tier 2 power strips can also sense when televisions are not in use through infrared remote signal sensors, and will automatically power down both televisions and peripheral devices when not in use.
- Explore activities for tenant engagement that could reduce in-unit energy consumption. These activities could include automated control technologies.

2017-2018 Program Action Plan

2017 Key Assumptions, Risks and/or Challenges

- Market penetration rates will continue to increase, resulting in a decrease in the average sizes of properties served. This will lead to lower average savings and a comparatively higher average cost of acquisition per project.
- The impacts of the U.S. Environmental Protection Agency Energy Independence and Security Act are largely unknown, and may pose challenges to the cost-effectiveness of the direct installation of LEDs.
- Findings from a showerhead flow-rate study conducted by the program in 2016 resulted in significantly decreased savings for shower devices, which reduced 2017 total estimated program savings by 12 percent on the electric side and 27 percent on the gas side.
- A study is currently underway to determine persistence of savings for tier 1 advanced power strips. If the results are not favorable, this could have an impact on savings for this high-volume offering.
- The program anticipates continued low vacancy rates in the rental market, which can lower motivations for property owners and managers to make improvements.

2018 Strategic Focus

- Continue to identify new technologies and savings opportunities through market research and pilots, and monitor current program offerings for cost-effectiveness.
- Continue to customize and target outreach tactics based on individual market segments, customer types and geographic regions to increase engagement with customer groups with historically low participation rates.
- Maintain efforts to continually re-engage with participants to cultivate long-term relationships and drive repeat participation.

Targets

Financial and Savings information for the Multifamily Program are included with Existing Buildings

Commercial sector—Existing Buildings

Program Description

Energy Trust's Existing Buildings program provides electric and gas energy-efficiency solutions for existing commercial buildings. The program has three components: program management and delivery through Program Management Contractor ICF International, commercial Strategic Energy Management and Pay for Performance offerings through ICF International, and management and delivery of the Existing Multifamily program through PMC Lockheed Martin. The Multifamily Action Plan is a separate document. The Existing Buildings program consists of three tracks.

1. The **custom track** acquires electric and gas savings through energy-efficient capital projects and operations and maintenance upgrades. PMC account managers and engineering firms identify and promote customer opportunities.
2. The **standard track** provides incentives for standard measures with predetermined savings for buildings of all sizes and across all commercial market sectors. The program promotes measures through customer outreach and cultivation of trade ally contractors.
3. The **lighting track** uses a combination of customer outreach and outreach through a network of trade allies. In addition to the traditional lighting track, the program offers incentives provided midstream to distributors and retailers with savings passed onto small commercial customers and state agencies.
4. The **energy performance management track** uses training, tools, technical assistance and incentives to help customers save energy by improving energy management practices.
 - o **Commercial Strategic Energy Management** is a year-long cohort approach and offers technical assistance to deepen commitment to energy management. The offering helps customers drive persistent energy-efficiency improvements in large buildings or campuses.
 - o **Pay for Performance** includes annual financial incentives for demonstrated energy savings rather than one upfront payment at project completion. Pay for Performance projects can include operations and maintenance, behavioral and capital measures at the building level.
 - o **Retrocommissioning** features targeted incentives for specific operations and maintenance improvements such as controls or HVAC adjustments at a measure level.

2017 Strategic Focus

- Deliver tailored services to the market, including to business and property owners, tenants, property managers, trade allies and non-ally contractors, distributors, product representatives and manufacturers.
- Improve service delivery to customers that have not yet participated, including by targeting geographic regions, market sectors and participant diversity.
- Develop the Trade Ally Network to promote energy-efficiency projects of all types and sizes.
- Expand program with direct-installation and midstream incentive approaches. Direct installation is free installation of efficient lighting .Midstream incentives are paid midstream to distributors and retailers, with savings passed onto customers.
- Adapt lighting program offerings to respond to changes in the market, standards and codes.
- Cultivate customer relationships, training and education for long-term engagement.

2017-2018 Program Action Plan

- Increase program offerings for customers to implement ongoing operations and maintenance opportunities with energy savings through commercial SEM and Pay for Performance offerings.
- Improve customer experience and capture efficiencies in delivery costs.

2017 Activities—Ongoing

Refine delivery strategies

- Maintain current standard equipment and lighting incentives with a few adjustments, and investigate additional measures to add mid-year. Continue customized offerings for small business customers, including:
 - Small Commercial Energy Savings installation offering for lighting and non-lighting measures.
 - Midstream offerings for lighting and non-lighting equipment, with incentives paid to distributors and savings passed onto customers.
 - Evaluate expanding the state procurements buy-down offer to other public sector agencies.
- Launch two new commercial SEM cohorts and continue working with current participants. Transition delivery from Program Delivery Contractors to ICF International.
- Continue Pay for Performance as an enhanced offering with up to six customers, with transition of program management to ICF International.
- Maintain outreach activity in market sectors with the greatest potential for savings, including lodging, hospitality, foodservice, office buildings, grocery and healthcare. Add outreach staff to meet increased demand from K-12 schools.
- Continue marketing, communication and events, including quarterly customer newsletter Energy Assets, the My Business advertising campaign, program advertising and event sponsorships.

Target customer needs

- Use data analysis to guide targeted marketing.
- Promote community energy efforts including Commercial Property Assessed Clean Energy and City of Portland Energy Performance Reporting.
- Provide incentives for Building Operator Certification training to educate customers about energy-efficient improvements through operations, maintenance and management skills.

Expand participation

- Focus on regional market engagement through staff in Central Oregon, Eastern Oregon and Southern Oregon.
- Build participation among minority- and women-owned businesses and emerging small business owners by engaging with minority chambers and associations, such as Oregon Association of Minority Entrepreneurs, Women in Construction and Commercial Real Estate Women.
- Support national retail and restaurant customers through representatives at national conferences, and provide direct outreach to corporate offices of national chains.
- Support trade ally development with tools, training and marketing support.

2017 Activities—New

Launch service to Avista business customers

- Offer the full suite of offerings to Avista customers, with emphasis on targeting customers in sectors with high gas use, such as restaurants.

Streamline program operations

2017-2018 Program Action Plan

- Improve incentive applications and documentation to simplify processes for customers.
- Develop a custom, tablet-based scoping tool to identify potential energy-efficiency measures, and generate a comprehensive scoping report to aid customers in decision making.
- Develop additional calculators and tools to reduce processing time for custom energy audits and studies.

Seek new savings opportunities

- Consider midstream incentives for heat pumps, HVAC unit heaters and foodservice equipment, with incentives paid midstream to distributors and retailers and savings passed onto customers.
- Introduce an incentive for Energy Management Certification.
- Streamline incentive design for operations and maintenance and energy management offerings.

Build on Strategic Energy Management success

- Continue to expand commercial SEM participation in Eastern Oregon.
- Develop a standardized curriculum for continued commercial SEM engagement.
- Provide technical support for existing commercial SEM customers in Avista territory.
- Introduce incentives for commercial SEM participants who hire paid interns to increase capacity for energy management.
- Use program, utility and mapping data to identify potential new commercial SEM participants.

2017 Key Assumptions, Risks and/or Challenges

- The economic and policy environment will not change significantly from 2016 and 2017.
- Customer interest in LED lighting will remain stable or increase.
- Natural gas prices and avoided costs will remain stable.
- Savings and incentives may exceed goals and budget for some utilities in 2016. If the 2017 pipeline remains strong, additional incentive dollars may be needed.
- The number of incentive applications will continue to increase, with reduced savings per project. This may require more staffing for market outreach and processing, or revisions to delivery methods.
- As the program seeks to drive more customers and projects directly to trade allies, the program must support allies with new tools, trainings and resources for outreach and marketing while still supporting small- and mid-size customers directly.

2018 Strategic Focus

- Build on strategies that engage customers in cost-effective standard, custom and lighting measures through trade ally and allied technical assistance contractor engagement.
- Incorporate and expand energy management offerings, such as Pay for Performance and Strategic Energy Management, which deliver continuous, multiyear savings at the whole building, portfolio or campus level and help customers integrate energy efficiency into business practices.
- Expand program offerings with free installation of efficient lighting.
- Expand program offerings with midstream incentive approaches. Drive market adoption of new lighting, HVAC and controls technologies.

2017-2018 Program Action Plan

Targets – Existing Buildings, including Multi-Family

	Annual Expense			Electric		Gas	
	Electric	Gas	Total	Savings aMW	levelized cost (cents / KWh)	Savings therms	levelized cost (cents / therm)
2016 Reforecast	\$49.8	\$7.0	\$56.9	16.6	3.2	2,029,984	28.9
2017 Budget	\$52.8	\$9.5	\$62.3	14.7	3.8	2,200,792	41.4
2018 Projection	\$53.8	\$10.1	\$63.8	15.1	3.8	2,321,479	41.3

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Incentives	32,758,309	33,258,618	36,403,678	37,999,362
Delivery Costs				
Program Management	1,403,579	934,009	714,088	735,511
Program Delivery	15,359,399	15,363,969	16,968,913	17,218,704
Marketing-PMC	1,098,273	1,073,638	1,170,400	1,203,472
Performance Comp	442,500	376,500	240,000	296,250
Total Delivery Costs	18,303,751	17,748,116	19,093,401	19,453,937
ETO expenses				
Staffing	1,051,935	1,005,672	1,002,738	1,055,958
Marketing	433,000	433,000	371,400	367,900
Other Services	1,256,400	1,171,300	1,282,734	1,034,006
General	75,550	59,650	51,000	55,500
Allocations	1,363,696	1,271,463	1,543,507	1,472,787
Sub-Total before Admin Costs	55,242,641	54,947,819	59,748,458	61,439,450
Administrative Costs	2,051,113	1,923,703	2,517,415	2,402,224
TOTAL EXPENSE	57,293,754	56,871,522	62,265,873	63,841,674

Commercial sector—New Buildings

Program Description

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

2017 Strategic Focus

- Build market momentum to accelerate adoption of a Path to Net Zero offering and progress toward Architecture 2030 goals. Deliver standard incentive packages to small commercial customers.
- Streamline technical processes to address perceived barriers and add value to the construction process. Influence design assumptions, equipment selection and building performance.
- Pilot and promote emerging technologies to accelerate early adoption and build measure options.
- Create market partnerships and help accelerate analysis and implementation of technologies and approaches that meet energy and resilience goals.
- Continue to influence decisions from early design to occupancy. Deploy additional tools and reposition offerings to drive further market adoption and improve building energy performance.

2017 Activities—Ongoing

Deliver technical assistance and design support

- Engage building owners, developers, business owners, contractors and design professionals from early design to building performance, through Program Management Contractor CLEAResult.
- Deliver technical energy-saving solutions using whole building energy modeling, technical assistance, early design, and standard and custom measures to advance the market. Target and support small commercial construction, requiring streamlined approaches.
- Continue to support innovation with Path to Net Zero, an offering designed to support a project from goal setting through design, construction and commissioning of buildings that target a 40 percent or greater energy reduction compared to code baseline. This offering leverages energy-efficiency and renewable energy strategies along with incentives and targeted market support to address information barriers to participation.
- Support the connection between energy efficiency and resilience by funding education, technical assistance and implementation of renewable and efficiency measures that also meet resilience goals.

Maintain comprehensive market delivery and strategic market transformation activities

2017-2018 Program Action Plan

- Continue successful regional outreach and delivery model with personnel based in Eastern Oregon, Southern Oregon and the Portland Metro area.
- Engage the small commercial market through standard incentive packages for small commercial buildings, targeted by building types. Engage the data center market with updates made in 2016, targeting small- and mid-sized facilities.
- Implement solar ready, an offering that supports early feasibility of installing solar for a new construction/major renovation project, with a revised focus on solar feasibility.
- Coordinate with Northwest Energy Efficiency Alliance to leverage regional activity and prepare for code updates for commercial new construction, enhanced codes pathway and commercial lighting.

2017 Activities—New

Increase market penetration

- Enhance messaging through targeted content, addressing specific market barriers in design and construction.
- Develop design professional resources for targeted market sectors such as multifamily, schools, universities and hospitals.
- Expand the training and education offering—Allies for Efficiency—with best practices, case studies and local success stories. Expand delivery through co-sponsorships.
- Collaborate with cities to advance energy-efficiency opportunities at the master planning stage, supporting large-scale developments.
- Improve the ability of design teams to maintain energy strategies through building construction.
- Streamline the program's early, technical delivery to address major market barriers and modify offers to drive market uptake.

Strategic program development and innovation

- Pilot tools, technologies and strategies to improve design assumptions and building performance, creating a feedback loop from building operators to building designers. Ramp down the variable refrigerant flow pilot, a 2015-16 pilot that sought to establish cost data and savings data to create a standard measure for variable refrigerant flow and assess viability as a formal program offering.
- Review leading national codes and other sources for possible new measures or technical pilots.

2017 Key Assumptions, Risks and/or Challenges

- Construction will continue at a fast pace, which negatively impacts the program's ability to advance code and integrate energy-efficient systems into the projects.
- Growth is expected to continue through 2018 or 2019, with strong activity in office, retail, mixed-use, multifamily and school buildings.
- Anticipated 2018 code changes will be published in 2017.
- Potential policy decisions regarding solar may cause customers to reconsider participation in the Path to Net Zero offering.

2018 Strategic Focus

- Continue program improvements, pilots and deployment of market transformation plans.

2017-2018 Program Action Plan

- Continue to grow the network of designers by providing recognition, case studies, education and opportunities for collaboration as early adopters help bring net-zero buildings to mainstream practice.
- As information on timing and scope of the next code change becomes available, adapt program offerings to prepare the market for code updates. This includes developing new measures, creating business cases for measures that are not cost-effective and exploring opportunities for whole building cost-effectiveness.
- The program will continue to identify opportunities for deeper impact by providing support to new construction development areas that closely align with energy efficiency, such as renewable energy, resilience and master planning.

Targets

	Annual Expense			Electric		Gas	
	Electric	Gas	Total	Savings aMW	levelized cost (cents / KWh)	Savings therms	levelized cost (cents / therm)
2016 Reforecast	\$15.9	\$1.9	\$17.9	5.8	3.0	597,714	27.1
2017 Budget	\$17.5	\$2.4	\$19.9	6.3	2.7	946,372	20.7
2018 Projection	\$21.8	\$3.4	\$25.2	10.2	2.1	1,250,204	22.1

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Incentives	9,143,625	9,826,797	11,174,545	16,448,954
Delivery Costs				
Program Management	229,092	229,092	229,771	229,092
Program Delivery	5,028,083	5,028,083	5,433,137	5,333,274
Marketing-PMC	416,078	416,078	401,170	401,170
Performance Comp	130,000	127,500	60,000	70,000
Total Delivery Costs	5,803,253	5,800,753	6,124,078	6,033,536
ETO expenses				
Staffing	308,688	264,426	328,025	345,344
Marketing	123,000	113,000	132,000	132,000
Other Services	593,715	669,665	720,067	710,089
General	14,500	11,500	0	0
Allocations	610,281	566,857	660,233	626,430
Sub-Total before Admin Costs	16,597,062	17,252,998	19,138,948	24,296,353
Administrative Costs	616,235	604,021	806,392	949,964
TOTAL EXPENSE	17,213,297	17,857,019	19,945,340	25,246,317

Industrial sector—Production Efficiency

Program Description

Energy Trust's Production Efficiency program provides electric and gas energy-efficiency solutions for all sizes and types of eligible industrial and agricultural customers. The program provides services and incentives through three primary delivery tracks. The program is designed and managed in-house by staff, and is delivered to market through the support of contractors and other market actors.

1. The **standard tracks** focus on simpler, common equipment measures, typically installed through Energy Trust trade allies and other vendors. They are delivered by standard track Program Delivery Contractors (PDCs) that focus on trade ally outreach and training, new measure and calculator tool development, project verification and delivery of savings from lighting, irrigation, small compressed air, variable frequency drives and other standard and calculated measures.
2. The **custom track** allows for a comprehensive approach to gas and electric process efficiency projects, retrofits and operations and maintenance improvements. Custom PDC industrial efficiency experts act as long-term energy efficiency account managers for industrial customers of all sizes and types in assigned geographic territories, delivering more than one-half of all Production Efficiency savings. Allied Technical Assistance Contractors provide analyses in support of the program for custom projects.
3. The **energy performance management track** provides training, tools and technical support of Strategic Energy Management (SEM) coaches to help customers save energy by establishing or improving energy performance management practices in the workplace. SEM offerings aim to secure and deepen customer commitment to energy management and improve capability to drive persistent, measureable improvements in the energy intensity of their operations.

2017 Strategic Focus

- Continue to implement and continuously improve standard, custom, and first-year SEM offerings.
- Provide more outreach, technical services and other support to increase savings from the agriculture sector and small- to medium-sized industrial customers.
- Implement new Continuous SEM offering, using adaptive management to tune delivery and drive savings results with 25 to 50 former first-year SEM participants.
- To reduce fluctuations in annual savings results due to a small volume of gas projects, continue to increase the number of gas projects completed in all tracks.
- Work with other organizations such as Northwest Energy Efficiency Alliance and Pacific Northwest National Laboratory to help deploy emerging technologies, including tests of new applications of existing technology, such as smart controls, energy information systems and advanced lighting design.
- Continuously improve internal processes and systems, including use of data and information to support program activities and technical management of all tracks.

2017 Activities—Ongoing

Continuously improve program design and services

- Work with standard track PDCs to recruit, train and provide ongoing support for trade ally vendors to sell more efficient products, equipment and systems.

2017-2018 Program Action Plan

- Use custom PDCs as long-term account managers and technical consultants for all types and sizes of industrial customers.

Broaden participation

- Continue rural outreach and services to farmers, irrigators and their vendors directly and by leveraging and collaborating with other agencies and nonprofits who are active in agriculture.
- Drive geographic diversity of gas and electric savings through outreach to trade allies, associations and other market actors across the state.
- Continue to recruit new participants into first-year SEM, adding 15-25 new SEM participants per year.
- Support successful marketing, communication and event strategies, including direct marketing, materials to support PDC outreach, a quarterly customer newsletter, sponsorship of the NW Industrial Energy Efficiency Summit and the Oregon Manufacturing Awards, and continuing the My Business advertising campaign for trade allies
- Working with utilities and other industry partners, improve awareness of the benefits of efficiency and services available for small- to medium-sized industrial customers.

Develop new measures and approaches to save energy

- Continue to develop new measures and calculator tools for small compressed air, irrigation, refrigeration and other common measures. Update and improve the lighting calculator tool.
- Promote integration of lighting controls and other best practices in comprehensive lighting projects through ongoing promotion of advanced lighting strategies.
- Provide outreach, technical services and incentives to reduce energy use of new or expanding cannabis production facilities. Engage with local market actors and peers in other states to accelerate efficiency solutions and inform planning and strategies.

2017 Activities—New

Continuously improve program design and services

- Provide information and standard reports to customers about their historical participation in Energy Trust programs and the status of projects in process.

Broaden participation

- Provide all available services and incentives for gas efficiency to eligible industrial and agricultural sites in Avista territory.
- Custom PDCs will begin using a tablet-based scoping tool, providing documentation of savings opportunities across all types of energy-using systems at a site. This new service will encourage repeat participation and support customer and PDC planning efforts for future energy projects. By standardizing and automating reports, PDC effort and cost associated with providing custom engineering services at small- to medium-sized industrial sites is reduced. This enables the program to provide more technical services that drive savings to these smaller industries.

Develop new measures and approaches to save energy

- Continue recruitment for the new, multiyear Continuous SEM offering (launching in Q4 2016), bringing in an additional 20 to 30 participants in 2017. Continuous SEM targets the approximately 180 sites that previously participated in first-year SEM offerings. Going forward, Continuous SEM provides a seamless transition for graduates of first-year SEM to further hone their energy management practices and reduce energy waste. Continuous SEM provides coaching services, technical training, energy performance tracking support and performance-based incentives to drive continuous improvement in energy performance.

2017-2018 Program Action Plan

- Build capacity of industrial and agricultural customers to diagnose energy waste and savings opportunities through a regional tool lending library of diagnostic equipment.
- Research technologies and implement a coordinated strategy with environmental stakeholders to make emissions control technologies at sites in Energy Trust territory more energy efficient.

2017 Key Assumptions, Risks and/or Challenges

- Spending of SB 1149 funds on large energy users in the PGE territory will remain under the approved incentive cap, which was developed to comply with SB 838 legislative language that large users who don't pay SB 838 funds should not directly benefit from these funds. If analysis indicates the cap has been exceeded, the program will need to act to reduce spending on these customers. This would impact savings and spending for PGE.
- The economic and policy environment that manufacturers and the program are operating in will not change in significant ways compared to 2015 and 2016.
- Given the economy and past trends, there is a fair chance savings and/or costs will be higher than those budgeted. If such happens we would expect to tap into reserves to continue to get all cost-effective savings.

2018 Strategic Focus

- Use, maintain and improve mature and developing program strategies, relationships, offerings, initiatives and tools.

2017-2018 Program Action Plan

Targets

	Annual Expense			Electric		Gas	
	Electric	Gas	Total	Savings aMW	levelized cost (cents / KWh)	Savings therms	levelized cost (cents / therm)
2016 Reforecast	\$29.4	\$2.7	\$32.0	11.8	3.0	1,154,522	21.9
2017 Budget	\$31.8	\$2.9	\$34.7	13.6	2.9	1,071,174	24.0
2018 Projection	\$34.3	\$3.0	\$37.3	17.0	2.5	1,104,744	24.0

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Incentives	19,470,290	18,245,622	20,094,731	21,658,364
Delivery Costs				
Program Management				
Program Delivery	9,642,718	9,642,718	9,967,462	10,457,287
Marketing-PMC				
Performance Comp	325,000	272,000	275,000	317,500
Total Delivery Costs	9,967,718	9,914,718	10,242,462	10,774,787
ETO expenses				
Staffing	1,117,512	1,066,601	1,194,516	1,252,268
Marketing	259,000	250,000	317,000	298,000
Other Services	1,007,000	764,503	665,533	1,154,544
General	60,500	25,900	35,500	37,500
Allocations	731,219	685,584	755,969	720,618
Sub-Total before Admin Costs	32,613,239	30,952,928	33,305,711	35,896,081
Administrative Costs	1,210,902	1,083,651	1,403,288	1,403,503
TOTAL EXPENSE	33,824,141	32,036,579	34,708,999	37,299,584

Residential sector—Existing Homes

Program Description

The Existing Homes program provides incentives, technical assistance and financing with repayment through utility bills for customers living in existing single-family and manufactured homes. Delivered by Program Management Contractor CLEAResult, subcontractors, trade allies, distributors, retailers and community organizations, the program encourages efficient space heating and controls, water heating, insulation, windows, lighting, water conservation and behavioral actions through incentives, education, trade ally support and market interventions.

