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May 1, 2018

DECISION MEMORANDUM

TO: Council members

FROM: Kevin Smit
Senior Analyst

SUBJECT: Decision to release “Northwest Under-served Energy Efficiency Markets Assessment” report for public comment.

PROPOSED ACTION: Council staff recommends authorization to release Subject report for public comment. The public comment period would be for approximately two months, beginning after Council approval and ending on July 6, 2018.

SIGNIFICANCE: This action item is from the Model Conservation Standards (MCS) section of the Seventh Power Plans’ Action Plan. MCS-1 calls for a deliverable (report) containing analysis results.

BUDGETARY/ECONOMIC IMPACTS

None.

BACKGROUND AND ANALYSIS

The Council will be briefed on analytical results of action item MCS-1 from the Seventh Power Plan Action Plan. MCS-1 is titled “Ensure all Cost-Effective Measures are Acquired.” The focus of MCS-1 is on identifying segments of the population that are currently underserved by existing efficiency programs and subsequently identifying ways (i.e., program improvements) to improve participation from those segments.

MCS-1 calls for “Bonneville and the regional utilities to determine how to improve participation from any underserved segment.” The first part of this effort is to identify, using data, which markets are underserved and by how much. In essence, this means identifying the gaps in our regional energy efficiency efforts. Reducing or eliminating these gaps is important for ensuring that the region achieves the energy efficiency goals identified in the Plan.

Council staff have stepped in to coordinate the efforts to identify the underserved markets, including the formation of a regional working group who agreed to conduct research in 2017 and provide the results to Council Staff to collate and summarize. Members of the working group include BPA, Energy Trust of Oregon, several investor-owned utilities, and several public utilities. The working group analytical work has been completed and the results have been compiled into the draft report. Council staff will present a brief summary of these results.

One of the key results of the effort was to develop a new methodology for analyzing proportional savings for specific demographic groups. The Northwest Energy Efficiency Alliance (NEEA), was especially helpful in working through the methodology and data source requirements. The methodology was set up to answer questions like: “is this demographic (e.g., low income) acquiring conservation at similar rates as their population?” For example, if a low income category makes up 20 percent of a service area population, are they participating in 20 percent of the conservation? One key finding of the first phase of MCS-1 is that data are available to do gap analysis. Demographic data on the service-territory population are readily accessible and can be used, along with program participant data, provided they are linked by site address.

The analysis results show that utilities have, in many cases, successfully utilized targeted programs to improve participation from selected demographic groups (e.g., low income, manufactured housing). The multifamily housing segment appears to be underserved; conservation participation rates of this segment were consistently lower than the relative populations. Results for other demographic groups including rural customers, rural utilities, language, and commercial buildings are included in the report.

While some regional findings and observations can be made, the results are most applicable to individual utility service territories. The caveats and limitations to this effort will also be presented.

ALTERNATIVES

The alternatives would be:

1. Release the report without public comment
2. Don't release the report
3. Release the report with a longer or shorter public comment period.

MCS-1 Results Overview

7th Plan Action Item on Energy Efficiency for Under-served Markets

Council Meeting

Kevin Smit
May 8, 2018



Agenda

MCS* -1 – “Ensure All Cost-Effective Measures are Acquired”

Investigation of energy efficiency in “hard to reach” or “underserved” energy efficiency markets

- Background of MCS-1
- Summary of Results
- Request approval to release report for public comment



*MCS stands for “Model Conservation Standards”



Goal of MCS-1

- Secure proportional savings from “underserved” or “hard-to-reach” populations
 - Identify and fill possible gaps in regional EE program coverage
 - Use data to identify gaps
 - “Proportional” participation
- MCS-1 listed several possibilities:
 - Low income
 - Mid-income
 - Customers in rural regions
 - Small business owners, tenants
 - Multifamily tenants
 - Manufactured home dwellers
 - Small and rural utilities

“Bonneville and the regional utilities should determine how to improve participation in cost-effective programs from any underserved segments.” (MCS-1, first paragraph)

