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**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.

Rulemaking 10-05-004  
(Filed May 6, 2010)

**ASSIGNED COMMISSIONER'S RULING PROVIDING INSTRUCTIONS ON CALCULATION OF NON-COINCIDENT AGGREGATE CUSTOMER PEAK DEMAND PURSUANT TO ORDERING PARAGRAPH 3 OF DECISION 12-05-036**

In Decision (D.) 12-05-036, the Commission directed that Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E) and Pacific Gas and Electric Company (PG&E) calculate their respective caps on participation in the Net Energy Metering (NEM) program as five percent of aggregate customer peak demand, which is defined as the highest sum of all customers' non-coincident peak demands that occurs in any calendar year. (D.12-05-036 at Ordering Paragraph (OP) 1.) The decision directed Energy Division to hold a workshop to discuss methods for estimating the individual peak demands of customers for which the utilities lack demand data in order to establish a consistent methodology for calculating non-coincident aggregate customer peak demand. Following the workshop, Energy Division provided the Assigned Commissioner and Administrative Law Judge (ALJ) a memo with recommendations on a methodology for the calculation of non-coincident aggregate customer peak demand. (See Attachment A to this ruling.)

As directed by OP 3 of D.12-05-036, this ruling provides instructions to SCE, SDG&E and PG&E (collectively, “the utilities”) regarding the methodology that the utilities should use to calculate non-coincident aggregate customer peak demand. The utilities should apply this methodology when revising their NEM tariffs to comply with OP 4 of D.12-05-036.

### **Methodology for Calculating Non-Coincident Aggregate Customer Peak Demand**

The attached memo from Energy Division to ALJ Dorothy Duda and Scott Murtishaw (Advisor to Commissioner Peevey) provides four recommendations for consistent calculation of non-coincident aggregate customer peak demand by the utilities. I agree with the recommendations and analysis provided by the Energy Division memo. Therefore, I instruct the utilities to do the following when calculating non-coincident aggregate customer peak demand:

***1) The utilities should use load research data to calculate non-coincident aggregate peak demand***

Non-coincident peak demand should be calculated using load research studies to estimate load profiles by customer class. These load research studies should be designed using standard statistical sampling techniques to select representative load research samples. The utilities should continue to use the load research meters installed to collect interval data from the samples, and may supplement this data with smart meter data as it becomes available to improve the estimation of the load profiles.

***2) The utilities should use a four-year moving average based on 2007-2010 annual load research data***

A four-year moving average of the most recently available annual non-coincident peak load data is appropriate in order to avoid significant annual changes in the NEM cap that may result from weather or economic variability.

Therefore, when filing their Advice Letters for the 2012 NEM cap calculation, the utilities should use the average of 2007-2010 annual load research data.

**3) *The calculation should be updated annually but may not decrease below the most recent level determined***

To account for changes in annual estimates of non-coincident peak demand, the utilities should update their respective NEM caps annually by October 1. Beginning on October 1, 2013, and every year thereafter, the utilities should file Advice Letters to calculate their respective NEM caps based on the four-year average of the most recently available annual non-coincident peak load data, which for 2013 will consist of 2008-2011 non-coincident peak demand data.

If the estimate for non-coincident aggregate peak demand increases in a given year, the NEM cap will increase. However, if the estimate for non-coincident aggregate peak demand decreases in a given year, the NEM cap should remain at the previously determined level in order to provide market certainty about the capacity available under the NEM cap.

**4) *The utilities may use 15- or 30-minute interval data to calculate non-coincident aggregate customer peak demand in 2012, but must use 15-minute interval data for the purposes of calculating non-coincident aggregate customer peak demand in subsequent years***

Because 15-minute interval data is not consistently being used by the utilities in their load research studies, the utilities should be allowed the option of using 30-minute interval data when calculating the NEM cap in 2012. For all subsequent years, the utilities should use 15-minute interval data, and may continue to use load research meter data and/or smart meter data where available.

The utilities should use the four instructions above when updating their NEM tariffs to comply with OP 4 of D.12-05-036. That same OP directs the

utilities to file their respective advice letters within 120 days of the effective date of D.12-05-036, although OP 8 allows me to modify that date if needed. The utilities shall file the Advice Letters described in OP 4 of D.12-05-036 within 30 days of the date of this ruling.

**IT IS RULED** that:

1. Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E) and Pacific Gas and Electric Company (PG&E) shall comply with the four instructions in this ruling to calculate non-coincident aggregate customer peak demand for purposes of setting their Net Energy Metering (NEM) program caps.
2. SCE, SDG&E and PG&E shall use the methodology and instructions set forth in this ruling when revising their NEM program tariffs in compliance with Ordering Paragraph (OP) 4 of Decision (D.) 12-05-036.
3. The utilities shall file the advice letters described in OP 4 of D.12-05-036 within 30 days of this ruling.

Dated September 4, 2012, at San Francisco, California.

/s/ MICHAEL R. PEEVEY

Michael R. Peevey  
Assigned Commissioner

# ATTACHMENT A

State of California

# Memorandum



**Date:** July 11, 2012

**To:** Dorothy Duda and Scott Murtishaw

**From:** Energy Division - Ehren Seybert, Gabe Petlin

**Subject** Methodology for Estimating Non-Coincident Peak Demand for the Net Metering Cap, Pursuant to D. 12-05-036, OP 2.