2017 Strategic Focus

- Implement new, cost-effective delivery approaches that support cost-effective savings acquisition, such as moving measures midstream. Midstream incentives are paid directly to distributors or retailers and savings passed onto customers.
- Prepare the program to respond to reduced savings from lighting and water conservation devices.
- Establish partnerships and collaboration protocols with low-income stakeholders that leverage Energy Trust's market engagement to support greater efficiency within the lower-income customer base.
- Diversify participation across the service territory through increased analytics, targeting and strategic customer messaging.
- Coordinate with utilities to define how residential energy efficiency supports demand response efforts.
- Identify opportunities for operational efficiencies with incentive processing, trade ally management, quality assurance and measure development processes.

2017 Activities—Ongoing

Expand participation

- Offer weatherization and equipment incentives to electric and gas customers, and pursue targeted efforts to serve moderate-income and rental households.
- Target new participants by providing no-cost LEDs, faucet aerators and showerheads through free Energy Saver Kits and LivingWise kits delivered to sixth grade students in schools.
- Continue marketing campaign to drive participation in all Energy Trust residential programs, in combination with measure-specific marketing.

Refine core measures

- Expand midstream offering for water heating and hearth electronic ignition products, with incentives provided midstream to distributors or retailers and savings passed onto customers.
- Offer incentives for self-installed web-enabled smart thermostat controls.
- Evolve services and offers for residents of existing manufactured homes, incorporating evaluation results of 2016 heat pump pilot to supplement electric forced air furnaces and windows.
- Continue to support and expand energy-efficiency advancements in moderate-income and rental homes, with primary focus on heating system upgrades.

Enhance delivery

- Improve customer and trade ally experiences through easy participation and instant incentive offerings to reduce customer out-of-pocket expenditures at time of sale.

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- Coordinate with Oregon Housing and Community Services, Community Action Partnership of Oregon and agencies serving low-income populations on strategies that result in energy savings across income segments.
- Continue to evolve quality assurance processes to reduce administrative impacts and leverage technology innovations, program partners and available data resources.
- Continue collaboration on process improvements for financing with repayment through utility bills.
- Complete 2016 Nest Seasonal Savings pilot delivery and evaluation. Seasonal Savings is an efficiency measure that builds on Nest thermostats to deliver additional energy savings by making minor automatic adjustments to a participant's thermostat schedule.

2017 Activities—New

Expand participation

- Expand all services and offerings to Avista customers, including offerings, targeted marketing, market development and outreach.
- Develop a pipeline of new savings opportunities. Potential opportunities include proper heat pump sizing and controls, web-enabled thermostats and ceiling insulation in hard-to-reach markets.
- Transition LivingWise kits to include new opportunities, such as advanced power strips that turn off accessory entertainment devices when not in use.
- Bolster participation among diverse customer and trade ally groups through targeted enhanced offerings and outreach.

Refine core measure

- Identify measure design enhancements in response to cost-effectiveness constraints.
- Continue to enhance trade ally online experiences through the Trade Ally Portal, with potential to build additional integrations and web features.
- Explore options to adapt the Energy Saver Kit ordering process to improve installation rates and increase savings per kit.
- Develop instant incentives for online purchases of Nest thermostats.

Enhance delivery

- Assess opportunities for increased midstream engagement with distributors, and learn about the potential to provide incentives to distributors for HVAC measures.
- Support initiatives that leverage demand response activities, such as PGE's pilot to enable customers to shift or reduce electricity consumption while adding stability to the electric system during periods of high energy use. Support energy-efficiency measures through efforts such as connected thermostats and special tariffs.
- Support transition from Energy Trust's EPS™, an energy performance scoring tool that rates a home's energy consumption and costs, to the U.S. Department of Energy's Home Energy Score tool.
- Expand on 2016 pilot investments, including automated thermostat optimization, such as Nest's Seasonal Savings, and explore other software products for thermostats.
- Collaborate with the New Homes program to support real estate market engagement across residential programs.

2017 Key Assumptions, Risks and/or Challenges

- A strong home improvement market will continue to bolster equipment upgrades.

2017-2018 Program Action Plan

- Reduction in measure savings from showerheads and lighting will not limit Energy Saver Kit offerings.
- Midstream engagement will rely on market actors' acceptance of data reporting requirements.
- There will be continued synergy between demand response and energy-efficiency offerings that will drive demand for smart thermostats.
- Contractors in Avista territory will adopt Energy Trust services and incentives for customers.

2018 Strategic Focus

- Align program design and delivery with residential sector assessment findings.
- Evaluate pilots to determine opportunities for program integration.
- Continue to redesign program offerings to include new cost-effective delivery approaches.
- Monitor new technologies and services to support savings growth potential.
- Evaluate midstream program implementation and assess expansion to other markets or measures.

2017-2018 Program Action Plan

Targets

	Annual Expense			Electric		Gas	
				Savings	levelized cost	Savings	levelized cost
Year	Electric	Gas	Total	aMW	(cents / KWh)	therms	(cents / therm)
2016 Reforecast	\$14.6	\$5.4	\$20.1	4.3	3.4	964,278	39.0
2017 Budget	\$13.6	\$6.8	\$20.4	3.9	3.7	1,112,252	48.7
2018 Projection	\$13.1	\$6.7	\$19.8	3.7	3.7	1,106,691	48.7

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Incentives	10,008,058	10,125,803	10,413,197	10,141,520
Delivery Costs				
Program Management	278,167	249,172	327,352	327,352
Program Delivery	5,108,563	4,762,541	4,843,371	4,843,371
Marketing-PMC	1,201,245	1,514,901	1,111,785	1,111,785
Performance Comp	200,000	200,000	90,000	115,000
Total Delivery Costs	6,787,975	6,726,614	6,372,508	6,397,508
ETO expenses				
Staffing	429,894	405,405	453,299	479,637
Marketing	290,000	300,000	284,000	284,000
Other Services	526,250	521,979	649,178	426,200
General	54,250	39,250	35,750	40,750
Allocations	1,321,178	1,289,045	1,382,883	1,331,838
Sub-Total before Admin Costs	19,417,605	19,408,096	19,590,815	19,101,453
Administrative Costs	720,959	679,470	825,431	746,849
TOTAL EXPENSE	20,138,564	20,087,566	20,416,246	19,848,302

Residential sector—Products

Program Description

The Products program provides standard incentives to customers for purchase and installation of energy-efficient products. The program is delivered through Program Management Contractor Ecova, subcontractors, manufacturers and a statewide network of retailers. It acquires cost-effective electric and gas savings through targeted outreach, innovative program offerings and marketing, program efficiencies and focus on retailers and the retail channel. Data analysis, flexible incentive levels and retailer and consumer education helps the program maximize uptake of energy-efficient products and deliver sustained energy savings. The program is comprised of five components: retail lighting and showerheads, new appliances, lighting and showerheads delivered through kits and giveaways, and new manufactured homes.

2017 Strategic Focus

- Educate retailers and consumers about the benefits and features of energy-efficient lighting, showerheads and appliances through targeted marketing.
- Identify strategies to enhance Energy Trust's ability to forecast changes in the lighting market to prepare for significant changes in the baseline.
- Focus on lighting sales and tracking the lighting market. Continue to conduct lighting snapshots to help track the status of the market.
- Evaluate program delivery approaches to increase cost-effectiveness of energy savings.
- Research and test new methods and technologies for improving program delivery and increasing savings.
- Maintain and increase participation of manufacturers and retailers, while expanding presence in rural areas.
- Pursue potential new savings opportunities to expand program portfolio.
- Continue to foster regional collaboration by partnering with key industry partners such as Northwest Energy Efficiency Alliance, Regional Technical Forum and Bonneville Power Administration.

2017 Activities—Ongoing

Expand participation

- Support manufactured home retailers, including through rollout of EPS™ for manufactured homes. EPS is an energy performance score for homes.
- Develop and implement strategies to incorporate an early retirement or replacement program for older manufactured homes.
- Grow participating small and independent retailers, increasing program presence in communities outside the Portland Metro area.
- Continue marketing campaign to drive participation in measures, such as water heaters and smart thermostats, in combination with measure-specific marketing.

Refine measures and offers

2017-2018 Program Action Plan

- Drive savings from efficient retail consumer products by providing incentives through manufacturers and retailers. Efforts aim to reduce the cost, increase the availability and improve the consumer understanding of energy-efficient products.
 - Maintain retail lighting and showerhead program design that uses data analytics and incentive level flexibility to maximize energy savings across the service territory.
 - Train retailers on the benefits of smart thermostats.
 - Support and promote new ENERGY STAR® products.
 - Continue to engage customers and retailers through outreach, events and demonstrations.

Enhance delivery

- Monitor lighting market changes through continued lighting snapshots performed by Ecova field staff. Lighting snapshots are informal surveys that occur every three to four months. They reflect shelf-space data for a broad range of lighting categories and types, and are meant to give an idea of the relative shelf space dedicated CFL, non-ENERGY STAR LED, ENERGY STAR LED and incandescent/halogen bulbs.
- Collaborate with regional stakeholders to design and implement retail offerings across the region.
- Work with existing agency partners, such as food banks, to distribute light bulbs and showerheads through Carry Home the Savings Kits, and continue other product giveaways. Reach out to new partners across the state.

2017 Activities—New

Expand participation

- Serve customers in Avista territory with smart thermostats, water heaters, new clothes washers, new manufactured homes, showerheads available through retail stores and water districts, and low-income kits distributed by food banks.
- Establish relationships with new online retailers and engage the online marketplace.

Refine measures and offers

- Enhance Energy Trust's ability to forecast changes in the lighting market to prepare for significant changes in the baseline. The baseline is representative of the average efficiency of products on the market. Changes in baseline impact Energy Trust's ability to claim savings.
- Develop and implement strategies to incorporate advanced power strips into the program portfolio. Advanced power strips prevent electronics from using power when they are turned off, and are designed primarily for home entertainment centers and home offices.
- Explore potential for piloting Bluetooth-enabled tier 2 advanced power strips. Tier 2 advanced power strips have the same features as regular advanced power strips, and also include a sensor that detects when electronics are not in use and turns them off.
- Research how incentives and marketing messaging impact overall sales and program costs for lightbulbs. Perform a targeted market test that evaluates the relative and combined effects of marketing and incentives for popular A-Line LED bulbs.

Enhance delivery

- Implement a midstream delivery model for efficient water heaters, with incentives paid to distributors or retailers and savings passed onto customers.
- Research market baseline for residential grow lights, and determine potential to expand energy-efficient lighting offerings.

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2017 Key Assumptions, Risks and/or Challenges

- Lighting measure savings per unit will be lower overall in 2017. The volume of qualified units will remain consistent with 2016, provided LEDs capture market share from CFLs and qualified LEDs remain competitive with non-ENERGY STAR LEDs.
- The refrigerator/freezer and clothes washer recycling program will sunset at the end of 2016. Energy Trust is currently working on a retirement plan.
- The OPUC exception for gas storage water heaters will be extended.
- Market actors will continue to accept program design and data reporting requirements.
- Current Bonneville Power Administration Simple Steps Smart Savings™ program contracts will continue through 2017 as currently structured. Simple Steps, Smart Savings reimburses Bonneville Power Administration's public utility customers for qualifying energy-efficient products purchased at retail stores.

2018 Strategic Focus

- Continue to focus on lighting sales and tracking the lighting market.
- Align program design and delivery with residential sector assessment findings.

Targets

Financial and Savings information for the Products Program are included with New Homes Program

Residential sector—New Homes

Program Description

The New Homes program acquires cost-effective electric and gas savings by engaging builders to construct energy-efficient homes that exceed Oregon residential energy code requirements. Through incentives, educational opportunities, trade and program ally support and quality assurance, the program offers builders resources necessary to improve their building practices and increase the energy efficiency of new homes. Whole-home, performance-based program design is delivered through Program Management Contractor CLEAResult, subcontractors, home builders associations and trade allies.

2017 Strategic Focus

- The New Homes program will promote cost-effective specifications through revised program pathways while providing builders flexibility to customize and select improvements.
- The program will continue to prioritize recruitment of builders outside the Portland Metro and Bend markets to bolster participation in regions where participation has been comparatively low.
- The program will leverage code changes to reach out to non-participating builders.
- Enhanced project tracking and analytic capabilities will be operational in 2017, enabling Energy Trust to better monitor changes and trends in building practices.
- The program will research and test new methodologies and technologies for improving program delivery and increasing savings while also supporting sector assessment findings.

2017 Activities—Ongoing

Technical and design assistance

- Provide outreach and technical services to help participating builders maximize energy savings.
- Maintain quality assurance and quality control procedures.
- Work with home builders associations and other industry actors to provide technical assistance in support of a potential update to Oregon residential energy code.
- Coordinate and provide technical assistance to the City of Portland for a potential ordinance regarding home scoring.

Comprehensive market delivery leading to market transformation

- Support Northwest Energy Efficiency Alliance and the Regional Technical Forum's development of a regional standard protocol for performance-based residential new construction efficiency programs.
- Continue to support regional market transformation by driving early uptake of anticipated future Oregon residential energy code requirements.

Increase market penetration

- Maintain project volume to match housing market growth and achieve a 33 percent market share for homes that exceed Oregon's energy code requirements throughout Energy Trust service territory.
- Work with the cities of Hillsboro, Beaverton and others to advance opportunities for energy efficiency in new housing developments prior to the building permitting process. Deliver training and support to real estate industry actors.
- Drive outreach efforts to recruit new builders, focusing on regions with historically low participation and using home builders associations and regional staff as outreach channels.

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- Coordinate and share best practices between Oregon and Southwest Washington EPS™ offerings. EPS is an energy performance score for homes.

2017 Activities—New

Comprehensive market delivery leading to market transformation

- Re-engage modular home builders to assess opportunities, with an emphasis on Southern Oregon.
- Prepare for a potential Q3 2018 update to Oregon residential energy code, if needed.
- Implement revised, approved whole-home, performance-based incentive structure and updated performance pathways.
- Expand whole-home savings to incorporate smart thermostats.

Increase market penetration

- Integrate Avista customers into the program's overall market engagement strategy.

Refine program delivery

- Enhance and improve quality of project data captured in business systems.
- Coordinate with the midstream water heater initiative offered by Products and Existing Homes programs.

2017 Key Assumptions, Risks and/or Challenges

- New construction starts will sustain or increase from 2016 levels, with the Portland Metro and Bend areas driving the majority of production.
- The addition of Avista service territory will add to overall production, and will positively impact savings in Pacific Power territory.
- Revised incentive structures and performance pathways will be readily accepted by builders.

2018 Strategic Focus

- Strategic priorities for the New Homes program will remain consistent through 2018.
- If an update to Oregon residential energy code occurs, the program will support the industry's technical capacity to respond to improved minimum performance levels. In addition, the program will revise savings values and author a new measure approval document, with a focus on maintaining savings and market share with a higher baseline.

2017-2018 Program Action Plan

Targets – New Homes and Products

	Annual Expense			Electric		Gas	
				Savings	levelized cost	Savings	levelized cost
Year	Electric	Gas	Total	aMW	(cents / KWh)	therms	(cents / therm)
2016 Reforecast	\$25.5	\$7.0	\$32.5	12.3	2.6	1,414,998	31.7
2017 Budget	\$26.3	\$4.6	\$30.9	10.9	2.8	1,799,715	16.6
2018 Projection	\$25.9	\$5.0	\$30.9	10.8	2.8	1,938,659	16.5

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Incentives	18,509,877	21,998,535	19,558,916	19,839,475
Delivery Costs				
Program Management	593,546	608,472	811,176	811,176
Program Delivery	4,747,797	4,645,599	4,987,598	4,987,598
Marketing-PMC	1,093,953	1,066,109	1,075,006	1,075,006
Performance Comp	155,000	155,000	140,000	160,000
Total Delivery Costs	6,590,296	6,475,180	7,013,780	7,033,780
ETO expenses				
Staffing	629,430	570,398	603,745	638,896
Marketing	497,000	497,007	380,000	380,000
Other Services	487,500	482,900	975,289	752,311
General	44,500	31,500	29,500	29,500
Allocations	1,441,697	1,357,982	1,128,236	1,073,248
Sub-Total before Admin Costs	28,200,300	31,413,502	29,689,466	29,747,210
Administrative Costs	1,047,053	1,099,775	1,250,923	1,163,088
TOTAL EXPENSE	29,247,353	32,513,277	30,940,389	30,910,298

Commercial sector—Southwest Washington

Program Description

Energy Trust's Washington Existing Buildings program provides gas energy-efficiency solutions for existing commercial buildings. Business customers of NW Natural in Washington can get incentives for qualifying energy-efficient upgrades and retrofits. The program provides incentives for select measures in existing commercial buildings, including office buildings, restaurants and other foodservice buildings, dormitory and assisted living facilities, greenhouses and multifamily structures. The Washington Existing Buildings program consists of two tracks.

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

2017 Strategic Focus

- Deliver tailored services to the market, including business and property owners, tenants, property managers, trade allies and other contractors, distributors, product representatives and manufacturers.
- Improve delivery to historically underrepresented groups.
- Develop the Trade Ally Network to sell energy-efficiency projects of all types and sizes.
- Expand program offerings with free installation of efficient showerheads and faucet aerators.
- Expand program offerings with midstream incentive approaches, with incentives provided midstream to distributors or retailers and savings passed onto customers.
- Cultivate customer relationships, training and education for long-term engagement.
- Improve customer experience and capture efficiencies in delivery costs.
- Continue to explore serving New Building commercial rate customers through standard measures.

2017 Activities—Ongoing

- Serve commercial rate schedule customers of NW Natural in southwest Washington.
- Install steam traps in laundry facilities.
- Expand installation of showerheads and faucet aerators to assisted living facilities, hospitals and fitness centers.
- Offer retro commissioning at reduced incentive rates.
- Maintain custom incentive levels and most standard measure levels. Support custom studies.
- Launch bonuses early in the year to encourage participation in the first half of the year.
- Drive projects to trade allies, and add value to trade ally program participation.

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- Promote and manage Building Operator Certification uptake, participation and applications. Provide incentives for Building Operator Certification training to educate customers about building efficiencies through operations, maintenance and management skills.
- Continue outreach activity to southwest Washington commercial customers of NW Natural through account managers and market sector leads.
- Continue national retail and restaurant customers outreach by ICF International national account managers through national conferences and corporate headquarter visits.

2017 Activities—New

- Explore a midstream incentive offering for HVAC equipment and possibly foodservice equipment, with incentives are provided midstream to distributors and savings passed onto customers.
- Customize ICF's incentive management system for national retail and restaurant customers to increase participation.
- Use ICF Strategic Information System to help identify customers likely to participate in offerings, and use targeted marketing to reach those customers.
- Develop a new custom scoping tool to better identify potential energy-efficiency opportunities.
- Develop additional savings calculators for custom projects.
- Promote the custom offering and expedite turnaround for Allied Technical Assistance Contractors (ATACs) and trade allies to submit unfunded studies.
- Promote assisted custom incentives using ICF engineering team to scope out custom measures for customers with limited access to engineering expertise.
- Use sales assistants to support market sector leads and account managers, allowing account managers to spend more time with large customers on long-term plans.
- Increase trade ally outreach by adding an additional Washington trade ally coordinator.
- Investigate measures for new commercial construction for Washington customers.

2017 Key Assumptions, Risks and/or Challenges

- The economic and policy environment will not change significantly compared to 2016.
- Natural gas prices will remain fairly stable.
- The custom scoping tool will be funded.
- Standard savings can represent as much as 80 percent of annual savings for customers in Southwest Washington. The program's ability to meet savings goals can also be influenced by a few large custom projects. Because standard and custom offerings provide savings at different costs, the portion of standard projects can make forecasting incentive budgets difficult, even if savings remain constant.
- Program will see an increased number of applications but reduced savings per project, requiring additional staff to support outreach and processing.
- It will take time to become a trade ally focused program for standard measures. In the meantime, the challenge will be to expand trade ally support while still supporting small- and mid-size customers directly.

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2018 Strategic Focus

- Build on strategies that engage customers in cost-effective standard and custom measures through trade ally and ATAC engagement.
- Expand program with free installation of efficient showerheads and faucet aerators.
- Expand program with midstream incentive approaches, with incentives provided midstream to distributors or retailers and savings passed onto customers.
- Drive market adoption of new HVAC and controls technologies.
- Continue to explore serving New Building commercial rate customers through standard or custom measures.

Targets

Year	Annual Expense			Electric		Gas	
	Electric	Gas	Total	Savings aMW	levelized cost (\$ / KWh)	Savings therms	levelized cost (cents / therm)
2016 Reforecast		\$0.6	\$0.6			114,882	43.1
2017 Budget		\$0.8	\$0.8			156,525	48.6
2018 Projection		\$0.9	\$0.9			156,525	49.0

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Incentives	398,050	314,668	414,087	414,087
Delivery Costs				
Program Management	15,350	15,350	16,200	16,200
Program Delivery	135,392	135,392	160,000	160,000
Marketing-PMC	39,982	39,982	60,000	60,000
Performance Comp	10,000	10,000	10,000	10,000
Total Delivery Costs	200,724	200,724	246,200	246,200
ETO expenses				
Staffing	3,346	23,846	25,751	27,254
Marketing	13,000	13,000	3,500	15,500
Other Services	16,000	7,600	11,000	11,000
General	13,722	12,222	17,860	17,240
Allocations	44,203	40,673	94,804	91,803
Sub-Total before Admin Costs	689,045	612,733	813,202	823,084
Administrative Costs	25,584	21,452	34,263	32,182
TOTAL EXPENSE	714,629	634,185	847,465	855,266

Residential sector—Southwest Washington

Program Description

Residential programs in southwest Washington acquire cost-effective gas savings by engaging with builders and homeowners. Energy Trust engages with builders to increase energy efficiency of newly constructed homes through incentives, education, trade and program ally support and quality assurance. For single-family homeowners, Energy Trust provides energy savings through incentives for efficient space heating and controls, water heating, insulation, windows, water conservation and behavioral actions, education, trade ally support, financing with repayment through utility bills, and market interventions.

