Spring Trade Ally Forums
April 2018
# Breakout Topics & Locations

## Breakout Session A: 10:00 – 10:50

<table>
<thead>
<tr>
<th>Mt. Hood A</th>
<th>Mt. Hood B</th>
<th>Garden C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paul Stolten and Shawn O'Neil</td>
<td>Wendy Koelfgen, City of Portland</td>
<td>Jeni Hall, Sr. Project Manager, Solar</td>
</tr>
</tbody>
</table>
## Breakout Topics & Locations

### Breakout Session B: 11:10 – 12:00

<table>
<thead>
<tr>
<th>Mt. Hood A</th>
<th>Mt. Hood B</th>
<th>Mt. Hood C</th>
<th>Garden C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samantha Taylor (CLEAResult, Sr. Building Science Analyst)</td>
<td>Sherrie Pelsma Program Director, Community Energy Project &amp; Tawny Reader, Craft3, Senior Consumer Lender, NMLS</td>
<td>Amy Vandervliet, Regional Economist and Pat O’Connor, Regional Economist</td>
<td>Jeni Hall, Sr. Project Manager, Solar</td>
</tr>
</tbody>
</table>
Who is here this morning?
Who is here this morning?
Energy Trust Highlights
Spring Trade Ally Forums
April 2018
2017 Accomplishments: Statewide

64.3 aMW saved
*Most savings to date*

6.8 million annual therms saved
*Ties most savings to date*

4.42 aMW renewable energy generated

$102 million+ incentives paid

56,000 sites served
2017 Accomplishments:
Multnomah, Clackamas, Washington Counties

More than $62 million incentives paid

32,000 total sites served

362M kWh saved

4.5M therms saved
2017 Accomplishments: Benton, Linn, Lane, Marion, Polk, Yamhill Counties

More than $15 million incentives paid

11,000 total sites served

123M kWh saved

977K therms saved
2018: What’s Ahead

• New-and-improved Find-a-Contractor tool

• Trade ally survey
Growth Areas

• Small business sector:
  • Small sites = <20,000 sq. ft.
  • 32 percent have worked with Energy Trust
  • 70 percent of small sites unserved

• Large business sector:
  • 30 percent remaining market share

• Medium business sector:
  • 46 percent remaining market share
Mike Colgrove
Executive Director,
Energy Trust of Oregon
2017 Residential Home Retrofit & EPS™ New Construction
2017 Home Retrofit Drivers: Electric

Reportable kWh

- 74% HVAC
- 6% Water heating
- 12% Weatherization
- 7% Windows

- 74% HVAC
- 4% Water heating
- 16% Weatherization
- 7% Windows

- 74% HVAC
- 9% Water heating
- 10% Weatherization
- 7% Windows
2017 Drivers: Gas

- **2015**
  - Gas fireplace: 35%
  - HVAC: 15%
  - Weatherization: 17%
  - Windows: 30%

- **2016**
  - Gas fireplace: 23%
  - Gas fireplace ignition: 17%
  - HVAC: 19%
  - Weatherization: 10%
  - Windows: 30%

- **2017**
  - Gas fireplace: 16%
  - Gas fireplace ignition: 24%
  - HVAC: 27%
  - Weatherization: 7%
  - Windows: 25%
EPS Market Share

EPS homes and Market share over the years 2015 to 2017.
Portland Metro Trends
Home Retrofit – Portland Metro (projects)

Portland Metro Projects

- Windows
- Gas furnace
- Insulation
- Ductless heat pump
- Heat pump upgrade
- Gas fireplace
- Heat pump replacement
- Tank hot water
- Air sealing
- Gas boiler
- Heat pump water heater

Project count
Home Retrofit – Portland Metro (incentives)

**Portland Metro Elec. Incentive**
- Ductless heat pump: $1,000,000
- Heat pump upgrade: $400,000
- Windows: $300,000
- Heat pump replacement: $200,000
- Insulation: $100,000
- Heat pump water heater: $0

**Portland Metro Gas Incentive**
- Windows: $1,000,000
- Gas furnace: $600,000
- Insulation: $200,000
- Gas fireplace: $100,000
- Gas boiler: $0
- Tank hot water: $0
Home Retrofit – Portland Metro (savings)

Portland Metro Elec. Measures
- Ductless heat pump
- Heat pump upgrade
- Heat pump replacement
- Windows
- Heat pump commissioning
- Insulation
- Heat pump water heater
- Duct sealing

Portland Metro Gas Measures
- Windows
- Gas furnace
- Gas fireplace
- Insulation
- Gas boiler
- Tank hot water

Reportable kWh

Reportable therms
Number of Homes by % improvement and home configuration: Portland Metro
2018 Priorities
2018 Priorities

