ON ASSIGNMENT WITH THE COMMERCIAL SECTOR
THAT’S WHAT’S UP

• Commercial Sector Program Development
  – 30 Minutes

• Non-Residential Lighting
  – 10 Minutes

• Trade Ally Networks
  – 10 Minutes
WE KNOW THERE IS A LOT OF SAVINGS POTENTIAL IN THE COMMERCIAL SECTOR
AND WE KNOW WHERE IT IS

6-YEAR Economic Potential

- Electronics: 19%
- HVAC: 26%
- Lighting: 44%
- Motors/Drives: 1%
- Food Preparation: 1%
- Refrigeration: 1%
- Process Loads: 1%
- Water Heating: 1%
in order to bridge the gap

Starting with utility needs

Council Targets

The great divide...
ASSESSMENT PARTICIPANTS BY GROUP

3 Option 2's
10 I-937's
19 SRR's
22 East
21 West
LEVEL OF SUPPORT BY PROGRAM COMPONENT

Select the level of program support you want

- **Utility**
- **Commercial Program**
- **Both**

<table>
<thead>
<tr>
<th>Component</th>
<th>Utility</th>
<th>Commercial Program</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generate Prospects</td>
<td>14</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>Create Proposals, CRs</td>
<td>9</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td>Present Proposals</td>
<td>16</td>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>Train Trade Allies</td>
<td>8</td>
<td>30</td>
<td>5</td>
</tr>
<tr>
<td>Perform M&amp;V</td>
<td>6</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>Pay Rebates</td>
<td>33</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

7
UTILITIES PREFER TO MANAGE CERTAIN MEASURE TYPES

Which measure types do you want to implement with minimal BPA support?

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Envelope</td>
<td>12</td>
</tr>
<tr>
<td>Commercial Kitchens</td>
<td>5</td>
</tr>
<tr>
<td>Deemed Small Savers</td>
<td>21</td>
</tr>
<tr>
<td>HVAC</td>
<td>12</td>
</tr>
<tr>
<td>Lighting</td>
<td>26</td>
</tr>
<tr>
<td>Refrigeration</td>
<td>5</td>
</tr>
</tbody>
</table>

25 of these utilities also want to participate in the NWTAN

N = 43
MANY DIFFERENT PREFERENCES

transparent pipeline tool utility participation in the project pipeline utility pays rebates

FOCUS ON DEEMED MEASURE SAVINGS

A TURNKEY PROGRAM LIKE ESI OR ESG WORK WITH TRADESPEOPLE IN OUR TERRITORY LOW COST, KNOW COST

Want To Run Our Commercial Program Independently RELY ON THE EXPERTISE AND SUPPORT OF BPA ENGINEERS Independent programs WANT UTILITY-CUSTOMIZED MARKETING MATERIALS SEM PROGRAM SUPPORT

BUT LOTS OF OVERLAP
FROM FINDINGS TO ACTION PLAN
FINDINGS FROM THE UTILITY ASSESSMENT

COMPREHENSIVE MEASURE OFFERINGS

Heat Pump → DHP → AC → ARC- LITE → ARC → WEPT

Comprehensive Sector Offerings Offerings

- COMMERCIAL FOOD
- SMART STRIPS
- WINDOWS
- SHELL
- COMMERCIAL LIGHTING
- REFRIGERATION
MAKING MEASURES EASIER FOR EVERYONE

- Refrigeration measures now in the IM
- HVAC measures revised and simplified
- Project Information Forms
- New Qualified Products Lists
PROJECT INFORMATION FORMS

Word format easy to edit and customize

Bold outlines for requirements

Installer attestation

Document dated for version control
QUALIFIED PRODUCT LISTS

Shortcut: A list of qualified products that meet IM requirements

QPLs currently available for WEPT, ARC and Hot Water Heaters

Have a product to recommend? Contact BPA!

