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July 5, 2023

#### MEMORANDUM

TO: Council Members

FROM: Jennifer Light and Tina Jayaweera

SUBJECT: Council Perspective on Conservation Savings

#### **BACKGROUND:**

- Presenter: Jennifer Light and Tina Jayaweera
- Summary: Staff will provide a brief overview on conservation savings, including the different mechanisms for acquiring energy savings and how the Council tracks all the savings in the region relative to the Council's power plans.
- Relevance: Per the Northwest Power Act, the Council's power plan should put forth a strategy for new resources, prioritizing cost-effective conservation, and develop an energy conservation program to be implemented in the region. As stipulated in its charter, the Council's Regional Technical Forum (RTF) is responsible for tracking the region's progress against the Council's power plan conservation goals, which the RTF does through its annual Regional Conservation Progress (RCP) report. Staff will present the RCP on 2022 accomplishments to the Council at its September meeting. This will be the first report against the Council's 2021 Power Plan.

The Council put forward a robust Conservation Program in its 2021 Power Plan, including recommendations for acquiring both the cost-effective energy efficiency identified by the plan, as well as non-cost-effective energy efficiency required to support other program goals. In addition to this complexity, the region has been engaging in discussions on several different elements of conservation savings and how those are accounted for in the Council's efforts. Staff felt the timing was prudent to provide clarity on how we treat conservation in our tracking, and our plans for capturing both the cost-effective and non-cost-effective elements of efficiency acquisition in our upcoming reporting.

Workplan: Tracking and reporting on energy efficiency accomplishments relative to the 2021 Power Plan Conservation Program.

## Council Perspective on Conservation Savings

Council Meeting July 12, 2023



#### **Presentation Overview**

 Goal: Provide grounding for members and region on the Council's treatment of conservation when tracking progress against power plan targets

#### Topics

- Buckets of conservation savings
- Reminder of 2021 Power Plan Conservation Program
- Plans for Regional Conservation Progress reporting





# **Buckets of Conservation Savings**



#### **Determining Conservation Potential**

- Savings are calculated as the difference in energy use between a "baseline" and the efficient opportunity
- The baseline essentially captures the regions loads absent of any new conservation
- Energy efficiency potential captures the new conservation opportunities to reduce load from baseline levels



#### **Determining Conservation Potential**

- All the individual measures are bundled up to reflect the total technically achievable potential
- Efficiency is then competed against other resource options to identify the amount that cost-effectively meets future resource needs
- The power plan target reflects this cost-effective efficiency



#### **Types of Conservation Savings**

Program Saving	Savings that come from specific energy efficiency measures incentivized by utility efficiency programs
NEEA Initiative Savings	Savings achieved by the NEEA alliance for market transformation activities across the region
Market Savings	Energy efficiency occurring in the region that is a result from previous program or NEEA activity, but not directly tied to program or NEEA incentives today
Codes and Standards	Savings captured when new building codes or equipment standards are put in place after completion of the power plan



#### **Tracking Bonneville Savings**

- Programmatic Savings: All program savings from customer utilities are attributed to Bonneville programmatic saving
- NEEA and Market Saving: Portion of savings are attributed to Bonneville
  - Historically, this is 42% based on Bonneville's share of regional loads



Example Year with Made-Up Data

### **Bonneville Energy Efficiency Program**

- Program is funded through two mechanism:
  - Energy Efficiency Incentive (EEI) at 70%
  - Utility "self-funding" at 30%
- Approach agreed to by the utilities to allow those utilities with more potential (or other drivers) to capture greater efficiency
  - Agreement also included an acknowledgement that if the goal of 30% self-funded efficiency was not achieved, Bonneville would revisit the amount collected though EEI
- Bonneville considers all savings consistent with its Implementation Manual, whether EEI-funded or self-funded, to be part of its overall program achievements



