

Contract High Water Mark Calculation Model

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Conservation Data Adjustment Explanation

Bonneville provided conservation data as part of its Contract High Water Mark (CHWM) Calculation Model. The data includes both total energy efficiency and a break-out of the self-funded amount of energy efficiency by customer by annual average megawatt (aMW). Actual historical data is provided by rate period for BP-12 through BP-20, which covers fiscal years FY 2012 through FY 2021. Forecast data is provided for fiscal years FY 2022 – FY 2026.

Alongside the compiled data, an adjusted data set is provided as an illustration of how conservation amounts would be altered if Bonneville were to consider the relative ratio of a utility’s CHWM-load compared to its total retail load.

Adjustment Process

Energy Efficiency’s Planning and Evaluation staff collected data on total aMW conservation savings, self-funded aMW conservation savings, total retail load (TRL) and Rate-Period High Water Marks (RHWMs). The data was broken down by rate period for historical data and summed for the forecast period of FY 2022 through FY 2026. Staff reshaped the data to reflect how utilities engage in self-funded conservation acquisitions. Some utilities acquire self-funded conservation in all rate periods, some in select rate period, and some utilities do not acquire any self-funded conservation. Due to the non-uniform investments across numerous utilities and the unique loads of each utility, staff needed to make certain assumptions with the data set as outlined below.

Logic

For utilities without an New Large Single Loads (NLSL)

The adjustment factor for utilities without an NLSL is applied by dividing the utility’s RHWM by their TRL. The adjustment is applied to each individual utility by rate period.

$$\text{Adjustment Factor} = \text{RHWM} \div \text{TRL}$$

If a customer’s RHWM is greater than its TRL, the adjustment factor will result in a value greater than 1. In order to avoid increasing savings values in these instances, in cases where the adjustment factor is greater than 1 the factor is set to 1.

$$\text{Adjusted Total Conservation} = \text{Total aMW Conservation} \times \text{Adjustment Factor}$$

$$\text{Adjusted SelfFunded Conservation} = \text{Total SelfFunded Conservation} \times \text{Adjustment Factor}$$

For utilities with an NLSL

The adjustment factor for utilities with an NLSL is applied by dividing the utility's FY 2022 RHWM by their FY 2022 TRL with any NLSL load deducted. The adjustment is applied to each individual utility by rate period during rate periods when NLSL load was present. BPA held this adjustment factor constant since we have limited access to specific NLSL load over time, should customers align on this approach, BPA intends to refine this process to better reflect actual historical loads.

$$\text{NLSL Adjustment Factor} = \text{FY 2022 RHWM} \div \text{FY 2022 TRL}$$

If a customer's RHWM is greater than its TRL, the adjustment factor will result in a value greater than 1. In order to avoid increasing savings values in these instances, in cases where the adjustment factor is greater than 1 the factor is set to 1.

$$\text{Adjusted Total Conservation} = \text{Total aMW Conservation} \times \text{NLSL Adjustment Factor}$$

$$\begin{aligned} \text{Adjusted SelfFunded Conservation} \\ = \text{Total SelfFunded Conservation} \times \text{NLSL Adjustment Factor} \end{aligned}$$

For forecasted conservation values for FY 2022 – FY 2026

The forecasted conservation values are based on the sum of the observed savings, both total and self-funded, in the BP-18 and BP-20 rate periods that is multiplied by 1.25 to provide five years of data for the forecast period. The adjustment factor for the forecasted values is calculated using the average adjustment factors from BP-18 and BP-20.

$$\text{Forecast Adjustment Factor} = (\text{BP18 Adjustment Factor} + \text{BP20 Adjustment Factor}) \div 2$$

$$\begin{aligned} \text{Forecast Adjusted Total Conservation} \\ = ((\text{BP18 Total} + \text{BP20 Total}) \times 1.25) \times \text{Forecast Adjustment Factor} \end{aligned}$$

$$\begin{aligned} \text{Forecast Adjusted SelfFunded Conservation} \\ = ((\text{BP18 SelfFunded} + \text{BP20 SelfFunded}) \times 1.25) \\ \times \text{Forecast Adjustment Factor} \end{aligned}$$