2017 Strategic Focus

- Deliver program through Program Management Contractor CLEAResult, subcontractors, trade allies and market actors, distributors, retailers and community organizations.
- Continue outreach that builds on existing relationships with trade allies while looking for opportunities to enhance participation through new trade ally enrollment in offerings like financing with repayment through utility bills.
- Partner with Clark Public Utilities and market actors to reach customers, increase savings and streamline verifier and builder experiences.
- Incorporate midstream offerings like gas fireplaces with electronic ignition and gas water heating.
- Expand customer participation through strategies like financing with repayment through utility bills, increased incentives for rental customers and collaboration with community agencies.
- Monitor and incorporate new gas saving technologies and products into the program.
- Continue to grow and develop builder and verifier networks through outreach activities to support increased market share of EPS homes.
- Encourage new construction building practices that exceed code through technical support and monitoring building trends.
- Support regional efforts to incorporate new construction standard protocols into a performance-based program design.

2017 Activities—Ongoing

Existing Homes

Expand Participation

- Collaborate with Craft3 to improve processes for financing with repayment through utility bills.
- Collaborate with the Products program to increase customer adoption and installation of self-installed, web-enabled smart thermostat controls.

Refine Core Measures

- Offer incentives for efficient space heating and controls, water heating, insulation and windows.

Enhance Delivery

- Improve customer and trade ally experience through instant incentives, reducing paper work and making it easier for homeowners to participate. Instant incentives are provided directly to contractors, so contractors deduct incentive amounts directly from customer invoices.

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- Support trade ally experience through customized in-person engagements that support ease of incentive application submission.
- Reduce administrative impacts through improved program quality assurance processes, leveraging technology innovations, program partners and available data resources.

New Homes and Products

Technical and design assistance

- Promote EPS™, a home energy performance score, through engagements, trainings and support of verifier and builder networks. Verifiers are independent market-based companies that provide energy modeling and home inspection services for builders to ensure compliance with Energy Trust requirements.
- Support administration of third-party field quality assurance, including coordination with verifiers to maintain quality assurance and quality control procedures.
- Provide outreach and technical services to help participating builders maximize energy savings.

Comprehensive market delivery

- Collaborate with Axis software provider company, Pivotal, to identify database improvements
- Leverage permit data to target builder recruitment and engagement with existing trade allies.

Increase Market Penetration

- Support new construction through EPS incentives and performance modeled savings.
- Collaborate with Bonneville Power Administration Simple Steps, Smart Savings™ to continue to offer discounted showerheads at retail stores. Through its Simple Steps, Smart Savings™ program, BPA reimburses its public utility customers for qualifying products purchased at retail stores.

2017 Activities—New

Existing Homes

Expand participation

- Bolster participation of diverse customers and trade allies through enhanced offerings and outreach.
- Explore option to extend the Energy Saver Kit ordering process to include a partial pay option. Energy Saver Kits include efficient showerheads and faucet aerators, and are available by request through Energy Trust's website.

Refine core measures

- Expand midstream program design offerings by leveraging new distributor sales allocation tool and assessing midstream design opportunities for water heating and HVAC measures with incentives provided midstream to distributors or retailers and savings passed onto customers.
- Identify measure design enhancements in response to cost-effectiveness challenges.
- Apply energy usage analysis to drive energy and cost savings and evaluate measures.

Enhance Delivery and Operations

- Continue to enhance trade ally experiences with new web form features and the Trade Ally Portal. The Trade Ally Portal is a trade ally tool that provides information about all Existing Homes projects an ally has submitted, and helps to facilitate the web form submittal process.
- Expand use of the bulk import tool to improve processing efficiencies. This PMC tool will help expedite submittal of project information to Energy Trust systems by automating data transfer.

New Homes and Products

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Technical and Design Assistance

- Customize market actor support to further enhance EPS success in southwest Washington.

Comprehensive Market Delivery

- Identify market engagement strategies to support builder retention and recruitment.
- Collaborate with Northwest Energy Efficiency Alliance Efficient Homes Initiative to explore New Home modeling and utility claimed savings standard protocol.

Increase Market Penetration

- Implement new user-defined reference home and pathways in conjunction with Washington State Energy Code update, which is in the process of defining the new baseline efficiency of a code-built home.
- Support real estate market engagement across residential programs.

2017 Key Assumptions, Risks and/or Challenges

Existing Homes

- Midstream engagement relies on market actors' acceptance of data reporting requirements.
- Reduction in measure savings from showerheads will not limit the availability of Energy Saver Kits.
- A wide array of financing options are available in the market that compete with utility on-bill repayment financing offers.

New Homes and Products

- There will be an increase to the Washington Residential State Energy Code, which will lead to increased program participation requirements. Increased requirements could negatively impact program participation due to higher, more expensive standards.
- There will be a continued robust new construction market in Clark County.
- Market adoption and high participation in EPS New Homes will continue.

2018 Strategic Focus

- Align program design and delivery with residential sector assessment findings.
- Drive participation in underserved customer segments.
- Continue to cultivate partnership with Clark Public Utilities and market actors to reach customers.
- Evaluate pilots to determine opportunities for integration of gas saving technologies and products.
- Monitor new technologies and services to support savings growth potential.
- Increase market share of EPS homes and develop builder and verifier networks
- Prepare for 2019 Washington Residential Energy code changes, including monitoring and tracking updates and participation in stakeholder groups.

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Targets

Year	Annual Expense			Electric		Gas	
	Electric	Gas	Total	Savings aMW	levelized cost (\$ / KWh)	Savings therms	levelized cost (cents / therm)
2016 Reforecast		\$1.2	\$1.2			214,217	37.9
2017 Budget		\$1.1	\$1.1			126,014	58.8
2018 Projection		\$1.2	\$1.2			126,014	63.6

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Incentives	330,419	666,478	475,510	475,510
Delivery Costs				
Program Management	10,704	10,704	11,030	11,030
Program Delivery	238,896	238,896	234,384	234,384
Marketing-PMC	18,000	18,000	30,332	30,332
Performance Comp	10,000	10,000	10,000	10,000
Total Delivery Costs	277,600	277,600	285,746	285,746
ETO expenses				
Staffing	58,221	50,209	67,362	71,294
Marketing	15,000	15,000	10,000	10,000
Other Services	76,550	52,450	50,550	145,550
General	16,268	16,268	22,112	21,395
Allocations	92,755	85,832	170,795	164,895
Sub-Total before Admin Costs	866,813	1,163,837	1,082,075	1,174,390
Administrative Costs	32,184	40,745	45,592	45,917
TOTAL EXPENSE	898,997	1,204,582	1,127,667	1,220,307

Northwest Energy Efficiency Alliance

Program Description

Northwest Energy Efficiency Alliance identifies and drives market transformation programs to accelerate and sustain market adoption of energy-efficient products, services and practices across commercial, industrial and residential sectors, working in coordination with Energy Trust. NEEA researches and assesses emerging energy-efficiency opportunities and facilitates coordinated regional strategies to permanently remove market barriers and leverage the collective scale and power of the region. NEEA's role in market transformation efforts varies by program, and generally focuses on activities with market participants upstream from Energy Trust and utility customers.

2017 Strategic Focus

Fill the energy-efficiency market transformation pipeline with new products/services/practices.

- Identify new opportunities through scanning, research and market partner engagement.
- Assess the potential and confirm the viability of newly identified emerging technologies, including technical analysis and assessment of market barriers.
- Screen, select and prepare technologies to enter the market transformation pipeline.

Create market conditions that will accelerate and sustain the market adoption of emerging energy-efficiency products, services and practices.

- Influence market actors to increase availability of energy-efficient products and services.
- Improve/ensure product quality.
- Build market knowledge and capability to support new products, services or practices.
- Identify and develop market resources that capitalize on the compelling value proposition for a new product, service or practice.
- Increase product awareness.
- Develop strategies to address price/first cost issues.
- Influence and support the successful implementation of more stringent building codes and appliance standards.

Accelerate and sustain market adoption of efficient natural gas products/practices/services resulting in increased consumer choice and efficiency of natural gas use in the Pacific Northwest.

2017 Activities—Ongoing

Fill the pipeline with new energy-efficiency products, services and practices.

- Explore advancement of an initiative to drive new manufactured homes products to meet or exceed the Northwest Energy Efficient Manufactured (NEEM) Home 2.0 performance specification.
- Explore advancement of an initiative to drive enhanced commercial new construction practices and building codes.
- Explore an initiative to drive market adoption of secondary-glazing window attachments for existing commercial buildings.
- Identify and explore additional emerging technology opportunities.

Accelerate and sustain market adoption of energy efficient products, services and practices.

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- **Heat pump water heaters:** Increase product availability, supply channels and market adoption of efficient products via advertising and upstream/midstream incentives. Advance the federal standard for small tanks through research, data collection and partner engagement.
- **Ductless heat pumps:** Improve cost-effectiveness through strategies to adopt tiered incentives and reduce installed costs. Increase product availability in retail settings and non-contractor channels.
- **Retail product platform:** Expand relationships and leverage retailers and extra-regional partners. Deploy an automated data administration tool and process to support retail partners and products.
- **Super-efficient heat pump dryers:** Improve product quality and availability via upstream engagement and incentives. Leverage retail product platform for data administration. Advance dryer standards through research, testing and partner engagement.
- **Efficient homes:** Engage and educate regional real estate professionals to increase awareness and perceived value of energy-efficient building practices and products, including heat pump water heaters and ductless heat pumps. Analyze and evaluate pilot homes and align modeling guidelines with regional green building programs. Educate market actors on advanced practices and improve compliance with building codes.
- **Reduced wattage replacement lamps:** Achieve 40 percent market share penetration for low-wattage T8 replacement sales through distributor and manufacturer incentives. Deploy robust automated data administration tool and process to support multiple products and stakeholders.
- **Luminaire level lighting controls:** Complete unified product specifications and drive adoption by major manufacturers. Develop case studies and business case for target audiences to drive market awareness and demand.
- **Certified refrigeration energy specialist:** Build market demand and adoption. Develop partnerships, case studies, tools and resources to drive demand and ease adoption.
- **Commercial and industrial infrastructure programs:** Develop, deploy and track two top tier trade ally advanced training programs. Increase and measure influence of lighting resources on utility programs. Leverage commercial real estate firm leaders for advancement of all NEEA commercial programs. Drive adoption of Building Renewal Spark tool. Create a research-informed infrastructure plan for small commercial markets. Support development and uptake of online Strategic Energy Management and Energy Management Assessment resources.

Research and plan for development of efficient natural gas products, practices and services.

- Complete mid-cycle assessment on progress and status of natural gas pilot
- Work upstream to encourage commercialization of gas heat pump water heaters
- Develop specifications and engage supply chain to prepare rooftop HVAC units for utility programs.
- Continue development of pilot programs for combination space and water heating systems, hearth products and gas dryers.

2017 Activities—New

Fill the pipeline with new energy-efficiency products, services and practices.

- Explore advancement of initiatives in the following areas:
 - Residential—Low-e window attachments
 - Residential—Combined-zonal heating and water heating equipment
 - Residential—Split heat pump water heater with outdoor compressor unit
 - Commercial/Industrial—Extended motor products labeling
 - Commercial/Industrial—Engineered air nozzles for compressed air systems

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Accelerate and sustain market adoption of energy-efficient products, services and practices.

- **Manufactured homes:** Establish a NEEM Home 2.0 performance specification and drive voluntary adoption to influence a new HUD code for manufactured homes. Achieve Regional Technical Forum measure approval and complete manufacturer market test with three or more factories.
- **Commercial code enhancement:** Adjust the energy codes for all non-residential buildings toward sequentially lower energy use during normal code change cycles through creation of state roadmaps and execution of market tests.
- **Commercial window attachments:** Demonstrate market viability and credible performance ratings to accelerate market adoption. Complete market characterization, baseline and product assessment. Launch market test.
- **Heat pump water heaters:** Increase product availability, supply channel and market adoption of efficient products via advertising and upstream/midstream incentives. Increase contactor and retail sales of heat pump water heaters with a focus on emergency replacement units. Advance the small tank federal standard through improved data collection resolution and national heat pump water heater support activities and alignment.
- **Ductless heat pumps:** Improve cost-effectiveness through strategies to reduce installed costs, increase target market size and quantify air quality improvements. Increase product availability in retail settings and direct non-contractor channels. Support code adoption through the development of an improved lab testing protocol.
- **Retail product platform:** Achieve measurable increase in ENERGY STAR® market share and influence spec changes for two product categories. Refine data gathering and analysis for energy savings reporting and evaluation. Grow extra-regional ENERGY STAR Retail Products Portfolio program to 25 percent of U.S. households.
- **Super-efficient heat pump dryers:** Research multifamily opportunities and establish two pilot projects with funders. Influence at least one major big box retailer to carry heat pump dryers on the floor and partner with funders to host at least two in-store events in the region. Complete consumer message testing research and support supply chain and funder product promotions. Support establishment of at least five Pacific Northwest utility programs.
- **Next step homes:** Achieve Regional Technical Forum approval of standard modeling protocol and support establishment of five or more utility programs. Establish data collection, modeling guidelines, marketing and technical assistance for home certification program. Expand technical training offerings. Track measure adoption. Prepare recommendations for changes in codes and standards.
- **Reduced wattage replacement lamps:** Achieve 50 percent market share penetration for low wattage T8 replacement sales through distributor and manufacturer incentives. Target additional products through manufacturer and distributor platform in partnership with the regional up/mid/downstream strategy.
- **Luminaire level lighting controls:** Validate product through pilot research, case studies and extra-regional data. Enable utility programs through incentive design, energy savings estimates, installer training and marketing toolkit development.
- **Certified refrigeration energy specialist (CRES):** Build market demand and adoption through marketing efforts, review courses and support for completion of required certification activities. Drive and support CRES American National Standards Institute accreditation.
- **Commercial and industrial infrastructure programs:** Ensure uptake and success of NXT Level 1 Training and develop/deploy NXT Level 2 Training. Increase and measure influence of lighting

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resources on utility programs. Leverage commercial real estate firm relationships and resources for advancement of all regional commercial programs. Create a research-informed infrastructure plan for small commercial markets. Support development and uptake of online SEM and Energy Management Assessment resources and SEM knowledge transfer from industrial to commercial.

Accelerate and sustain market adoption of efficient natural gas products/practices/services.

- **Gas fired heat pump water heaters:** Leverage partnerships with water heater manufacturers to prioritize advanced gas water heater product. Scan for new products capable of delivering a coefficient of performance > 1.0. Create strategy/support across North America for advanced water heater specification. Conduct market characterization study to understand current state of water heater market (cost-shared with electric).
- **Combination space and water heating product:** Scan for new products capable of supplying both space and water heat plus a cooling option. Complete prototype testing of Stone Mountain Technologies combination system and evaluate findings.
- **Hearth products:** Complete market characterization research. Complete low capacity product testing. Evaluate pilot light retrofit viability and complete potential field test. Pending research, create regional strategy for hearth products.
- **Gas dryers:** Participate in federal test procedure and specification rulemakings. Continue to strengthen California gas dryer partnership to influence original equipment manufacturer commitment to high efficiency gas dryers. Scan and explore for more efficient products including modulating valve technology.
- **Rooftop HVAC:** Conduct market baseline. Complete field demonstration and evaluate findings. Develop specification and solicit support across North America. Develop road map and explore opportunities for accelerated uptake of advanced rooftop HVAC product.

2017 Key Assumptions, Risks and/or Challenges

Key assumptions:

- Funding will continue at current level.
- Deep collaboration with funding partners will continue.

Key risks and challenges:

- There is potential for less active federal/state bodies in driving change through codes and standards.
- Regulatory or governing body decisions could curtail investments in energy efficiency, including elimination/expiration of tax credits.
- Unpredictable economic and market dynamics with manufacturers, retailers and other supply chain participants could impact activities.
- There could be a Regional Technical Forum backlog for getting measures approved.
- Timely utility program uptake by funders could be impacted by issues with cost-effectiveness.
- Inconsistency in incentive approaches across the region can create market confusion.

2018 Strategic Focus

- Maintain focus on filling the energy-efficiency market transformation pipeline with new products, services, practices and approaches.
- Continue creating market conditions to accelerate and sustain the market adoption of emerging energy-efficiency products, services and practices.

2017-2018 Program Action Plan

Targets

	Annual Expense			Electric		Gas	
				Savings	levelized cost	Savings	levelized cost
	Electric	Gas	Total	aMW	(cents / KWh)	therms	(cents / therm)
2016 Reforecast	\$7.3	\$1.0	\$8.3	7.2	1.3		
2017 Budget	\$7.3	\$1.2	\$8.5	7.0	1.3		
2018 Projection	\$7.0	\$1.7	\$8.7	6.8	1.3		

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Program Delivery	7,913,892	7,913,892	8,070,829	8,318,773
ETO expenses	93,823	89,019	79,782	77,235
Sub-Total before Admin Costs	8,007,715	8,002,911	8,150,611	8,396,008
Administrative Costs	297,320	280,179	343,414	328,276
TOTAL EXPENSE	8,305,035	8,283,090	8,494,025	8,724,284

NEEA by Program

Commercial	2,736,097	2,728,848	2,852,738	2,862,452
Industrial	454,918	452,331	240,338	230,554
Residential	5,019,886	5,007,969	5,292,403	5,473,497
Washington	94,134	93,942	108,546	157,781
TOTAL EXPENSE	8,305,035	8,283,090	8,494,025	8,724,284

Renewables sector—Solar

Program Description

The Solar program works with an approved network of solar trade ally installers to provide incentives for construction of high-quality solar electric systems throughout Oregon. **Standard incentives** for net-metered solar electric systems are available across all sectors and customer types. When funding allows, the program allocates incentives to **custom or innovative solar projects**, which may be net-metered or provide electricity directly to a utility.

The program aims to create a vigorous and sustainable market for solar in Oregon that will ultimately thrive without incentives. The program design is based on offering incentives that are managed in response to market behavior; increasing consumer awareness through education and marketing; creating and enforcing quality standards; aiding the industry to drive down non-hardware business and marketing soft costs; and ensuring a robust, qualified installer base.

2017 Strategic Focus

- Install 1.9 average megawatts of new solar generation in the standard incentive program at residential and business sites throughout the state.
- Provide incentives that are effective at driving demand and are responsive to pricing trends.
- Be transparent and accountable in management of incentive funding.
- Support the solar industry in making business, process and technical improvements that reduce soft costs.
- Prepare for and adapt the program to respond to market, regulatory and policy changes that may affect the solar industry and solar above-market costs.
- Maintain a strong pipeline of solar projects across sectors through education, marketing and collaboration with industry and advocates.
- Support innovative solar projects that provide additional community or utility benefits.

2017 Activities—Ongoing

- Adjust incentives incrementally in response to market behavior—reducing incentives as costs decrease to support a growing number of projects. Assuming a continued reduction in solar prices and stable policies, the program will support more generation with a smaller budget in 2017.
- Continue lead generation services to quickly connect customers with trade allies and reduce customer acquisition soft costs.
- Provide trade allies with continued business development opportunities to improve their customer acquisition, project accounting and internal quality management processes. The goal of these efforts is to support reduction of soft costs and help allies remain competitive in a market with downward pressures on prices.
- Continue statewide marketing to support positive messages about solar.
- Be responsive to data requests related to OPUC dockets, including resource value of solar (UM 1716) and Coal to Clean legislation (SB 1547), legislative activity and other requests and activities.

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2017 Activities—New

- Provide project development support to customers exploring the feasibility of using solar plus storage systems to provide grid benefits and/or improve community resilience.
- Along with the Clean Energy States Alliance and other state incentive programs, the program has applied for a U.S. Department of Energy grant to widen participation to solar systems that provide benefits for low- to moderate-income customers. A decision is expected in late 2016.
- Support the OPUC's development of a community solar program with expertise and market data.
- Engage with the Renewable Advisory Council and the industry to explore program responses to changes in market and policy conditions that could impact solar above-market costs.

2017 Key Assumptions, Risks and/or Challenges

- There will be continued declines in solar costs and continued uncertainty in the policy environment, particularly for residential solar. Staff will monitor market changes and plan for various scenarios.
- Net metering policy may be subject to change following completion the OPUC's resource value of solar docket (UM 1716). Budget assumes any changes would not be in place in time to impact incentive levels or activity in 2017.
- The scheduled Residential Energy Tax Credit expiration at the end of 2017 is likely to increase near-term demand in the residential market.
- In HB 1547, the OPUC is tasked with developing a program to incentivize the development of community solar projects by July 1, 2017. It is unclear what role, if any, Energy Trust would play in a community solar program. Given this uncertainty, the timing of program development and the time required for individual projects to be planned and completed, the budget is written assuming Energy Trust will not pay incentives for any community solar projects in 2017.

2018 Strategic Focus

- Provide incentives that are effective at driving demand and are responsive to pricing trends.
- Be transparent and accountable in management of incentive funding.
- If above-market costs continue to decline under the given policy and market conditions, prepare to transition incentives out of segments of the market that need less support.
- Support the solar industry in making business, process and technical improvements that reduce soft costs.
- Maintain a strong pipeline of solar projects across sectors through education, marketing and collaboration with industry and advocates.
- Support innovative solar projects that provide additional community or utility benefits.

