



Fall Trade Ally Forums November 2017



Draft 2018 Budget Overview

Trade Ally Forums

November 2017

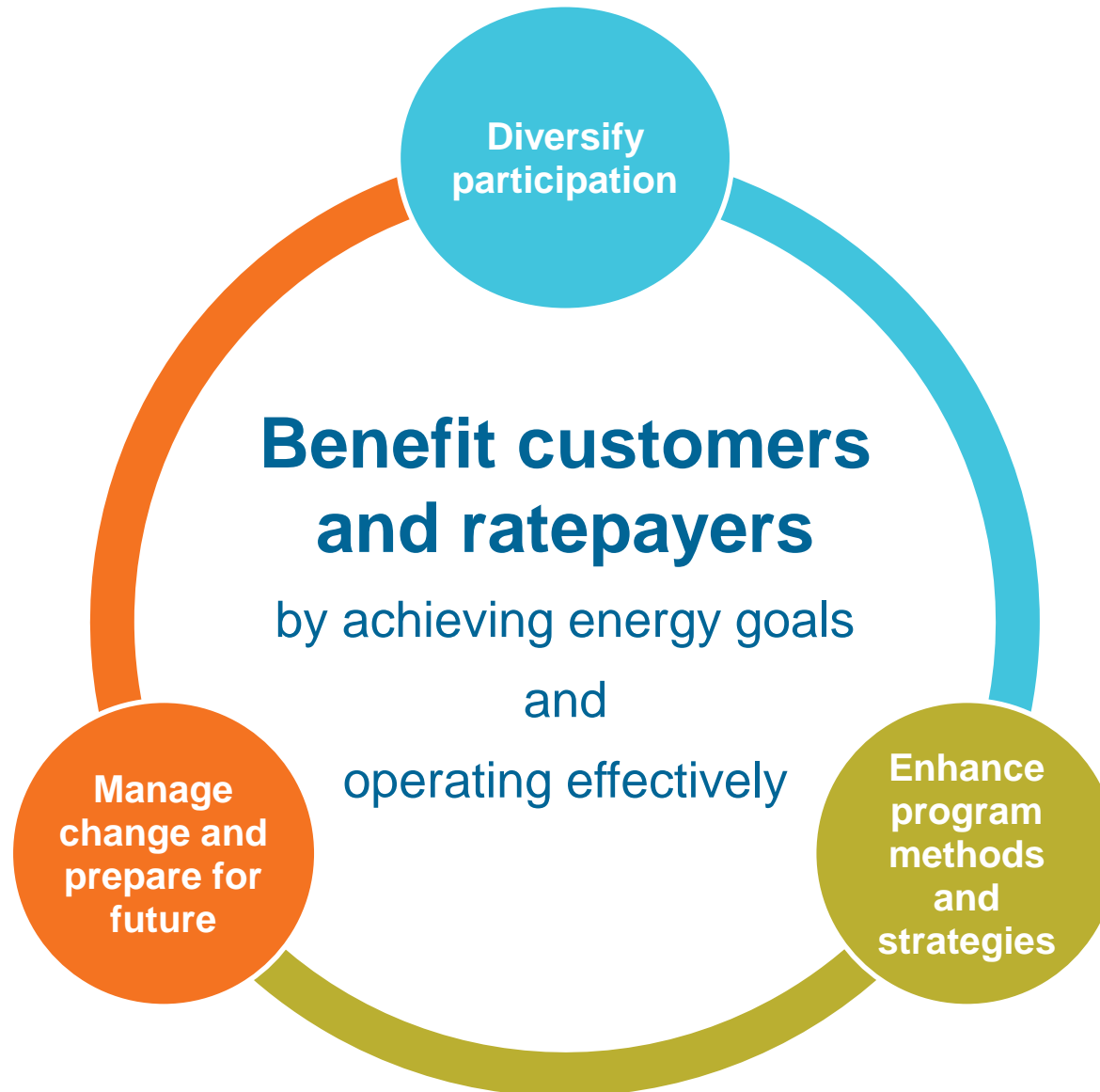


Budget and Action Plan Context

- 4th year of strategic plan
- Oregon population diversifying, stakeholder interest growing
- Stable economy driving high activity in some program areas
- Changing policies, markets and technologies
- Cost-effectiveness challenges



Program Areas of Emphasis



1) Diversify Participation

- Continue replacement pilot for older manufactured homes
- Identify and prioritize strategies to increase access to solar in low-income communities
- Contract with community-based organizations to reach under-served communities in residential sector
- Drive forward organizational diversity, equity and inclusion strategies and activities



Drive forward organizational diversity, equity and inclusion strategies and activities

- Adopt organizational diversity, equity and inclusion operations plan
- Propose board-level policy
- Establish specific goals across the organization
- Apply diversity, equity and inclusion lens to our internal operations and how we deliver programs
- Develop and deepen relationships with organizations that serve diverse customer groups
- Develop systems and process for demographic data collection and use



2) Enhance Program Methods and Strategies

- Utilize new, improved data resources in analysis and targeted marketing
- Leverage energy-related initiatives spearheaded by others
- Foster long-term relationships with business customers and support long-term project planning for communities
- Expand use of midstream and distributor engagement, and use of instant incentives

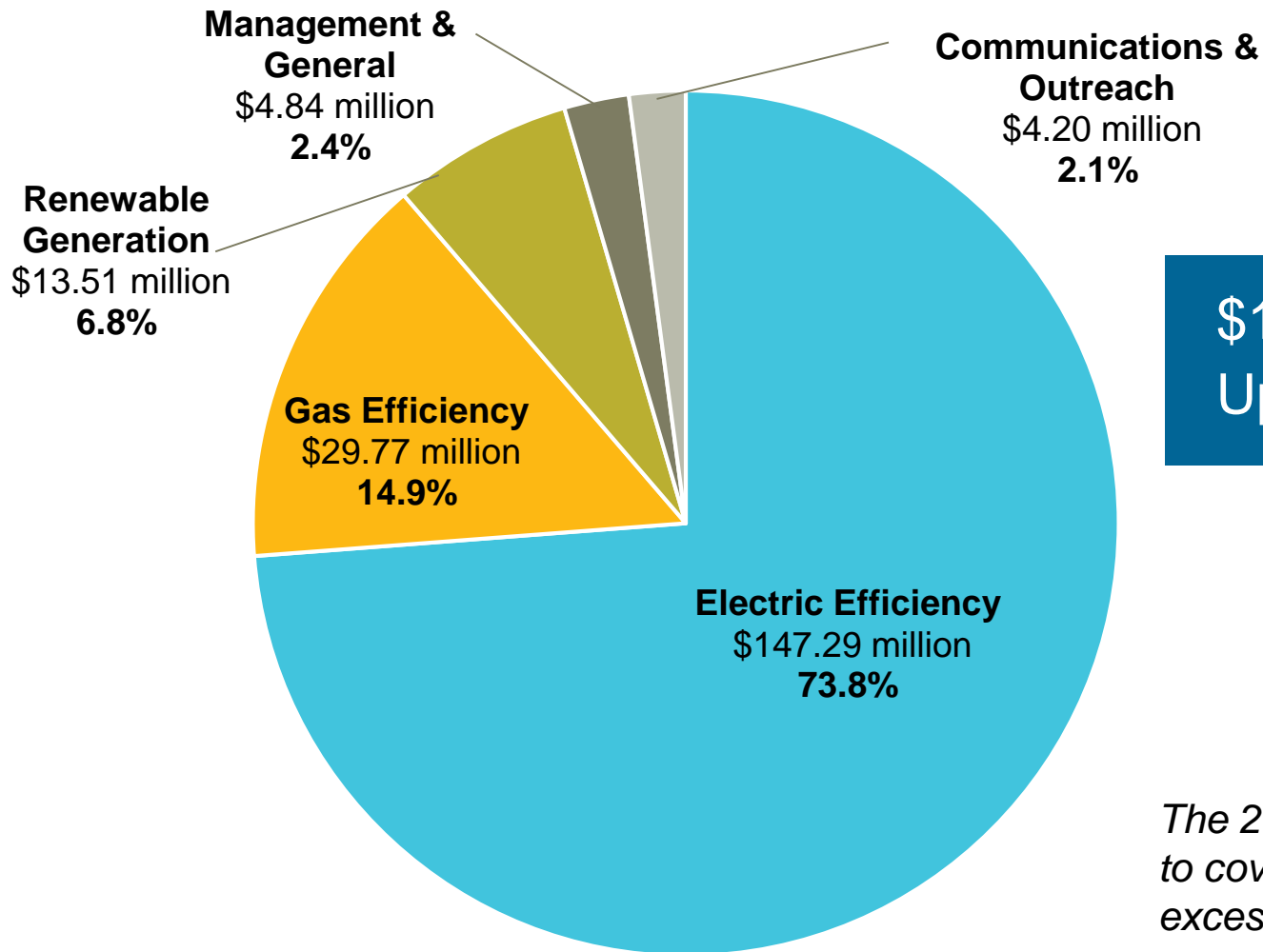


3) Manage Change and Prepare for Future

- Explore the energy efficiency and renewable energy nexus
- Adjust measure and program approaches due to changing policies
- Implement transitional strategies for key program areas (ex. solar, residential)
- Implement recommendations from internal Organizational Review and Budget Review Projects



