Energy Trust of Oregon

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

Benefit customers and ratepayers by achieving energy goals and operating effectively.

Diversify participation

Manage change and prepare for future

Enhance program methods and strategies
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

- **Electric Efficiency**: $147.29 million (73.8%)
- **Gas Efficiency**: $29.77 million (14.9%)
- **Renewable Generation**: $13.51 million (6.8%)
- **Management & General**: $4.84 million (2.4%)
- **Communications & Outreach**: $4.20 million (2.1%)

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

$199.6 million Up 0.5% from 2017

Ro1; comparisons are draft 2018 budget to 2017 budget
2018 Natural Gas Savings by Program

- Residential 45%
- Existing Buildings 26%
- New Buildings 14%
- Production Efficiency 15%

6.88 MMTh goal
33.5 cents/therm

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

Ro1; comparisons are draft 2018 budget to 2017 budget

MMTh: million annual therms
Cost per therm is levelized
2018 Electric Savings by Program

- NEEA 13%
- Residential 13%
- Production Efficiency 34%
- Existing Buildings 29%
- New Buildings 11%

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*

Ro1; comparisons are draft 2018 budget to 2017 budget
2018 Renewable Energy Programs

<table>
<thead>
<tr>
<th></th>
<th>$ Million</th>
<th>aMW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td>$10.23</td>
<td>2.18</td>
</tr>
<tr>
<td>Other Renewables</td>
<td>$3.91</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>$14.15</td>
<td>2.18</td>
</tr>
</tbody>
</table>

- 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%)

Ro1; comparisons are draft 2018 budget to 2017 budget
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

December

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

www.energytrust.org/about/budget

Send comments to info@energytrust.org
Discussion and Feedback

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

+ [www.energytrust.org/about/budget](http://www.energytrust.org/about/budget)
  Send comments to [info@energytrust.org](mailto:info@energytrust.org)

+ Comments due November 17
Thank You

info@energytrust.org
1.866.368.7878
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

Energy Trust

PDC EPS
- Delivery
- Savings

PMC
- Delivery
- Savings
- Management

PDC Retail
- Delivery
- Savings

Measure Development | Customer Service | Marketing | Outreach
EPS Whole-Home Field Coverage
Energy Trust of Oregon
Residential Account Managers
Regional Photo Map

Kyle Kent
Regions 1, 3, 7, 12

Caryn Appier
Regions 10, 11

Eric Falk
Regions 3, 7, 12

Mike Lillesand
Regions 8, 9
Field Supervisor

Adam Reese
Regions 1, 3, 7

Mike McMillan
Regions 8, 9

Rick Flacco
Regions 1, 4, 5

Daniel Pierce
Regions 2, 6, 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

<table>
<thead>
<tr>
<th>Measure</th>
<th>Details</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas new manufactured home</td>
<td>ENERGY STAR® and Ecorated homes</td>
<td>Approved</td>
</tr>
<tr>
<td>EPS pathways in Oregon</td>
<td>Paths 1 &amp; 2 electric Path 4 gas</td>
<td>Approved</td>
</tr>
<tr>
<td>Gas tank water heaters</td>
<td>ENERGY STAR gas non-condensing tank</td>
<td>Approved</td>
</tr>
<tr>
<td>Ductless heat pumps</td>
<td>Replacing zonal heat (single-family, multifamily)</td>
<td>Approved</td>
</tr>
</tbody>
</table>
## Residential Measure Changes