2017-2018 Program Action Plan

Targets

	ACTIVITY BASIS			ACCOUNTING BASIS		
	BUDGET	GOAL	COST	BUDGET	GOAL	COST
Year	(\$ millions)	aMW	(\$ mils / aMW)	(\$ millions)	aMW	(\$ mils / aMW)
2016 Reforecast	\$12.0	1.71	\$7.0	\$13.5	2.41	\$5.6
2017 Budget	\$9.7	1.50	\$6.5	\$13.4	2.86	\$4.7
2018 Projection	\$7.1	1.41	\$5.1	\$9.9	1.80	\$5.5

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Incentives	13,043,909	11,141,300	10,620,000	7,390,000
Delivery Costs				
Program Delivery	420,000	440,000	444,500	444,500
Performance Comp	10,000	10,000	10,000	10,000
Total Delivery Costs	430,000	450,000	454,500	454,500
ETO expenses				
Staffing	611,096	556,757	628,931	644,928
Marketing	180,500	147,000	177,000	177,000
Other Services	297,000	267,255	372,499	257,499
General	152,700	177,015	170,800	195,400
Allocations	308,751	294,434	444,051	425,542
Sub-Total before Admin Costs	15,023,956	13,033,761	12,867,781	9,544,869
Administrative Costs	557,827	456,307	542,165	373,195
TOTAL EXPENSE	15,581,783	13,490,068	13,409,946	9,918,064
Plus/minus Incentives committed for future years	(833,909)	(1,485,621)	(3,679,999)	(2,804,500)
TOTAL EXPENSE, Action Plan	14,747,874	12,004,448	9,729,948	7,113,565

Renewables sector—Other Renewables

Program Description

The program provides support for renewable energy projects that generate electricity using biopower, wind, hydropower and geothermal technologies. 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 custom installation incentives for projects with generating capacities of up to 20 megawatts. The program also provides incentives for project development assistance, which can include incentives to pay a portion of the costs of feasibility studies, technical assistance or other activities to help projects move from concept to construction. Project installation incentives are calculated on a custom basis during a technical and financial review of a project's application. All incentives are paid following successful project installation or activity completion.

2017 Strategic Focus

- Maintain support for a broad portfolio of technologies to sustain and grow Oregon's vibrant small- and community-scale renewable energy generation markets.
- Continue to focus project pipeline development and outreach on technologies and project types able to offset onsite load or leverage additional benefits that can bring outside funders and financing.
- Continue and expand innovative delivery models to bring more projects into the pipeline and accelerate the pace of project completions.
- Continue efforts to optimize the performance of operating projects to maximize value for ratepayers.

2017 Activities—Ongoing

- Continue pipeline development efforts for targeted project types, including biogas projects (particularly at municipal wastewater treatment plants and with food processors) and hydropower projects installed in irrigation water delivery systems. These types of projects offer the best short-term opportunities based on current market conditions and also reach hard-to-serve markets. Pipeline development efforts have been very successful over the past 18 months, leading to a pipeline of 43 projects—more than four times as many as at the beginning of 2015.
- Support the existing 14 participants in the Irrigation Modernization Initiative, providing technical assistance and offering project development assistance for resource assessments, feasibility studies and other early stage activities. Irrigation Modernization is an effort to develop new, in-conduit hydropower projects through the modernization of irrigation district water delivery infrastructure. The resulting irrigation systems can reduce energy use and operating costs; generate income from renewable energy production; increase agricultural production, quality and diversity; reduce water use; and enhance environmental conditions.
- Hold competitive solicitations for projects seeking construction incentives greater than \$200,000. Applications are expected from five to seven projects, split between biopower and hydropower, with two projects likely to receive commitments of funding in 2017.
- Maintain and continue to build relationships with project developers and stakeholders in biomass, small hydropower and geothermal communities.

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- Manage Renewable Energy Certificate (REC) delivery from new projects while continuing work with Portland General Electric and Pacific Power to initiate REC delivery for existing, operational projects.
- Be responsive to data requests related to OPUC dockets and activity, legislative activity and other requests.

2017 Activities—New

- Expand participation in the Irrigation Modernization Initiative to meet increasing interest and market uptake, adding seven to 10 irrigation districts and ditch companies.
- Pursue plans for small, rural wastewater treatment plants to reach net-zero energy use through solar and/or anaerobic digestion, leveraging a strong relationship with the Oregon Association of Clean Water Agencies, a membership organization serving wastewater treatment facilities.

2017 Key Assumptions, Risks and/or Challenges

- All federal and state energy tax credit and incentive policies will remain stable, either available as-is or expiring under currently expected timelines. The planned expiration or reduction in some tax credits will raise above market costs for affected technologies.
- Continued declines in avoided-cost prices available for projects that sell their power on the wholesale energy market will raise above market costs.

2018 Strategic Focus

- Maintain support for a broad portfolio of technologies to sustain and grow Oregon's vibrant small and community-scale renewable energy generation markets.
- Continue to focus project pipeline development and outreach on technologies and project types able to offset on-site load or leverage additional benefits.
- Continue and expand the use of innovative delivery models to bring more projects into the pipeline and accelerate the pace of project completions.
- Continue efforts to optimize the performance of operating projects to maximize value for ratepayers.

2017-2018 Program Action Plan

Targets

	ACTIVITY BASIS			ACCOUNTING BASIS		
	BUDGET	GOAL	COST	BUDGET	GOAL	COST
Year	(\$ millions)	aMW	(\$ mils / aMW)	(\$ millions)	aMW	(\$ mils / aMW)
2016 Reforecast	\$5.3	0.00	\$0.0	\$6.3	0.01	\$603.8
2017 Budget	\$7.6	0.81	\$9.4	\$6.4	0.00	\$5,367.7
2018 Projection	\$9.4	0.40	\$23.2	\$7.7	0.81	\$9.5

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Incentives	4,474,087	5,006,510	4,967,377	6,235,100
ETO expenses				
Staffing	491,680	471,334	547,107	541,980
Marketing	35,000	25,000	18,000	18,000
Other Services	439,500	397,100	382,000	377,000
General	15,400	18,800	17,900	17,900
Allocations	174,391	162,915	224,916	211,904
Sub-Total before Admin Costs	5,630,058	6,081,659	6,157,300	7,401,884
Administrative Costs	209,039	212,917	259,429	289,407
TOTAL EXPENSE	5,839,097	6,294,576	6,416,729	7,691,291
Plus/minus Incentives committed for future years	989,914	(960,506)	1,207,723	1,682,100
TOTAL EXPENSE, Action Plan	6,829,011	5,334,070	7,624,452	9,373,391

Customer Service and Trade Ally Management

Energy Trust's Communications and Customer Service (CCS) group provides staff, services and resources to administer and manage customer experience and the trade ally network. CCS supports customer access to information, services and cash incentives to support a consistent and positive customer experience. This is accomplished by working with programs and operational support groups on standards, training and strategic planning to support customers and a network of informed contractors with high-quality customer service.

The Customer Service and Trade Ally team delivers services through staff based in CCS, a call center contract for call-taking and administrative services, a trade ally insurance verification contract, and coordination across all Energy Trust business functions. Staff also coordinate with customer service and trade ally specialists at program delivery contractors.

2017 Strategic Focus

- Enhance customer service experience through simplification of customer interactions and transactions resulting in increased satisfaction and decreased costs.
- Facilitate the development of a five-year vision for customer experience and the contractor network that allows prioritization of system improvements, in collaboration with programs. Efforts to map the customer experience in 2017 will be customized by program need.
- Implement opportunities to improve or streamline data collection to give greater visibility into trade ally and non-trade ally activity.
- Monitor and support service and program design changes that would impact trade ally or customer service functions, such as the transition of service to Avista and possible changes within the residential sector.

2017 Activities—Ongoing

- In alignment with program strategies, administer the Trade Ally Network to ensure compliance and contractor access to program and technical information; communicate updates through forums, newsletters and other targeted communications.
- Lead customer focus priority, providing strategic direction and guidance to multiple programs and business functions to assure high-quality service. Convene customer service staff from all business functions to ensure continuous process improvements and exceptional service to customers.
- Assist programs with strategic planning, communications and complaint resolution during planned measure or program design changes impacting customers or trade allies.
- Resolve complaints, monitor complaint trends, facilitate resulting process improvements and provide training to support improved service. Continue focus on ensuring accurate tracking and reporting of complaints in Customer Relationship Management (CRM) system.
- Support trade ally online enrollment process to ensure ease of use for contractors, user adoption and achievement of planned operational efficiencies.
- Support the goal of a culturally attentive organization with diverse employees, contractors and customers. Collaborate with programs and other CCS functional areas to effectively serve customers and contractors who have not yet participated, and further recruitment and engagement of minority- and women-owned businesses into the Trade Ally Network.

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- Lead effort to allow better reporting on trade ally and non-trade ally contractor activity through consistent data entry of project information and new data report. Streamline how information is captured to facilitate better information on allies who can effectively help customers participate in programs and contribute to program goals. Inform trade ally rating system criteria and development for programs that elect to implement this strategy.
- Implement customer service and trade ally improvements as part of organization's year-end change processes improvements project, including stakeholder and ally communications, form and website updates.
- In collaboration with IT and programs, lead efforts to enhance Existing Homes trade ally portal and support new trade ally portal development for other programs.
- Maintain general call center customer services and Interactive Voice Response system (IVR). Continue monitoring transition to new IVR system implemented in 2016 for customer experience, expected data and operational efficiencies.
- Monitor data metrics established in 2015 for Existing Homes call center to identify potential areas for improvement.

2017 Activities—New

- In collaboration with programs, facilitate the development of a new customer experience roadmap that identifies customer pathways, expectations and transactions by program, and supports the evolution of the customer experience to meet program savings and generation goals. (This project was planned for 2016, but was moved to 2017 given staffing transitions.)
- In alignment with the customer experience road map and in collaboration with programs, conduct an assessment to identify transitions in market approaches to determine needs for the Trade Ally Network administration and support in future years.
- Maintain main call center services through renewed contract and rebid services in late 2017. Adapt service levels with transition of solar lead tracking into CRM system.
- Contribute to Diversity Initiative's business operations focus area by informing and implementing strategies to increase the diversity of contractors in the network.
- Increase trade ally use of the Existing Homes Trade Ally Portal, and inform discussions on the benefits and applicability of the portal for other programs.
- Support Solar program rollout of trade ally rating system. Apply best practices based on experience with the Existing Homes trade ally rating system to prepare for a successful launch.
- Design trade ally forums to be responsive to the needs of a growing audience of trade allies, vendors and stakeholders with relevant content, training and materials, while meeting program needs. Hold two sets of forums annually in Portland, Bend and Medford. Maintain and possibly expand forums in rural areas to allow for trade ally outreach and training, and to improve contractor participation.
- Build on the success of the new trade ally online enrollment application and process by adding new ally types, such as allies with multiple business locations, real estate allies, owner/builder allies and program/design allies. Develop functionality to support enrollment in sub-programs, including Savings within Reach.
- Serve as product owner for Phone Project Team and collaborate with IT to establish use of new phone system and assist with training for staff. Migrate existing IVR system to new phone system or third-party IVR provider based on capabilities of new phone system.

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- Develop enhanced customer experience training for experienced staff and program delivery contractors.
- Guide strategies for customer and contractor engagement and communications related to program changes, such as changes to existing manufactured home offerings.
- Communicate to customers and trade allies about new Energy Trust service to Avista customers, supporting customer questions for projects in process at year-end and ongoing eligibility requirements, through talk points and warm transfer processes. Train and support Avista call center teams to point customers to Energy Trust services and transfer calls. Monitor transition for customer confusion or complaints. Make adjustments to materials for use with customers, contractors and call center representatives.

2017 Key Assumptions, Risks and/or Challenges

- Customer interest in simplified, online and self-service options will continue, resulting in a need to be aware of best practices, stay current in service options and work closely with IT on long-term planning.
- Avista transition will require careful upfront planning in 2016 but transition efforts should be moderate after the first quarter of 2017.
- Interest in trade ally forums and market engagement will continue, with strong engagement between contractors and programs supporting additional savings and generation.
- Residential transitions could require support and guidance on changes or impacts to customer and contractor service delivery.

2018 Strategic Focus

- Continue coordination with programs as they advance and prioritize efforts to achieve customer experience goals identified in the road map, or adapt their work with market actors.
- Lead process improvement or customer experience initiatives that will have benefit across business operations.

Budget

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Staffing	466,570	508,842	521,826	552,022
Marketing	3,500	3,500	1,000	1,000
Other Services	45,000	45,000	43,558	29,558
General	200,800	199,800	218,050	216,700
Allocations	134,958	125,447	155,540	145,313
TOTAL EXPENSE	850,828	882,589	939,974	944,593

General Communications (CCS)

Energy Trust's Communications and Customer Service (CCS) group provides staff, services and resources to engage customers, stakeholders and the public through general communications and results reporting, public relations, marketing, outreach, education initiatives, websites and social media. These functions create public awareness of the value of energy efficiency and renewable energy; support customer access to information, services and cash incentives; position Energy Trust as an expert resource; expand the organization's reach to new customers and stakeholders; engage past participants in new ways; and support organizational transparency and accountability.

Work is performed by CCS staff in coordination with program and operations staff and program delivery resources. Contracted resources support communications and public relations projects, marketing creative services website development and innovation, and online application forms development.

2017 Strategic Focus

- Deliver clear stakeholder and customer communications, and provide increased program and organizational support during periods of change or transition. Stay flexible and responsive to data requests, inquiries and needs related to regulatory and policy proceedings.
- Seek operational efficiencies and customer experience enhancements across all functional areas through examination of core processes, key performance metrics and support service needs.
- Drive innovation online to reduce costs and better serve customers and stakeholders. Implement customer-focused websites and self-service tools, targeted and interactive marketing, and digital initiatives working closely with programs, IT and contracted resources. Guide development and use of best practices and systems for results measurement.
- Coordinate general outreach with programs to increase regional awareness, facilitate connection to offers and services, and expand participation.
- Use a variety of research methods to gain customer insights that will support design of new approaches and future initiatives for engaging diverse customer groups and expanding participation.
- Supplement and target outreach and marketing resources in support of expanding participation, based on market research learnings. Explore and implement new outreach approaches and marketing tactics to increase awareness and engagement among specific customer segments.
- Explore and implement general educational strategies, innovative community engagement strategies and partnerships to expand customer awareness and participation over time, and support acquisition of energy savings and generation in future years.
- Leverage growing media interest in energy topics and areas of innovation to increase customer awareness of the value of energy efficiency and renewable energy and Energy Trust as a resource.
- Use Energy Trust's 15-year anniversary in 2017 to engage customers and stakeholders with communications, outreach and marketing activities to drive awareness and participation.
- Maintain efficient and effective reporting and communications processes to support high-quality public information about Energy Trust investments and results, demonstrate accountability and ensure responsiveness to information requests.

2017 Activities—Ongoing

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- Develop and place advertising to sustain and increase general customer awareness of programs and services. Optimize advertising in media channels to reach customers in all service territories.
- Provide creative and advertising services for programs. Support new program marketing approaches and initiatives through centralized management of creative services agency, media relationships and brand guidelines. Provide marketing production services for programs managed in house.
- Continue support for customer relationship management (CRM) system enhancements that enable effective targeted marketing, transactional email with customers, inclusion of stakeholder information and improve reporting analytics.
- Maintain and enhance the organization's website, social media accounts, email management systems, mobile website and other online properties. Build on 2016 website redesign by monitoring the effectiveness of changes and continuing phase 2 work.
- Support the design and development of customer and ally online self-service portals and web-based tools to increase program operational efficiency and boost customer awareness and satisfaction.
- Lead development of paper and online customer application forms, including oversight and assessment of contracted resources for web form development. Ensure timely updates and maintenance of forms.
- Optimize and deliver e-communications targeting customers, stakeholders and trade allies, including one general and three commercial e-newsletters, Insider newsletter for trade and program allies, Energy Trust Blog and targeted marketing emails.
- Maintain regional outreach in Eastern Oregon and Southern Oregon, serving as a general resource to community, business, local governments and public sector stakeholders. Seek opportunities to leverage local efforts and partnerships to spur participation in Energy Trust programs.
- Sustain marketing, communications and outreach support for renewable sector, including customer events, awards, engagement and promotional strategies for irrigation modernization and wastewater treatment projects, communication of changes related to policy decisions, and media relations.
- Support program efforts to expand participation by leading general customer insights research, guiding marketing strategy and tactics, and implementing communications and outreach activities. Provide marketing leadership on Diversity Initiative team.
- Review and approve requests for sponsorships, event participation and Energy Trust memberships. Track requests and benefits to ensure value.
- Deliver quarterly and annual public reports, preliminary annual report, utility reports and data analysis. Improve reporting tools for recurring data requests; continue focus on data integrity and utilization.
- Deliver organizational communications, including presentations, public meeting notes and budget outreach communications.
- Respond to inquiries from the OPUC, legislators, stakeholders, media, customers and others about energy efficiency, renewable energy and clean energy topics, programs, results and customer benefits. Prepare brief summaries and support spokespersons on topics of recurring interest.
- Engage stakeholders to exchange information about programs and services to gain insight that will help better serve customers.
- Serve as resource to board and executive director. Implement strategies to continue introducing new executive director to stakeholders, customers and public in 2017.

2017 Activities—New

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- Expand support for cities participating in the “Making Energy Work in Rural Communities” workshops and locally-based Resource Assistance for Rural Environments (RARE) interns to continue energy planning and efforts leading to project activity, tapping program resources and evaluating impact of efforts. Seek new collaborations that extend work with communities, local businesses and utilities.
- Deliver communications and outreach support for new or changed program offerings, such as manufactured home replacement, home scoring, community solar and residential sector.
- Expand access to general energy-efficiency and renewable energy information and resources. Develop new content strategy for the website, printed materials, training for call center staff, emails and messaging to support this educational function.
- Conduct a scan of educational initiatives in other states that have succeeded in delivering savings, deepening customer relationships leading to savings over time and increasing participation of diverse customers and customers not previously served.
- Collaborate with the Existing Homes program to develop an exit strategy and transition plan for the LivingWise kits school offering by the end of 2017, and draw on scan of successful education efforts to propose school engagement activities for 2018 and beyond.
- Celebrate Energy Trust’s 15-year anniversary with specific marketing and outreach tactics, reaching customers and stakeholders around the state.
- Evaluate the feasibility and cost benefit of a third-party platform that would allow in-house development and maintenance of online forms.
- Extend market research efforts based on 2016 customer insights study and diverse focus group learnings, and implement tactics that reach new audiences, based on research conducted.
- Lead marketing efforts that develop general awareness of services offered for Avista customers.
- Develop online microsites in alignment with program marketing plans, facilitating action by new visitors targeted through marketing campaigns.
- Enhance online trade ally finder with a more intuitive, user-friendly interface and explore long-term future needs and changes to support customers and align with program strategies.
- Collaborate with IT and programs to explore benefits and feasibility of automated transactional email.
- Assess and improve organization’s PowerPoint template and slide library, explore new asset management tool to facilitate presentation development, and provide presentation training for staff.

2017 Key Assumptions, Risks and/or Challenges

- The 2017 Legislative Session (underway from January to June) will result in data requests and engagement at a level similar to past sessions, providing periods of peak work for communications and outreach staff.
- Policy decisions, including OPUC dockets and legislative actions, will require communication planning and responsiveness to data requests.
- Implementation plans for residential transition activities and potential policy decisions driving solar program changes will likely require CCS resources for communications and project management.

2018 Strategic Focus

- Adapt and refine communications, outreach, marketing and online approaches based on changes in delivery of services to customers and market, opportunities to engage stakeholders, and systems improvements that enable process efficiencies or new functionality.

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Budget

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Staffing	1,549,352	1,383,390	1,717,405	1,816,877
Marketing	690,500	675,500	762,000	728,000
Other Services	402,500	377,500	659,000	618,000
General	80,200	80,200	79,000	79,000
Allocations	431,201	400,812	666,126	627,023
Sub-Total before Admin Costs	3,153,753	2,917,402	3,883,531	3,868,900

Planning and Evaluation

Planning develops forward-looking estimates of program costs and savings, works with utility processes to develop long-run savings and cost goals for efficiency, develops cost-effectiveness tools, helps develop long- and short-term plans, works with program groups to integrate plans into program strategies, and manages reporting of savings and cost-effectiveness.

Planning Engineering estimates efficiency measure savings, cost and cost-effectiveness, and for integrating prescriptive measures into programs.

Evaluation assesses effectiveness of program implementation and estimates savings on a retrospective basis.

2017 Strategic Focus

- Be ready to respond to changes in mission or direction from new opportunities, carbon regulations or legislative changes.
- Improve tools for targeting activities and tracking results.
- Produce evaluations and effectively communicate results to program staff, management and board.
- Improve internal efficiencies in estimating, tracking and reporting savings, generation and cost-effectiveness. Coordinate with regional and national organizations to identify and develop emerging new technologies, with the goal of creating new energy-saving measures.

2017 Activities—Ongoing

- Provide efficiency inputs for incorporation into utility Integrated Resource Plans. Synchronize efficiency resource assessment data with trend data from programs, and help program managers understand and use the information for program planning.
- Work with Oregon Public Utility Commission and utilities to update avoided costs and tools for implementation in 2018. Coordinate with programs to update tools that incorporate avoided costs.
- Facilitate coordination between Northwest Energy Efficiency Alliance and Energy Trust. Track and report NEEA results in Energy Trust territory. Aid in NEEA governance.
- Provide analysis and summarize results for Energy Trust reports and stakeholder inquiries. Perform quality control checks on all Energy Trust claims for savings and generation.
- Help guide regional and national technology development efforts and feed the results into the Energy Trust measure development process.
- Develop data and tools to support better targeting to increase savings and generation, increase diversity of participation and reduce costs, with a new focus on addressing peak energy use.
- Review Energy Trust's approach to attributing savings to programs.
- Analyze how efficiency and renewable energy can help defer investments in utility delivery infrastructure, focusing first on studies of NW Natural pipeline deferral and Pacific Power electric transmission and distribution deferral.
- Create complementary relationships between Energy Trust efficiency programs and utility-sponsored demand management and electric vehicle programs. Explore potential for energy-efficiency opportunities related to electric vehicles.