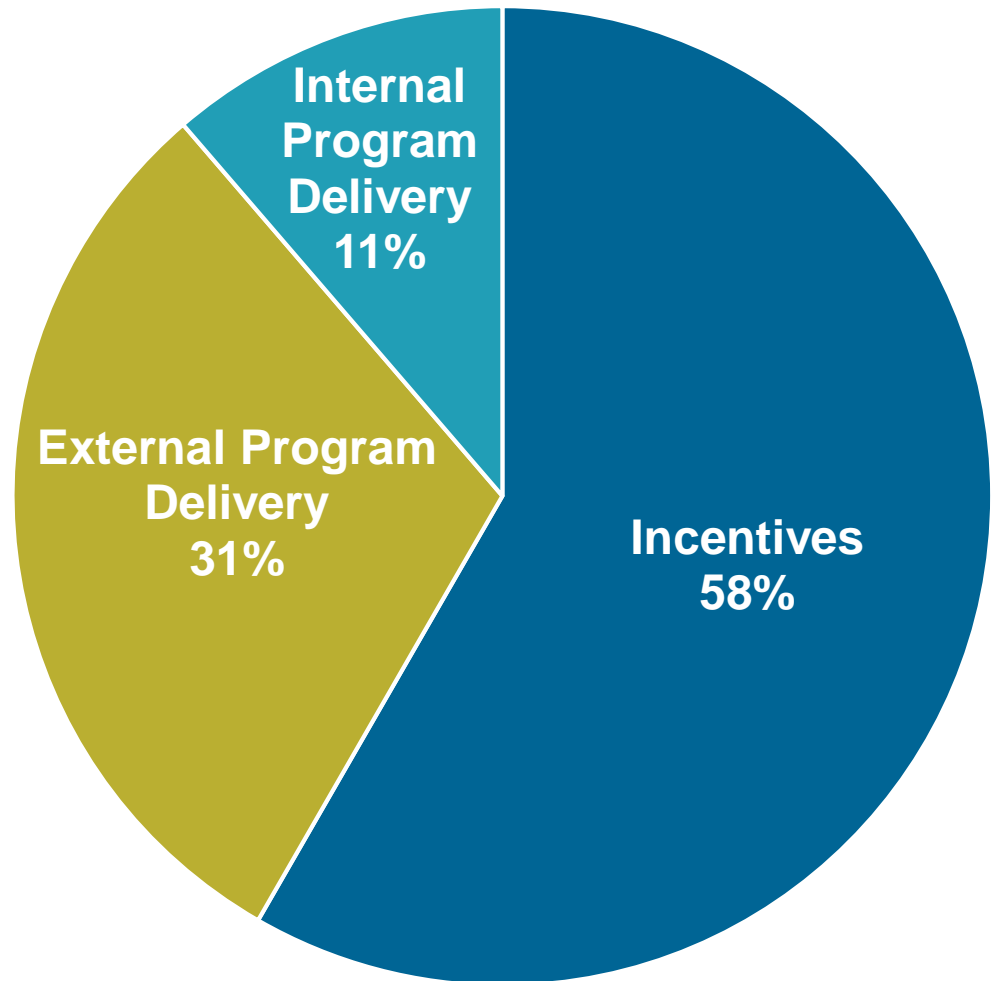
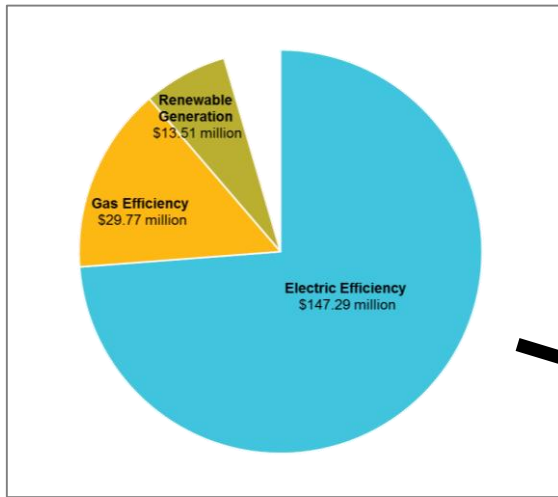
2018 Draft Budget Expenditures



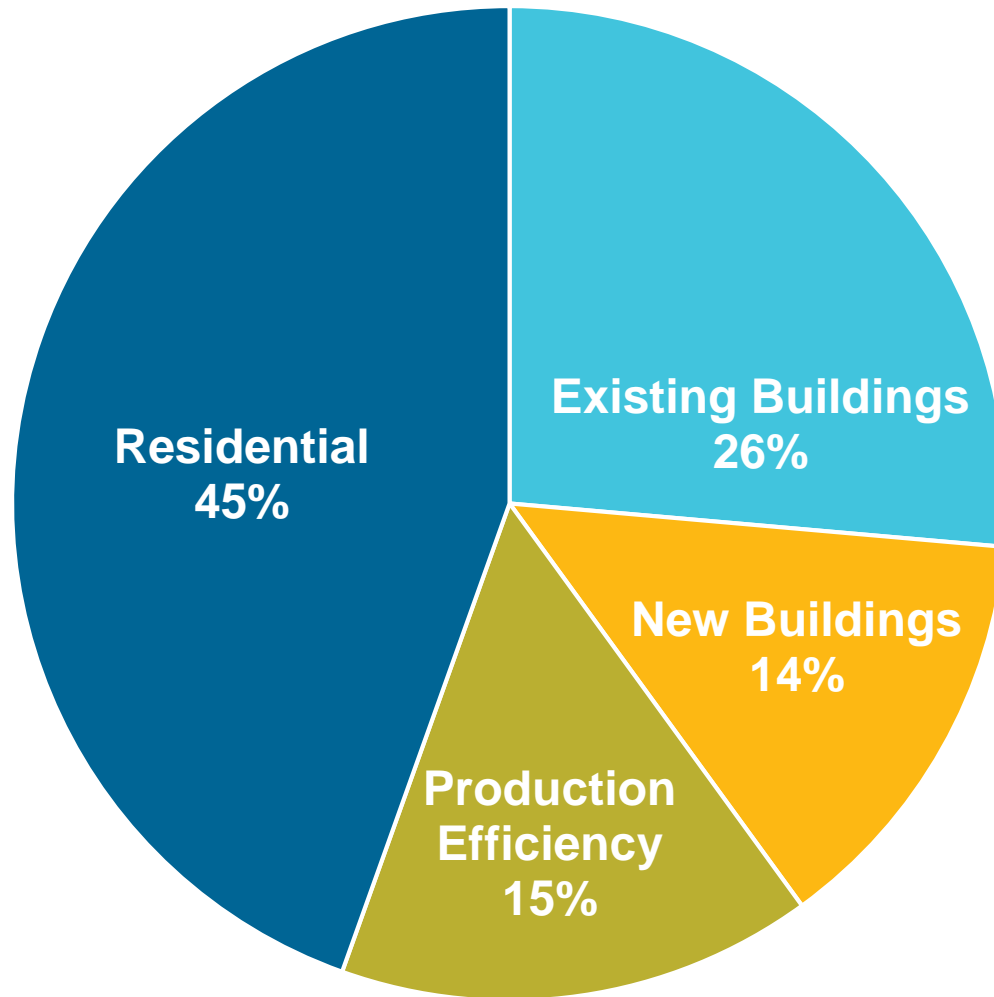
\$199.6 million
Up 0.5% from 2017

The 2018 budget utilizes reserves to cover planned expenses in excess of anticipated revenue.

