2020-2021 BPA EE Implementation Plan

January 24, 2019
AGENDA

- Background
- BPA Resource Program
- Recap of IPR commitments
- Savings forecast
- Proposed program changes
- Uncertainties
- Next steps
OBJECTIVES

Understand proposed program and measure changes

Discuss and collect initial feedback

*Additional opportunities for feedback through EERs following today’s workshop
Commitment to review of how BPA determines EE goal

Increase focus on EE that supports BPA’s evolving needs

Identified EE as a key component to meeting BPA’s power needs

Confirmed 2020-2021 budget and savings goals
This 2020-2021 EE Implementation Plan seeks to better align BPA’s Energy Efficiency portfolio with BPA’s Resource Program findings starting in the 2020-2021 rate period.
BPA RESOURCE PLANNING

NEEDS

SOLUTIONS

STRATEGIES
WHAT ARE BPA’S NEEDS FROM EE?

HOW MUCH
EE to acquire to meet our system needs

TYPE
of EE most suited to meet our system needs
HOW EE HELPS MEET OUR ENERGY NEEDS
HVAC contributes to winter energy needs
2018 FINDING: EE REMAINS AN IMPORTANT PART OF THE BPA RESOURCE MIX

1. EE, DR and Market Purchases
   BPA can continue to meet its obligations with a mix of EE, DR and market purchases

2. Least Cost Contributor
   EE is a significant component of a least-cost acquisition portfolio

3. Not All Savings Are Equal
   Some energy efficiency provides a greater contribution to our needs

Consistent with Seventh Power Plan conclusions
BUT...THE TYPE OF EE SELECTED IS DIFFERENT

2016-2017 Programmatic Savings

- Lighting: 57%
- HVAC & Wx: 17%
- Industrial: 10%
- Other: 2%

Resource Program Identified Portfolio

- Lighting: 27%
- HVAC & Wx: 24%
- Industrial: 19%
- Other: 16%
- Water Heating: 5%
EVOLUTION OF SAVINGS FORECASTS

2016 - 2021

Seventh Power Plan
Outlines regional EE savings targets

2016 - 2019

BPA EE Action Plan
Roadmap to deliver savings and establish budget needs

2020 - 2021

Integrated Program Review
Resource Program informed two year EE budgets

2020 - 2021

Implementation Plan
Focus on programmatic changes
## 2020-2021 INTEGRATED PROGRAM REVIEW

<table>
<thead>
<tr>
<th>($ Thousands)</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation Infrastructure</td>
<td>27,296</td>
<td>27,296</td>
</tr>
<tr>
<td>Conservation Purchases</td>
<td>67,000</td>
<td>67,000</td>
</tr>
<tr>
<td>Demand Response &amp; Smart Grid</td>
<td>855</td>
<td>855</td>
</tr>
<tr>
<td>Low-income Energy Efficiency</td>
<td>5,739</td>
<td>5,853</td>
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<tr>
<td>Market Transformation</td>
<td>12,050</td>
<td>12,050</td>
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<tr>
<td><strong>Grand Total</strong></td>
<td>112,940</td>
<td>113,054</td>
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</tbody>
</table>
JUNE 2018 IPR COMMITMENTS 2020-2021

74 – 101* aMW
Programmatic energy savings

$134 Million
Conservation Purchases

IPR savings estimates based on a high-level and expedient analysis of program and cost changes

*Forecast relies on utility self funding in addition to Conservation Purchases budget
SINCE IPR...
UPDATED PROGRAMMATIC SAVINGS
2020-2021

90 – 110* aMW
Programmatic energy savings

$134 Million
Conservation Purchases

*Forecast relies on utility self funding in addition to Conservation Purchases budget
## EE PLAN SAVINGS ESTIMATES 2016-2021

<table>
<thead>
<tr>
<th></th>
<th>Momentum Savings</th>
<th>NEEA Savings</th>
<th>Programmatic Savings</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2016 EE Plan</strong></td>
<td>200 aMW</td>
<td>29 aMW</td>
<td>352 aMW</td>
<td>581 aMW</td>
</tr>
<tr>
<td><strong>2018 IPR</strong></td>
<td>200 aMW</td>
<td>29 aMW</td>
<td>325-351 aMW</td>
<td>554-580 aMW</td>
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<tr>
<td><strong>Updated EE Plan</strong></td>
<td>170-190 aMW</td>
<td>50 aMW</td>
<td>340-360 aMW</td>
<td>560-600 aMW</td>
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</tbody>
</table>
Short Break
IMPLEMENTING PROGRAM CHANGES

Increased alignment to BPA’s energy needs will occur through short-term and longer-term actions.