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- Continue to support state efforts to address section 111(d) of the U.S. Environmental Protection Agency Clean Air Act carbon regulations, especially as it pertains to evaluation.
- Manage the pilot development process and report to OPUC on pilots underway and completed. Consider revisions to the process in 2017.
- Beginning with residential sector, identify and help programs prepare for shifts in measure mix and program approaches due to increased market acceptance of efficient technologies, new codes and standards, and new technical opportunities.
- Support staff engagement and diversity initiatives.
- Expand market research capabilities by providing coaching on effective research objectives, methods and execution to CCS and programs. Expand supply chain research.
- Work with IT to improve data quality, access and efficiency.
- Provide support to programs to define and promote the nexus of energy and water efficiency, renewable energy and behavioral opportunities.
- Transition measure maintenance from paper to paperless workflow.
- Continue development of evaluation processes for large and/or complex commercial and industrial projects that do not fall under megaproject guidelines.

2017 Activities—New

- Add Avista to supply curve models and Integrated Resource Planning support.
- Using new utility billing data systems, accelerate impact evaluation of residential measures. Support use of data in program management and marketing.
- For new measure development, Program Management Contractors have enhanced and standardized roles. The role of Planning Engineering is shifting to coordination, cross-program integration and quality assurance.
- Coordinate with the renewable energy sector to support OPUC in developing procedures and rules to implement the 2015 Renewable Portfolio Standard Bill, including provisions that impact renewable and efficiency initiatives at Energy Trust.

2017 Key Assumptions, Risks and/or Challenges

- Energy Trust's revised system for coordinating measure development places new responsibilities on program managers and contractors. It may take a year for the new system to work well.
- The Utility Customer Information data project will be completed by the end of 2016.
- For some markets, it is increasingly difficult to identify whether savings can be attributed to Energy Trust. This reflects the increasing number of federal standards and initiatives, increasing acceptance of some efficiency and renewable energy products in the market, increasing Energy Trust program focus on midstream incentives paid to retailers and distributors and market transformation.
- Markets for many technologies, particularly lighting, are changing rapidly. Energy Trust must adjust its role in these markets.
- Tools for measuring and transmitting data about equipment operation—such as light fixtures, thermostats and space conditioning systems with sensors and Wi-Fi connectivity—are evolving faster than standardized procedures and contracts for measure commissioning, evaluation and performance contracting. Energy Trust must rely on established techniques for validating savings while identifying

2017-2018 Support Group Action Plan

where “bigger data” can do a better job. Where promising, staff will develop valid, standardized and affordable data acquisition and analysis approaches.

2018 Strategic Focus

- By 2018, measure transition due to increased efficiency standards and market transformation will be more prominent. Planning and Evaluation will help Energy Trust prepare for shifting its measure focus, savings goals and organization, particularly in the residential sector.
- Review NEEA's progress on its five-year plan, and begin planning for NEEA's role in the 2020-2024 period.

Budget

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Program Specific P&E				
Evaluation Services	1,955,500	1,984,750	2,030,000	2,540,000
Planning Services	544,000	419,104	378,300	372,400
Other	7,000	14,000	7,000	7,000
Total Program Specific P&E	2,506,500	2,417,854	2,415,300	2,919,400
Non Program Specific P&E				
Evaluation Services	125,000	195,200	170,000	120,000
Planning Services	208,000	157,510	160,000	195,000
Staffing	1,668,773	1,543,936	1,850,121	1,957,370
Other Services	-	8,500	150,000	-
General	62,520	62,420	60,950	61,450
Allocations	465,319	432,525	563,802	526,728
Total Non Program Specific P&E	2,529,612	2,400,091	2,954,873	2,860,548
GRAND TOTAL	5,036,112	4,817,945	5,370,173	5,779,948

Information Technology

The Information Technology (IT) group builds technical mastery and continuously improves and enhances systems to deliver business value in collaboration with engaged product owners and users. The group builds and utilizes professional and technical skills to provide effective and efficient IT resources required by each energy program and operational support group. IT resources include hardware, infrastructure, information systems, reporting capabilities and technical support.

2017 Strategic Focus

- Strengthen existing foundational systems including Project Tracking (PT), Customer Relationship Management (CRM) and web services.
- Build out performance monitoring tools to assess health of computing resources.
- Build skills and experience in moving applications to the cloud computing environment.
- Proactively assess opportunities for improvements to data, reporting and analysis by working closely with business users to understand ongoing work processes.
- Determine what changes are required in reporting infrastructure to accommodate changing data and reporting needs from the business, including new visual presentation tools for data.
- Develop IT strategy for individual sectors.

2017 Activities—Ongoing

- **IT staff time allocation.** Maintain general distribution of IT staff time:
 - Operations support, administrative, professional development and outreach: 30 percent
 - Technical debt and upgrades: 30 percent
 - Enhancements and projects: 40 percent
- **Operations support.** Offer technical support and consultation for hardware and applications.
- **Help desk.** Utilize a centralized model for intake, tracking and resolution of user help requests.
- **System and hardware updates.** Deploy software updates and patches to desktop applications, operating systems and preventative and emergency hardware replacement.
- **Backup and recovery.** Create nightly back-ups of email, files and data that can be restored as needed to recover from various potential data-loss scenarios.
- **Bug fixes.** Develop fixes to reported bugs in PT and CRM.
- **Relieve technical debt.** Develop changes to improve underlying architecture of IT systems, removing known issues that impede performance, flexibility or robustness of systems.
- **Enhancements to PT, CRM, Business Intelligence (BI) and Utility Customer Information (UCI).** Develop systems changes to address reported user needs as prioritized by the Business Systems Prioritization Team.
- **Support for Business Systems Prioritization Team.** Consult with members of team in assessment of enhancements, including technical analysis.
- **IT Steering Committee.** Rely on IT Steering Committee to allocate IT resources among large projects and enhancements.
- **Professional development.** Support staff development of mastery within areas of technology that improve Energy Trust systems or IT processes.
- **Use external resources to increase capacity.** For temporary increases in demand, bring in external development resources to supplement staff.

2017-2018 Support Group Action Plan

2017 Activities—New

- **Migrate select applications and services to the cloud.** Move some applications to the cloud and investigate the potential of moving others.
 - Applications most likely to move to the cloud:
 - Disaster Recovery
 - Microsoft Office 365
 - Microsoft Exchange email server
 - Application to investigate moving to the cloud:
 - SharePoint
 - Microsoft CRM
- **Refactor all web services to a newer architecture.** When building PT, staff created more efficient, faster V2 web services to connect PT and CRM to other applications like web forms and third-party applications. All web services will be updated to V2 in 2017.
- **Migrate import service to V2.** The import service is used by various applications and vendors to send bulk data into Energy Trust systems. All import services will be migrated to use V2 web services.
- **Refactor in-house applications to latest version of Angular (Angular 2.0).** PT, Trade Ally Portal and online trade ally enrollment were built using a JavaScript programming platform called Angular. Staff will upgrade all of these applications to Angular 2.0 in 2017, allowing increased performance of applications
- **Migrate vendors to access Energy Trust data using new web services.** Once staff have completed the build-out of V2 web services, those services will be available to third-party vendors like Pollinate, which builds and hosts web forms. The V2 services will allow vendors to securely access real-time data from Energy Trust systems instead of relying on static data.
- **Outreach and refactoring of BI to better meet user needs.** BI was built up over several years beginning about eight years ago. Staff will reach out to users to understand how they are using data and how staff could refactor BI to better meet user data and reporting needs.
- **Microsoft Dynamics Great Plains upgrade.** Upgrade financial software to the latest version.
- **Support use of leads functionality in CRM.** As part of the upgrade to CRM 2016, staff began investigating leads functionality. In 2017, staff will facilitate use of this functionality.
- **Revise approach to file sharing.** As part of ongoing focus on security, staff will explore how to protect file server documents while allowing for file sharing and collaboration.

2017 Key Assumptions, Risks and/or Challenges

- **Current IT staff levels will be sufficient to meet user needs,** and can be augmented with contract resources as needed to meet user needs.
- **No significant changes will be needed to track program activities.** Programs will continue to track CRM and PT activities the same as in 2016.
- **Tech market in Portland will remain competitive.** There is significant demand for skilled IT professionals in the Portland market, which makes staff retention and hiring challenging.
- **Limit maximum number of IT projects.** In the past two years, staff have found it challenging to balance multiple development projects at the same time. Managing more than two or three projects at

2017-2018 Support Group Action Plan

once overwhelms the small team's ability to make progress due to frequent context switching. Sequencing development needs will be an important aspect in addressing this challenge.

2018 Strategic Focus

- Modify systems and architecture based on performance monitoring results.
- Complete the migration of resources and applications to the cloud computing environment.
- Implement identified changes to reporting infrastructure.
- Extend proactive approach to assessing improvement to PT and CRM by working closely with business users to understand ongoing work processes.

Budget

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Staffing	2,085,774	1,902,938	2,176,918	2,354,542
Other Services	29,000	29,000	35,000	30,000
Supplies and Equipment	86,100	44,100	78,450	78,500
Software	193,600	152,600	137,700	129,800
Depreciation	829,532	770,831	875,624	389,349
General	107,200	83,201	110,200	110,200
Allocations	166,661	165,342	179,107	177,301
Total General	1,383,093	1,216,074	1,381,081	885,150
TOTAL EXPENSE	3,497,867	3,148,012	3,592,999	3,269,692

Management and General

The Management and General group encompasses the executive, board relations, legal, finance, human resource and general office operations functions. It provides key leadership to support Energy Trust strategic goals and operations.

2017 Strategic Focus

- Seek continued improvements in program and administrative efficiencies, identifying metrics to measure productivity gains where practical and worthwhile.
- Enhance organization's cultural competence and ability to serve and expand participation among an increasingly diverse customer base by supporting the Diversity Initiative.
- Continue customer and stakeholder relationship development activities to complete successful executive director transition.
- Develop staff and maintain culture of achievement and high employee engagement.
- Advance data governance and privacy policies to ensure legal compliance and program support.
- Continue to be open to and prepare for emerging policy and funding opportunities.
- Manage risk, corporate compliance, human resources, financial reporting, auditing and facilities.
- Support the board of directors.

2017 Activities—Ongoing

Executive

- In coordination with the Communications and Customer Service group, support increased executive director travel to customer site visits, stakeholder meetings and local outreach and engagement events. Ten to 12 regional visits will be planned to locations in Eastern Oregon, Central Oregon, Southern Oregon and the Oregon Coast, with additional day trips within the Willamette Valley.
- Support the new executive director in understanding and managing Energy Trust's financial and legal environment and key focus areas.

Finance and HR

- Continue implementing the career development program. The first module is a manager training curriculum to help managers and employees communicate and achieve long-term career goals.
- The Diversity Initiative will continue taking shape. Employee engagement, building cultural competencies and recruiting from a more diverse applicant pool will roll out in 2017.
- In collaboration with programs and IT, evaluate and implement incentive payment process improvements to increase efficiency, accuracy and participant satisfaction.
- Manage the design and construction of tenant improvements to be completed by August 2017.
- Evaluate Energy Trust readiness to accept federal funds under uniform guidance and federal cost principles, with intent to pursue funding opportunities that extend Energy Trust's core mission. Recommendations following the evaluation will be considered for implementation in 2017.

Legal

- Support the organization's Diversity Initiative through changes in contracting and other business operations and through encouraging contractors to consider a more diverse participant population.
- Review document and information management and privacy policies to protect information assets and privacy of participants, employees and contractors.

2017-2018 Support Group Action Plan

- Support the organization with contract review, negotiation and drafting to manage organizational legal risk and ensure efficient and effective operations.
- Manage legal risk and monitor relevant policy developments that may impact Energy Trust.
- Support the board of directors in regular meetings and in planning activities, including the annual strategic planning retreat.

2017 Activities—New

- Finance will implement procurement and accounts payable automation system to make invoice approvals, contract accounting and related reporting and document management more efficient, and to provide better visibility into in-process expenditures.
- Finance will expand use of the current human resources information system and payroll system to increase functionality and streamline processing, including for applicant tracking and employee timekeeping.
- Legal will monitor and respond to legislative and policy matters arising out of the 2017 Oregon legislative session.

2017 Key Assumptions, Risks and/or Challenges

- Management of the organization will continue to evolve as a highly efficient and effective enterprise.
- Pressure will continue to maintain low administrative costs, meet and exceed expectations, and adapt to changes as they arise.

2018 Strategic Focus

- Continue multiyear initiatives and perform management functions at a high-quality level, furthering and enhancing the goals of the organization.

Budget

	2016 Budget	2016 Forecast	2017 Budget	2018 Projection
Staffing	2,398,506	2,404,702	2,657,215	2,698,777
Other Services	370,500	282,510	639,500	375,500
General	215,470	211,983	169,230	157,030
Allocations	629,986	585,623	678,837	634,398
TOTAL EXPENSE	3,614,462	3,484,818	4,144,782	3,865,705

2016 Budget Recap Spending and Savings - R3: REFORECAST

ENERGY EFFICIENCY

	BUDGET (\$M)			ELECTRIC		GAS	
	ELECTRIC	GAS	TOTAL	ELECTRIC SAVINGS GOAL (aMW)	Levelized Cost per kWh (in cents)	Annual Therms	Levelized Cost per Therm (in cents)
Commercial							
Business Energy Solutions – Existing Buildings	49.8	7.0	56.9	16.6	3.2	2,029,984	28.90
Business Energy Solutions – New Buildings	15.9	1.9	17.9	5.8	3.0	597,714	27.06
Mkt Transformation (Alliance)	2.5	0.3	2.7	1.3	3.6		
Total Commercial	68.2	9.2	77.5	23.7	3.2	2,627,698	29.35
Industrial							
Production Efficiency	29.4	2.7	32.0	11.8	3.0	1,154,522	21.87
Mkt Transformation (Alliance)	0.5	0.0	0.5	0.1	6.3		
Total Industrial	29.8	2.7	32.5	12.0	3.0	1,154,522	21.87
Residential							
Home Energy Solutions – Existing Homes	14.6	5.4	20.1	4.3	3.4	964,278	39.04
Home Energy Solutions – New Homes & Products	25.5	7.0	32.5	12.3	2.6	1,414,998	31.75
Mkt Transformation (Alliance)	4.4	0.7	5.0	5.7	0.9		
Total Residential	44.5	13.1	57.6	22.3	2.3	2,379,276	36.32
Washington							
Business Energy Solutions – Existing Buildings		0.6	0.6			114,882	43.07
Home Energy Solutions – Existing Homes		0.5	0.5			70,303	44.04
Home Energy Solutions – New Homes & Products		0.7	0.7			143,914	34.84
Mkt Transformation (Alliance)		0.1	0.1				
Total Washington		1.9	1.8			329,099	41.37
Total Energy Efficiency	\$142.5	\$26.9	\$169.4	57.956	2.8	6,490,595	31.46

RENEWABLE RESOURCES

	ACTIVITY BASIS		ACCOUNTING BASIS	ACTIVITY BASIS		ACCOUNTING BASIS	
	BUDGET (\$M)		BUDGET (\$M)	ELECTRIC GENERATION GOAL (aMW)	(\$mils/ aMW)	ELECTRIC GENERATION GOAL (aMW)	(\$mils/ aMW)
Other Renewables	5.3		6.3	0.00	#DIV/0!	0.01	603.76
Solar Electric	12.0		13.5	1.71	7.01	2.41	5.60
Total Renewable Resources	\$17.3		\$19.8	1.71	10.12	2.42	8.17

TOTAL BUDGET - ALL

\$189.2

1 some columns may not add due to rounding

ENERGY TRUST OF OREGON
Income Statement by Service Territory
2016 Final Forecast

	ENERGY EFFICIENCY									
	PGE	PacifiCorp	Total Electric	NWN Industrial	NW Natural	Cascade	Avista	Oregon Total	NWN WA	Efficiency Total
REVENUES										
Public Purpose Funding	27,758,643	22,045,164	49,803,807	0	13,413,038	1,893,942	-	65,110,787	0	65,110,787
Incremental Funding	42,243,683	25,544,600	67,788,283	3,527,054				71,315,337	1,937,679	73,253,016
Contributions										
Revenue from Investments										
Gain or Loss on Investments										
TOTAL PROGRAM REVENUE	70,002,326	47,589,764	117,592,090	3,527,054	13,413,038	1,893,942	-	136,426,124	1,937,679	203,474,590
EXPENSES										
Program Management (Note 3)	3,388,623	2,068,217	5,456,840	192,966	683,771	130,666	-	6,464,246	120,108	6,584,354
Program Delivery	25,504,732	15,347,746	40,852,477	932,687	4,882,489	598,386	-	47,266,038	465,052	47,731,090
Incentives	49,920,021	29,309,584	79,229,606	2,573,736	10,374,158	1,277,875	-	93,455,375	981,146	94,436,521
Program Eval & Planning Svcs.	2,464,569	1,498,575	3,963,144	101,880	414,783	53,461	-	4,533,270	78,273	4,611,543
Program Marketing/Outreach	2,841,522	1,810,766	4,652,287	47,263	925,135	79,049	-	5,703,733	85,982	5,789,715
Program Legal Services	0	0	0	0	0	0	-	0	0	0
Program Quality Assurance	0	0	0	0	0	0	-	0	0	0
Outsourced Services	616,985	377,864	994,850	18,940	234,358	48,647	-	1,296,793	42,550	1,339,343
Trade Allies & Cust. Svc. Mgmt.	360,479	254,811	615,290	5,703	158,046	12,386	-	791,425	29,759	821,184
IT Services	970,851	580,421	1,551,270	29,291	283,916	29,636	-	1,894,113	30,152	1,924,265
Other Program Expenses - all	253,590	154,994	408,583	13,514	54,080	6,315	-	482,494	34,313	516,807
TOTAL PROGRAM EXPENSES	86,321,372	51,402,978	137,724,347	3,915,980	18,010,736	2,236,421	-	161,887,487	1,867,335	163,754,822
ADMINISTRATIVE COSTS										
Management & General (Notes 1 & 2)	1,644,959	979,548	2,624,506	74,624	343,216	42,618	-	3,084,965	35,585	3,120,550
Communications & Customer Svc (Notes 1 & 2)	1,377,119	820,052	2,197,170	62,473	287,332	35,680	-	2,582,656	29,790	2,612,446
Total Administrative Costs	3,022,078	1,799,600	4,821,676	137,097	630,548	78,298	-	5,667,621	65,375	5,732,996
TOTAL PROG & ADMIN EXPENSES	89,343,449	53,202,575	142,546,024	4,053,077	18,641,286	2,314,719	-	167,555,105	1,932,710	169,487,815
TOTAL REVENUE LESS EXPENSES	(19,341,123)	(5,612,811)	(24,953,934)	(526,023)	(5,228,248)	(420,777)	-	(31,128,981)	4,969	(31,124,012)
NET ASSETS - RESERVES										
Cumulative Carryover at 12/31/15 (Note 4)	23,006,282	7,481,735	30,488,017	1,032,752	6,430,002	229,935		38,180,706	257,872	38,438,578
Change in net assets this year	(19,341,123)	(5,612,811)	(24,953,934)	(526,023)	(5,228,248)	(420,777)		(31,128,981)	4,969	(31,124,012)
Ending Net Assets - Reserves	3,665,161	1,868,928	5,534,083	506,729	1,201,755	(190,841)	-	7,051,725	262,842	7,314,574
Ending Reserve by Category										
Program Reserves (Efficiency and Renewables)	3,665,161	1,868,928	5,534,083	506,729	1,201,755	(190,841)		7,051,725	262,842	7,314,574
Assets Released for General Purpose										
Emergency Contingency Pool										
TOTAL NET ASSETS CUMULATIVE	3,665,161	1,868,928	5,534,083	506,729	1,201,755	(190,841)		7,051,725	262,842	7,314,574

Note 1) Management & General and Communications & Customer Service Expenses (Admin) have been allocated based on total expenses.

Note 2) Admin costs are allocated for mgmt reporting only. GAAP for Not for Profits does not allow allocation of admin costs to program expenses.

Note 3) Program Management costs include both outsourced and internal staff.

Note 4) Cumulative carryover is from the 2015 Audited Financials.

ENERGY TRUST OF OREGON
Income Statement by Service Territory
2016 Final Forecast

	RENEWABLE ENERGY				TOTAL
	PGE	PacifiCorp	Total	Other	All Programs
REVENUES					
Public Purpose Funding	8,142,560	6,334,727	14,477,287	0	79,588,074
Incremental Funding					73,253,016
Contributions					
Revenue from Investments				527,756	527,756
Gain or Loss on Investments					
TOTAL PROGRAM REVENUE	8,142,560	6,334,727	14,477,287	527,756	153,368,846
EXPENSES					
Program Management (Note 3)	517,823	520,268	1,038,091		7,622,445
Program Delivery	259,500	180,500	440,000		48,171,090
Incentives	8,939,310	7,208,500	16,147,810		110,584,331
Program Eval & Planning Svcs.	89,836	55,855	145,691		4,757,234
Program Marketing/Outreach	112,099	74,901	187,000		5,976,715
Program Legal Services	0	0	0		0
Program Quality Assurance	0	0	0		0
Outsourced Services	148,428	433,127	581,555		1,920,898
Trade Allies & Cust. Svc. Mgmt.	38,168	23,238	61,406		882,590
IT Services	104,276	104,896	209,172		2,133,437
Other Program Expenses - all	172,925	131,771	304,695		821,502
TOTAL PROGRAM EXPENSES	10,382,365	8,733,056	19,115,420	0	182,870,242
ADMINISTRATIVE COSTS					
Management & General (Notes 1 & 2)	197,849	166,420	364,267		3,484,817
Communications & Customer Svc (Notes 1 & 2)	165,634	139,322	304,956		2,917,402
Total Administrative Costs	363,483	305,742	669,223		6,402,219
TOTAL PROG & ADMIN EXPENSES	10,745,849	9,038,796	19,784,645		189,272,458
TOTAL REVENUE LESS EXPENSES	(2,603,289)	(2,704,069)	(5,307,358)	527,756	(35,903,612)
NET ASSETS - RESERVES					
Cumulative Carryover at 12/31/15 (Note 4)	10,144,624	10,910,203	21,054,827	8,739,885	68,233,290
Change in net assets this year	(2,603,289)	(2,704,069)	(5,307,358)	527,756	(35,903,612)
Ending Net Assets - Reserves	7,541,335	8,206,135	15,747,470	9,267,641	32,329,685
Ending Reserve by Category					
Program Reserves (Efficiency and Renewables)	7,541,335	8,206,135	15,747,470	9,267,641	32,329,685
Assets Released for General Purpose					
Emergency Contingency Pool					
TOTAL NET ASSETS CUMULATIVE	7,541,335	8,206,135	15,747,470	9,267,641	32,329,685

Note 1) Management & General and Communi
allocated based on total expenses.