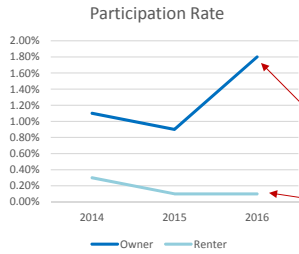
Regional Assessment

- BIG thanks to the working group members
- Conducted studies in their own territories and shared results
 - Couldn't do a single region-wide study
 - Data sharing/confidentiality
- Most of the region was included
 - Over 85% of region
 - BPA “covered” many smaller utilities
- Needed to combine utility data sets with third-party sources
- NEEA provided data support and methodology guidance

Working Group Members:
 Puget Sound Energy
 BPA
 Energy Trust of Oregon
 Seattle City Light
 Snohomish PUD
 Ravalli Electric
 Tacoma Power
 Idaho Power
 PacifiCorp*
 Northwestern Energy
 NEEA (data support)

* Has done work on their own but did not provide data for the regional report.

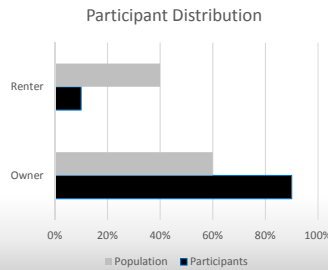
Methodology



Participation Rate =

$$\frac{\text{Number of Participants in Category}}{\text{Total Customers (In Category)}}$$

e.g., in 2016, 1.8 percent of homeowners participated in programs while only 0.1 percent of renters participated in programs



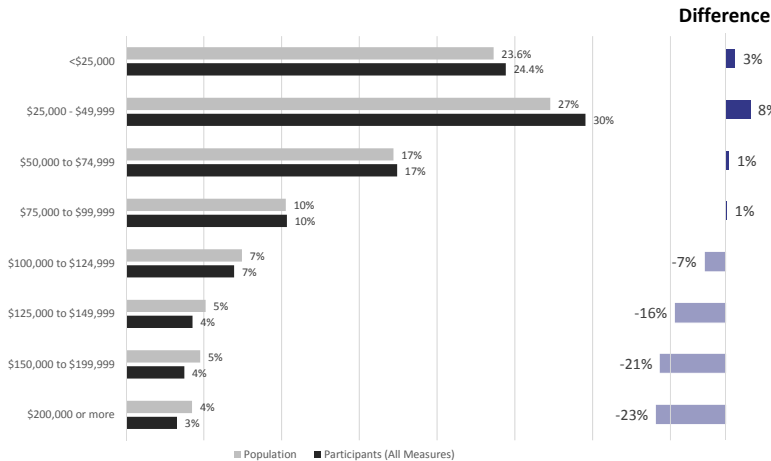
Participant Distribution = (adds to 100%)