<table>
<thead>
<tr>
<th>Measure</th>
<th>Change</th>
<th>Current incentive</th>
<th>New incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-lamp LED, Trade Ally Direct Install</td>
<td>Decreased incentives due to changing market conditions</td>
<td>$9</td>
<td>$5.50</td>
</tr>
<tr>
<td>Reflector LED, Trade Ally Direct Install</td>
<td>Decreased incentives due to changing market conditions</td>
<td>$15</td>
<td>$8.75</td>
</tr>
</tbody>
</table>
# Residential Measure Adjustments, Cont.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Change</th>
<th>Program</th>
<th>Current Incentive</th>
<th>New Incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat pump (replacing electric heat – eFAF or ER)</td>
<td>Reduced to 8.5 HSPF, simplify incentives, add multifamily</td>
<td>Residential/multifamily (2-4 &amp; side-by-side)</td>
<td>$450-$700</td>
<td>$700</td>
</tr>
<tr>
<td>Heat pump (replacing heat pump)</td>
<td>Any efficiency, simplify incentives, controls on new heat pump</td>
<td>Residential/multifamily (2-4 &amp; side-by-side)</td>
<td>$250-$500</td>
<td>$250</td>
</tr>
<tr>
<td>Heat pump advanced controls</td>
<td>Simplify incentives, increase incentives</td>
<td>Residential/multifamily (2-4 &amp; side-by-side)</td>
<td>$150</td>
<td>$250</td>
</tr>
</tbody>
</table>
## Residential Measure Adjustments, Cont.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Change</th>
<th>Program</th>
<th>Current Incentive</th>
<th>New Incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat pump (replacing electric heat – eFAF or ER) Savings Within Reach</td>
<td>Reduced HSPF, simplify incentives</td>
<td>Residential</td>
<td>$750-$1000</td>
<td>$1000</td>
</tr>
<tr>
<td>Heat pump (replacing heat pump) Savings Within Reach</td>
<td>Changed requirements (financing available)</td>
<td>Residential</td>
<td>$550-$700</td>
<td>$250</td>
</tr>
<tr>
<td>Gas water heater/Heat pump water heater tier 1 &amp; 2</td>
<td>Shifted to midstream 10/02/2017</td>
<td>Residential</td>
<td>$100/$150/$300 (downstream)</td>
<td>$100/$150/$300 (midstream)</td>
</tr>
</tbody>
</table>
# Heat Pump (replacing eFAF or ER)

<table>
<thead>
<tr>
<th>2017 details</th>
<th>2018 details</th>
</tr>
</thead>
<tbody>
<tr>
<td>$450-$700</td>
<td>$700</td>
</tr>
</tbody>
</table>

- Two tiers HSPF 9.0 $450, HSPF 9.5 $700
- Replacing electric forced air furnace, wall heater or ceiling heat

- 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)

<table>
<thead>
<tr>
<th>2017 details</th>
<th>2018 details</th>
</tr>
</thead>
<tbody>
<tr>
<td>$250 - $500</td>
<td>$250</td>
</tr>
<tr>
<td>• Must be upgrading from an existing heat pump or replacing non-electric heat</td>
<td>• Projects must include an eligible thermostat programmed with a 35 degree lockout</td>
</tr>
<tr>
<td>• Tiered incentives with different HSPF requirements of 9.0 or 9.5</td>
<td>• Must install heat pump with electric auxiliary heat</td>
</tr>
<tr>
<td></td>
<td>• Multi-fuel heating systems do not qualify</td>
</tr>
<tr>
<td></td>
<td>• No HSPF requirement</td>
</tr>
<tr>
<td></td>
<td>• Participants completing PTCS or Check Me projects are eligible as long as they meet the other requirements</td>
</tr>
<tr>
<td></td>
<td>However, PTCS or Check Me are not required for eligibility</td>
</tr>
</tbody>
</table>
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, 2018
2018 EPS incentive structure

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

ELECTRIC SAVINGS
- Existing Homes: 18%
- New Homes: 4%
- Retail Products: 78%

GAS SAVINGS
- Retail Products: 14%
- Existing Homes: 37%
- New Homes: 49%
Home Retrofit Project Count