2018 Draft Budget Expenditures Detail



2018 Natural Gas Savings by Program

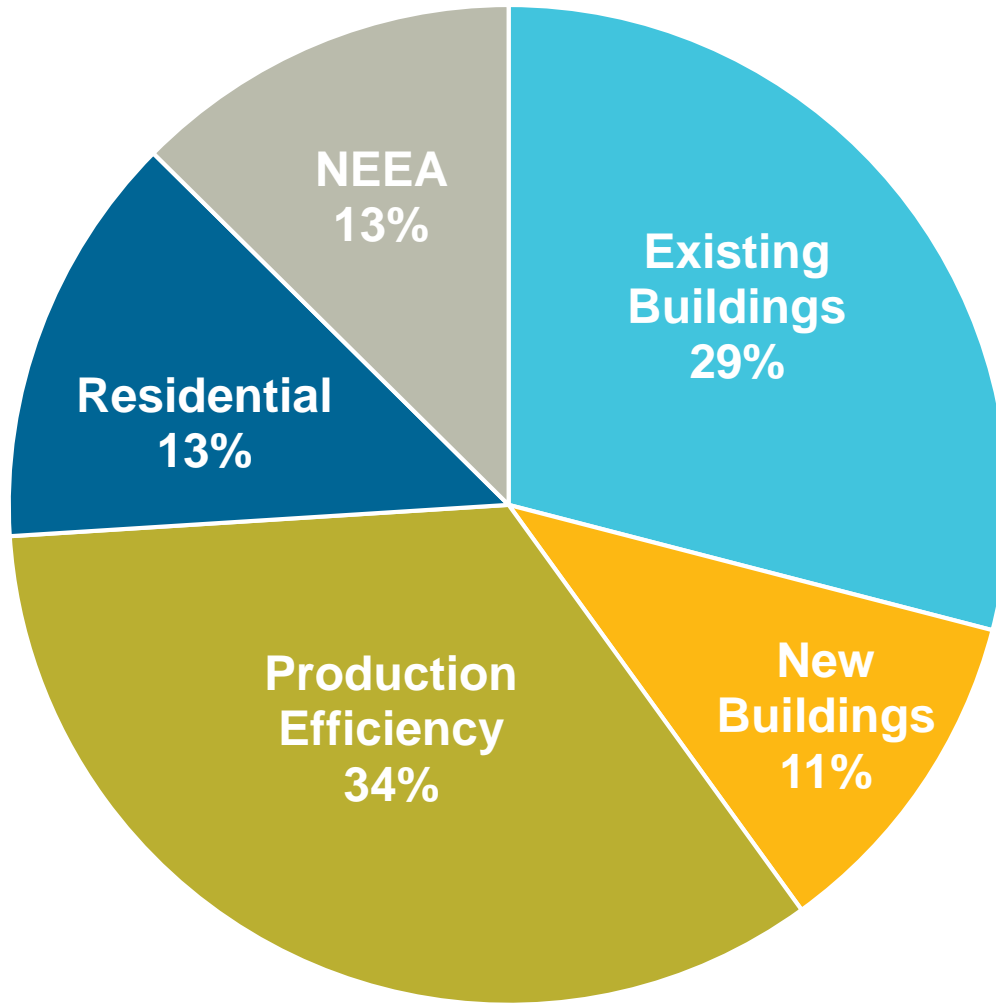


6.88 MMTh goal
33.5 cents/therm

- Savings down 7.2%
- \$31.2 million in total costs, including customer incentives, services and delivery

MMTh: million annual therms
Cost per therm is levelized

2018 Electric Savings by Program



56.52 aMW goal
3.0 cents/kWh

- Savings up 0.2%
- \$154.3 million in total costs, including customer incentives, services and delivery

aMW: average megawatts
Cost per kilowatt hour is levelized

2018 Renewable Energy Programs

| | \$ Million | aMW |
|-------------------------|-------------------|-------------|
| Solar | \$10.23 | 2.18 |
| Other Renewables | \$3.91 | 0.00 |
| Total | \$14.15 | 2.18 |

- Generation down 24%
- \$14.15 million in total costs, including customer incentives, services and delivery
- Other Renewables expenditures include:
 - Project development assistance payments for potential generation in future years (63%)
 - Staff, professional services, outreach and other allocated costs (37%)

Budget Outreach Schedule

October & November

Draft budget online, Nov. 1
Trade ally forums, Nov. 2-16
Recorded webinar online, Nov. 7
Board of Directors, Nov. 8
OPUC public meeting, Nov. 16
RAC/CAC updates, Nov. 17
Public comments due Nov. 17
Comments reviewed, final adjustments

+ www.energytrust.org/about/budget

Send comments to info@energytrust.org

December

Final proposed budget online,
Dec. 8
Board of Directors, **Dec. 15**,
Action on Final Proposed
2018-19 Budget and Action Plan

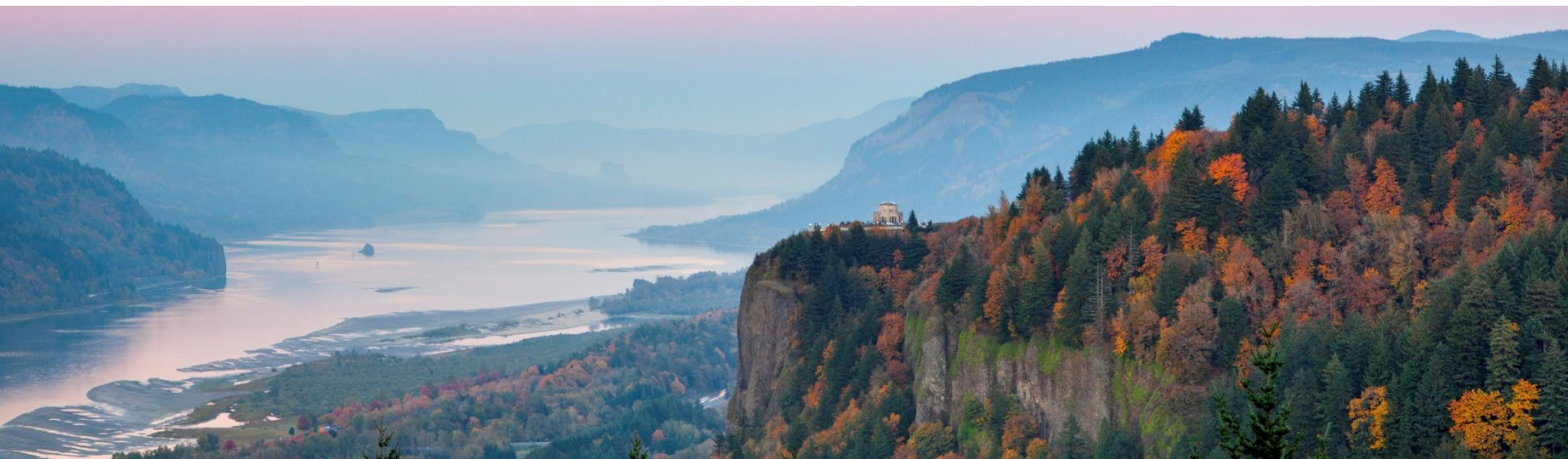
Discussion and Feedback

- What questions do you have?
- What information needs clarification?
- Other feedback?

+ www.energytrust.org/about/budget

Send comments to info@energytrust.org

+ Comments due November 17



Thank You

info@energytrust.org

1.866.368.7878





Energy Trust & Cost Effectiveness

Trade Ally Forums
November 2017

What is a cost-effectiveness test?

- It's a Benefit/Cost Ratio (BCR) calculation that provides a Yes/No decision on whether an investment's benefits exceed its costs
 - Benefits must be greater than or equal to Costs over the life of the measure
- Per direction from OPUC, Energy Trust uses the Total Resource Cost Test and Utility Cost Test
 - Required to apply test at measure level (custom, prescriptive) and in annual report at program level

Total Resource Cost Test (TRC)