$$\frac{\text{Number of Participants in Category}}{\text{Total Participants}}$$

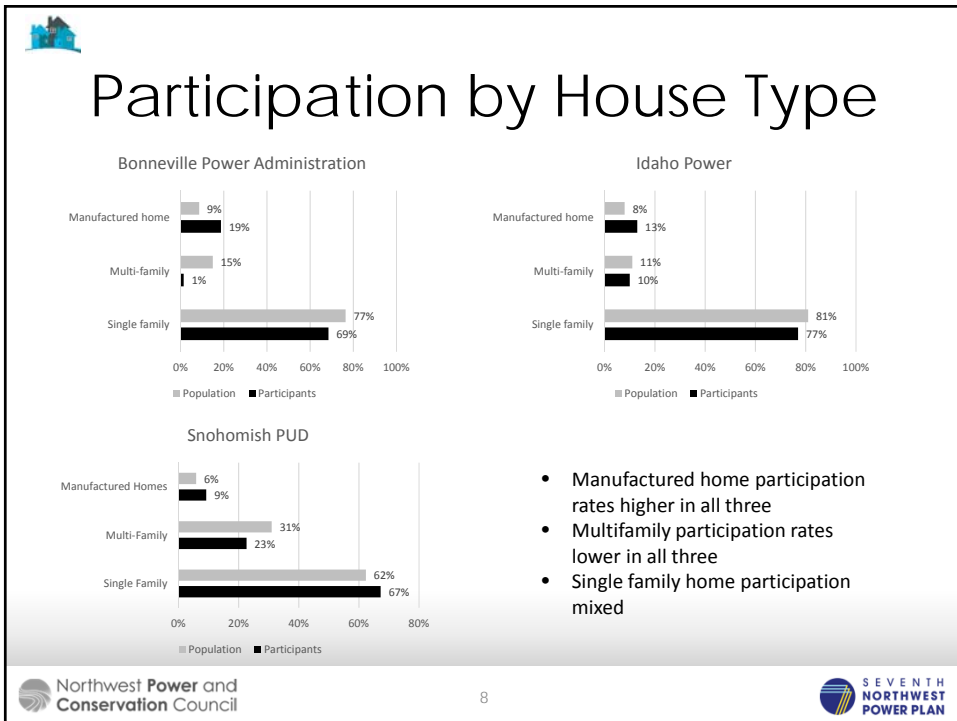
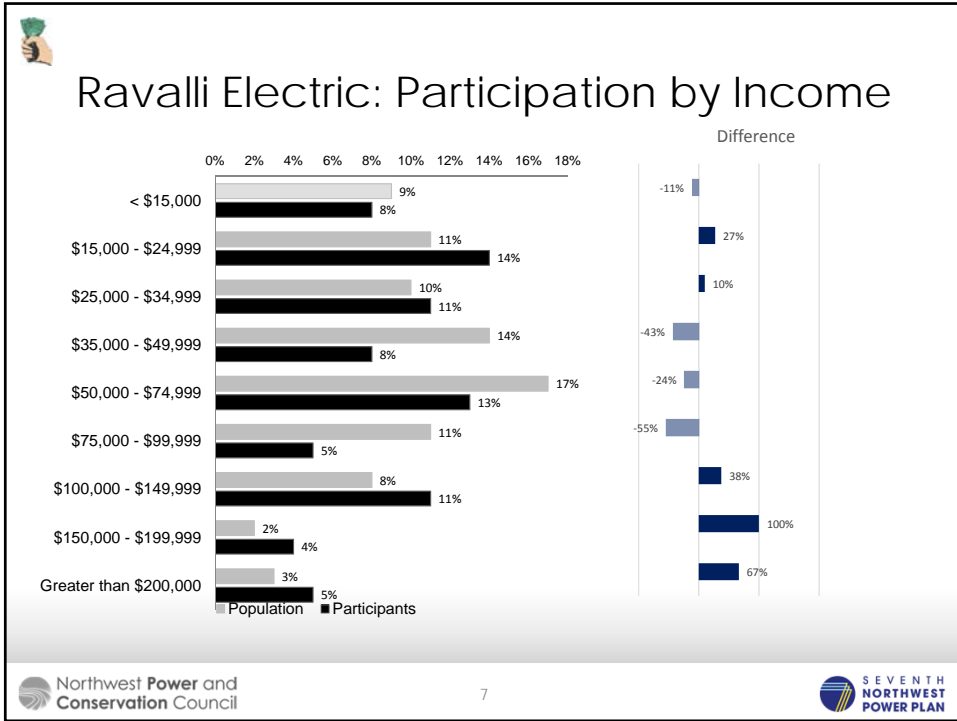
Participant distribution is then compared with population distribution