• Expand Participation
  • Targeted Marketing
• New Opportunities: Manufactured Homes
• Efficient Controls
• Supply-Chain Offerings
Trade ally forums
2017 Residential Home Retrofit & EPS™ New Construction
2017 Home Retrofit Drivers: Electric

- 2017: 74% HVAC, 9% Water heating, 10% Weatherization, 7% Windows
- 2016: 73% HVAC, 4% Water heating, 16% Weatherization, 7% Windows
- 2015: 74% HVAC, 6% Water heating, 12% Weatherization, 7% Windows
EPS Market Share

- 2015: 2,521
- 2016: 3,335
- 2017: 3,096

EPS homes

Market share
Portland Metro Trends
Home Retrofit – Portland Metro (projects)

Portland Metro Projects
- Windows
- Gas furnace
- Insulation
- Ductless heat pump
- Heat pump upgrade
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- Heat pump replacement
- Tank hot water
- Air sealing
- Gas boiler
- Heat pump water heater

Project count
Home Retrofit – Portland Metro (incentives)

**Portland Metro Elec. Incentive**
- Ductless heat pump: $1,000,000
- Heat pump upgrade: $400,000
- Windows: $200,000
- Heat pump replacement: $150,000
- Insulation: $100,000
- Heat pump water heater: $50,000

**Portland Metro Gas Incentive**
- Windows: $1,000,000
- Gas furnace: $600,000
- Insulation: $200,000
- Gas fireplace: $100,000
Home Retrofit – Portland Metro (savings)

**Portland Metro Elec. Measures**
- Ductless heat pump
- Heat pump upgrade
- Heat pump replacement
- Windows
- Heat pump commissioning
- Insulation
- Heat pump water heater
- Duct sealing

**Portland Metro Gas Measures**
- Windows
- Gas furnace
- Gas fireplace
- Insulation
- Gas boiler
- Tank hot water

![Bar Graphs](image-url)
Number of Homes by % improvement and home configuration: Portland Metro

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Elect. heat / Elec. DHW</th>
<th>Elect. heat / Gas DHW</th>
<th>Gas heat / Elec. DHW</th>
<th>Gas heat / Gas DHW</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%–19%</td>
<td>29</td>
<td></td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>20%–29%</td>
<td>40</td>
<td>67</td>
<td>407</td>
<td>495</td>
</tr>
<tr>
<td>30%–39%</td>
<td>103</td>
<td>48</td>
<td>201</td>
<td></td>
</tr>
<tr>
<td>40% or better</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
2018 Priorities
2018 Priorities

• Expand Participation
  • Targeted Marketing
• New Opportunities: Manufactured Homes
• Efficient Controls
• Supply-Chain Offerings
**Multifamily Prescriptive Incentive Trends**

- **2017**
  - Total: $1,700,000
  - HVAC: $400,000
  - Windows: $500,000
  - Boilers: $300,000
  - Insulation: $200,000
  - Water Heaters: $100,000
  - Appliances: $50,000

- **2016**
  - Total: $1,600,000
  - HVAC: $450,000
  - Windows: $450,000
  - Boilers: $300,000
  - Insulation: $200,000
  - Water Heaters: $100,000
  - Appliances: $50,000

- **2015**
  - Total: $1,500,000
  - HVAC: $500,000
  - Windows: $400,000
  - Boilers: $300,000
  - Insulation: $200,000
  - Water Heaters: $100,000
  - Appliances: $50,000

**1,804 prescriptive projects in 2017**
**$1.7M prescriptive incentives paid**
2017 Existing Multifamily Savings

Prescriptive Electric Savings

- Appliances: 87,648 kWh
- Water Heaters: 109,785 kWh
- Insulation: 168,357 kWh
- Windows: 1,369,178 kWh
- HVAC: 2,371,803 kWh

Prescriptive Gas Savings

- Insulation: 1,834 therms
- Appliances: 2,073 therms
- Windows: 5,730 therms
- HVAC: 8,250 therms
- Water Heaters: 13,774 therms
- Boilers: 80,190 therms

2017 Electric Savings by Track

<table>
<thead>
<tr>
<th>Track</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting</td>
<td>39%</td>
</tr>
<tr>
<td>Direct Install</td>
<td>33%</td>
</tr>
<tr>
<td>Prescriptive</td>
<td>25%</td>
</tr>
<tr>
<td>Custom</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16,052,407 kWh</strong></td>
</tr>
</tbody>
</table>

2017 Gas Savings by Track

<table>
<thead>
<tr>
<th>Track</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescriptive</td>
<td>62%</td>
</tr>
<tr>
<td>Direct Install</td>
<td>24%</td>
</tr>
<tr>
<td>Custom</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>181,642 therms</strong></td>
</tr>
</tbody>
</table>
### 2017 Existing Multifamily prescriptive projects
Portland Metro