For a full list of requirements and specifications, please refer to the current BPA Implementation Manual.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>DreamWatts</td>
<td>Thermostat</td>
</tr>
<tr>
<td>Ecobee</td>
<td>Commercial EMS</td>
</tr>
<tr>
<td>Ecobee</td>
<td>EMS SI</td>
</tr>
<tr>
<td>Honeywell</td>
<td>Vision Pro 8000 with Gateways for web-enabling</td>
</tr>
<tr>
<td>Honeywell</td>
<td>WIFI Vision Pro 0000</td>
</tr>
<tr>
<td>Honeywell</td>
<td>Prestige Wireless</td>
</tr>
<tr>
<td>Kito &amp; Lightning</td>
<td>UNITY System</td>
</tr>
<tr>
<td>Profile Systems</td>
<td>P1000</td>
</tr>
<tr>
<td>Profilux</td>
<td>Internet Managed Thermostats (IMT) 550 hard-wired wi-fi model</td>
</tr>
<tr>
<td>Transformative Wave</td>
<td>CATALYST EMS</td>
</tr>
<tr>
<td>Versiar</td>
<td>EMS</td>
</tr>
</tbody>
</table>

Non-Approved WEPT Products

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Reason product doesn't qualify</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nest</td>
<td>Learning Thermostat</td>
<td>Product is designed for residential applications, it doesn’t meet fan-on during occupied-periods and fan-auto during unoccupied-periods requirements to meet commercial ventilation code.</td>
</tr>
<tr>
<td>EcoFactor</td>
<td>N/A</td>
<td>Product is designed for residential applications, product is intended to work with Internet-connected thermostats from “most manufacturers”, its qualification will depend on the thermostat’s capabilities and whether it meets the commercial ventilation code requirements.</td>
</tr>
<tr>
<td>Emerson Sensi</td>
<td>Wi-Fi thermostat</td>
<td>Product is designed for residential applications, it doesn’t meet fan-on during occupied-periods and fan-auto during unoccupied-periods requirements to meet commercial ventilation code.</td>
</tr>
<tr>
<td>Honeywell</td>
<td>Wi-Fi Residential thermostat</td>
<td>Product is designed for residential applications, it doesn’t meet fan-on during occupied-periods and fan-auto during unoccupied periods requirements to meet commercial ventilation code.</td>
</tr>
</tbody>
</table>

For more information about qualified WEPT products, products that do not appear on the list, or other questions, please contact Mira Yowles at mrayowles@bpa.gov
IM DOCUMENT LIBRARY

- Commercial Sector
  - Project Information Forms
    - Unitary Air-Conditioning Equipment Project Information Form
    - Advanced Rooftop Control Retrofit Project Information Form
    - Advanced Rooftop Control Lite Retrofit Project Information Form
    - Demand Controlled Kitchen Ventilation Project Information Form
    - Heat Pump Water Heater Project Information Form
    - Web-enabled Programmable Thermostats Project Information Form
    - Window Retrofit Project Information Form
    - Ductless Heat Pumps Project Information Form
    - Generator Block Heater Project Information Form
    - Vehicle Block Heater Project Information Form
    - Commercial Insulation Project Information Form
  - Tools
    - BPA Qualified Commercial Heat Pump Tool V1.61
  - Program Sign Up/Close out Forms
    - Energy Smart Grocer Program Sign-up Form FY2014-FY2015
    - Energy Smart Grocer Program FY2016 Close-out Form
  - Qualified Products Lists
    - Advanced Rooftop Control Retrofit QPL
    - Advanced Rooftop Control Lite Retrofit QPL
    - Commercial Water Heater QPL
    - Web Enabled Programmable Thermostat QPL
  - Other
    - Commercial Sector Measure Distribution Documentation Form

New Project Information Forms

New Qualified Products Lists

• BPAQ Measures are premature

• They need extra attention – but you can’t smoother them with paperwork

• PIFs are now very easy for COTRs to review

• PIFs are filed into folders and tracked by program manager

• Currently working to further reduce utility / trade ally burden
USER GUIDES AND MARKETING FOR PROGRAM DELIVERY

• Commercial UES Measures need a guide
  – Focus on these building types
  – Look for this sort of existing equipment
  – If you see this, then it’s not a good measure

