Energy Smart Industrial Utility Focus Group Meeting

January 14, 2020

Facilitator:
Michelle Lichtenfels, Commercial & Industrial Sector Lead
Energy Efficiency
Bonneville Power Administration
Agenda

Program Updates  Michelle Lichtenfels and Steve Martin  11:00 – 11:25 am

2020-21 Evaluation Plan  Todd Amundson  11:25 -11:30 am

Lower Columbia Wastewater Energy Coaching (WEC) Cohort Update  Sara York, Zeecha Van Hoose, and Tim Lammers  11:30-11:45 am

Wrap up  All  Remaining time
BPA Commercial & Industrial Sector: Program Staff & Tech Leads

- **Ryan LeBaron**
  - Program Manager
  - Commercial

- **Eric Mullendore**
  - Program Manager
  - Industrial

- **Rob Burr**
  - Program Support
  - Commercial

- **Jennifer Wood**
  - Program Support
  - Industrial

- **Jamie Anthony**
  - Engineer, Tech Lead
  - Commercial

- **Todd Amundson**
  - Engineer, Tech Lead
  - Industrial

- **Michelle Lichtenfels**
  - C&I Sector Lead
ESI Contract Oversight Team

Michelle Lichtenfels
C&I Sector Lead
Contracting Officer’s Rep

Eric Mullendore
Program Manager
Field Inspector

Jennifer Wood
Program Support
Field Inspector

Todd Amundson
Engineer, Tech Lead
Field Inspector

Nathan Kelly
Engineer
Field Inspector
FY 20-21 Utility Assignment Updates

ESIP utility assignments are periodically adjusted to:

• Balance workload
• Optimize travel
• Align industry segment specialization
Utility Assignments for Christian Miner

Existing assignments
- Canby
- Cascade Locks

New assignments
- Centralia
- Forest Grove
- Columbia River
- Hood River
- Klickitat
- Lewis County
- No. Wasco
- Skamania
- Wasco
Utility Assignments for Bill Kostich

Existing Assignments
- Grays Harbor County PUD
- City of McCleary
- Pacific County PUD No.2
- Wahkiakum County PUD

New Assignment
- Clark Public Utilities
New Assignments for Bob Brennand, Ray Hardiman, and Jimmy Sauter

Bob Brennand
- Mason County PUD No.1
- Mason County PUD No.3
- Lakeview Power and Light
- Peninsula Light

Ray Hardiman
- Salem Electric

Jimmy Sauter
- West Oregon Electric Coop
• FY20 projection is based on Option 1 CP and SEM pipeline plus estimated savings from UES lighting, Option 2 CPs, and non-lighting UES measures.
• Booked savings are inclusive of invoices approved through December 5, 2019
2018-2019 Rate Period Savings

- Industrial: 26%
- Commercial: 41%
- Agriculture: 9%
- Residential: 22%
- Federal and Other: 2%
- You Are Here
FY 20 Forecast by Measure Category

- **Lighting, 3.75 aMW, 21%**
- **Option 1 Custom, 9.99 aMW, 56%**
- **Option 2 Custom, 3.50 aMW, 19%**
- **SEM, 0.55 aMW, 3%**
- **Non-Lighting UES, 0.15 aMW, 1%**

Forecast: 17.94 aMW
Option 1 Custom Project Pipeline
(Comparison of 9-month forward forecasts)

*CPP-Approved category includes projects in M&V status, whether or not the project had an approved proposal.
Option 1 CP Savings by Industry Segment

<table>
<thead>
<tr>
<th>Industry Segment</th>
<th>FY18-19</th>
<th>FY2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Processing</td>
<td>58%</td>
<td>35%</td>
</tr>
<tr>
<td>Pulp &amp; Paper</td>
<td>6%</td>
<td>23%</td>
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<tr>
<td>Wood Products</td>
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<td></td>
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<tr>
<td>Cold Storage, Distribution</td>
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<tr>
<td>Water &amp; Wastewater</td>
<td></td>
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<tr>
<td>High-Tech</td>
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<td></td>
</tr>
<tr>
<td>Plastic, Metals, Misc, Data</td>
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</tbody>
</table>

- **Food Processing** increased from 58% in FY18-19 to 35% in FY2020.
- **Pulp & Paper** increased from 6% in FY18-19 to 23% in FY2020.
Average Custom Project Size

<table>
<thead>
<tr>
<th>Year</th>
<th>Avg. Size (kWh/Project)</th>
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<tbody>
<tr>
<td>FY14</td>
<td>99</td>
</tr>
<tr>
<td>FY15</td>
<td>118</td>
</tr>
<tr>
<td>FY16</td>
<td>98</td>
</tr>
<tr>
<td>FY17</td>
<td>100</td>
</tr>
<tr>
<td>FY18</td>
<td>90</td>
</tr>
<tr>
<td>FY19</td>
<td>79</td>
</tr>
<tr>
<td>FY20-projected</td>
<td>183</td>
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- **Avg Savings inc Mega Projects**
- **Avg Svgs without Mega Projects**
- **# Option 1 Custom Projects**
Utility in the News!