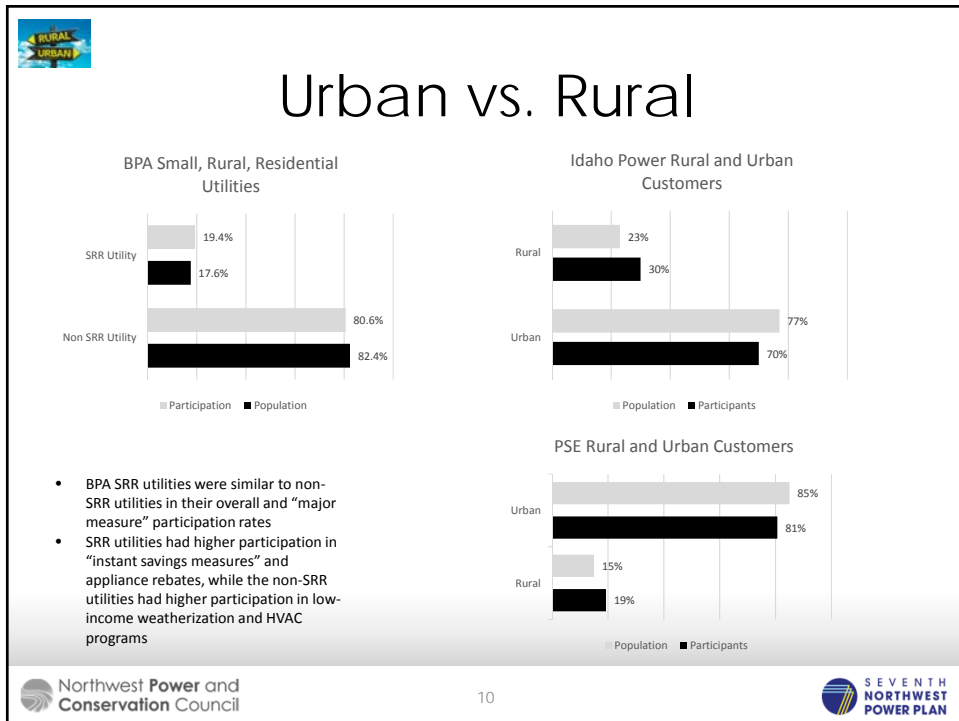
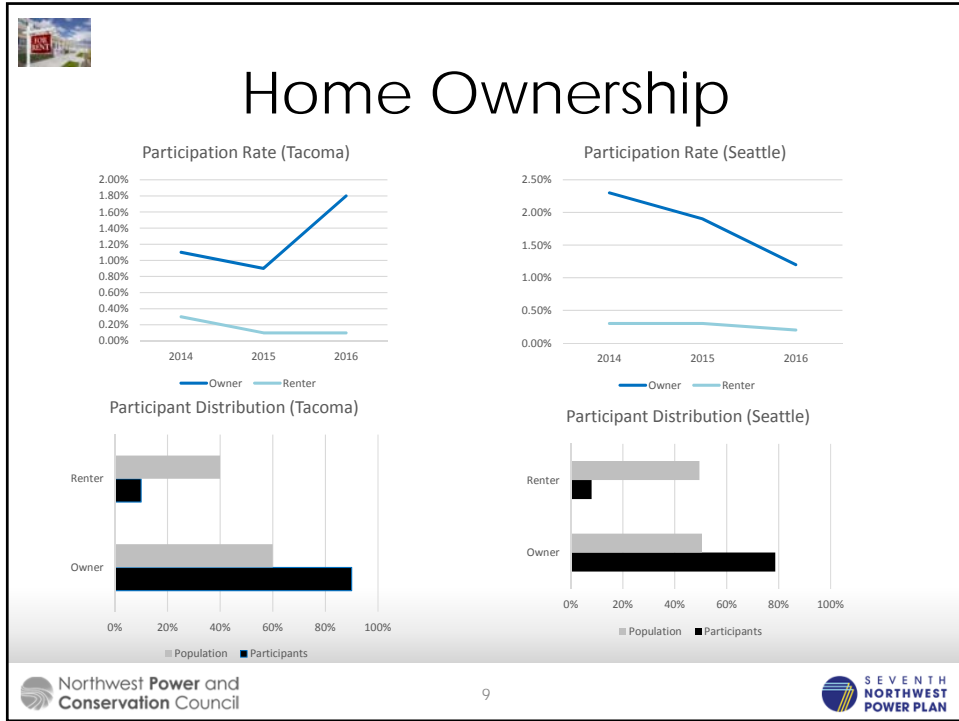