<table>
<thead>
<tr>
<th>Measure Group</th>
<th>Project Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC</td>
<td>733</td>
</tr>
<tr>
<td>Windows</td>
<td>285</td>
</tr>
<tr>
<td>Appliances</td>
<td>218</td>
</tr>
<tr>
<td>Water Heaters</td>
<td>126</td>
</tr>
<tr>
<td>Insulation</td>
<td>80</td>
</tr>
<tr>
<td>Boilers</td>
<td>15</td>
</tr>
</tbody>
</table>

**Pie Chart:**
- **HVAC:** 50%
- **Windows:** 20%
- **Appliances:** 15%
- **Water Heaters:** 10%
- **Insulation:** 9%
- **Boilers:** 5%
2017 Existing Multifamily projects by sector
Portland Metro

- Condo/Townhouse: 53%
- Market Rate: 35%
- Assisted Living: 1%
- Affordable: 8%
- HOA: 2%
- Campus Living: 1%
2017 Existing Multifamily incentives by sector
Portland Metro

- Market Rate: 51%
- Condo/Townhouse: 18%
- HOA: 17%
- Assisted Living: 9%
- Affordable: 4%
- Campus Living: 1%
2018 Priorities
2018 Priorities

• **Expand** participation across all territories served by Energy Trust

• **Enhance** relationships with trade allies, distributors and manufacturers

• **Optimize** program offerings to provide actionable services to participants and trade allies

• **Utilize** data driven tools to identify areas of targeted outreach

• **Seek** new savings opportunities by conducting field tests and pilots
Existing Multifamily – SW Washington

As of January 1, 2018:
• NW Natural customers in SW Washington
  • Condo, townhome, duplex, triplex, fourplex

Incentives available:
• Smart thermostat
• Gas Fireplace
• Gas Furnace
• Tankless Water heater

Contact: Eric Falk, Washington Account Manager
eric.falk@clearesult.com
Thank you
Kate Scott, Existing Multifamily Program Manager
kate.scott@energytrust.org
ADDITIONAL SLIDES
Multifamily Electric Savings – Statewide

2017 Electric Savings by Track

<table>
<thead>
<tr>
<th>Track</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom</td>
<td>3%</td>
</tr>
<tr>
<td>Direct Install</td>
<td>33%</td>
</tr>
<tr>
<td>Lighting</td>
<td>39%</td>
</tr>
<tr>
<td>Prescriptive</td>
<td>25%</td>
</tr>
</tbody>
</table>

Total: 16,052,407 kWh

Incentives paid for prescriptive electric projects in 2017: $3,250,301

Prescriptive electric projects in 2017: 2790
Multifamily Gas Savings – Statewide

2017 Gas Savings by Track

<table>
<thead>
<tr>
<th>Track</th>
<th>Savings (therms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom</td>
<td>111,618</td>
</tr>
<tr>
<td>Direct Install</td>
<td>111,851</td>
</tr>
<tr>
<td>Prescriptive</td>
<td>71,245</td>
</tr>
</tbody>
</table>

Total: 181,642 therms

Incentives paid for prescriptive gas projects in 2017: $592,807

Prescriptive gas projects in 2017: 611
<table>
<thead>
<tr>
<th>Category</th>
<th>kWh</th>
<th>therms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appliances</td>
<td>87,648</td>
<td></td>
</tr>
<tr>
<td>Water Heaters</td>
<td>109,785</td>
<td></td>
</tr>
<tr>
<td>Insulation</td>
<td>168,357</td>
<td></td>
</tr>
<tr>
<td>Windows</td>
<td>1,369,178</td>
<td>13,774</td>
</tr>
<tr>
<td>HVAC</td>
<td>2,371,803</td>
<td>80,190</td>
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</table>
Prescriptive Incentives - Statewide

Top Prescriptive Measures 2017

- Ductless heat pumps – 1, 1.5 & 2 ton
- Windows – stacked structure single pane
- Condensing boiler
- Condensing tank water heater

Prescriptive projects submitted in 2017

3401
Top Measures 2015-2017

1. Windows
   - $2,023,350

2. HVAC
   - $1,637,750

3. Boilers
   - $512,231
Incentives by Market Sector 2015-2017

- 52% Market Rate
- 14% Condo/Townhouse
- 14% Affordable
- 12% HOA
- 6% Campus Living
- 2% Assisted Living
Central Oregon
Prescriptive Gas Savings – Central OR

- **2015**: 33 Therms
- **2016**: 595 Therms
- **2017**: 1,524 Therms

Legend:
- Other
- Boilers
- HVAC
- Insulation
- Water Heaters
- Windows
2015-2017 Incentives by sector – Central OR

Top Measures 2015-2017

1. HVAC
   • $124,019

2. Windows
   • $47,707

3. Insulation
   • $18,141