Note 2) Admin costs are allocated for mgmt req
allocation of admin costs to program e

Note 3) Program Management costs include both outsourced and internal staff.

Note 4) Cumulative carryover is from the 2015 Audited Financials.

Energy Trust of Oregon
Statement of Functional Expenses
2016 Final Forecast

	Energy Efficiency	Renewable Energy	Total Program Expenses	Management & General	Communications & Customer Service	Total Admin Expenses	Total
Program Expenses							
Incentives	94,436,521	16,147,810	110,584,331				110,584,331
Program Management & Delivery	55,057,596	450,000	55,507,596				55,507,596
Payroll and Related Expenses	3,386,555	1,028,090	4,414,646	2,404,702	1,383,390	3,788,092	8,202,738
Outsourced Services	5,291,404	836,355	6,127,759	282,510	1,053,000	1,335,510	7,463,269
Planning and Evaluation	2,320,487	77,892	2,398,379	1,712		1,712	2,400,091
Customer Service Management	527,019	50,667	577,686				577,686
Trade Allies Network	294,164	20,739	314,903				314,903
Total Program Expenses	161,313,747	18,611,553	179,925,300	2,688,924	2,436,390	5,125,314	185,050,614
Program Support Costs							
Supplies	11,632	3,782	15,414	12,293	5,766	18,059	33,473
Postage and Shipping Expenses	4,424	1,503	5,927	4,759	1,894	6,653	12,581
Telephone	12,655	1,802	14,456	1,656	1,136	2,792	17,249
Printing and Publications	1,998	979	2,977	5,746	3,055	8,802	11,778
Occupancy Expenses	220,175	74,794	294,969	137,314	94,256	231,570	526,539
Insurance	31,399	10,666	42,066	19,582	13,442	33,024	75,090
Equipment	9,883	152,794	162,677	1,798	1,234	3,032	165,710
Travel	63,250	14,000	77,250	42,450	45,000	87,450	164,700
Meetings, Trainings & Conferences	49,150	11,600	60,750	146,400	16,000	162,400	223,150
Interest Expense and Bank Fees				1,700		1,700	1,700
Depreciation & Amortization	45,065	15,309	60,374	28,105	19,292	47,398	107,772
Dues, Licenses and Fees	66,390	7,200	73,590	9,583	16,000	25,583	99,173
Miscellaneous Expenses	785	267	1,052	490	336	826	1,877
IT Services	1,924,264	209,172	2,133,436	384,018	263,600	647,617	2,781,054
Total Program Support Costs	2,441,071	503,867	2,944,938	795,894	481,012	1,276,906	4,221,844
TOTAL EXPENSES	163,754,818	19,115,421	182,870,238	3,484,817	2,917,402	6,402,220	189,272,458

OPUC Measure vs. 8% **6.1%**

Energy Trust of Oregon
Summary By Service Territory and Program
2016 Final Forecast

	PGE	Pacific Power	Subtotal Elec.	NWN Industrial	NW Natural Gas	Cascade	Avista	Subtotal Gas	Oregon Total	NWN WA	ETO Total
Energy Efficiency											
Commercial											
Existing Buildings	31,760,373	18,082,235	49,842,608	1,853,936	4,359,484	815,493	-	7,028,913	56,871,521	634,185	57,505,706
New Buildings	10,779,665	5,160,379	15,940,044	144,359	1,466,199	306,416		1,916,974	17,857,018		17,857,018
NEEA	1,449,319	1,007,154	2,456,473		245,138	27,237		272,375	2,728,848	27,703	2,756,551
Total Commercial	43,989,356	24,249,768	68,239,124	1,998,295	6,070,821	1,149,147	-	9,218,263	77,457,387	661,888	78,119,275
Industrial											
Production Efficiency	18,019,368	11,356,009	29,375,377	2,054,782	443,153	163,266		2,661,202	32,036,579		32,036,579
NEEA	266,875	185,456	452,331						452,331		452,331
Total Industrial	18,286,243	11,541,465	29,827,708	2,054,782	443,153	163,266	-	2,661,202	32,488,910	-	32,488,910
Residential											
Existing Homes	7,433,231	7,206,679	14,639,911	-	5,165,392	282,262	-	5,447,654	20,087,565	462,186	20,549,751
New Homes/Products	17,064,154	8,418,408	25,482,562	-	6,375,793	654,919	-	7,030,712	32,513,274	742,397	33,255,671
NEEA	2,570,464	1,786,255	4,356,719		586,126	65,125		651,251	5,007,969	66,239	5,074,208
Total Residential	27,067,849	17,411,342	44,479,191	-	12,127,312	1,002,305	-	13,129,617	57,608,808	1,270,822	58,879,630
Energy Efficiency Program Costs	89,343,449	53,202,575	142,546,024	4,053,077	18,641,286	2,314,719	-	25,009,082	167,555,105	1,932,710	169,487,815
Renewables											
Solar Electric (Photovoltaic)	8,697,966	4,792,103	13,490,069						13,490,069		13,490,069
Other Renewable	2,047,884	4,246,692	6,294,576						6,294,576		6,294,576
Renewables Program Costs	10,745,849	9,038,796	19,784,645						19,784,645		19,784,645
Grand Total Costs	100,089,299	62,241,370	162,330,669	4,053,077	18,641,286	2,314,719	-	25,009,082	187,339,750	1,932,710	189,272,458

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Forecast

COMBINED SERVICE TERRITORIES: Energy Efficiency & Renewables

EXPENSES	New											
	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	Homes & Products	NEEA Residential	Washington (with NEEA)	Solar Renewables	Custom Renewables	ETO Total
Program Management	2,316,180	621,017	-	1,338,601	-	854,576	1,333,869	-	120,108	566,757	471,334	7,622,442
Program Delivery:	15,363,969	5,028,082	2,606,871	9,642,718	407,358	4,762,542	4,645,600	4,808,900	465,052	440,000	-	48,171,092
Incentives:	33,258,618	9,826,797	-	18,245,622	-	10,125,803	21,998,534	-	981,146	11,141,300	5,006,510	110,584,330
Program Eval & Planning Svcs.:	1,540,161	784,949	29,673	860,448	29,673	719,238	539,453	29,673	78,273	132,852	12,839	4,757,232
Program Marketing/Outreach:	1,532,639	530,078	-	253,000	-	1,819,902	1,568,116	-	85,982	155,000	32,000	5,976,717
Program Legal	-	-	-	-	-	-	-	-	-	-	-	-
Program Quality Assurance:	-	-	-	-	-	-	-	-	-	-	-	-
Outsourced Services:	239,400	192,715	-	246,003	-	255,676	363,000	-	42,550	191,455	390,100	1,920,899
Trade Allies & Cust. Svc. Mgmt.:	110,527	37,773	-	27,776	-	401,127	214,216	-	29,759	56,948	4,458	882,584
IT Services:	443,757	193,432	-	205,756	-	389,899	661,271	-	30,152	113,404	95,768	2,133,439
Other Program Expenses	142,568	38,152	-	133,003	-	79,327	89,443	-	34,313	236,046	68,650	821,502
TOTAL PROGRAM EXPENSES	54,947,819	17,252,995	2,636,544	30,952,927	437,031	19,408,090	31,413,502	4,838,573	1,867,335	13,033,762	6,081,659	182,870,237
ADMINISTRATIVE COSTS												
Management & General	1,047,099	328,777	50,241	589,846	8,329	369,845	598,623	92,205	35,585	248,375	115,894	3,484,819
Communications & Customer Svc	876,604	275,244	42,061	493,805	6,973	309,625	501,152	77,192	29,790	207,932	97,024	2,917,402
Total Administrative Costs	1,923,703	604,021	92,302	1,083,651	15,302	679,470	1,099,775	169,397	65,375	456,307	212,918	6,402,221
Total Program & Admin Expenses	56,871,522	17,857,016	2,728,846	32,036,578	452,333	20,087,560	32,513,277	5,007,970	1,932,710	13,490,069	6,294,577	189,272,458
Energy Savings (kwh)	145,261,290	50,541,724	11,719,950	103,754,668	1,087,576	37,395,760	107,664,081	50,269,702				507,694,751
Energy Savings (therms)	2,029,984	597,714	-	1,154,522	-	964,278	1,414,998	-	329,099			6,490,595
Energy Generation (kwh)										21,142,800	91,315	21,234,115

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Forecast

ENERGY EFFICIENCY

PGE

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	1,308,282	374,930		675,863		301,662	727,886		3,388,623
Program Delivery:	9,085,007	3,039,950	1,382,788	5,128,864	240,341	1,787,658	2,374,114	2,466,010	25,504,732
Incentives:	18,057,198	5,936,003		10,620,734		3,760,942	11,545,144		49,920,021
Program Eval & Planning Svcs.:	869,652	465,276	17,507	497,640	17,507	286,085	293,395	17,507	2,464,569
Program Marketing/Outreach:	869,939	320,112		142,280		659,281	849,910		2,841,522
Program Legal									-
Program Quality Assurance:									-
Outsourced Services:	106,949	116,264		138,345		65,032	190,395		616,985
Trade Allies & Cust. Svc. Mgmt.:	61,705	22,789		15,620		148,008	112,357		360,479
IT Services:	247,740	116,697		115,712		143,863	346,839		970,851
Other Program Expenses	79,593	23,017		74,797		29,270	46,913		253,590
TOTAL PROGRAM EXPENSES	30,686,065	10,415,038	1,400,295	17,409,855	257,848	7,181,801	16,486,953	2,483,517	86,321,372
ADMINISTRATIVE COSTS									
Management & General	584,761	198,471	26,684	331,766	4,914	136,858	314,179	47,326	1,644,959
Communications & Customer Svc	489,547	166,155	22,339	277,746	4,114	114,574	263,023	39,621	1,377,119
Total Administrative Costs	1,074,308	364,626	49,023	609,512	9,028	251,432	577,202	86,947	3,022,078
Total Program & Admin Expenses	31,760,373	10,779,664	1,449,318	18,019,367	266,876	7,433,233	17,064,155	2,570,464	89,343,449
Energy Savings (kwh)	89,414,474	31,437,125	6,914,771	62,667,615	641,670	19,285,383	69,294,777	29,659,124	309,314,939

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Forecast

ENERGY EFFICIENCY

Pacific Power

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	737,348	179,006		478,981		296,723	376,159		2,068,217
Program Delivery:	4,526,167	1,445,280	960,921	3,648,736	167,017	1,752,763	1,133,194	1,713,668	15,347,746
Incentives:	10,911,235	2,828,423		6,239,550		3,631,854	5,698,522		29,309,584
Program Eval & Planning Svcs.:	495,122	246,984	12,166	297,863	12,166	277,365	144,743	12,166	1,498,575
Program Marketing/Outreach:	501,191	152,684		89,666		629,803	437,422		1,810,766
Program Legal									-
Program Quality Assurance:									-
Outsourced Services:	78,041	55,657		87,187		63,050	93,929		377,864
Trade Allies & Cust. Svc. Mgmt.:	35,131	10,909		9,844		143,497	55,430		254,811
IT Services:	141,047	55,864		72,923		139,478	171,109		580,421
Other Program Expenses	45,315	11,019		47,138		28,378	23,144		154,994
TOTAL PROGRAM EXPENSES	17,470,597	4,985,826	973,087	10,971,888	179,183	6,962,911	8,133,652	1,725,834	51,402,978
ADMINISTRATIVE COSTS									
Management & General	332,924	95,011	18,543	209,083	3,415	132,687	154,997	32,888	979,548
Communications & Customer Svc	278,715	79,541	15,524	175,039	2,859	111,082	129,759	27,533	820,052
Total Administrative Costs	611,639	174,552	34,067	384,122	6,274	243,769	284,756	60,421	1,799,600
Total Program & Admin Expenses	18,082,236	5,160,378	1,007,154	11,356,010	185,457	7,206,680	8,418,408	1,786,255	53,202,575
Energy Savings (kwh)	55,846,815	19,104,599	4,805,180	41,087,053	445,906	18,110,377	38,369,305	20,610,578	198,379,813

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Forecast

ENERGY EFFICIENCY

NW Natural DSM Industrial

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	61,633	5,051		126,282					192,966
Program Delivery:	259,231	40,873		632,583					932,687
Incentives:	1,373,072	80,010		1,120,654					2,573,736
Program Eval & Planning Svcs.:	46,260	5,474		50,146					101,880
Program Marketing/Outreach:	26,694	4,313		16,256					47,263
Program Legal									
Program Quality Assurance:									-
Outsourced Services:	1,568	1,566		15,806					18,940
Trade Allies & Cust. Svc. Mgmt.:	3,611	307		1,785					5,703
IT Services:	14,499	1,572		13,220					29,291
Other Program Expenses	4,658	310		8,546					13,514
TOTAL PROGRAM EXPENSES	1,791,226	139,476	-	1,985,278	-	-	-	-	3,915,980
ADMINISTRATIVE COSTS									
Management & General	34,134	2,658		37,832					74,624
Communications & Customer Svc	28,576	2,225		31,672					62,473
Total Administrative Costs	62,710	4,883	-	69,504	-	-	-	-	137,097
Total Program & Admin Expenses	1,853,936	144,359	-	2,054,782	-	-	-	-	4,053,077
Energy Savings (therms)	875,260	12,150	-	956,914	-	-	-	-	1,844,324

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Forecast

ENERGY EFFICIENCY

NW Natural Gas

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	177,878	51,308		38,530		207,508	208,547		683,771
Program Delivery:	1,269,052	415,211	236,846	196,156		1,167,057	1,031,867	566,300	4,882,489
Incentives:	2,469,359	812,544		170,668		2,609,981	4,311,606		10,374,158
Program Eval & Planning Svcs.:	108,779	55,596		10,815		147,716	91,877		414,783
Program Marketing/Outreach:	114,817	43,813		3,506		507,769	255,230		925,135
Program Legal									
Program Quality Assurance:									-
Outsourced Services:	18,600	15,904		3,409		125,098	71,347		234,358
Trade Allies & Cust. Svc. Mgmt.:	8,492	3,117		385		103,948	42,104		158,046
IT Services:	34,093	15,963		2,851		101,037	129,972		283,916
Other Program Expenses	10,953	3,148		1,843		20,556	17,580		54,080
TOTAL PROGRAM EXPENSES	4,212,023	1,416,604	236,846	428,163	-	4,990,670	6,160,130	566,300	18,010,736
ADMINISTRATIVE COSTS									
Management & General	80,265	26,995	4,513	8,159		95,103	117,389	10,792	343,216
Communications & Customer Svc	67,196	22,600	3,778	6,831		79,618	98,275	9,034	287,332
Total Administrative Costs	147,461	49,595	8,291	14,990	-	174,721	215,664	19,826	630,548
Total Program & Admin Expenses	4,359,484	1,466,199	245,137	443,153	-	5,165,391	6,375,794	586,126	18,641,286
Energy Savings (therms)	948,444	498,608	-	160,456	-	899,987	1,283,921	-	3,791,416

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Forecast

ENERGY EFFICIENCY

Cascade Natural Gas

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	31,039	10,722		18,945		48,683	21,277		130,666
Program Delivery:	224,512	86,768	26,316	36,379		55,064	106,425	62,922	598,386
Incentives:	447,754	169,817		94,016		123,026	443,262		1,277,875
Program Eval & Planning Svcs.:	20,348	11,619		3,984		8,072	9,438		53,461
Program Marketing/Outreach:	19,998	9,156		1,292		23,049	25,554		79,049
Program Legal									
Program Quality Assurance:									-
Outsourced Services:	34,242	3,324		1,256		2,496	7,329		48,647
Trade Allies & Cust. Svc. Mgmt.:	1,588	651		142		5,680	4,325		12,386
IT Services:	6,378	3,336		1,050		5,521	13,351		29,636
Other Program Expenses	2,049	658		679		1,123	1,806		6,315
TOTAL PROGRAM EXPENSES	787,908	296,051	26,316	157,743	-	272,714	632,767	62,922	2,236,421
ADMINISTRATIVE COSTS									
Management & General	15,015	5,642	501	3,006		5,197	12,058	1,199	42,618
Communications & Customer Svc	12,570	4,723	420	2,517		4,351	10,095	1,004	35,680
Total Administrative Costs	27,585	10,365	921	5,523	-	9,548	22,153	2,203	78,298
Total Program & Admin Expenses	815,493	306,416	27,237	163,266	-	282,262	654,920	65,125	2,314,719
Energy Savings (therms)	206,280	86,956	-	37,153	-	64,291	131,076	-	525,756

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Forecast

ENERGY EFFICIENCY

NW Natural Washington

EXPENSES	Existing Buildings	NEEA Commercial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	49,196		36,388	34,524		120,108
Program Delivery:	135,392	26,766	109,336	129,560	63,998	465,052
Incentives:	314,668		198,352	468,126		981,146
Program Eval & Planning Svcs.:	27,143		28,955	22,175		78,273
Program Marketing/Outreach:	52,982		20,000	13,000		85,982
Program Legal						
Program Quality Assurance						
Outsourced Services:	1,000		6,000	35,550		42,550
Trade Allies & Cust. Svc. Mgmt.:	10,072		13,464	6,223		29,759
IT Services:	9,861		19,912	379		30,152
Other Program Expenses	12,419		14,145	7,749		34,313
TOTAL PROGRAM EXPENSES	612,733	26,766	446,552	717,286	63,998	1,867,335
ADMINISTRATIVE COSTS						
Management & General	11,676	510	8,510	13,669	1,220	35,585
Communications & Customer Svc	9,775	427	7,124	11,443	1,021	29,790
Total Administrative Costs	21,451	937	15,634	25,112	2,241	65,375
Total Program & Admin Expenses	634,184	27,703	462,186	742,398	66,239	1,932,710
Energy Savings (therms)	114,882	-	70,303	143,914		329,099

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Forecast

RENEWABLE PROGRAMS

PGE Renewables

EXPENSES	Standard Solar	Custom Projects	Renewable Total
Program Management	364,479	153,344	517,823
Program Delivery:	259,500		259,500
Incentives:	7,208,700	1,730,610	8,939,310
Program Eval & Planning Svcs.:	85,659	4,177	89,836
Program Marketing/Outreach:	99,939	12,160	112,099
Program Legal	-	-	-
Program Quality Assurance:			-
Outsourced Services:	123,444	24,984	148,428
Trade Allies & Cust. Svc. Mgmt.:	36,718	1,450	38,168
IT Services:	73,119	31,157	104,276
Other Program Expenses	152,195	20,730	172,925
TOTAL PROGRAM EXPENSES	8,403,753	1,978,612	10,382,365
ADMINISTRATIVE COSTS			
Management & General	160,144	37,705	197,849
Communications & Customer Svc	134,068	31,566	165,634
Total Administrative Costs	294,212	69,271	363,483
Total Program & Admin Expenses	8,697,965	2,047,883	10,745,849
Energy Generation (kwh)	12,628,800	-	12,628,800

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Forecast

RENEWABLE PROGRAMS

Pacific Power Renewables

EXPENSES	Standard Solar	Custom Projects	Renewable Total
Program Management	202,278	317,990	520,268
Program Delivery:	180,500		180,500
Incentives:	3,932,600	3,275,900	7,208,500
Program Eval & Planning Svcs.:	47,193	8,662	55,855
Program Marketing/Outreach:	55,061	19,840	74,901
Program Legal	-	-	-
Program Quality Assurance:			-
Outsourced Services:	68,011	365,116	433,127
Trade Allies & Cust. Svc. Mgmt.:	20,230	3,008	23,238
IT Services:	40,285	64,611	104,896
Other Program Expenses	83,851	47,920	131,771
TOTAL PROGRAM EXPENSES	4,630,009	4,103,047	8,733,056
ADMINISTRATIVE COSTS			
Management & General	88,231	78,189	166,420
Communications & Customer Svc	73,864	65,458	139,322
Total Administrative Costs	162,095	143,647	305,742
Total Program & Admin Expenses	4,792,104	4,246,694	9,038,796
Energy Generation (kwh)	8,514,000	91,315	8,605,315

2018 Budget Recap Spending and Savings - R2: TOTAL PROPOSED

ENERGY EFFICIENCY

	BUDGET (\$M)			ELECTRIC		GAS	
	ELECTRIC	GAS	TOTAL	ELECTRIC SAVINGS GOAL (aMW)	Levelized Cost per kWh (in cents)	Annual Therms	Levelized Cost per Therm (in cents)
Commercial							
Business Energy Solutions – Existing Buildings	53.8	10.1	63.8	15.07	3.8	2,321,479	41.34
Business Energy Solutions – New Buildings	21.8	3.4	25.2	10.16	2.1	1,250,204	22.09
Mkt Transformation (Alliance)	2.4	0.4	2.9	1.88	2.5		
Total Commercial	78.1	13.9	92.0	27.11	3.0	3,571,683	34.78
Industrial							
Production Efficiency	34.3	3.0	37.3	16.97	2.5	1,104,744	23.95
Mkt Transformation (Alliance)	0.2	0.0	0.2	0.05	7.8		
Total Industrial	34.6	3.0	37.5	17.02	2.5	1,104,744	23.95
Residential							
Home Energy Solutions – Existing Homes	13.1	6.7	19.8	3.66	3.7	1,106,691	48.73
Home Energy Solutions – New Homes & Products	25.9	5.0	30.9	10.76	2.8	1,938,659	16.47
Mkt Transformation (Alliance)	4.3	1.1	5.5	4.89	1.0		
Total Residential	43.4	12.8	56.2	19.31	2.5	3,045,350	28.92
Washington							
Business Energy Solutions – Existing Buildings		0.9	0.9			156,525	49.04
Home Energy Solutions – Existing Homes		0.6	0.6			68,253	63.71
Home Energy Solutions – New Homes & Products		0.6	0.6			57,761	63.81
Mkt Transformation (Alliance)		0.2	0.2			-	-
Total Washington		2.2	2.2			282,539	59.89
Total Energy Efficiency	\$156.0	\$31.9	\$187.9	63.44	2.7	8,004,316	31.42