• Trade Ally need to knows…

• Business Owner need to knows…
FINDINGS FROM THE UTILITY ASSESSMENT

COMPREHENSIVE CHANNELS TO MARKET

HVAC TECHNOLOGY

Utility Administered
From the desk
In the field

BPA Administered
Proactive Field Services

Mid Stream Programs
Working at HVAC distributor level
COMPREHENSIVE SUITE OF SECTOR DELIVERY CHANNELS

FY16 FOCUS

Utility
DIY

Proactive
Field
Services

FY16 Pilot

FY16 Planning

FY17 FOCUS

USER GUIDES & Marketing
Coming soon!

Strategic
Energy
Management

Mid-Stream
Incentives

Coming soon!
I want to do more to support my commercial customers with EE...

I want to offer customers more than just lighting...

I don’t want to support a regional program that doesn’t reach the bulk of my commercial customers...

But it would require resources I don’t have...

But the other commercial measures are confusing...

But I could support a program if it was tailored to fit my needs...
Wilson’s Ontological Field Services Theorem

Utility X Comm. Account Plan

BPA Field Staff Engage Selected Customers

Leverage Trade Ally Network

1. Focus on easy wins – UES Measures
2. Look for Lighting Potential
3. Custom Project Potential

Proactive Field Services

CUSTOMERS ENTER UTILITY EE PROJECT PIPELINE

\[ A^2 \]
SUPPORT SERVICES

Trade Ally Networks
- Lighting
- HVAC
- Refrigeration

Technical Tools
- Lighting Calculator
- Compressed Air Calculator
- HPWH Calculator

Access to Resources & Information
- Utility Success Share Outs
- Marketing Collateral
- Northwest Lighting Network (NEEA)

Measure Development
- Through the entire measure lifecycle
Save the Date

• November 12th- Regional Update on Commercial Sector Program Development

  – Utility Brown Bag

  – BPA will present basic program design for public comment
Non-Residential Lighting

Lighting Calculator 3.3
Celebrating 1 year plus with:

- no fatal flaws
- Promotional capabilities
- Enhanced utility customization
- Measure level data extraction capability
- No overlapping calculator versions
WHAT’S HAPPENING WITH THE PROGRAM?

• Canopy Promotion
• Ideas for next promotion?
• Market Research
• Lighting Trade Ally Network focused on New Construction
• New Utility Reports (as requested)
PORTFOLIO BY SAVINGS

- LED Exterior: 43%
- LED Small Lamp / Fixture: 18%
- LED Refrigerated Case: < 1%
- LED High Bay: 7%
- LED Troffer: 4%
- LED Tube: 15%
- Linear Fluorescent: 11%
- Induction: 1%
TOTAL LIGHTING PROJECTS

- ESG: 20%
- Non-ESG: 80%

TOTAL KWH SAVINGS

- ESG: 22%
- Non-ESG: 78%

~2.2 M kWh
LIGHTING PROGRAM COSTS

- Regular LC - Non-Promo: $0.16
- Regular LC - Promo: $0.21
- ESG - Non-Promo: $0.17
- ESG - Promo: $0.24
- Total Lighting Program: $0.17
EFFECTS OF THE MARKET AVERAGE BASELINE

Total kWh Savings: 31.5 M kWh

- T12 kWh Savings: ~4 M kWh
- T12 kWh Savings after MAB: ~2.2 M kWh
TLEDS – LOVE OR HATE EM....

TLED Lamp Count

Jan '14 - Sep '14: 6,568
Oct '14 - Jul '15: 29,107

TLED Wattage

- 18w: 33%
- 22w: 19%
- 17w: 7%
- 15w: 20%
- 14w: 3%
- 12w: 4%
- 10w: 4%
- 21w: 2%
- 20w: 2%
- 23w: 3%
- 17w: 2%
- 12w: 4%
- 10w: 4%
- 21w: 2%
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- 23w: 3%
- 17w: 2%
- 12w: 4%
- 10w: 4%
- 21w: 2%
- 20w: 2%
- 23w: 3%
WHERE DO THEY COME FROM?