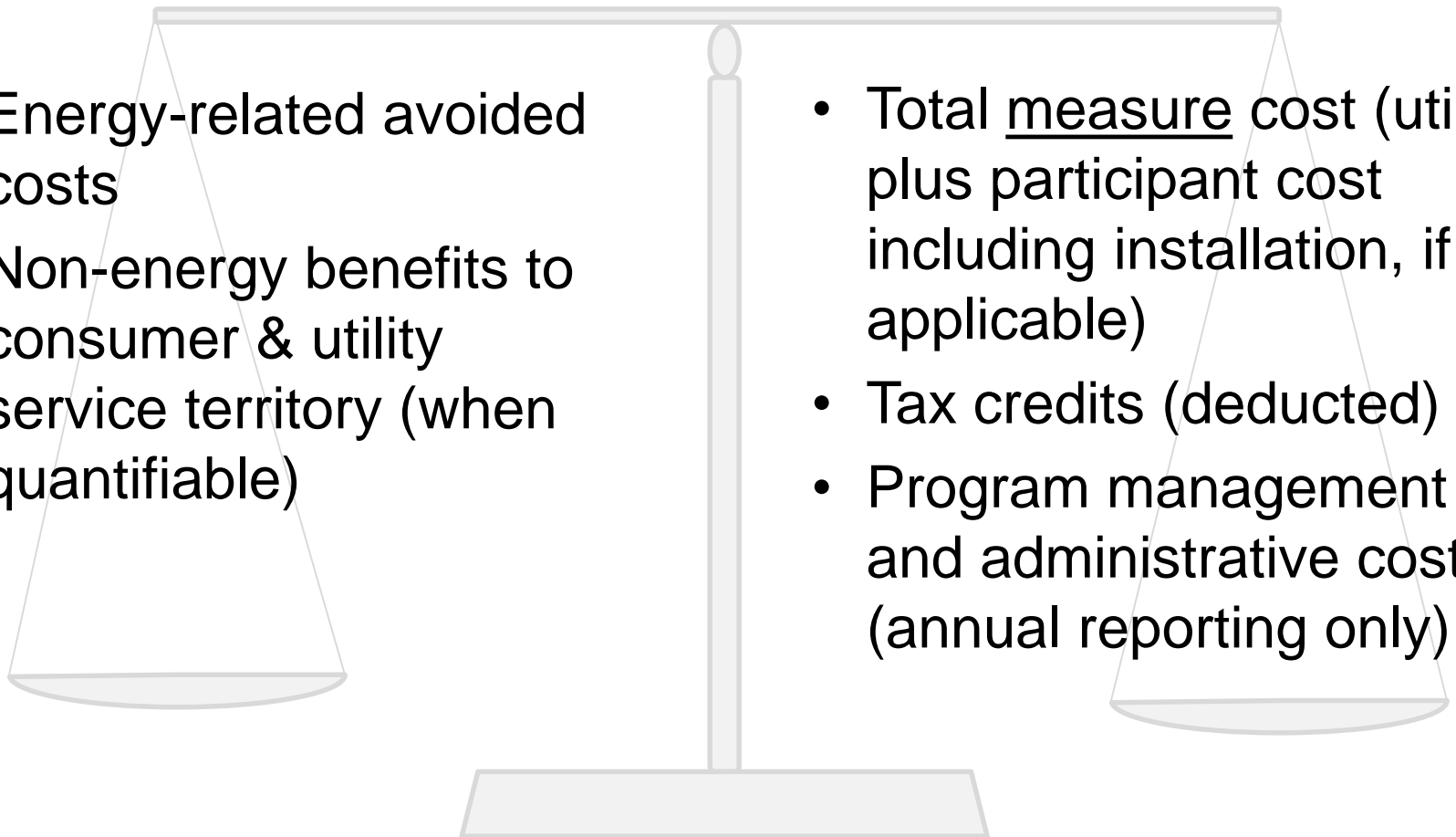
Will the total costs of energy in the utility service territory decrease?

Benefits

- Energy-related avoided costs
- Non-energy benefits to consumer & utility service territory (when quantifiable)

Costs

- Total measure cost (utility plus participant cost including installation, if applicable)
- Tax credits (deducted)
- Program management and administrative costs (annual reporting only)



Utility Cost Test (UCT)

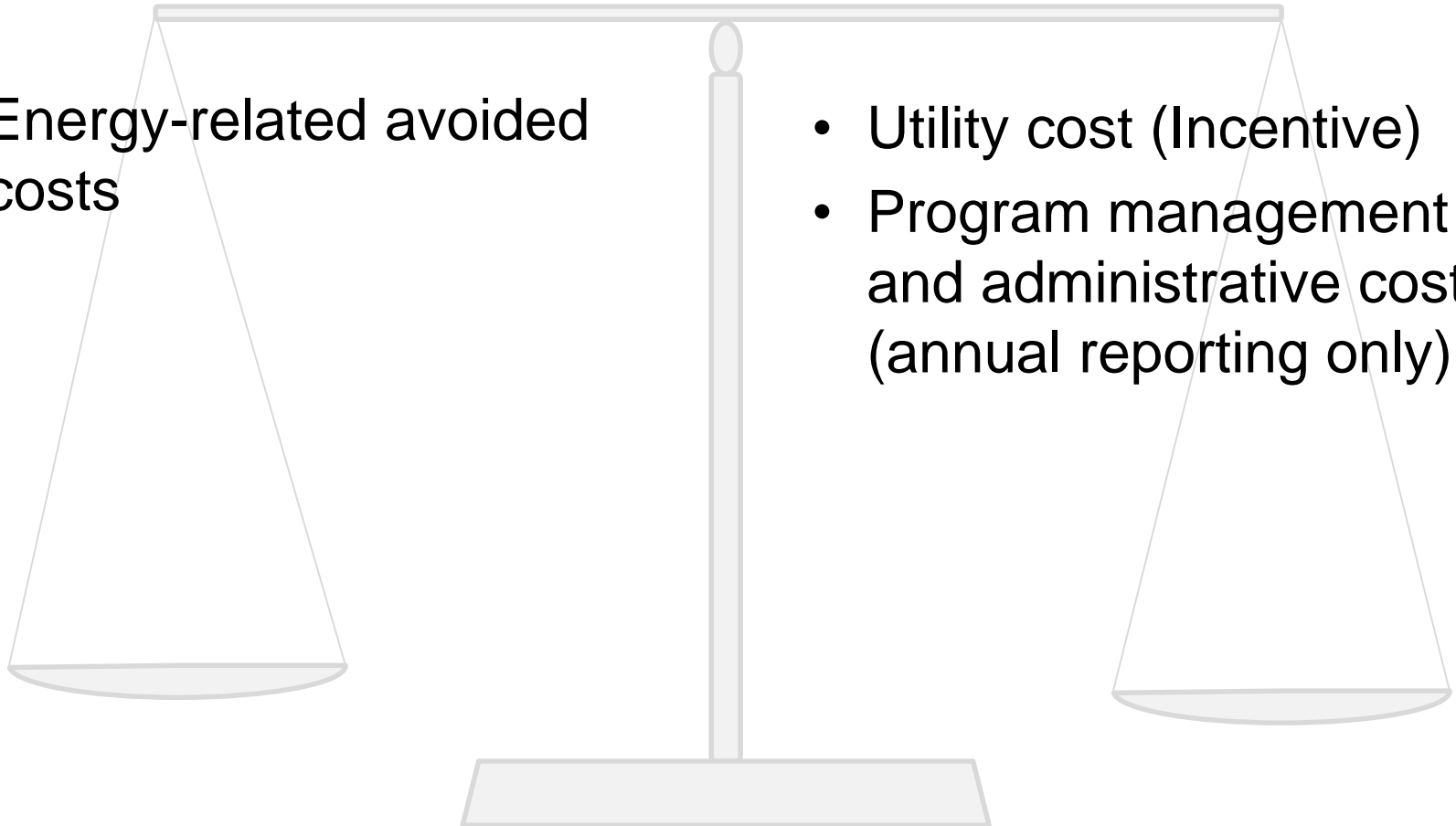
Is the utility cost of energy less?

Benefits

- Energy-related avoided costs

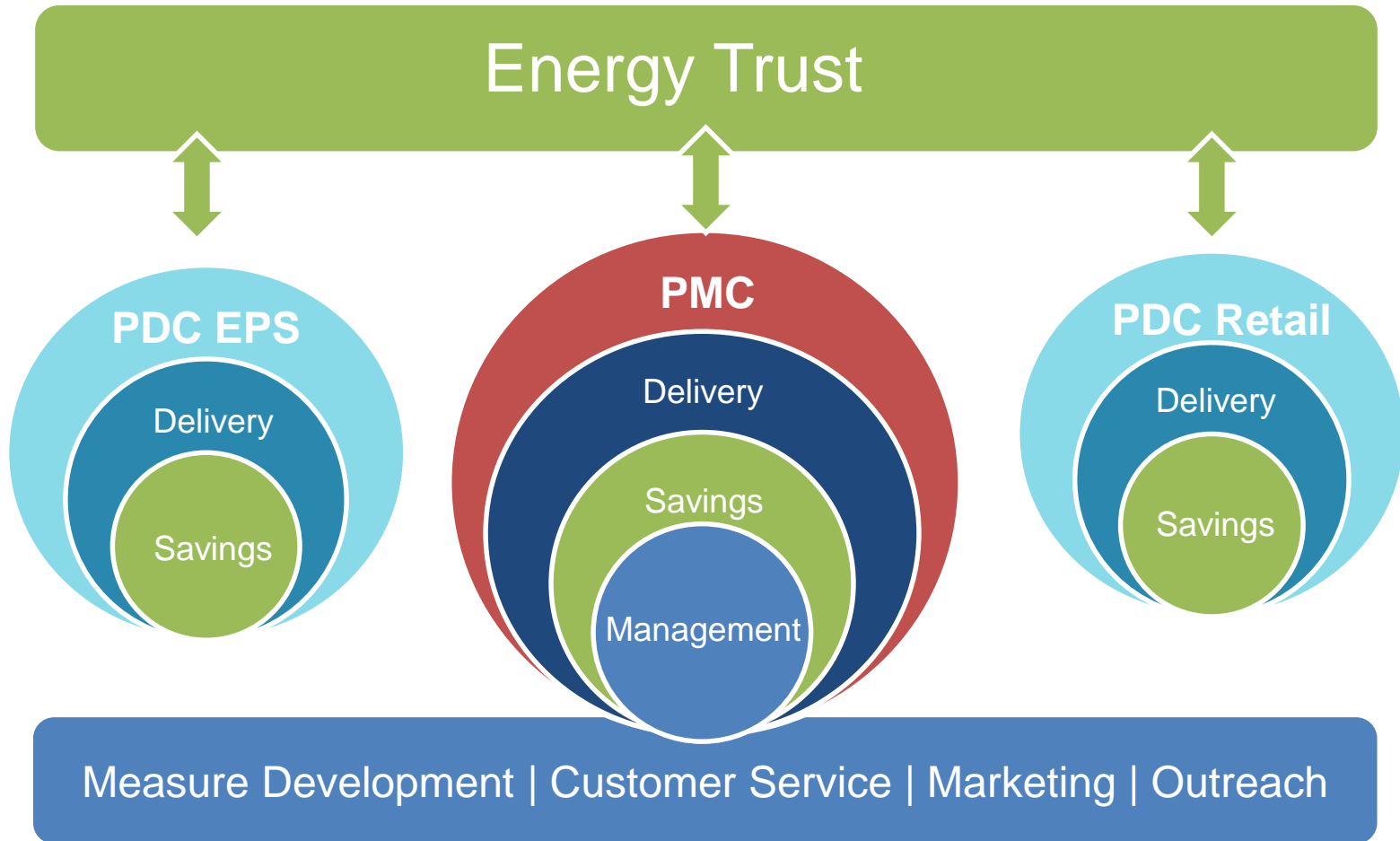
Costs

- Utility cost (Incentive)
- Program management and administrative costs (annual reporting only)