RENEWABLE RESOURCES

	ACTIVITY BASIS		ACCOUNTING BASIS	ACTIVITY BASIS		ACCOUNTING BASIS	
	BUDGET (\$M)		BUDGET (\$M)	ELECTRIC GENERATION GOAL (aMW)	(\$mils/ aMW)	ELECTRIC GENERATION GOAL (aMW)	(\$mils/ aMW)
Other Renewables	7.6		6.4	0.81	9.43	0.00	5,367.70
Solar Electric	9.7		13.4	1.50	6.49	2.86	4.69
Total Renewable Resources	\$17.4		\$19.8	2.31	7.52	2.86	6.94

TOTAL BUDGET - ALL

\$207.8

* some columns may not add due to rounding

ENERGY TRUST OF OREGON
Income Statement by Service Territory
2018 Final Proposed Projection

	ENERGY EFFICIENCY									
	PGE	PacifiCorp	Total	NWN Industrial	NW Natural	Cascade	Avista	Oregon Total	NWN WA	Efficiency Total
REVENUES										
Public Purpose Funding	28,800,000	21,348,117	50,148,117	0	19,092,246	2,900,000	1,036,869	73,177,232	0	73,177,232
Incremental Funding Contributions	65,291,750	35,375,078	100,666,828	6,932,056				107,598,884	2,233,354	109,832,238
Revenue from Investments										
Gain or Loss on Investments										
TOTAL PROGRAM REVENUE	94,091,750	56,723,195	150,814,945	6,932,056	19,092,246	2,900,000	1,036,869	180,776,116	2,233,354	183,009,470
EXPENSES										
Program Management (Note 3)	3,585,185	2,129,013	5,714,198	242,900	743,448	90,577	42,862	6,833,983	145,777	6,979,760
Program Delivery	26,952,986	16,498,954	43,451,942	947,687	5,578,650	785,155	243,729	51,007,164	546,228	51,553,392
Incentives	56,567,722	32,088,244	88,655,965	5,153,124	10,158,515	1,522,951	597,122	106,087,675	889,597	106,977,272
Program Eval & Planning Svcs.	2,776,260	1,612,210	4,388,470	158,371	452,092	59,231	27,098	5,085,263	283,051	5,368,314
Program Marketing/Outreach	2,719,526	1,653,548	4,373,075	46,631	766,793	74,302	48,034	5,308,833	115,832	5,424,665
Program Legal Services	0	0	0	0	0	0	0	0	0	0
Program Quality Assurance	47,105	24,153	71,259	0	11,643	1,411	687	85,000	0	85,000
Outsourced Services	670,213	377,234	1,047,446	33,986	148,541	15,140	9,138	1,254,250	36,550	1,290,800
Trade Allies & Cust. Svc. Mgmt.	358,578	246,003	604,583	16,311	164,576	10,663	10,596	806,728	41,059	847,787
IT Services	896,097	533,494	1,429,591	52,697	228,583	25,158	14,007	1,750,037	43,104	1,793,141
Other Program Expenses - all	264,806	158,144	422,951	19,510	53,839	6,259	3,221	505,778	48,120	553,898
TOTAL PROGRAM EXPENSES	94,838,478	55,320,997	150,159,480	6,671,217	18,306,680	2,590,847	996,494	178,724,711	2,149,318	180,874,029
ADMINISTRATIVE COSTS										
Management & General (Notes 1 & 2)	1,853,281	1,081,052	2,934,336	130,365	357,739	50,630	19,473	3,492,541	42,001	3,534,542
Communications & Customer Svc (Notes 1 & 2)	1,854,813	1,081,945	2,936,760	130,473	358,034	50,671	19,489	3,495,426	42,037	3,537,463
Total Administrative Costs	3,708,094	2,162,997	5,871,096	260,838	715,773	101,301	38,962	6,987,967	84,038	7,072,005
TOTAL PROG & ADMIN EXPENSES	98,546,571	57,484,001	156,030,572	6,932,056	19,022,452	2,692,146	1,035,454	185,712,680	2,233,355	187,946,035
TOTAL REVENUE LESS EXPENSES	(4,454,821)	(760,806)	(5,215,627)		69,794	207,854	1,415	(4,936,564)	0	(4,936,565)
NET ASSETS - RESERVES										
Cumulative Carryover at 12/31/17 Budget (Note 4)	4,151,189	794,718	4,945,907	200,000	932,796	238,100	137,258	6,454,061	200,000	6,654,061
Change in net assets this year	(4,454,821)	(760,806)	(5,215,627)		69,794	207,854	1,415	(4,936,564)	0	(4,936,565)
Ending Net Assets - Reserves	(303,632)	33,912	(269,720)	200,000	1,002,590	445,954	138,673	1,517,497	200,000	1,717,496
Ending Reserve by Category										
Program Reserves (Efficiency and Renewables)	(303,632)	33,912	(269,720)	200,000	1,002,590	445,954	138,673	1,517,497	200,000	1,717,496
Assets Released for General Purpose										
Emergency Contingency Pool										
TOTAL NET ASSETS CUMULATIVE	(303,632)	33,912	(269,720)	200,000	1,002,590	445,954	138,673	1,517,497	200,000	1,717,496

Note 1) Management & General and Communications & Customer Service Expenses (Admin) have been allocated based on total expenses.

Note 2) Admin costs are allocated for mgmt reporting only. GAAP for Not for Profits does not allow allocation of admin costs to program expenses.

Note 3) Program Management costs include both outsourced and internal staff.

Note 4) Cumulative carryover is from the 2017 Final Proposed Budget.

ENERGY TRUST OF OREGON
Income Statement by Service Territory
2018 Final Proposed Projection

	RENEWABLE ENERGY				TOTAL
	PGE	PacifiCorp	Total	Other	All Programs
REVENUES					
Public Purpose Funding	8,455,027	6,176,482	14,631,510	0	87,808,742
Incremental Funding Contributions					109,832,238
Revenue from Investments				120,000	120,000
Gain or Loss on Investments					
TOTAL PROGRAM REVENUE	8,455,027	6,176,482	14,631,510	120,000	197,760,980
EXPENSES					
Program Management (Note 3)	703,323	493,585	1,196,908		8,176,668
Program Delivery	264,120	180,380	444,500		51,997,892
Incentives	8,047,550	5,577,550	13,625,100		120,602,372
Program Eval & Planning Svcs.	117,282	87,189	204,469		5,572,783
Program Marketing/Outreach	113,978	97,022	211,000		5,635,665
Program Legal Services	5,900	4,100	10,000		10,000
Program Quality Assurance	0	0	0		85,000
Outsourced Services	292,608	265,891	558,499		1,849,299
Trade Allies & Cust. Svc. Mgmt.	56,983	43,821	100,805		948,592
IT Services	152,056	107,336	259,392		2,052,533
Other Program Expenses - all	191,266	144,817	336,081		889,979
TOTAL PROGRAM EXPENSES	9,945,066	7,001,691	16,946,754	0	197,820,783
ADMINISTRATIVE COSTS					
Management & General (Notes 1 & 2)	194,341	136,823	331,165		3,865,707
Communications & Customer Svc (Notes 1 & 2)	194,502	136,936	331,438		3,868,901
Total Administrative Costs	388,843	273,759	662,603		7,734,608
TOTAL PROG & ADMIN EXPENSES	10,333,908	7,275,448	17,609,356		205,555,389
TOTAL REVENUE LESS EXPENSES	(1,878,881)	(1,098,966)	(2,977,846)	120,000	(7,794,409)
NET ASSETS - RESERVES					
Cumulative Carryover at 12/31/17 Budget (Note 4)	5,966,353	4,585,949	10,552,303	9,477,641	26,684,010
Change in net assets this year	(1,878,881)	(1,098,966)	(2,977,846)	120,000	(7,794,409)
Ending Net Assets - Reserves	4,087,472	3,486,983	7,574,457	9,597,641	18,889,601
Ending Reserve by Category					
Program Reserves (Efficiency and Renewables)	4,087,472	3,486,983	7,574,457		18,889,601
Assets Released for General Purpose					
Emergency Contingency Pool					
TOTAL NET ASSETS CUMULATIVE	4,087,472	3,486,983	7,574,457		18,889,601

Note 1) Management & General and Communic allocated based on total expenses.

Note 2) Admin costs are allocated for mgmt rep allocation of admin costs to program e)

Note 3) Program Management costs include both outsourced and internal staff.

Note 4) Cumulative carryover is from the 2017 Final Proposed Budget.

Energy Trust of Oregon
Statement of Functional Expenses
2018 Final Proposed Projection

	Energy Efficiency	Renewable Energy	Total Program Expenses	Management & General	Communications & Customer Service	Total Admin Expenses	Total
Program Expenses							
Incentives	106,977,273	13,625,100	120,602,373				120,602,373
Program Management & Delivery	58,544,267	454,500	58,998,767				58,998,767
Payroll and Related Expenses	3,870,650	1,186,908	5,057,558	2,698,777	1,816,877	4,515,654	9,573,212
Outsourced Services	5,721,100	829,499	6,550,599	375,500	1,346,000	1,721,500	8,272,099
Planning and Evaluation	2,565,912	154,470	2,720,382	5,721	134,446	140,167	2,860,549
Customer Service Management	461,009	89,714	550,723				550,723
Trade Allies Network	386,779	21,090	407,869				407,869
Total Program Expenses	178,526,990	16,361,281	194,888,271	3,079,998	3,297,323	6,377,321	201,265,592
Program Support Costs							
Supplies	12,607	4,049	16,656	12,660	6,218	18,878	35,534
Postage and Shipping Expenses	4,299	1,499	5,799	4,967	1,933	6,899	12,698
Telephone	3,153	2,000	5,152	1,809	1,417	3,226	8,378
Printing and Publications		300	300	4,500	4,000	8,500	8,800
Occupancy Expenses	269,444	93,981	363,426	154,600	121,131	275,731	639,157
Insurance	31,526	10,996	42,523	18,089	14,173	32,262	74,784
Equipment	3,439	176,800	180,239	1,973	1,546	3,519	183,758
Travel	70,750	8,600	79,350	51,950	45,000	96,950	176,300
Meetings, Trainings & Conferences	43,500	11,200	54,700	73,150	12,500	85,650	140,350
Interest Expense and Bank Fees				4,000		4,000	4,000
Depreciation & Amortization	27,757	9,682	37,439	15,926	12,479	28,405	65,844
Dues, Licenses and Fees	86,635	6,700	93,335	14,930	16,500	31,430	124,765
Miscellaneous Expenses	788	275	1,063	452	354	807	1,870
IT Services	1,793,140	259,391	2,052,532	426,701	334,326	761,027	2,813,559
Total Program Support Costs	2,347,040	585,473	2,932,513	785,707	571,578	1,357,285	4,289,797
TOTAL EXPENSES	180,874,029	16,946,754	197,820,783	3,865,705	3,868,900	7,734,606	205,555,389

OPUC Measure vs. 8%

5.40%

Energy Trust of Oregon
Summary by Service Territory and Program
2018 Final Proposed Projection

	PGE	Pacific Power	Subtotal Elec.	NWN Industrial	NW Natural Gas	Cascade	Avista	Subtotal Gas	Oregon Total	NWN WA	ETO Total
Energy Efficiency											
Commercial											
Existing Buildings	34,440,425	19,348,426	53,788,851	4,431,224	4,159,108	1,271,276	191,217	10,052,824	63,841,675	855,267	64,696,942
New Buildings	14,294,660	7,532,165	21,826,826	345,678	2,481,505	430,673	161,637	3,419,492	25,246,318		25,246,318
NEEA	1,441,726	1,001,877	2,443,603		376,963	41,885		418,848	2,862,451	42,601	2,905,052
Total Commercial	50,176,811	27,882,468	78,059,279	4,776,902	7,017,576	1,743,834	352,854	13,891,165	91,950,444	897,868	92,848,312
Industrial											
Production Efficiency	21,511,534	12,835,154	34,346,688	2,155,154	651,491	120,434	25,818	2,952,896	37,299,584		37,299,584
NEEA	136,027	94,527	230,554						230,554		230,554
Total Industrial	21,647,561	12,929,681	34,577,242	2,155,154	651,491	120,434	25,818	2,952,896	37,530,138	-	37,530,138
Residential											
Existing Homes	7,013,150	6,099,356	13,112,506	-	6,123,322	204,239	408,234	6,735,795	19,848,301	629,993	20,478,294
New Homes/Products	17,147,826	8,792,663	25,940,489	-	4,210,866	510,396	248,548	4,969,810	30,910,299	590,314	31,500,613
NEEA	2,561,223	1,779,833	4,341,056		1,019,198	113,244		1,132,442	5,473,498	115,180	5,588,678
Total Residential	26,722,199	16,671,852	43,394,051	-	11,353,386	827,879	656,782	12,838,047	56,232,098	1,335,487	57,567,585
Energy Efficiency Program Costs	98,546,571	57,484,001	156,030,572	6,932,056	19,022,452	2,692,146	1,035,454	29,682,109	185,712,680	2,233,355	187,946,035
Renewables											
Solar Electric (Photovoltaic)	5,600,644	4,317,421	9,918,065						9,918,065		9,918,065
Other Renewable	4,733,264	2,958,027	7,691,291						7,691,291		7,691,291
Renewables Program Costs	10,333,908	7,275,448	17,609,356						17,609,356		17,609,356
Grand Total Cost	108,880,479	64,759,449	173,639,928	6,932,056	19,022,452	2,692,146	1,035,454	29,682,109	203,322,036	2,233,355	205,555,389

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Final Forecast

COMBINED SERVICE TERRITORIES: Energy Efficiency & Renewables

EXPENSES	New											
	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	Homes & Products	NEEA Residential	Washington (with NEEA)	Solar Renewables	Custom Renewables	ETO Total
Program Management	2,316,180	621,017	-	1,338,601	-	854,576	1,333,869	-	120,108	566,757	471,334	7,622,442
Program Delivery:	15,363,969	5,028,082	2,606,871	9,642,718	407,358	4,762,542	4,645,600	4,808,900	465,052	440,000	-	48,171,092
Incentives:	33,258,618	9,826,797	-	18,245,622	-	10,125,803	21,998,534	-	981,146	11,141,300	5,006,510	110,584,330
Program Eval & Planning Svcs.:	1,540,161	784,949	29,673	860,448	29,673	719,238	539,453	29,673	78,273	132,852	12,839	4,757,232
Program Marketing/Outreach:	1,532,639	530,078	-	253,000	-	1,819,902	1,568,116	-	85,982	155,000	32,000	5,976,717
Program Legal	-	-	-	-	-	-	-	-	-	-	-	-
Program Quality Assurance:	-	-	-	-	-	-	-	-	-	-	-	-
Outsourced Services:	239,400	192,715	-	246,003	-	255,676	363,000	-	42,550	191,455	390,100	1,920,899
Trade Allies & Cust. Svc. Mgmt.:	110,527	37,773	-	27,776	-	401,127	214,216	-	29,759	56,948	4,458	882,584
IT Services:	443,757	193,432	-	205,756	-	389,899	661,271	-	30,152	113,404	95,768	2,133,439
Other Program Expenses	142,568	38,152	-	133,003	-	79,327	89,443	-	34,313	236,046	68,650	821,502
TOTAL PROGRAM EXPENSES	54,947,819	17,252,995	2,636,544	30,952,927	437,031	19,408,090	31,413,502	4,838,573	1,867,335	13,033,762	6,081,659	182,870,237
ADMINISTRATIVE COSTS												
Management & General	1,047,099	328,777	50,241	589,846	8,329	369,845	598,623	92,205	35,585	248,375	115,894	3,484,819
Communications & Customer Svc	876,604	275,244	42,061	493,805	6,973	309,625	501,152	77,192	29,790	207,932	97,024	2,917,402
Total Administrative Costs	1,923,703	604,021	92,302	1,083,651	15,302	679,470	1,099,775	169,397	65,375	456,307	212,918	6,402,221
Total Program & Admin Expenses	56,871,522	17,857,016	2,728,846	32,036,578	452,333	20,087,560	32,513,277	5,007,970	1,932,710	13,490,069	6,294,577	189,272,458
Energy Savings (kwh)	145,261,290	50,541,724	11,719,950	103,754,668	1,087,576	37,395,760	107,664,081	50,269,702				507,694,751
Energy Savings (therms)	2,029,984	597,714	-	1,154,522	-	964,278	1,414,998	-	329,099			6,490,595
Energy Generation (kwh)										21,142,800	91,315	21,234,115

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Final Forecast

ENERGY EFFICIENCY

PGE

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	1,308,282	374,930		675,863		301,662	727,886		3,388,623
Program Delivery:	9,085,007	3,039,950	1,382,788	5,128,864	240,341	1,787,658	2,374,114	2,466,010	25,504,732
Incentives:	18,057,198	5,936,003		10,620,734		3,760,942	11,545,144		49,920,021
Program Eval & Planning Svcs.:	869,652	465,276	17,507	497,640	17,507	286,085	293,395	17,507	2,464,569
Program Marketing/Outreach:	869,939	320,112		142,280		659,281	849,910		2,841,522
Program Legal									-
Program Quality Assurance:									-
Outsourced Services:	106,949	116,264		138,345		65,032	190,395		616,985
Trade Allies & Cust. Svc. Mgmt.:	61,705	22,789		15,620		148,008	112,357		360,479
IT Services:	247,740	116,697		115,712		143,863	346,839		970,851
Other Program Expenses	79,593	23,017		74,797		29,270	46,913		253,590
TOTAL PROGRAM EXPENSES	30,686,065	10,415,038	1,400,295	17,409,855	257,848	7,181,801	16,486,953	2,483,517	86,321,372
ADMINISTRATIVE COSTS									
Management & General	584,761	198,471	26,684	331,766	4,914	136,858	314,179	47,326	1,644,959
Communications & Customer Svc	489,547	166,155	22,339	277,746	4,114	114,574	263,023	39,621	1,377,119
Total Administrative Costs	1,074,308	364,626	49,023	609,512	9,028	251,432	577,202	86,947	3,022,078
Total Program & Admin Expenses	31,760,373	10,779,664	1,449,318	18,019,367	266,876	7,433,233	17,064,155	2,570,464	89,343,449
Energy Savings (kwh)	89,414,474	31,437,125	6,914,771	62,667,615	641,670	19,285,383	69,294,777	29,659,124	309,314,939

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Final Forecast

ENERGY EFFICIENCY

Pacific Power

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	737,348	179,006		478,981		296,723	376,159		2,068,217
Program Delivery:	4,526,167	1,445,280	960,921	3,648,736	167,017	1,752,763	1,133,194	1,713,668	15,347,746
Incentives:	10,911,235	2,828,423		6,239,550		3,631,854	5,698,522		29,309,584
Program Eval & Planning Svcs.:	495,122	246,984	12,166	297,863	12,166	277,365	144,743	12,166	1,498,575
Program Marketing/Outreach:	501,191	152,684		89,666		629,803	437,422		1,810,766
Program Legal									-
Program Quality Assurance:									-
Outsourced Services:	78,041	55,657		87,187		63,050	93,929		377,864
Trade Allies & Cust. Svc. Mgmt.:	35,131	10,909		9,844		143,497	55,430		254,811
IT Services:	141,047	55,864		72,923		139,478	171,109		580,421
Other Program Expenses	45,315	11,019		47,138		28,378	23,144		154,994
TOTAL PROGRAM EXPENSES	17,470,597	4,985,826	973,087	10,971,888	179,183	6,962,911	8,133,652	1,725,834	51,402,978
ADMINISTRATIVE COSTS									
Management & General	332,924	95,011	18,543	209,083	3,415	132,687	154,997	32,888	979,548
Communications & Customer Svc	278,715	79,541	15,524	175,039	2,859	111,082	129,759	27,533	820,052
Total Administrative Costs	611,639	174,552	34,067	384,122	6,274	243,769	284,756	60,421	1,799,600
Total Program & Admin Expenses	18,082,236	5,160,378	1,007,154	11,356,010	185,457	7,206,680	8,418,408	1,786,255	53,202,575
Energy Savings (kwh)	55,846,815	19,104,599	4,805,180	41,087,053	445,906	18,110,377	38,369,305	20,610,578	198,379,813

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Final Forecast

ENERGY EFFICIENCY

NW Natural DSM Industrial

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	61,633	5,051		126,282					192,966
Program Delivery:	259,231	40,873		632,583					932,687
Incentives:	1,373,072	80,010		1,120,654					2,573,736
Program Eval & Planning Svcs.:	46,260	5,474		50,146					101,880
Program Marketing/Outreach:	26,694	4,313		16,256					47,263
Program Legal									
Program Quality Assurance:									-
Outsourced Services:	1,568	1,566		15,806					18,940
Trade Allies & Cust. Svc. Mgmt.:	3,611	307		1,785					5,703
IT Services:	14,499	1,572		13,220					29,291
Other Program Expenses	4,658	310		8,546					13,514
TOTAL PROGRAM EXPENSES	1,791,226	139,476	-	1,985,278	-	-	-	-	3,915,980
ADMINISTRATIVE COSTS									
Management & General	34,134	2,658		37,832					74,624
Communications & Customer Svc	28,576	2,225		31,672					62,473
Total Administrative Costs	62,710	4,883	-	69,504	-	-	-	-	137,097
Total Program & Admin Expenses	1,853,936	144,359	-	2,054,782	-	-	-	-	4,053,077
Energy Savings (therms)	875,260	12,150	-	956,914	-	-	-	-	1,844,324