- **10,624**
  - Electric: 4,152
  - Gas: 6,472

- **2,020**
  - Electric: 1,537
  - Gas: 483

- **458**
  - Electric: 365
  - Gas: 93

- **89**
  - Electric: 44
  - Gas: 45
EPS Whole Home Regional Activity – Map

1,422 kWh: 266,779
Therms: 208,154

3 kWh: 6,964
Therms: 233

35 kWh: 65,228
Therms: 2,482

33 kWh: 30,397
Therms: 8,282

81 kWh: 173,900
Therms: 7,184

388 kWh: 68
Therms: 35,121

5 kWh: 11,476
Therms: 516

Total kWh: 851,330
Therms: 286,377

2 kWh: 743
Therms: 296

Total

2,189
# North Eastern Oregon

<table>
<thead>
<tr>
<th>Rank</th>
<th>Electric Measure</th>
<th>Project Count</th>
<th>kWh Savings</th>
<th>% of total kWh savings for the region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ductless heat pump</td>
<td>14</td>
<td>38,169</td>
<td>49%</td>
</tr>
<tr>
<td>2</td>
<td>Heat pump upgrade</td>
<td>8</td>
<td>10,967</td>
<td>14%</td>
</tr>
<tr>
<td>3</td>
<td>Heat pump rep.</td>
<td>2</td>
<td>10,017</td>
<td>13%</td>
</tr>
<tr>
<td>4</td>
<td>Windows</td>
<td>9</td>
<td>7,085</td>
<td>9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rank</th>
<th>Gas Measure</th>
<th>Project Count</th>
<th>Therm Savings</th>
<th>% of total therms savings for the region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Windows</td>
<td>23</td>
<td>853</td>
<td>35%</td>
</tr>
<tr>
<td>2</td>
<td>Gas furnace</td>
<td>10</td>
<td>748</td>
<td>31%</td>
</tr>
<tr>
<td>3</td>
<td>Ceiling insulation</td>
<td>6</td>
<td>493</td>
<td>20%</td>
</tr>
<tr>
<td>4</td>
<td>Gas fireplace</td>
<td>6</td>
<td>342</td>
<td>14%</td>
</tr>
</tbody>
</table>
Northeastern Oregon

<table>
<thead>
<tr>
<th>Specialized Program Track</th>
<th>Trade Ally Enrollments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings Within Reach</td>
<td>13</td>
</tr>
<tr>
<td>Instant Incentives</td>
<td>7</td>
</tr>
<tr>
<td>Trade Ally Direct Install</td>
<td>6</td>
</tr>
<tr>
<td>Savings Within Reach On-Bill Repayment</td>
<td>1</td>
</tr>
</tbody>
</table>
Thank You

Ryan Crews
Program Manager
Ryan.Crews@energytrust.org
503.205.0977
Existing Multifamily 2018 Program Updates
November 2017
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
Already a trade ally and want to enroll in another program?

If you are an existing trade ally, you can enroll in additional Energy Trust programs. Please enter your Energy Trust account number here. You will be asked to verify the email address associated with this account. NOTE: You will not be able to save your progress. Once a form is submitted, you will not be able to go back and change it.

Account Number

Begin

Don't know your account number?

Commercial

- Commercial Industrial Lighting (Addendum 171L)*
- Existing Buildings (Addendum 171B)
- Existing Multifamily (Addendum 371MF)
- New Buildings (Addendum 571A)
- Streamlined Industrial (Addendum 471A)
2018 Program Updates
## OPUC Measure Cost-Effectiveness

### Exception Request Table

<table>
<thead>
<tr>
<th>Measure</th>
<th>Details</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ductless heat pump</td>
<td>Replacing zonal heat (single-family, multifamily)</td>
<td>Approved</td>
</tr>
<tr>
<td>Gas tank water heaters (2-4 plex and side-by-side structures)</td>
<td>ENERGY STAR gas non-condensing tank</td>
<td>Approved</td>
</tr>
<tr>
<td>Windows (stacked structures, 5+ units, electric heat)</td>
<td>Single-pane replacement only</td>
<td>Approved</td>
</tr>
</tbody>
</table>
## Existing Multifamily New Incentives

