

DOCKETED

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RPS-16-03 a specified percentage of total retail kilowatthours

RPS-16-03 a specified percentage of total retail kilowatthours

The below calculations will provide the kilowatthours of eligible renewable energy for the compliance period. It further divides the kilowatthours in PCC1 and PCC3 limits.

All calculations the are done once to find the quantity of electricity products from eligible renewable energy resources, including renewable energy credits for each compliance period.

Pursuant to Public Utilities Code - PUC 399.30. (a) (1) To fulfill unmet long-term generation resource needs, each local publicly owned electric utility shall adopt and implement a renewable energy resources procurement plan that requires the utility to procure a minimum quantity of electricity products from eligible renewable energy resources, including renewable energy credits, as a specified percentage of total kilowatthours sold to the utility's retail end-use customers, each compliance period, to achieve the targets of subdivision (c).

This specified percentage of total kilowatthours sold to the utility's retail end-use customers, each compliance period will be the average kilowatthours to achieve the retail sales target for the compliance period.

Below are the Compliance period length in years, Target for compliance period, Percentage of increase for compliance period, Specified percentage for compliance period year, Specified percentage for compliance period, and Portfolio Balance Requirements for each compliance period, and are as follows:

(1) January 1, 2011, to December 31, 2013, inclusive.

Compliance period length in years: 3

Target for compliance period: 20 percent

Percentage of increase for compliance period: 0 percent

Specified percentage for compliance period year 1: 20 percent

Specified percentage for compliance period year 2: 20 percent

Specified percentage for compliance period year 3: 20 percent

Specified percentage for compliance period: 20 percent

PCC3 maximum 25 percent

PCC1 minimum 0 percent

(2) January 1, 2014, to December 31, 2016, inclusive.

Compliance period length in years: 3

Target for compliance period: 25 percent

Percentage of increase for compliance period: 5 percent

Specified percentage for compliance period year 1: 20 percent

Specified percentage for compliance period year 2: 20 percent
Specified percentage for compliance period year 3: 25 percent
Specified percentage for compliance period: 21.6 percent
PCC3 maximum 15 percent
PCC1 minimum 0 percent

(3) January 1, 2017, to December 31, 2020, inclusive.

Compliance period length in years: 4
Target for compliance period: 33 percent
Percentage of increase for compliance period: 8 percent
Specified percentage for compliance period year 1: 27 percent
Specified percentage for compliance period year 2: 29 percent
Specified percentage for compliance period year 3: 31 percent
Specified percentage for compliance period year 4: 33 percent
Specified percentage for compliance period: 30 percent
PCC3 maximum 10 percent
PCC1 minimum 0 percent

(4) January 1, 2021, to December 31, 2024, inclusive.

Compliance period length in years: 4
Target for compliance period: 44 percent
Percentage of increase for compliance period: 11 percent
Specified percentage for compliance period year 1: 35.75 percent
Specified percentage for compliance period year 2: 38.5 percent
Specified percentage for compliance period year 3: 41.25 percent
Specified percentage for compliance period year 4: 44 percent
Specified percentage for compliance period: 39.875 percent
PCC3 maximum 10 percent
PCC1 minimum 75 percent

(5) January 1, 2025, to December 31, 2027, inclusive.

Compliance period length in years: 3
Target for compliance period: 52 percent
Percentage of increase for compliance period: 8 percent
Specified percentage for compliance period year 1: 46.67 percent
Specified percentage for compliance period year 2: 49.33 percent
Specified percentage for compliance period year 3: 52 percent
Specified percentage for compliance period: 49.33 percent
PCC3 maximum 10 percent
PCC1 minimum 75 percent

(6) January 1, 2028, to December 31, 2030, inclusive.

Compliance period length in years: 3
Target for compliance period: 60 percent
Percentage of increase for compliance period: 8 percent
Specified percentage for compliance period year 1: 54.67 percent

Specified percentage for compliance period year 2: 57.33 percent
Specified percentage for compliance period year 3: 60 percent
Specified percentage for compliance period: 57.33 percent
PCC3 maximum 10 percent
PCC1 minimum 75 percent

For all subsequent compliance periods.
Compliance period length in years: 3
Target for compliance period: 60 percent
Percentage of increase for compliance period: 0 percent
Specified percentage for compliance period year 1: 60 percent
Specified percentage for compliance period year 2: 60 percent
Specified percentage for compliance period year 3: 60 percent
Specified percentage for compliance period: 60 percent
PCC3 maximum 10 percent
PCC1 minimum 75 percent

The formulas for the above values are shown below.

To calculate the specified percentage for each year for each compliance period on a intervening years basis, the following formula should be used.

$$SPY1 = PCPT + 1((CCPT - PCPT)/CPL)$$

$$SPY2 = PCPT + 2((CCPT - PCPT)/CPL)$$

$$SPY3 = PCPT + 3((CCPT - PCPT)/CPL)$$

$$\text{When compliance period has fourth year: } SPY4 = PCPT + 4((CCPT - PCPT)/CPL)$$

After finding the intervening years specified percentage, the compliance period specified percentage can be calculated.

For three year compliance periods the calculation is as follows:

$$SPCP = (SPY1 + SPY2 + SPY3)/3$$

For four year compliance periods the calculation is as follows:

$$SPCP = (SPY1 + SPY2 + SPY3 + SPY4)/4$$

After finding the compliance period specified percentage, the eligible renewable energy retail sales of kilowatthours for compliance period can be calculated.

$$RSKW CPR = RSKWCPG * SPCP$$

After finding the eligible renewable energy retail sales of kilowatthours for compliance period, the maximum PCC3 eligible renewable energy retail sales of kilowatthours for compliance period can be calculated.

$$PCC3KWCP \leq RSKWCPR * PCC3max$$

After finding the eligible renewable energy retail sales of kilowatthours for compliance period, the minimum PCC1 eligible renewable energy retail sales of kilowatthours for compliance period can be calculated.

$$PCC1KWCP \geq RSKWCPR * PCC1min$$

Variables definitions:

PCPT = Prior compliance period target.

CCPT = Current compliance period target.

CPL = Compliance period length in years.

SPY1 = Specified percentage of total kilowatthours for first year in compliance period.

SPY2 = Specified percentage of total kilowatthours for second year in compliance period.

SPY3 = Specified percentage of total kilowatthours for third year in compliance period.

When compliance period has fourth year:

SPY4 = Specified percentage of total kilowatthours for fourth year in compliance period.

SPCP = Specified percentage of total kilowatthours for compliance period.

PCC1min = PCC1 minimum percentage of eligible renewable energy required of the compliance period.

PCC3max = PCC3 maximum percentage of eligible renewable energy required of the compliance period.

RSKWCPG = Gross Retail sales of kilowatthours for compliance period.

RSKW CPR = Eligible renewable energy retail sales of kilowatthours for compliance period.

PCC1KWCP = PCC1 minimum kilowatthours of eligible renewable energy required for the compliance period.

PCC3KWCP = PCC3 maximum kilowatthours of eligible renewable energy allowed for the compliance period.

Steve Uhler
sau@wwmpd.com