CONSISTENT BASELINES
WHY NOW?
WHAT IS THE POWER PLAN BASELINE?
FROZEN EFFICIENCY BASELINE FORECAST

Efficiency Level is Fixed at the Start of the Power Plan (2010 for Sixth Plan)

Baseline

Measure Savings

Efficient

KWh

2010

2015
WHY FROZEN?

Avoids Double Counting of Savings

- FROZEN BASELINE
- NON-FROZEN BASELINE
- EFFICIENT

MEASURE SAVINGS

DOUBLE COUNTING

kWh

2010 2015
BASELINE RESETS FOR EVERY PLAN

In reality, the baseline moves prior to the new plan, but we keep it frozen until the new plan!
AN EXAMPLE: DISHWASHERS

Max kWh consumption

- 2010 Standard
- 6P Baseline
- 2013 Standard
- 7P Baseline
- 2019 Standard*

*Proposed
IMPORTANCE OF BASELINE

Target Savings

Actual Savings in Regional Conservation Progress report

Energy Savings

Council Baseline

Northwest Power and Conservation Council
BPA Brown Bag: Developing Consistency in Baselines

NEEA Staff:
• Susan Hermenet
• Christina Steinhoff
**Baseline Used for Forecasting and Reporting Energy Savings**

<table>
<thead>
<tr>
<th>Report</th>
<th>Baseline Used</th>
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<tbody>
<tr>
<td>Bonneville Power Administration</td>
<td>Power Plan</td>
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<tr>
<td>Public Utilities in Washington State – Direct Funders</td>
<td>Power Plan</td>
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<td>Investor Owned Utilities in Washington State</td>
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<td>Investor Owned Utilities &amp; Energy Trust of Oregon outside of Washington State</td>
<td>NEEA</td>
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<td>NEEA’s Business Plan</td>
<td>NEEA</td>
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</table>
Forecasting and Reporting Energy Savings using the Power Plan Baseline

- We started in 2010 based on funder requests.
- Now, we provide the reports upon request.
- Each year, NW Power and Conservation Council staff reviews the assumptions, measure definitions and methodologies to ensure alignment.
- The Cost Effectiveness and Evaluation Advisory Committee also reviews the calculations as a standard part of our annual reporting process.
**Energy Savings Categories used for forecasting and reporting using the Power Plan Baseline**

- **Total Regional Savings**: Savings associated with all market changes above the Power Plan baseline.
- **Local Programs Savings**: Savings claimed through local utility, Bonneville Power Administration, and Energy Trust of Oregon activities.
- **Remaining Savings**: Savings above the Power Plan Baseline not counted as Local Programs. (Total Regional Savings - Local Programs)
Where do Momentum Savings fit in

- Momentum savings are captured in the remaining savings category that NEEA reports.

- There are markets with product categories which have multiple tiers of efficiency.
  - For purposes of NEEA reporting, staff tracks and reports savings associated with product tiers in which the intervention influenced.
  - For product tiers that NEEA has not claimed to influence, NEEA does not report those savings. Hence there may be momentum savings available for these tiers NEEA is not tracking.
Forecasting and Reporting Energy Savings using the Power Plan Baseline

- Investor Owned Utilities in WA – Direct Funders
  - Update technical assumptions (loads/year, hours of use, etc.) based on Regional Technical Forum decisions or third party research if the assumptions are more current/relevant.
  - Units are forecasted using prior year
    » Establish a 2015-2016 savings forecast, the baseline year would be 2014.
  - Assumptions used to establish the targets are frozen for two years and used to report savings
- Bonneville Power Administration and Public Utilities
  - Update technical assumptions (per above)
  - Do not update baseline during the plan period
- Work with individual direct funders of NEEA upon request
NEEA’s Contribution to the Power Plan

*Remaining Savings are electric energy savings less savings claimed through the Energy Trust of Oregon, Bonneville Power Administration, and local utilities.

Note: The forecast does not include some new and future initiatives such as RETA Operator Certification, Commercial Real Estate, and Luminaire Level lighting Control.
Questions & Comments

Thank You!

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OVERVIEW

Why Momentum Savings?
What are Momentum Savings?
Mo’ and Baselines
A path forward
MOMENTUM SAVING CRITERIA

- Not directly paid for by programs and not claimed in NEEA’s net market effects
- Cost effective
- Measured relative to frozen baseline
PROGRAMS
MARKET INDUCED
MARKET TRANSFORMATION (NEEA)
CODES AND STANDARDS
ACCURACY
EFFICIENCY CHANGES LOADS

Source: Draft Seventh Power Plan
IDENTIFY PROGRAM OPPORTUNITIES AND SUPPORT PROGRAMS
MAINTENANCE IS A NEW PASTURE

60-75% of the market lamp sales (depending on the product).
91% of ‘specialty’ bulbs are incandescent and halogen.

12% halogen

79% incandescent

7% CFL

2% LED
FOCUS RESOURCES
AND SAYING NO TO SOME THINGS
ENERGY STAR LAMPS
T12s are 7% of linear fluorescent sales
RESPONSIBLE

STEWARDSHIP OF RATEPAYER FUNDS
UTILITIES PLUS BPA

UTILITIES DELIVER THE REGION’S ENERGY EFFICIENCY
WHAT ARE THE DIFFERENT BASELINES?

TYPES

USES
General Purpose lamps, 60-75w equivalent
TYPE: CURRENT PRACTICE BASELINE

COUNCIL BASELINE = MARKET AVERAGE

EFFICACY

Linear Fluorescent Lamps, 4ft Standard Output
USE: COUNCIL OR CPA BASELINE

COUNCIL BASELINE

CPA BASELINES

KWH CONSUMPTION

1st BIENNium  2nd BIENNium  3rd BIENNium
BASELINES AND

MOMENTUM SAVINGS
TOTAL MARKET SAVINGS

KWH CONSUMPTION

HIGH

LOW

1st BIENNium

2nd BIENNium

3rd BIENNium

TOTAL MARKET SAVINGS

COUNCIL BASELINE

MARKET AVG

MARKET AVG

MARKET AVG
EFFICIENCY
ASSUMED
IN THE
BASELINE
TOTAL SALES MIX

YEAR ONE

YEAR TWO

YEAR THREE
TOTAL SALES MIX

YEAR ONE

YEAR TWO

YEAR THREE
ALIGNMENT
MOMENTUM SAVINGS WITH COUNCIL BASELINE

ENERGY SAVINGS

1st BIENNIAL 2nd BIENNIAL 3rd BIENNIAL

10% 25% 40%

New Efficiency Opportunities
Program & NEEA Savings
Momentum Savings

TARGET

BASELINE
MOMENTUM SAVINGS WITH BI-ANNUAL BASELINE

1st BIENNIAL

2nd BIENNIAL

3rd BIENNIAL

TARGET

BASELINE

10%

10%

10%

New Efficiency Opportunities

Program & NEEA Savings

Momentum Savings
FOCUS ON THE KEY MEASURES

92% FROM LIGHTING

8% FROM HVAC
OPTION 2
DO NOTHING
DETAILS ON PUBLIC COMMENT PERIOD

1. BPA will open public comment for input on this topic and notify instructions via the weekly announcements.

2. A webpage with a short memo describing the baseline library and these slides will be available for review.

3. Public Comment will continue through mid-January.

4. BPA will post public comment received and our plan for action a few weeks after public comment closes.