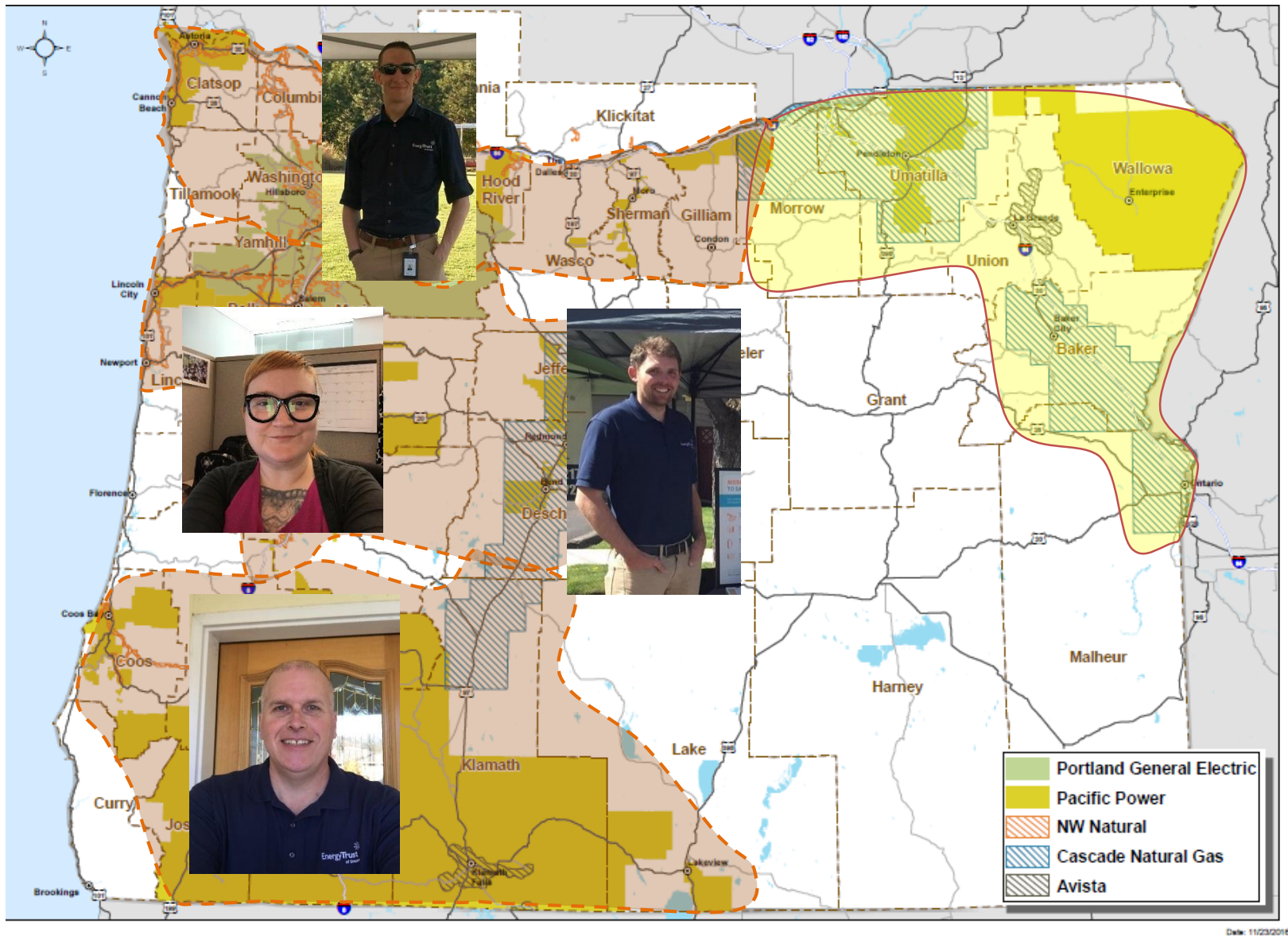


Residential Structure

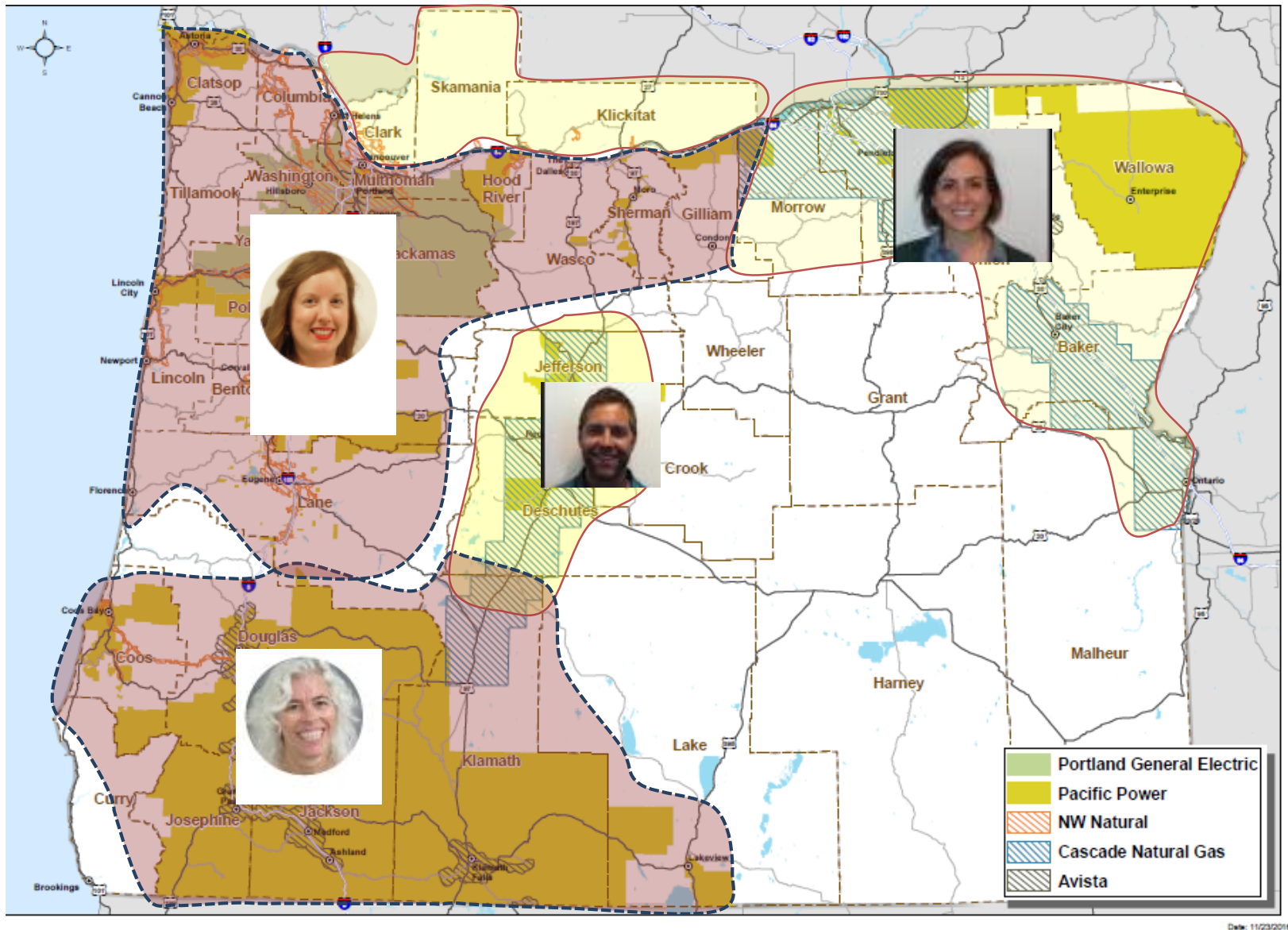
2018 Residential Program



Retail Field Coverage



EPS Whole-Home Field Coverage



Energy Trust of Oregon Residential Account Managers Regional Photo Map



Kyle Kent
Regions 1, 3, 7, 12



Caryn Appler
Regions 10, 11



Eric Falk
Regions 3, 7, 12



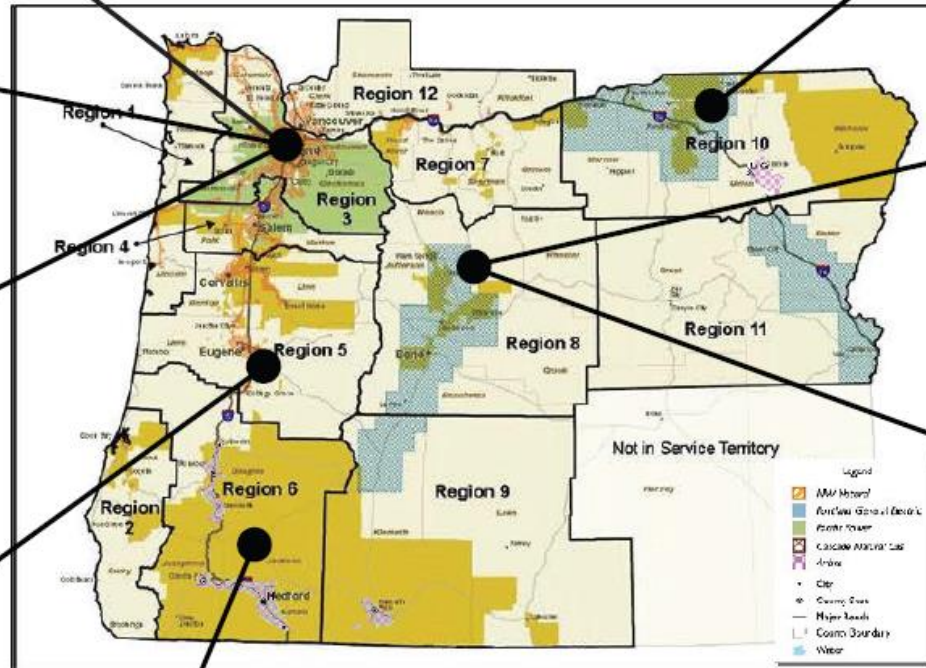
Adam Reese
Regions 1, 3, 7



Rick Flacco
Regions 1, 4, 5



Daniel Pierce
Regions 2, 6, 9



Mike Lillesand
Regions 8, 9
Field Supervisor



Mike McMillan
Regions 8, 9



Cameron Welch
Regions ALL



Shawn O'Neill
Regions ALL

2018 Program Updates

Factors Influencing 2018 Measures

- Updated avoided costs
- Oregon Residential Energy Tax Credit (RETC) expiration
- New codes and standards
- Expiring exceptions
- Changing market conditions (e.g., LEDs)



Residential Measure Exceptions

| Measure | Details | Status |
|---------------------------|---|---------|
| Gas new manufactured home | ENERGY STAR® and Ecorated homes | Pending |
| EPS pathways in Oregon | Paths 1 & 2 electric Path 4 gas | Pending |
| Gas tank water heaters | ENERGY STAR gas non-condensing tank | Pending |
| Ductless heat pumps | Replacing zonal heat (single-family, multifamily) | Pending |

Residential Measure Changes

| Measure | Change | Current incentive | New incentive |
|---|--------------------------|-------------------|-----------------------|
| Market rate furnaces (Avista) | Market assessment | \$200 | Sunset 03/31/2018 |
| New Homes Individual equipment incentives | Streamlined | \$100-\$500 | Incorporated into EPS |
| EPS™ OR | Baseline reconfiguration | Variable | Variable |



Residential Measure Changes

| Measure | Change | Current incentive | New incentive |
|--|--|-------------------|---------------|
| A-lamp LED, Trade Ally Direct Install | Decreased incentives due to changing market conditions | \$9 | \$5.50 |
| Reflector LED, Trade Ally Direct Install | Decreased incentives due to changing market conditions | \$15 | \$8.75 |



Residential Measure Adjustments, Cont.

| Measure | Change | Program | Current incentive | New incentive |
|--|--|---|-------------------|---------------|
| Heat pump (replacing electric heat – eFAF or ER) | Reduced to 8.5 HSPF, simplify incentives, add multifamily | Residential/ multifamily (2-4 & side-by-side) | \$450-\$700 | \$700 |
| Heat pump (replacing heat pump) | Any efficiency, simplify incentives, controls on new heat pump | Residential/ multifamily (2-4 & side-by-side) | \$250-\$500 | \$250 |