The City of Heyburn, ID and Gossner Foods partner to implement energy efficient upgrades

“For us it means the opportunity to continue growing. It helps with energy efficiency and that provides for potential expansion in the future.”

Brian Wilson – Plant Manager
“Project Success” Poster

End user name
2019 Energy Savings Projects

Projects implemented

Installed Variable Frequency Drives (VFDs) on:
- BBA Vacuum Pumps
- Tower Vacuum Pumps
- Evaporator Fans

This allows a motor to run at a slower speed. This allows for more precise control of the process. A fan that was drawing 11-hp at 100% speed may only draw 1hp at 70% speed.

Installed a Logic Control System on the South Refrigeration System

This Central System optimizes the operation of the refrigeration system.

Designed and installed photoeyes to reduce Compressed Air usage in Packaging

Photo eyes were installed to only turn when there is product on the packaging line. A timer will turn off compressed air once all product has passed. Compressed air is a very expensive utility. Reduction in elimination of compressed air will save energy.

1,100,000 kWh Annual Energy Savings

$63,000 Annual avoided cost

141 Energy Savings in # of Homes

(electricity consumption annually)

“What ideas do you have to save energy?”

CONTACT
2020 EVALUATION PLANS
Todd Amundson, BPA EE Industrial Engineer, Technical Lead
BPA Industrial Sector Evaluation Plan

Impact Evaluation: Est’d 2020-2021

- Site specific savings
- SEM savings

Note: BPA Impact Evaluation Brown Bag on January 16, 2020
Zeecha Van Hoose, Clark Public Utilities
Tim Lammers, Columbia River PUD
Sara York, ESI SEM Manager

LOWER COLUMBIA WASTEWATER
ENERGY COACHING (WEC) UPDATE
WEC Lower Columbia Overview

7 Wastewater Facilities

Served by Clark and Columbia River PUDs

30.9 million kWh/yr Total Annual Consumption

2.1 million kWh (6.9%) of Low/No-Cost Potential Identified
69 of 134 Tracked Projects Completed (51%)

41 Potential Custom Projects Identified
## WEC Year 1 Curriculum

### Year 1

<table>
<thead>
<tr>
<th>2019</th>
<th>2020</th>
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<tbody>
<tr>
<td>1. Getting Started</td>
<td>Year 2 →</td>
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<tr>
<td>2. Saving Energy Without Spending Money</td>
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<tr>
<td>3. Tracking Energy and Gaining Momentum</td>
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<td>4. Capital Projects &amp; Making it Stick</td>
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<td>5. Celebrating Success &amp; Year 2 Plans</td>
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#### Activities:
- **Getting Started**
  - Engagement Planning Visits
  - Build Baseline Energy Model
- **Saving Energy Without Spending Money**
  - Energy Scans
- **Tracking Energy and Gaining Momentum**
- **Capital Projects & Making it Stick**
- **Celebrating Success & Year 2 Plans**

#### Milestones:
- Technical Support Calls/Visits
- Savings Period

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*Year 1 Completion Report*
Benefits to Participants

- Earn performance-based cash incentives
- Earn continuing education credits
- Reduce electric bill
- Optimize system efficiency
- Receive technical support
Workshops and Relationships

**Peer** interaction

**Explore** other facilities

**Forum** to share and learn

**Industry-specific** content

Value **outside perspectives**
  – Other SEM participants
  – Subject matter experts

Yesterday’s workshop was awesome, I’m glad this program exists and that we’re participating.
Wrap-up & Reminders

Questions & feedback from Utility Focus Group

BPA Evaluation Brown Bag: Thursday, January 16

BPA Trade Ally Network NW spring workshops: Register now at www.tradeallynetworknw.com!

Implementation Manual April 2020 updates coming soon
Thank you!

For more information, contact:

Michelle Lichtenfels
Commercial & Industrial Sector Lead, Energy Efficiency
Bonneville Power Administration
melichtenfels@bpa.gov
503-230-5453