- ESG: 41%
- Non-ESG: 59%
WHAT ARE THEY REPLACING?

- T8: 65%
- T12: 28%
- T8 Irregular: 2%
- T12 Irregular: 3%
- HID: 1%
- Incandescent: 1%

LED Tubes: Existing Technology Oct '14 - Jul '15
WHERE ARE THEY GOING?

- Low Bay: 87%
- High Bay: 7%
- Exterior: 6%
Lighting Portal

All the resources you need to manage your energy efficient lighting projects.

Existing User Login  Create An Account

The Lighting Portal was created to support the Trade Allies and Utilities working to create greater energy efficiency in the region.
A Utilities Introduction to Air Northwest
What is Air Northwest?

Air Northwest is a no-cost membership network that will provide commercial HVAC trade allies with resources to grow their businesses by increasing the sales and installation of more energy efficient HVAC systems and equipment.

Air Northwest is sponsored by Bonneville Power Administration and the Northwest public utilities and is the premier resource for commercial HVAC energy efficiency information.
What is an Air Ally?

An Air Ally is any approved member that participates in Air Northwest. Air Allies receive exclusive educational opportunities and personalized resources to build the foundation to help them provide utility incentives to their commercial customers.

Target Audience

Those who install (or have the ability to install) UES HVAC measures in small commercial buildings.

But I already have an approved Trade Ally list!
Great! Let’s collaborate and invite them to join Air Northwest.
<table>
<thead>
<tr>
<th>Benefits for Air Allies</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Technical support and free workshops</td>
</tr>
<tr>
<td>✓ Commercial HVAC resources and best practices</td>
</tr>
<tr>
<td>✓ Access to Utility contacts and HVAC incentives</td>
</tr>
<tr>
<td>✓ Increased revenue through more projects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits for End Use Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Updated HVAC systems that improve comfort and air quality</td>
</tr>
<tr>
<td>✓ Latest energy efficient technologies to reduce operating costs</td>
</tr>
<tr>
<td>✓ Utility incentives to reduce project costs and improve payback</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits for Utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Increased energy savings through more commercial HVAC projects</td>
</tr>
<tr>
<td>✓ Ease of working with knowledgeable Air Allies</td>
</tr>
<tr>
<td>✓ HVAC 101 workshops</td>
</tr>
<tr>
<td>✓ Air Northwest HVAC Specialists to help:</td>
</tr>
<tr>
<td>✓ Identify projects</td>
</tr>
<tr>
<td>✓ Create commercial HVAC programs</td>
</tr>
<tr>
<td>✓ Support or expand existing commercial HVAC programs</td>
</tr>
</tbody>
</table>
Join Air Northwest

Step 1:
Watch the Air Northwest Orientation.

Step 2:
Download and fill out the Application Form (pdf).

Step 3:
Submit the form.

Step 4:
We will review your application.

Once approved, you will receive a membership certificate and welcome kit via email, along with a phone call from one of our HVAC specialists.

Utility Lookup
Utilities offer a number of energy efficiency incentive programs that will only help your bottom line, but also fit the needs of your clients. Find out what’s available in your area. Search for commercial HVAC equipment incentives by zip code.

Upcoming News and Events

Rocky Mountain Power Sales Workshop
Laramie, WY
Jun 16, 7:00am

Pre-in Uptown Incentive
Sacramento, CA
Jun 16, 7:00am

Energy Efficiency for Industrial HVAC and Refrigeration Systems

Not sure if you’re ready to join?
Do you have questions for us?
Call us! 866-610-9555 We are here for you!
Utility Information Request Form

To help establish Air Northwest we are working to compile the commercial HVAC measures and programs offered by utilities.

Action Item!
Incentive Resource Guide

• First benefit of joining Air Northwest

• Personalized for each member

• Based on region selected in Application Form

• Updated with each IM or through direct utility communication with Air Northwest

• New reports run for Air Allies made annually or upon request
QUESTIONS?