| Heat pump advanced controls | Simplify incentives, increase incentives | Residential/ multifamily (2-4 & side-by-side) | \$150 | \$250 |

Residential Measure Adjustments, Cont.

| Measure | Change | Program | Current incentive | New incentive |
|---|--|-------------|--------------------------------|-------------------------------|
| Heat pump (replacing electric heat – eFAF or ER) Savings Within Reach | Reduced HSPF, simplify incentives | Residential | \$750-\$1000 | \$1000 |
| Heat pump (replacing heat pump) Savings Within Reach | Changed requirements (financing available) | Residential | \$550-\$700 | \$250 |
| Gas water heater/ Heat pump water heater tier 1 & 2 | Shifted to midstream 10/02/2017 | Residential | \$100/\$150/\$300 (downstream) | \$100/\$150/\$300 (midstream) |

Heat Pump (replacing eFAF or ER)

| 2017 details | 2018 details |
|---|--|
| \$450-\$700 | \$700 |
| <ul style="list-style-type: none">• Two tiers HSPF 9.0 \$450, HSPF 9.5 \$700• Replacing electric forced air furnace, wall heater or ceiling heat | <ul style="list-style-type: none">• Removed the two tiers, one minimum 8.5+ HSPF requirement• Replacing electric forced air furnace, wall heater or ceiling heat• Incentive for most installations in homes will be increasing in 2018 |

Heat Pump (replacing a heat pump)

| 2017 details | 2018 details |
|--|--|
| \$250 - \$500 | \$250 |
| <ul style="list-style-type: none">• Must be upgrading from an existing heat pump or replacing non-electric heat• Tiered incentives with different HSPF requirements of 9.0 or 9.5 | <ul style="list-style-type: none">• Projects must include an eligible thermostat programmed with a 35 degree lockout• Must install heat pump with electric auxiliary heat• Multi-fuel heating systems do not qualify• No HSPF requirement• Participants completing PTCS or Check Me projects are eligible as long as they meet the other requirements However, PTCS or Check Me are not required for eligibility |

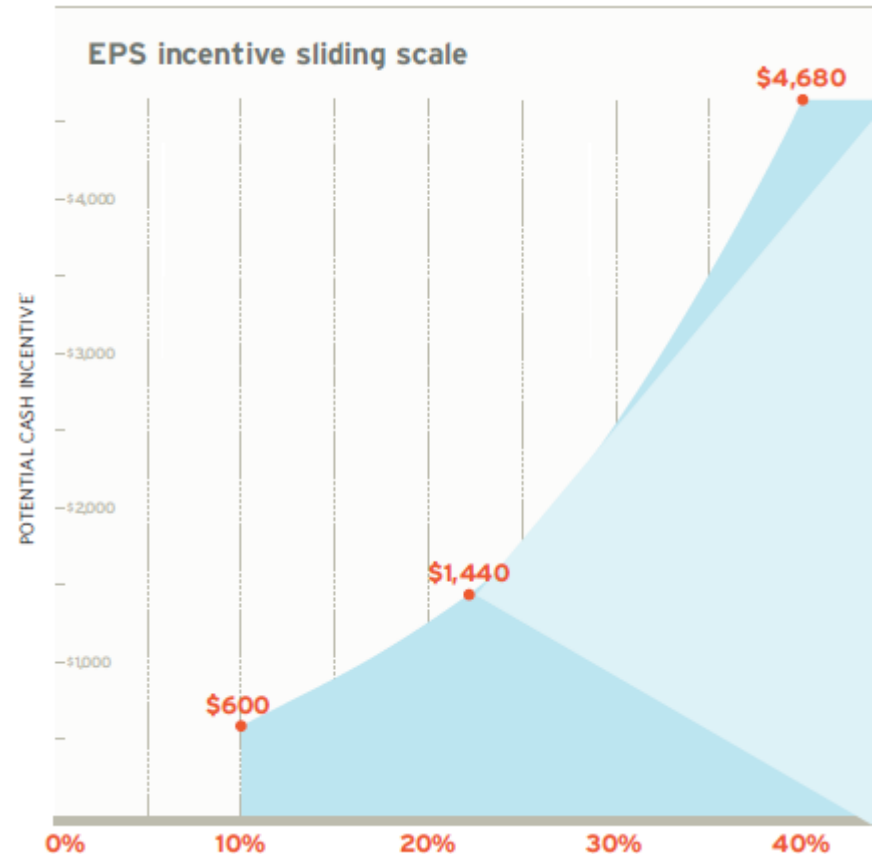
2018 EPS Whole Homes changes

- Updated 2017 ORSC adopted October 1, 2017
 - Increased envelop minimums
 - Measure option tables have been updated
 - All lighting required to be 100% high-efficacy
 - 100% low-flow showerheads and toilets required
- 2018 EPS whole home offer will be available for verifiers and builders on January 1, 2018
- Builders and verifiers will be required to submit homes under the new code April 1, 2017