<table>
<thead>
<tr>
<th>Measure</th>
<th>Change</th>
<th>Property types</th>
<th>New incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat pump advanced controls</td>
<td>New incentives; aligns with residential</td>
<td>Duplex, triplex, fourplex &amp; side-by-side</td>
<td>$250</td>
</tr>
<tr>
<td>Rooftop unit controls</td>
<td>New incentives</td>
<td>All property types</td>
<td>Varies by control type</td>
</tr>
<tr>
<td>Smart thermostats</td>
<td>Added June 2017</td>
<td>All property types</td>
<td>$50</td>
</tr>
<tr>
<td>Tankless water heaters (199 kBtu/h or less)</td>
<td>Added June 2017</td>
<td>Stacked structures with 5+ units</td>
<td>$300</td>
</tr>
</tbody>
</table>
## Existing Multifamily Measure Adjustments

<table>
<thead>
<tr>
<th>Measure</th>
<th>Change</th>
<th>Property types</th>
<th>Current incentive</th>
<th>New incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ducted heat pumps</td>
<td>Reduced to 8.5 HSPF, no longer has to replace central AC; aligns with residential</td>
<td>Duplex, triplex, fourplex &amp; side-by-side</td>
<td>$450-$700</td>
<td>$700</td>
</tr>
<tr>
<td>Gas furnaces</td>
<td>New requirements; shifting to per kBtu/h incentive</td>
<td>Stacked structures with 5+ units</td>
<td>$300</td>
<td>$1.50-$3.00/kBtu/h</td>
</tr>
<tr>
<td>Windows</td>
<td>Single-pane replacement only in 2018; <em>phasing out double-pane replacement</em></td>
<td>Stacked structures with 5+ units, electric heat</td>
<td>$2/sq ft replacing double pane; $3/sq ft replacing single pane</td>
<td>$3 per sq ft replacing single pane; double-pane replacement not eligible</td>
</tr>
<tr>
<td>Measure</td>
<td>Change</td>
<td>Property types</td>
<td>Current incentive</td>
<td>New incentive</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------</td>
<td>--------------------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Gas wall and floor insulation</td>
<td>Removing gas $150 cap &amp; ceiling insulation requirement</td>
<td>Duplex, triplex, fourplex &amp; side-by-side</td>
<td>$0.30/SF, up to $150 for gas customers</td>
<td>$0.30/SF, no cap</td>
</tr>
<tr>
<td>Electric tank water heaters</td>
<td>New federal standards</td>
<td>All property types</td>
<td>$35-$75</td>
<td>Phasing out in 2018</td>
</tr>
<tr>
<td>Residential clothes washers</td>
<td>Added tub capacity requirement</td>
<td>All property types</td>
<td>$120</td>
<td>$120</td>
</tr>
<tr>
<td>Commercial clothes washers</td>
<td>Must be front-loading</td>
<td>All property types (must be in common area)</td>
<td>$300</td>
<td>$300</td>
</tr>
</tbody>
</table>
# Heat Pump Requirements

<table>
<thead>
<tr>
<th>Measure</th>
<th>Incentive</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ducted Heat Pump</td>
<td>$700</td>
<td>• Available for duplex, triplex, fourplex and side-by-side structures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HSPF 8.5 or greater</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Replacing electric forced air furnace or resistance heat</td>
</tr>
<tr>
<td>Heat Pump Advanced Controls</td>
<td>$250</td>
<td>• Available for duplex, triplex, fourplex and side-by-side structures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Eligible thermostat programmed with 35 degree lockout temperature</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• May be installed on new or existing heat pumps with electric auxiliary heat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Multi-fuel heating systems do not qualify</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No HSPF requirement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contractor installed</td>
</tr>
</tbody>
</table>
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
kate.scott@energytrust.org