**SHORT TERM**
- April change notice
- October 2019 Implementation Manual

**LONG TERM**
- Program strategy execution
- Regional infrastructure and support
**AGRICULTURAL**

**SHORT TERM**
- Sunset of SIS and some sprinkler measures
- Continued support from BPA engineers and APS

**LONG TERM**
- Identifying opportunities for continued support

**CUSTOMER IMPACT**
- Little impact based on Resource Program
- Adaptation to limited program opportunities
INDUSTRIAL

SHORT TERM

Continued support from Energy Smart Industrial program

No changes to incentive or savings

LONG TERM

Monitor and evaluate based on customer and system needs and resource availability

CUSTOMER IMPACT

Little impact based on Resource Program
# RESIDENTIAL: GENERAL

## SHORT TERM
- Use incentives to shift portfolio
- Collaborate with customers and stakeholders to set direction
- Weigh tradeoffs to balance needs and resources

## LONG TERM
- Develop strategic program infrastructure
- Manage evolution of existing programs
- Maintain collaboration

### CUSTOMER IMPACT
- Increased high-value savings
- Challenge replacing lighting
- Reduced overall savings
- Better opportunities to engage customers
## RESIDENTIAL: HVAC AND WEATHERIZATION

### SHORT TERM

- Increased weatherization incentives
- Simplified program requirements
- Collaborative program development (Weatherization and PTCS)
- Continued support for DHPs

### LONG TERM

- Augment incentives with field support
- Target new program by FY21
- Monitor impact of incentives on portfolio cost
- Continued engagement on infrastructure

### CUSTOMER IMPACT

- High-impact programs for residential customers
- Simplified approach to PTCS
### RESIDENTIAL: PROGRAM INFRASTRUCTURE

#### SHORT TERM
- Current Simple Steps model through FY21
- Continued support for PTCS and non-PTCS HVAC measures
- Finalize workgroups to guide program development

#### LONG TERM
- Program support in response to work group feedback
- Strategic evolution of retail efficiency programs
- Monitor and evaluate based on customer and system needs

#### CUSTOMER IMPACT
- High-impact programs for residential customers
- Simplified approach to PTCS
### COMMERCIAL: GENERAL

#### SHORT TERM
- Use incentives to shift portfolio
- Prime the market; customer and trade ally outreach
- Continue foundational trainings; roll out integrated workshops (HVAC and Lighting)

#### LONG TERM
- Continuous improvement of program infrastructure
- Heighten HVAC focus; track nonresidential lighting trends
- Maintain collaboration and opportunities to extend utility capabilities

#### CUSTOMER IMPACT
- Early transitional phase for nonresidential lighting
- Increase support for advanced lighting, complex HVAC
### SHORT TERM
- LC 5.0 series; reduce calculated payments and payments for commodity TLEDs
- Align to LC 5.0 series payment levels; sync up the market
- Networked lighting control trainings

### LONG TERM
- Focus on networked lighting controls (marketing, support)
- Investment in networked lighting controls training (e-learning, NXT Level, in-person)
- Continue regional coordination and collaboration

### CUSTOMER IMPACT
- Support local contractors in education; adaptation to new technologies
- LC 5.0 series rollout
## COMMERCIAL: HVAC AND WEATHERIZATION

<table>
<thead>
<tr>
<th>SHORT TERM</th>
<th>LONG TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updating savings, payments; increase where possible</td>
<td>Influence distributors</td>
</tr>
<tr>
<td>Build awareness of incentives; support regional alignment of incentives</td>
<td>Investment in HVAC trainings (e-learning, in-person)</td>
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<tr>
<td></td>
<td>Increase trade ally support (onsite, best practices, etc.)</td>
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</table>

### CUSTOMER IMPACT

- Support local contractors in awareness, education
- Deeper collaboration and coordination with local contractor networks
RESOURCE

PROGRAM

ALIGNMENT
2016-2017 Programmatic Savings: 57%

Resource Program Identified Portfolio: 27%

2020-2021 Implementation Plan: 45%

Lighting
Bonneville Power Administration

2016-2017 Programmatic Savings: 57%

Resource Program Identified Portfolio: Lighting 27%  HVAC & Wx 24%

2020-2021 Implementation Plan: Lighting 45%  HVAC & Wx 18%

Programmatic Savings

Resource Program Identified Portfolio

2020-2021 Implementation Plan

Lighting

HVAC & Wx

SLIDE 33
2016-2017 Programmatic Savings
- 57%

Resource Program Identified Portfolio
- 24%
- 19%
- 16%
- 9%
- 5%

2020-2021 Implementation Plan
- 45%
- 21%
- 18%
- 13%
- 12%
- 2%

Legend:
- Lighting
- HVAC & Wx
- Industrial
- Electronics
- Other
- Water Heating
UNCERTAINTIES

Program related market and utility actions

Implementation constraints

Market and baseline adjustments

NEEA and momentum savings

TOTAL SAVINGS ACHIEVEMENTS
NEXT STEPS

- Follow up with EERs
  - February
- Change notice
  - April 1
- Draft IM
  - Summer
- IM release
  - October 1
Questions?