### **Council Reporting of Bonneville Program Savings**

- Council collects data from Bonneville and some of its customer utilities
  - Ensuring total savings are reported
  - Capturing additional expenditure data to reflect total efficiency costs
- All savings reported to the Council and vetted to be consistent with RTF or Council plan are included:
  - EEI-Funded savings
  - Self-funded savings in Bonneville's reporting
  - Additional self-funded savings reported to the Council (*aka "non-reportables"*)



#### **Bonneville's Portion of NEEA Initiative Savings**

- Public power funding of NEEA comes from multiple sources:
  - Bonneville funding, representing all its customers and collected through rates
  - Utility direct funding
- NEEA reports savings to its funders based on funding shares and other factors
- Bonneville portion of NEEA represents the collective public power portion (aside from mid-Columbia utilities) of NEEA savings



## 2021 Plan - Conservation Program



#### **Components of Conservation Program**

- The Northwest Power Acts requires the Council to develop an "energy conservation program"
- 2021 Power Plan Conservation Program includes:





### **2021 Plan Conservation Target**

- Regional target is 750-1000 aMW by end of 2027
  - Cost-effectiveness threshold is based on 750 aMW
  - The 20-year target (by 2041) is at least 2,400 aMW
- Bonneville target is 270-360 aMW by end of 2027 (243 aMW from programmatic savings)



- This amount was developed based on the portion of cost-effective energy efficiency in the Bonneville utility footprint
- In determining the cost-effective amount of efficiency (i.e. the target), the Council considered model results and other values efficiency provides the system, such as:
  - Hedge against reliance on future resource development and market prices
  - Non-quantifiable benefits such as enhanced resilience and grid flexibility
  - Ability to support jurisdiction specific decarbonization goals

#### **Additional Conservation Program Elements**

- Conservation Program includes acquiring conservation measures that may not be cost-effective according to plan findings
- These elements help balance the differing needs for conservation across the region
- Elements include:
  - Weatherization for non-weatherized homes
  - Targeted efficiency for rural markets served by small, primarily residential utilities
  - Additional efficiency in jurisdictions with decarbonization goals
- Successful implementation of the Conservation Program would require that the region achieve more than just the target amount of conservation

## Tracking Conservation Accomplishments



#### Last Year's Conservation Report

Cumulative Regional Savings, all Mechanisms



#### **Regional Conservation Progress Report**

- Per the original Congressional mandate, the Regional Technical Forum is tasked with tracking the region's progress against the Council's power plan goals
- This is done through an annual survey of the region's utilities, Bonneville, NEEA, and Energy Trust of Oregon
- This year, the RCP is the first one to track progress against the Council's 2021 Power Plan and will be presented at the September Council meeting





#### **Conservation Accomplishments Include**

Regional Conservation Progress report will aim to report against all elements of the 2021 Power Plan Conservation Program:

- Cost-effective energy efficiency acquired through utility programs and NEEA initiatives
  - Includes program savings, NEEA alliance savings, codes and standards, and market savings
- Non-cost-effective efficiency acquired to support other elements of the Conservation Program
  - Weatherization for non-weatherized homes
  - Additional efficiency in jurisdictions with decarbonization goals
  - Targeted efficiency for rural markets served by small, primarily residential utilities
- Non-cost-effective efficiency that doesn't support the Conservation Program elements will not count toward goals



### **Bonneville Accomplishments**



- Savings Relative to the Cost-Effective Target:
  - Programmatic savings
    - All cost-effective savings reported by Bonneville and its utilities (i.e. EEI funded, self-funded, and other efficiency reported)
    - Public power portion of cost-effective NEEA initiative savings\*
  - Additional regional savings
    - Cost-effective market change tracked outside of programs and NEEA\*
    - Additional codes and standards not already tracked and reported by NEEA\*
- Additional Accomplishments:
  - Bonneville's Energy Efficiency Action Plan includes efficiency that is not cost-effective, but does support other elements of the Conservation Program
  - Staff will track and report on these to provide a complete picture of Bonneville's accomplishments relative to the 2021 Power Plan

\*Ongoing discussions around how to allocate regional savings to Bonneville, whether based on portion of target, loads, or other approach



