Emerging Technologies Showcase

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March 28, 2017

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Pay For Performance Showcase

• **Putting Your Money Where Your Meter Is**
  – Emily Levin
    • Vermont Energy Investment Corporation
  – General overview

• **Pay For Performance**
  – Kathleen Belkayat
    • Energy Trust of Oregon
  – PNW case study and upcoming study

• Q & A
Pay for Performance

Kathleen Belkhayat

March 28, 2017
About

- Independent nonprofit
- Serving 1.5 million customers of Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas and Avista
- Providing access to affordable energy
- Generating homegrown, renewable power
- Building a stronger Oregon and SW Washington
Pay for Performance Overview

• Measures: O&M, behavioral, and capital

• Incentives paid annually for 3 years-metered

• Service providers are key-contract between customer and contractor

• Regression modeling analysis
Context with other offerings

• Retrocommissioning
• Strategic Energy Management
• Goal to fill gaps- not all customers are suitable for SEM
• Building limited to one of the 3 O&M offerings
Pay for Performance benefits

- Holistic approach; deeper savings
- Customers can be more, or less involved
- Financial benefits: based on achieved savings
- Flexible implementation schedule
Pay for Performance Pilot- 2015

- One pilot participant
  - Office building
  - Energy Star certified
  - 240,000 square feet
  - 42 tenants
  - Mix of O&M and capital measures

- Service provider
  - Customer relationship
  - Past experience
  - Contracting

1000 Broadway Building, Portland, OR
1000 Broadway Project details

Measures planned
- Economizer tuning
- Supply Air Temperature reset
- Duct Static Pressure Reset
- Modulate condenser flow
- Secondary Pump VFDs
- Adjusting cooling tower fan staging

Measures added later
- Condenser pump sequencing
- Replacement & relocation of OAT sensors
- Reprogrammed morning warm up schedule
1000 Broadway Building

- 2015-2016 results
  - Energy Star score improved from 80 to 92
  - 16% savings (over 700,000 kWh each year)
  - Estimated $65,000 energy cost savings annually
  - High customer satisfaction

- “This project was a win all around. We were able to hand off management of contractors to someone we trust, and we ended up improving efficiency, reducing wear and tear on equipment and saving a bunch of money.”
  - Kevin Brooks, chief engineer, 1000 Broadway
2017 Expansion
One offering; two options

<table>
<thead>
<tr>
<th>O&amp;M</th>
<th>Capital (includes O&amp;M)</th>
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<tbody>
<tr>
<td>$0.05/kWh</td>
<td>$0.10/kWh</td>
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<tr>
<td>$0.60/therm</td>
<td>$1.20/therm</td>
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<tr>
<td>Capped at 200% of 1\textsuperscript{st} yr incentives</td>
<td>Capped at 150% of 1\textsuperscript{st} year incentives</td>
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<td>&lt;= 50% of savings from capital</td>
<td>&gt; 50% of savings from capital</td>
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Pay for Performance Ally requirements

- Experience with:
  - Retrocommissioning
  - Energy analysis

- Energy Trust projects
- Regression modeling

- And demonstrated work product for the above
Building Eligibility

Requirements

- Retail, office (including medical) or grocery
- 85% conditioned floor area in the above use type
- >50,000 square feet
- 80% occupancy

Ideal candidate

- Savings potential of 5-20%
- Existing metering exclusive to building
- No major changes planned & consistent operations
## Responsibilities

<table>
<thead>
<tr>
<th>Pay for Performance Ally</th>
<th>Energy Trust</th>
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<tbody>
<tr>
<td>Customer recruitment</td>
<td>Customer outreach</td>
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<td>Identification of site and customer attributes</td>
<td>Review eligibility</td>
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<td>Development of an Energy Reduction Plan</td>
<td>Plan and measure review</td>
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<tr>
<td>Application (with customer)</td>
<td>Documentation review</td>
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<td>Install/implement measures</td>
<td>Post-Install verification</td>
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<tr>
<td>Model development</td>
<td>Model review</td>
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<tr>
<td>Final savings report</td>
<td>Report review &amp; incentive check</td>
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Project Qualification steps

1. Service provider applies to be a PfP Ally
2. Approved Allies submit eligibility form
3. Energy Trust site walk
4. Allies put together an Energy Reduction Plan
5. Energy Trust selects up to 6 projects
Project implementation steps

1. Energy Trust provides application to customer upon approval of the Energy Reduction plan
2. Customer signs application
3. Ally installs/completes measures
4. Energy Trust conducts site inspection
5. PfP Ally provides monthly calls & quarterly savings forecasts
6. Final savings report: end of year 1, 2, 3
2017 Pilot Timeline goal

- PfP Ally Training: early April
- Enrollment: May
- Installations begin: August
- Post-install inspections begin: September
- Savings begin: September-September
Thank You

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