2018 EPS incentive structure

- Same incentive range (\$600 to \$4,680)
- Same verifier incentive structure
- Based on percent improvement above code



Other new construction measure changes

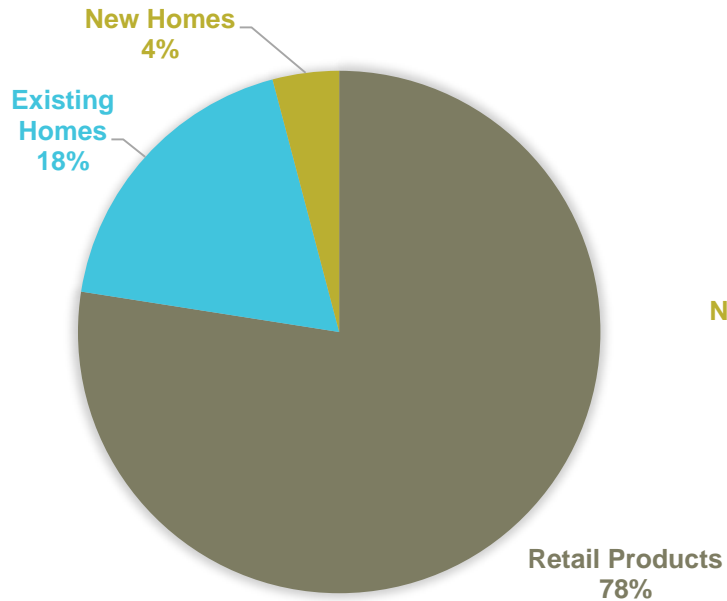
- Equipment incentives: discontinued
- Small multifamily: discontinued



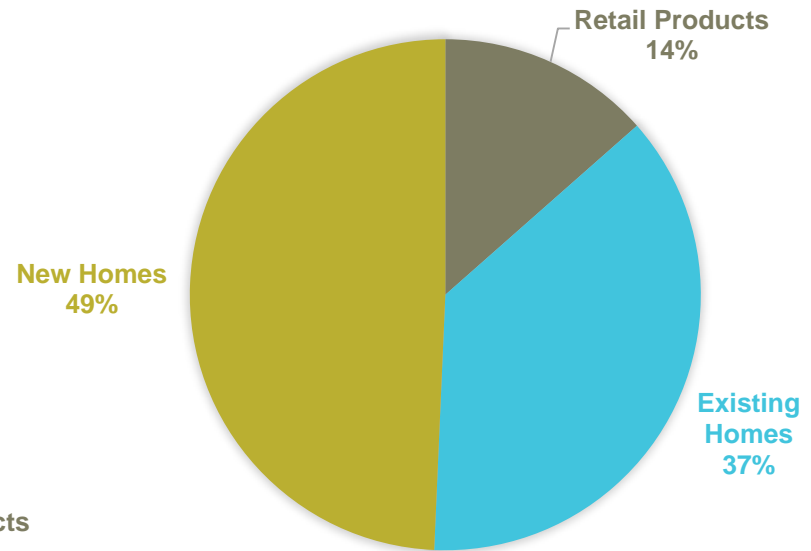
Regional Impact

Residential Savings

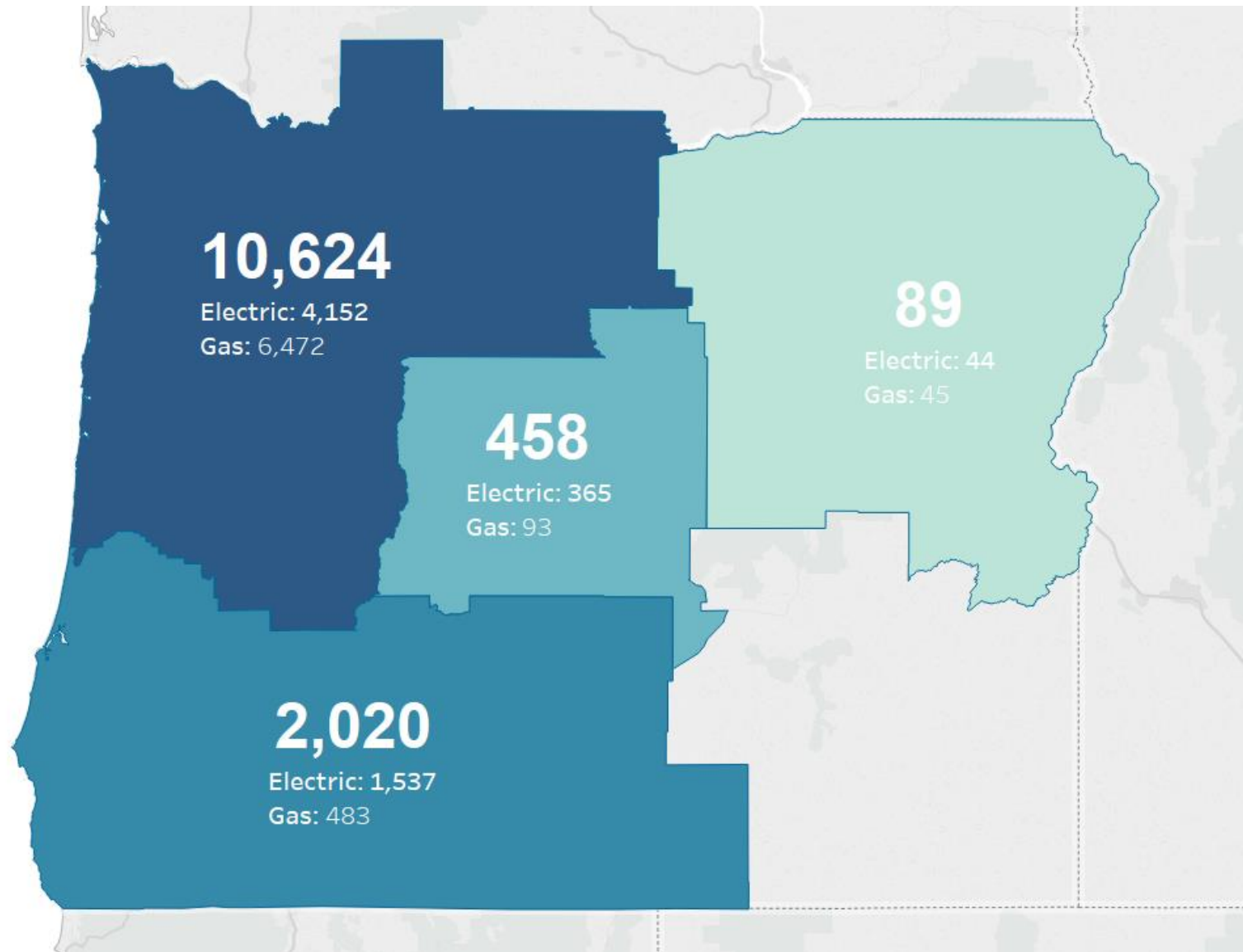
ELECTRIC SAVINGS



GAS SAVINGS



Home Retrofit Project Count



Southern Oregon

| Rank | Electric Measure | Project Count | kWh Savings | % of total kWh savings for the region |
|------|--------------------|---------------|-------------|---------------------------------------|
| 1 | Ductless heat pump | 358 | 904,941 | 42% |
| 2 | Heat pump rep. | 80 | 345,879 | 16% |
| 3 | Heat pump upgrade | 259 | 322,450 | 15% |
| 4 | Commissioning | 258 | 130,144 | 6% |

| Rank | Gas Measure | Project Count | Therm Savings | % of total therms savings for the region |
|------|--------------------|---------------|---------------|--|
| 1 | Gas furnace | 290 | 20,771 | 73% |
| 2 | Windows | 77 | 2,435 | 9% |
| 3 | Ceiling insulation | 34 | 2,346 | 8% |
| 4 | Duct sealing | 36 | 1,176 | 4% |