## Background and overview

Net energy metering (NEM) allows customers who install small (1MW or less) distributed generation facilities to receive full-retail credit for power generated by their onsite system and fed back to the utility. Pursuant to Public Utilities Code 2827, the net metering program cap is defined as 5 percent of a utility's "aggregate customer peak demand." In May 2012, the CPUC adopted decision (D.)12-05-036 which clarifies "aggregate customer peak demand" as the sum of individual customers' non-coincident peak demands. D.12-05-36 also directs Energy Division to convene a public workshop with the large investor-owned utilities (IOUs) - Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), and Pacific Gas and Electric Company (PG&E) - in order to "discuss methods for estimating the individual peak demands of the customers for which the utilities lack demand data and establishing a consistent methodology for calculating non-coincident aggregate customer peak demand" and, within 60 days of the effective date of the decision, to provide the assigned Commissioner and Administrative Law Judge with a recommendation on the methodology for calculating non-coincident aggregate customer peak demand.<sup>1</sup>

Pursuant to D.12-05-036, Energy Division held a workshop on June 25, 2012, to discuss

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<sup>1</sup> D.12-05-036, Ordering Paragraph (OP) 2 and OP 3.

methods for estimating individual non-coincident peak demand. Based upon the presentations and comments received during the workshop, Energy Division recommends the following methodology for calculating non-coincident aggregate customer peak demand for the purposes of the NEM program cap:

1. The IOUs should use data from their annual load research studies to calculate non-coincident aggregate customer peak demand.
2. The IOUs should use a 4-year moving average of annual load research data to avoid frequent changes in the NEM cap, beginning with an average from 2007 to 2010.
3. The calculation should be updated annually on October 1<sup>st</sup>, and may not decrease below the most recent level determined to help maintain market certainty.
4. The IOUs may use 15- or 30-minute interval data to calculate non-coincident aggregate customer peak demand in 2012, but must use 15-minute interval data for the purposes of calculating non-coincident aggregate customer peak demand in subsequent years.

The recommendations, and supporting rationale for each recommendation, are discussed in more detail below.

**Recommendation 1: The utilities should use load research data to calculate non-coincident aggregate peak demand.**

For a given year, the total of non-coincident aggregate peak demand for all customers in each IOU's service territory is defined as the sum of each customer's maximum demand in that year. For each IOU, this value represents the maximum demand for the service territory that would occur if all customers use their maximum load at the same time. The total non-coincident peak demand value is an estimated value calculated in each IOU's annual class load research studies, where the calculations are based on samples for the rate classes that are not 100 percent metered. These load research studies support rate design and revenue allocation in General Rate Cases, as well as the Energy Commission's Load Data Delivery. PG&E, SCE and SDG&E also used load research data to estimate non-coincident aggregate customer peak demand for a recent Energy Division data request in March 2012.

In the workshop, the IOUs reported that sample sizes for load research data vary from 5,804 customers to 29,000 customers. The utilities reported that samples of this size provide a high level of precision when estimating non-coincident peak demand. The availability of

more interval data will help enhance the sampling design and sample size to ensure that the estimated load profiles have a 90 percent confidence level.

Non-coincident peak demand should be calculated using load research studies to estimate load profiles by customer class. These load research studies should be designed using standard statistical sampling techniques to select representative load research samples. The IOUs should continue to use interval meters and load research meters installed to collect interval data from the samples, and may supplement this data with smart meter data as it becomes available to improve the estimation of the load profiles.

**Recommendation 2: The utilities should use a four-year moving average based on 2007-2010 annual load research data.**

D. 12-05-036 directs each IOU to file a Tier 2 advice letter (AL) to comply with the new NEM cap calculation methodology within 120 days of the effective date of the decision. Currently, PG&E and SCE have load research data available through 2010; SDG&E expects to have 2010 load research data available by August of this year.

Based upon the annual non-coincident load data provided by the utilities, staff believes that a four-year moving average of the most recently available non-coincident peak load data is appropriate in order to avoid significant annual changes in the NEM cap that may result from weather or economic variability. Therefore, when filing their ALs for the 2012 NEM cap calculation, staff recommends using the average of 2007-2010 annual load research data.

**Recommendation 3: The calculation should be updated annually and may not decrease below the most recent level determined.**

To account for changes in annual estimates of non-coincident peak demand, the calculation should be updated annually by October 1<sup>st</sup>. Beginning on October 1, 2013, and every year thereafter, the IOUs should be ordered to file ALs to calculate their respective NEM caps based on the four year average of the most recently available annual non-coincident peak load data, which for 2013 will consist of 2008-2011 non-coincident peak demand data.

If the estimate for non-coincident aggregate peak demand increases within a given year, the NEM cap will increase. However, if the estimate for non-coincident aggregate peak demand decreases in a given year, the NEM cap should remain at the previously determined level. Staff believes this is necessary in order to help maintain market certainty.

**Recommendation 4: The utilities may use 15- or 30-minute interval data to calculate non-coincident aggregate customer peak demand in 2012 but must use 15-minute interval data for the purposes of calculating non-coincident aggregate customer peak demand in subsequent years.**

Currently, all IOUs perform load research studies using load research meters with either 15-minute or 30-minute interval data, and some IOUs are beginning to incorporate smart meter data. The primary difference between load research meters and smart meters is that load research meters are programmed to collect data at 15- or 30-minute intervals. However, smart meters may be remotely programmed to collect 15-minute interval data, and could also be used to collect load research data. To a certain point, the availability of more interval data will enhance the sampling design and sample size to ensure that the estimated load profiles have the desired levels of precision. Moving from 30-minute to 15-minute interval data may further increase the precision levels of the data. All of the IOUs stated that they plan to supplement their load research sample data with smart meter data.

Because 15-minute interval data is not consistently being used by the IOUs in their load research studies, Energy Division staff believes the IOUs should be allowed the option of using 30-minute interval data when calculating the NEM cap in 2012. For all subsequent years, the IOUs should use 15-minute interval data and may continue to use load research meter data and/or smart meter data where available.

(END OF ATTACHMENT A)