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Final Forecast

ENERGY EFFICIENCY

NW Natural Gas

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	177,878	51,308		38,530		207,508	208,547		683,771
Program Delivery:	1,269,052	415,211	236,846	196,156		1,167,057	1,031,867	566,300	4,882,489
Incentives:	2,469,359	812,544		170,668		2,609,981	4,311,606		10,374,158
Program Eval & Planning Svcs.:	108,779	55,596		10,815		147,716	91,877		414,783
Program Marketing/Outreach:	114,817	43,813		3,506		507,769	255,230		925,135
Program Legal									
Program Quality Assurance:									-
Outsourced Services:	18,600	15,904		3,409		125,098	71,347		234,358
Trade Allies & Cust. Svc. Mgmt.:	8,492	3,117		385		103,948	42,104		158,046
IT Services:	34,093	15,963		2,851		101,037	129,972		283,916
Other Program Expenses	10,953	3,148		1,843		20,556	17,580		54,080
TOTAL PROGRAM EXPENSES	4,212,023	1,416,604	236,846	428,163	-	4,990,670	6,160,130	566,300	18,010,736
ADMINISTRATIVE COSTS									
Management & General	80,265	26,995	4,513	8,159		95,103	117,389	10,792	343,216
Communications & Customer Svc	67,196	22,600	3,778	6,831		79,618	98,275	9,034	287,332
Total Administrative Costs	147,461	49,595	8,291	14,990	-	174,721	215,664	19,826	630,548
Total Program & Admin Expenses	4,359,484	1,466,199	245,137	443,153	-	5,165,391	6,375,794	586,126	18,641,286
Energy Savings (therms)	948,444	498,608	-	160,456	-	899,987	1,283,921	-	3,791,416

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Final Forecast

ENERGY EFFICIENCY

Cascade Natural Gas

EXPENSES	Existing Buildings	New Buildings	NEEA Commercial	Production Efficiency	NEEA Industrial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	31,039	10,722		18,945		48,683	21,277		130,666
Program Delivery:	224,512	86,768	26,316	36,379		55,064	106,425	62,922	598,386
Incentives:	447,754	169,817		94,016		123,026	443,262		1,277,875
Program Eval & Planning Svcs.:	20,348	11,619		3,984		8,072	9,438		53,461
Program Marketing/Outreach:	19,998	9,156		1,292		23,049	25,554		79,049
Program Legal									
Program Quality Assurance:									-
Outsourced Services:	34,242	3,324		1,256		2,496	7,329		48,647
Trade Allies & Cust. Svc. Mgmt.:	1,588	651		142		5,680	4,325		12,386
IT Services:	6,378	3,336		1,050		5,521	13,351		29,636
Other Program Expenses	2,049	658		679		1,123	1,806		6,315
TOTAL PROGRAM EXPENSES	787,908	296,051	26,316	157,743	-	272,714	632,767	62,922	2,236,421
ADMINISTRATIVE COSTS									
Management & General	15,015	5,642	501	3,006		5,197	12,058	1,199	42,618
Communications & Customer Svc	12,570	4,723	420	2,517		4,351	10,095	1,004	35,680
Total Administrative Costs	27,585	10,365	921	5,523	-	9,548	22,153	2,203	78,298
Total Program & Admin Expenses	815,493	306,416	27,237	163,266	-	282,262	654,920	65,125	2,314,719
Energy Savings (therms)	206,280	86,956	-	37,153	-	64,291	131,076	-	525,756

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Final Forecast

ENERGY EFFICIENCY

NW Natural Washington

EXPENSES	Existing Buildings	NEEA Commercial	Existing Homes	New Homes & Products	NEEA Residential	Efficiency Total
Program Management	49,196		36,388	34,524		120,108
Program Delivery:	135,392	26,766	109,336	129,560	63,998	465,052
Incentives:	314,668		198,352	468,126		981,146
Program Eval & Planning Svcs.:	27,143		28,955	22,175		78,273
Program Marketing/Outreach:	52,982		20,000	13,000		85,982
Program Legal						
Program Quality Assurance						
Outsourced Services:	1,000		6,000	35,550		42,550
Trade Allies & Cust. Svc. Mgmt.:	10,072		13,464	6,223		29,759
IT Services:	9,861		19,912	379		30,152
Other Program Expenses	12,419		14,145	7,749		34,313
TOTAL PROGRAM EXPENSES	612,733	26,766	446,552	717,286	63,998	1,867,335
ADMINISTRATIVE COSTS						
Management & General	11,676	510	8,510	13,669	1,220	35,585
Communications & Customer Svc	9,775	427	7,124	11,443	1,021	29,790
Total Administrative Costs	21,451	937	15,634	25,112	2,241	65,375
Total Program & Admin Expenses	634,184	27,703	462,186	742,398	66,239	1,932,710
Energy Savings (therms)	114,882	-	70,303	143,914		329,099

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Final Forecast

RENEWABLE PROGRAMS

PGE Renewables

EXPENSES	Standard Solar	Custom Projects	Renewable Total
Program Management	364,479	153,344	517,823
Program Delivery:	259,500		259,500
Incentives:	7,208,700	1,730,610	8,939,310
Program Eval & Planning Svcs.:	85,659	4,177	89,836
Program Marketing/Outreach:	99,939	12,160	112,099
Program Legal	-	-	-
Program Quality Assurance:			-
Outsourced Services:	123,444	24,984	148,428
Trade Allies & Cust. Svc. Mgmt.:	36,718	1,450	38,168
IT Services:	73,119	31,157	104,276
Other Program Expenses	152,195	20,730	172,925
TOTAL PROGRAM EXPENSES	8,403,753	1,978,612	10,382,365
ADMINISTRATIVE COSTS			
Management & General	160,144	37,705	197,849
Communications & Customer Svc	134,068	31,566	165,634
Total Administrative Costs	294,212	69,271	363,483
Total Program & Admin Expenses	8,697,965	2,047,883	10,745,849
 Energy Generation (kwh)	 12,628,800	 -	 12,628,800

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2016 Final Forecast

RENEWABLE PROGRAMS

Pacific Power Renewables

EXPENSES	Standard Solar	Custom Projects	Renewable Total
Program Management	202,278	317,990	520,268
Program Delivery:	180,500		180,500
Incentives:	3,932,600	3,275,900	7,208,500
Program Eval & Planning Svcs.:	47,193	8,662	55,855
Program Marketing/Outreach:	55,061	19,840	74,901
Program Legal	-	-	-
Program Quality Assurance:			-
Outsourced Services:	68,011	365,116	433,127
Trade Allies & Cust. Svc. Mgmt.:	20,230	3,008	23,238
IT Services:	40,285	64,611	104,896
Other Program Expenses	83,851	47,920	131,771
TOTAL PROGRAM EXPENSES	4,630,009	4,103,047	8,733,056
ADMINISTRATIVE COSTS			
Management & General	88,231	78,189	166,420
Communications & Customer Svc	73,864	65,458	139,322
Total Administrative Costs	162,095	143,647	305,742
Total Program & Admin Expenses	4,792,104	4,246,694	9,038,796
Energy Generation (kwh)	8,514,000	91,315	8,605,315

Energy Trust of Oregon, Inc
Detail by Service Territory and Program
2018 Final Proposed Projection

RENEWABLE PROGRAMS

Pacific Power Renewables

EXPENSES	Standard Solar	Custom Projects	Renewable Total
Program Management	285,143	208,442	493,585
Program Delivery:	180,380		180,380
Incentives:	3,230,000	2,347,550	5,577,550
Program Eval & Planning Svcs.:	63,486	23,703	87,189
Program Marketing/Outreach:	79,662	17,360	97,022
Program Legal	2,177	1,923	4,100
Program Quality Assurance:			-
Outsourced Services:	89,891	176,000	265,891
Trade Allies & Cust. Svc. Mgmt.:	43,368	453	43,821
IT Services:	65,023	42,313	107,336
Other Program Expenses	115,838	28,979	144,817
TOTAL PROGRAM EXPENSES	4,154,968	2,846,723	7,001,691
ADMINISTRATIVE COSTS			
Management & General	81,194	55,629	136,823
Communications & Customer Svc	81,261	55,675	136,936
Total Administrative Costs	162,455	111,304	273,759
Total Program & Admin Expenses	4,317,423	2,958,027	7,275,448
Energy Generation (kwh)	7,277,600	1,770,000	9,047,600

Financial Glossary

(for internal use) - updated December 6, 2016

Administrative Costs

Costs that, by nonprofit accounting standards, have general objectives which enable an organization's programs to function. The organization's programs in turn provide direct services to the organization's constituents and fulfill the mission of the organization.

i.e. management and general and general communication and outreach expenses

I. Management and General

- Includes governance/board activities, interest/financing costs, accounting, payroll, human resources, general legal support, and other general organizational management costs.
- Receives an allocated share of indirect costs.

II. General Communications and Outreach

- Expenditures of a general nature, conveying the nonprofit mission of the organization and general public awareness.
- Receives an allocated share of indirect costs.

Allocation

- A way of grouping costs together and applying them to a program as one pool based upon an allocation base that most closely represents the activity driver of the costs in the pool.
- Used as an alternative to charging programs on an invoice-by-invoice basis for accounting efficiency purposes.
- An example would be accumulating all of the costs associated with customer management (call center operations, Energy Trust customer service personnel, complaint tracking, etc). The accumulated costs are then spread to the programs that benefited by using the ratio of calls into the call center by program (i.e. the allocation base).

Allocation Cost Pools

- Employee benefits and taxes.
- Office operations. Includes rent, telephone, utilities, supplies, etc.
- Information Technology (IT) services.
- Planning and evaluation general costs.
- Customer service and trade ally support costs.
- General communications and outreach costs.
- Management and general costs.
- Shared costs for electric utilities.
- Shared costs for gas utilities.
- Shared costs for all utilities.

Auditor's Opinion

- An accountant's or auditor's opinion is a report by an independent CPA presented to the board of directors describing the scope of the examination of the organization's books, and certifying that the financial statements meet the AICPA (American Institute of Certified Public Accountants) requirements of GAAP (generally accepted accounting principles).

- Depending on the audit findings, the opinion can be unmodified or modified regarding specific items. Energy Trust strives for and has achieved in all its years an unmodified opinion.
- An unmodified opinion indicates agreement by the auditors that the financial statements present an accurate assessment of the organization's financial results.
- The OPUC Grant Agreement requires an unmodified opinion regarding Energy Trust's financial statements.
- Failure to follow generally accepted accounting principles (GAAP) can result in a qualified opinion.

Board-approved Annual Budget

- Funds approved by the board for *expenditures* during the budget year (subject to board approved program funding caps and associated policy) for the stated functions.
- Funds approved for *capital* asset expenditures.
- Approval of the general allocation of funds including commitments and cash outlays.
- Approval of expenditures is based on assumed revenues from utilities as forecasted in their annual projections of public purpose collections and/or contracted revenues.

Reserves

- In any one year, the amount by which revenues exceed expenses for that year in a designated category that will be added to the cumulative balance and brought forward for expenditure to the next budget year.
- In any one year, if expenditures exceed revenues, the negative difference is applied against the cumulative carryover balance.
- Does not equal the cash on hand due to noncash expense items such as depreciation.
- Tracked by major utility funder and at high level program area--by EE vs RE, not tracked by program.

Committed Funds

- Represents funds obligated to identified efficiency program participants in the form of signed applications or agreements and tracked in the project forecasting system.
- If the project is not demonstrably proceeding within agreed upon time frame, committed funds return to incentive pool. Reapplication would then be required.
- Funds are expensed when the project is completed.
- Funds may be held in the operating cash account, or in escrow accounts.

Contract obligations

- A signed contract for goods or services that creates a legal obligation.
- Reported in the monthly Contract Status Summary Report.

Cost-Effectiveness Calculation

- Programs and measures are evaluated for cost-effectiveness.
- The cost of program savings must be lower than the cost to produce the energy from both a utility and societal perspective.
- Expressed as a ratio of energy savings cost divided by the presumed avoided utility and societal cost of energy.
- Program cost-effectiveness evaluation is "fully allocated," i.e. includes all of the program costs plus a portion of Energy Trust administrative costs.

Dedicated Funds

- Represents funds obligated to identified renewable program participants in the form of signed applications or agreements and tracked in the project forecasting system.

- May include commitments, escrows, contracts, board designations, master agreements.
- Methodology utilized to develop renewable energy activity-based budgets amounts.

Direct Program Costs

- Can be directly linked to and reflect a causal relationship to one individual program/project; or can easily be allocated to two or more programs based upon usage, cause, or benefit.

Direct Program Evaluation & Planning Services

- Evaluation services for a specific program rather than for a group of programs.
- Costs incurred in evaluating programs and projects and included in determining total program funding caps.
- Planning services for a specific program rather than for a group of programs.
- Costs incurred in planning programs and projects and are included in determining program funding expenditures and caps.
- Evaluation and planning services attributable to a number of programs are recorded in a cost pool and are subsequently allocated to individual programs.

Escrowed Program (Incentive) Funds

- Cash deposited into a separate bank account that will be paid out pursuant to a contractual obligation requiring a certain event or result to occur. Funds can be returned to Energy Trust if such event or result does not occur. Therefore, the funds are still “owned” by Energy Trust and will remain on the balance sheet.
- The funds are within the control of the bank in accordance with the terms of the escrow agreement.
- When the event or result occurs, the funds are considered “earned” and are transferred out of the escrow account (“paid out”) and then are reflected as an expense on the income statement for the current period.

Expenditures/Expenses

- Amounts for which there is an obligation for payment of goods and/or services that have been received or earned within the month or year.

Project Tracking Projects Forecasting

Module developed in Project Tracking system (PT) to provide information about the timing of future incentive payments, with the following definitions:

- Estimated-Project data may be inaccurate or incomplete. Rough estimate of energy savings, incentives and completion date by project and by service territory.
- Proposed-Project that has received a written incentive offer but no agreement or application has been signed. Energy savings, incentives and completion date to be documented by programs using this phase. For Renewable projects-project that has received Board approval.
- Accepted-Used for renewable energy projects in 2nd round of application; projects that have reached a stage where approval process can begin.
- Committed-Project that has a signed agreement or application reserving incentive dollars until project completion. Energy savings/generations, incentives and completion date by project and by service territory must be documented in project records and in PT. If project not demonstrably proceeding within agreed upon time frame, committed funds return to incentive pool. Reapplication would then be required.
- Dedicated-Renewable project that has been committed, has a signed agreement, and if required, has been approved by the board of directors.

Incentives**I. Residential Incentives**

- Incentives paid to a residential program participant (party responsible for payment for utility service in particular dwelling unit) exclusively for energy efficiency and renewable energy measures in the homes or apartments of such residential customers.

II. Business Incentives

- Incentives paid to a participant other than a residential program participant as defined above following the installation of an energy efficiency or renewable energy measure.
- Above market cost for a particular renewable energy project.

III. Service Incentives

- Incentives paid to an installation contractor which serves as a reduction in the final cost to the participant for the installation of an energy efficiency or renewable energy measure.
- Payment for services delivered to participants by contractors such as home reviews and technical analysis studies.
- End-user training, enhancing participant technical knowledge or energy efficiency practices proficiency such as Strategic Energy Management programs, where some level of tracking of particular sites and participants is part of the program design.
- Lighting, hot water, and energy control devices through retailer buy down, on line fulfillment, and direct installation.

Indirect Costs

- Shared costs that are “allocated” for accounting purposes rather than assigning individual charges to programs.
- Allocated to all programs and administration functions based on a standard basis such as hours worked, square footage, customer phone calls, etc.
- Examples include rent/facilities, supplies, computer equipment and support, and depreciation.

IT Support Services

- Information technology costs incurred as a result of supporting all programs.
- Includes energy savings and incentive tracking software, data tracking support of PMCs and for the program evaluation functions.
- Includes technical architecture design and physical infrastructure.
- Receives an allocation of indirect shared costs.
- Total costs subsequently allocated to programs and administrative units.

Outsourced Services

- Miscellaneous professional services contracted to third parties rather than performed by internal staff.
- Can be incurred for program or administrative reasons and will be identified as such.

Program Costs

- Expenditures made to fulfill the purposes or mission for which the organization exists and are authorized through the program approval process.
- Includes program management, incentives, program staff salaries, planning, evaluation, quality assurance, program-specific marketing and other costs incurred solely for program purposes.
- Can be direct or indirect (i.e. allocated based on program usage.)

Program Delivery Expense

- This will include all PMC labor and direct costs associated with: incentive processing, program coordination, program support, trade ally communications, and program delivery contractors.
- Includes contract payments to NEEA for market transformation efforts.
- Includes performance compensation incentives paid to program management contractors under contract agreement if certain incentive goals are met.
- Includes professional services for items such as solar inspections, anemometer maintenance and general renewable energy consulting.

Program Legal Services

- External legal expenditures and internal legal services utilized in the development of a program-specific contract.

Program Management Expense

- PMC billings associated with program contract oversight, program support, staff management, etc.
- ETO program management staff salaries, taxes and benefits.

Program Marketing/Outreach

- PMC labor and direct costs associated with marketing/outreach/awareness efforts to communicate program opportunities and benefits to rate payers/program participants.
- Awareness campaigns and outreach efforts designed to reach participants of individual programs.
- Co-op advertising with trade allies and vendors to promote a particular program benefit to the public.

Program Quality Assurance

- Independent in-house or outsourced services for the quality assurance efforts of a particular program (distinguished from program quality control).

Program Reserves

- Negotiated with utilities annually, with a goal of providing a cushion of approximately 5% above funds needed to fulfill annual budgeted costs. Management may access up to 50% of annual program reserve without prior board approval (resolution 633, 2012).

Program Support Costs

- Source of information is contained in statement of functional expense report.
- Portion of costs in OPUC performance measure for program administration and support costs.
 - Includes expenses incurred directly by the program.
 - Includes allocation of shared and indirect costs incurred in the following categories: supplies; postage and shipping; telephone; printing and publications; occupancy expenses; insurance; equipment; travel; business meetings; conferences and training; depreciation and amortization; dues, licenses,

subscriptions and fees; miscellaneous expense; and an allocation of information technology department cost.

Project Specific Costs (for Renewable Energy)

- Expenses directly related to identified projects or identified customers to assist them in constructing or operating renewable projects. Includes services to prospective as well as current customers.
- Must involve direct contact with the project or customer, individually or in groups, and provide a service the customer would otherwise incur at their own expense.
- Does not include general program costs to reach a broad (unidentified) audience such as websites, advertising, program development, or program management.
- Project-Specific costs may be in the categories of; Incentives, Staff salaries, Program delivery, Legal services, Public relations, Creative services, Professional services, Travel, Business meetings, Telephone, or Escrow account bank fees.

Savings Types

- **Working Savings/Generation:** the estimate of savings/generation that is used for data entry by program personnel as they approve individual projects. They are based on deemed savings/generation for prescriptive measures, and engineering calculations for custom measures. They do not incorporate any evaluation or transmission and distribution factors.
- **Reportable Savings/Generation, also known as Net Savings:** the estimate of savings/generation that will be used for public reporting of Energy Trust results. This includes transmission and distribution factors, and evaluation factors of free riders, spillover and savings realization rates, plus any other corrections required to the original working values. These values are updated annually, and are subject to revision each year during the “true-up” as a result of new information or identified errors.
- **Gross Savings/Generation:** the estimate of savings from program participants, regardless of whether they are free-riders.
- **Contract Savings:** the estimate of savings that will be used to compare against annual contract goals. These savings figures are generally the same as the reportable savings at the time that the contract year started. For purposes of adjusting working savings to arrive at this number, a single adjustment percentage (a SRAF, as defined below) is agreed to at the beginning of the contract year and is applied to all program measures. This is based on the sum of the adjustments between working and reportable numbers in the forecast developed for the program year.
- **Savings Realization Adjustment Factors (SRAF):** are savings realization adjustment factors applied to electric and gas working savings measures in order to reflect more accurate savings information through the benefit of evaluation and other studies. These factors are determined by the Energy Trust and used for annual contract amendments. The factors are determined based on the best available information from:
 - Program evaluations and/or other research that account for free riders, spill-over effects and measure impacts to date; and
 - Published transmission and distribution line loss information resulting from electric measure savings.

Total Program and Admin Expenses (line item on income statement)

- Used only for cost effectiveness calculations, levelized cost calculations and in management reports used to track funds spent/remaining by service territory.
- Includes all costs of the organization--direct, indirect, and an allocation of administration costs to programs.
- Should not be used for external financial reporting (not GAAP).

Total Program Expenses (line item on income statement)

- All indirect costs have been allocated to program costs with the exception of administration (management and general costs and communications & outreach).
- Per the requirements of Generally Accepted Accounting Principles (GAAP) for nonprofits, administrative costs should not be allocated to programs.
- There is no causal relationship—costs would not go away if the program did not exist.

Trade Ally Programs & Customer Service Management

- Costs associated with Energy Trust sponsorship of training and development of a trade ally network for a variety of programs.
- Trade Ally costs are tracked and allocated to programs based on the number of allies associated with that program.
- Costs in support of assisting customers which benefit all Energy Trust programs such as call center operations, customer service manager, complaint handling, etc.
- Customer service costs are tracked and allocated based on # of calls into the call center per month.

True Up

- True-up is a once-a-year process where we take everything we've learned about how much energy programs actually save or generate, and update our reports of historic performance and our software tools for forecasting and analyzing future savings.
- Information incorporated includes improved engineering models of savings (new data factor), anticipated results of future evaluations based on what prior evaluations of similar programs have shown (anticipated evaluation factor), and results from actual evaluations of the program and the year of activity in question (evaluation factor).
- Results are incorporated in the Annual Report (for the year just past) and the True-up Report (for prior years).
- Sometimes the best data on program savings or generation is not available for 2-3 years, especially for market transformation programs. So for some programs, the savings are updated through the annual true-up 2 or 3 times