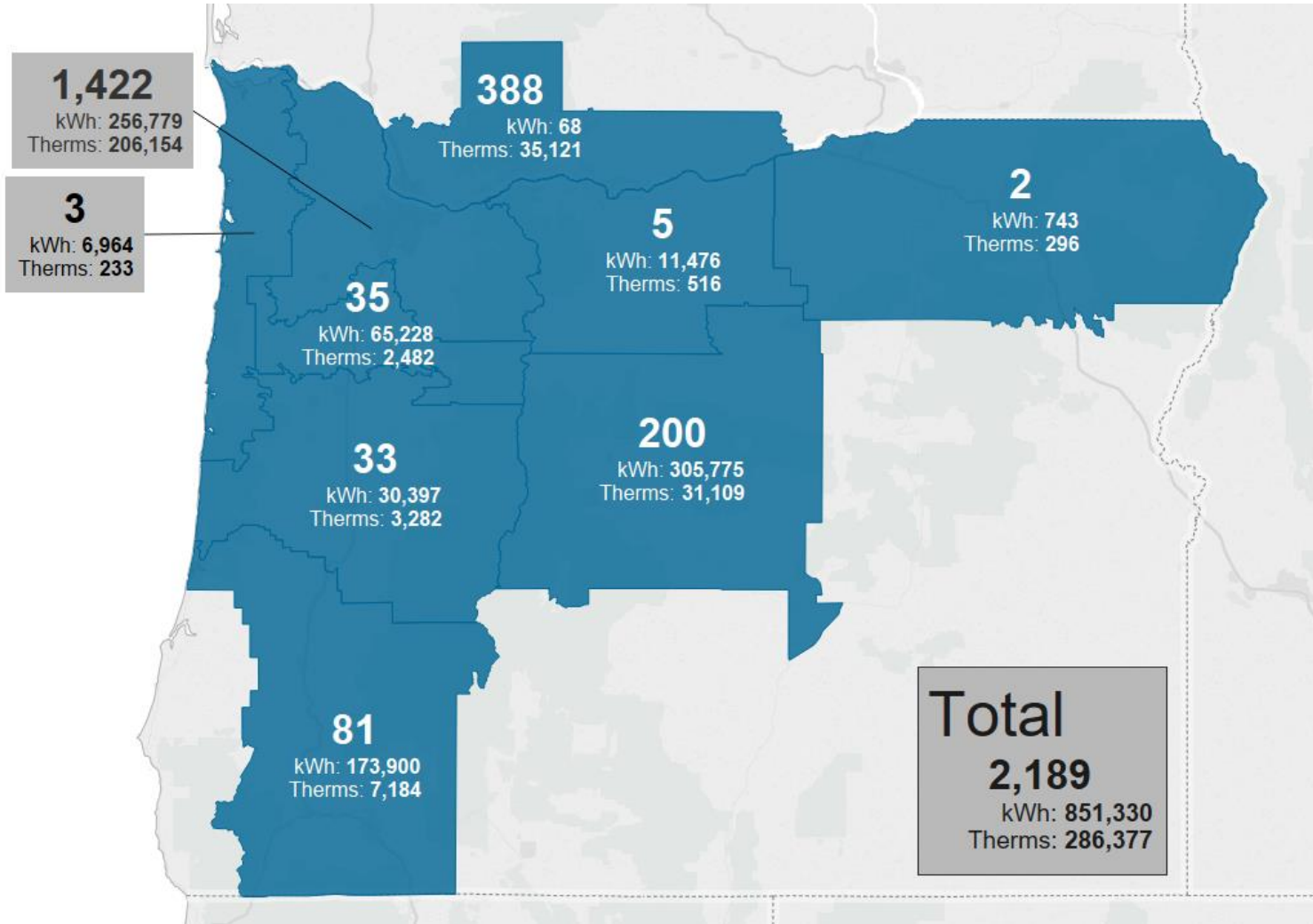


Southern Oregon

| Specialized Program Track | Trade Ally Enrollments |
|--|------------------------|
| Savings within Reach | 49 |
| Instant Incentives | 44 |
| Trade Ally Direct Install | 6 |
| Savings within Reach On-Bill Repayment | 19 |
| Heat Pump On-Bill Repayment | 7 |



EPS Whole Home Regional Activity – Map



EPS Whole Home Regional Activity

| Region | Quantity of Homes | kWh Savings | Therms Savings |
|----------------------|-------------------|----------------|----------------|
| Central | 200 | 305,775 | 31,109 |
| Columbia Basin | 5 | 11,476 | 516 |
| Mid-Willamette | 35 | 65,228 | 2,482 |
| North Coast | 3 | 6,964 | 233 |
| Northeast | 2 | 743 | 296 |
| Portland Metro | 1,442 | 256,779 | 206,154 |
| Southern | 81 | 173,900 | 7,184 |
| Southern Willamette | 33 | 30,397 | 3,282 |
| Southwest Washington | 388 | 68 | 35,121 |
| Total | 2,189 | 851,330 | 286,377 |



A photograph of a two-story yellow house with a grey roof. Solar panels are installed on the roof. The house has a large front window and a smaller window on the second floor. A wooden fence and greenery are in the foreground.

Thank You

Scott Leonard

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Existing Multifamily 2018 Program Updates

November 2017

Agenda

- Multifamily Trade Ally Benefits
- 2018 Program Updates



Multifamily Trade Ally Benefits

- Multifamily-specific program updates
- Business development funds available for approved Multifamily marketing efforts
- Free listing in the “Find-a-contractor” search under Multifamily



2018 Program Updates

OPUC Measure Cost-Effectiveness Exception Requests

| Measure | Details | Status |
|---|---|----------|
| Ductless heat pump | Replacing zonal heat (single-family, multifamily) | Approved |
| Gas tank water heaters (2-4 plex and side-by-side structures) | ENERGY STAR gas non-condensing tank | Approved |
| Windows (stacked structures) | Single-pane replacement only | Approved |

Existing Multifamily New Incentives

| Measure | Change | Property types | New incentive |
|---|---|--|------------------------|
| Heat pump advanced controls | New incentives; aligns with residential | Duplex, triplex, fourplex & side-by-side | \$250 |
| Rooftop unit controls | New incentives | All property types | Varies by control type |
| Smart thermostats | Added June 2017 | All property types | \$50 |
| Tankless water heaters (199 kBtu/h or less) | Added June 2017 | Stacked structures with 5+ units | \$300 |

Existing Multifamily Measure Adjustments

| Measure | Change | Property types | Current incentive | New incentive |
|-------------------|---|--|--|---|
| Ducted heat pumps | Reduced to 8.5 HSPF, no longer has to replace central AC; aligns with residential | Duplex, triplex, fourplex & side-by-side | \$450-\$700 | \$700 |
| Gas furnaces | New requirements; shifting to per kBtu/h incentive | Stacked structures with 5+ units | \$300 | \$1.50-\$3.00/kBtu/h |
| Windows | Single-pane replacement only in 2018; <i>phasing out double-pane replacement</i> | Stacked structures with 5+ units | \$2/sq ft replacing double pane; \$3/sq ft replacing single pane | \$3 per sq ft replacing single pane; <i>phasing out double-pane replacement</i> |

Measure Adjustments, Cont.

| Measure | Change | Property types | Current incentive | New incentive |
|-------------------------------|---|---|--|---------------------|
| Gas wall and floor insulation | Removing gas \$150 cap & ceiling insulation requirement | Duplex, triplex, fourplex & side-by-side | \$0.30/SF, up to \$150 for gas customers | \$0.30/SF, no cap |
| Electric tank water heaters | New federal standards | All property types | \$35-\$75 | Phasing out in 2018 |
| Residential clothes washers | Added tub capacity requirement | All property types | \$120 | \$120 |
| Commercial clothes washers | Must be front-loading | All property types (must be in common area) | \$300 | \$300 |

Heat Pump Requirements

| Measure | Incentive | Requirements |
|-----------------------------|-----------|---|
| Ducted Heat Pump | \$700 | <ul style="list-style-type: none">• Available for duplex, triplex, fourplex and side-by-side structures• HSPF 8.5 or greater• Replacing electric forced air furnace or resistance heat |
| Heat Pump Advanced Controls | \$250 | <ul style="list-style-type: none">• Available for duplex, triplex, fourplex and side-by-side structures• Eligible thermostat programmed with 35 degree lockout temperature• May be installed on new or existing heat pumps with electric auxiliary heat• Multi-fuel heating systems do not qualify• No HSPF requirement |

Windows Incentive Updates

In stacked structures with 5 or more dwelling units, electric heat:

- Replacing single pane or storm windows – unchanged in 2018
- Replacing double-pane - must be installed by 12/31/2017
- *Windows incentives in duplex, triplex, fourplex and side-by-side structures unchanged*

For double-pane replacement projects currently underway which cannot complete installation by 12/31/2017:

- Fill out Windows Deadline Extension Request form 320WR
– *request must be submitted no later than 12/31/2017*
- Approved projects must be installed by 3/31/2018; paperwork must be submitted within 90 days of install
- Contact multifamily@energytrust.org for more information



Thank You

Kate Scott, Multifamily Program Manager

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