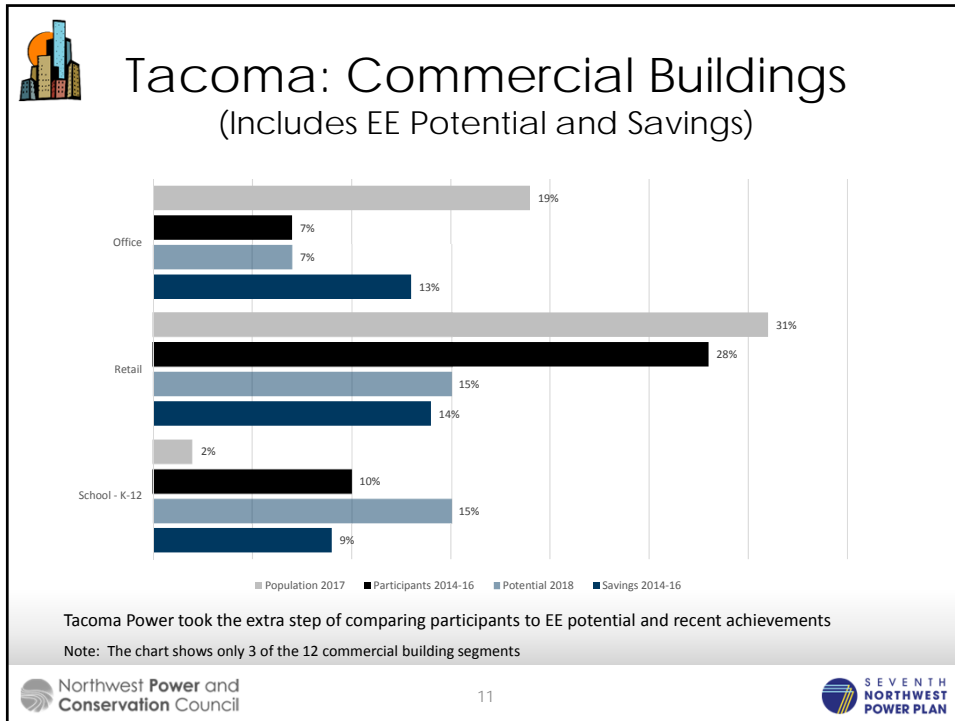
BPA: EE Participation by Income



"Population" refers to the characteristics of all households in the utility service area
 "Participants" are those who participated in any attributable EE program







General Findings

- Developed and demonstrated a process for conducting this type of gap analysis
 - Relatively new and unique process
 - Data are available: Demographic data on the service-territory population are readily accessible and can be used, along with program participant data
 - The report summarizes methods and data sources
- Utilities have been successfully using “targeted” programs
- Different purposes require different methods and data
 - Proportional to population is an equity consideration
 - Proportional to savings potential is a program efficacy metric
- Value of continued monitoring
 - Focus changes over time and
 - Equity accumulates - EE is more than a three year effort.

Findings Summary by Category*



Income

- The “low income” segments showed a wide range of results, but in general utilities have low income programs which are effective
- The highest income brackets participated at the lowest rates



Housing Type

- Most utilities found the multifamily segment to be somewhat underserved
- Manufactured housing residents typically participated in EE programs at higher rates than single family and multifamily housing residents



Urban/Rural

- Rural customers also appear to participate in programs at similar rates as urban customers



Home Ownership

- As expected, residents who own their homes participated at higher rates than renters



Commercial

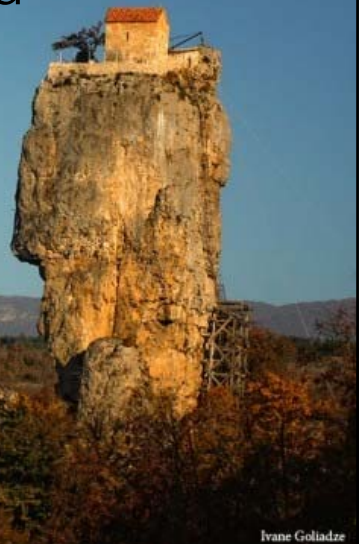
- Small business customers were found to be slightly to moderately underserved
- Schools tended to have relatively high participation rates

*There are caveats

Thank You

Questions?

Approval to release report for public comment



Ivane Goladze