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Jerry Royer
Energy Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California 94102

Re: Comments to Draft Resolution E-3992; SDG&E Advice Letter 1777-E

Dear Mr. Royer:

San Diego Gas & Electric Company ("SDG&E") provides the following comments to the Energy Division's Draft Resolution E-3992 ("DR") concerning provisions for distributed generation facilities that operate generation eligible for Net Energy Metering (NEM) in conjunction with generation that is not eligible for NEM ("Combined Technologies").

The "Stacking" Method Should Be Rejected

The "stacking" method as proposed the DR should be rejected as it violates Public Utilities Code Section 2827 and Commission Decision 05-08-013 by disregarding whether the energy produced by the NEM technology was used to serve the customer's load[1] and by providing credits based on energy produced by non-NEM generators[2], respectively. The Commission should adopt the "pro-rata" method because it allocates excess power production fairly from both non-NEM eligible and NEM eligible generation technologies based on the total generation of each technology.

Time-of-Use (TOU) Metering Is Essential

The DR errs in its assertion that the "stacking" method does not require TOU metering.[3] Without a TOU meter in place that records consumption in 15-minute intervals for the NEM qualified facility and the service delivery point to the customer, the utility will not be able to determine whether power produced in excess of load was indeed produced by the NEM qualified

[1] Pursuant to Public Utilities Code Section 2827 the generation produced by an eligible NEM generator is intended to offset part or all of the customer's own electrical requirements.
[2] Per Ordering Paragraph 2 of D.05-08-013, in no event will non-net metering generators receive credits designed for NEM projects.
[3] DR, p 9

facility or not. This is true whether the method employed is the "stacking" or the "pro-rata" methodology. SDG&E provides the following examples as possible gaming that could occur under the DR's "stacking" method in direct violation of Public Utilities Code.

Example 1

A customer has a 700 kW NEM qualified generator and a 1500 kW load following fossil fueled generator. The NEM qualified generator produces 175 kWh during the time period from 1:00 PM to 1:15 PM on day 3 of the billing period. The service delivery point meter registers that 250 kWh was sent to the grid during the time period from 1:00 PM to 1:15 PM on day three of the billing period. Other than for the period 1:00 PM to 1:15 PM on day three of the billing period the customer's total power production exactly matches the customer's load. At the end of the month the customer was a net producer of energy by 250 kWh. Absent a TOU meter the utility will not be able to determine whether the 250 kWh so produced exceeded the total capacity of the NEM qualified generator. The NEM qualified generator could have, under "stacking", failed to contribute more than 175 kWh of the 250 kWh during that month. In order to determine whether only 175 kWh of the 250 kWh were attributable to the NEM qualified generation requires a TOU meter.

Example 2

A customer has a **minimum** weekday load of 500 kW and a **maximum** weekend load of 300 kW. Also, the customer has a 400 kW non-NEM eligible generator (DG) and a 30 kW NEM eligible generator (PV) that can produce 150 kWh/day.

At the end of a 28-day month, the PV unit's NGOM would register a total of 150 kWh/day x 28 days = 4200 kWhs of energy production. However, because the minimum weekday load is always greater than the combined energy production of the DG and PV, it is evident that the combined DG-PV Generating Facility (GF) did not have sufficient capacity to export any energy to the grid. The GF only has sufficient capacity to export energy to the grid during weekend days when the load (300 kW max.) is less than the combined GF generating capacity (400kW + 30 kW = 430kW). The maximum portion of the monthly PV production that could be exported to the grid for NEM eligible credit would be 150 kWh/day x 8 weekend days = 1200 kWhs.

Without TOU metering, the customer could easily generate enough energy from its DG during the weekend days [(400 kW – 300kW) x 8 weekend days x 24 hr/day = 19,200 kWhs of maximum DG export capability] to equal the entire 4200 kWs and improperly receive NEM credit for 3000 kWhs [4200 kWh (max. total monthly PV energy production) – 1200 kWhs (max. total export energy production) = 3000 kWh].

To comply with the Public Utilities Code to provide NEM benefits only to NEM eligible power production and based on the forgoing examples, TOU metering on the NEM eligible technology is mandatory with the "stacking" approach. As SDG&E has demonstrated the same metering is required with the "pro-rata" approach.

Only one NGOM is Necessary When Multiple NEM-Eligible Generators Receive the Same Tariff Treatment

The DR suggests that separate NGOM is only required for each group of NEM-eligible generators under the same type (bundled rate or energy-only) of NEM tariff, not for each individual generator.[4] SDG&E is not opposed to this, provided it is specified in the tariffs that grouping of like NEM-eligible generators must receive identical tariff treatment.

Ordering Paragraphs 3, 4 and 5 Should Be Deleted

Ordering Paragraphs 3, 4 and 5 require changes to Rule 21 that have not been addressed by the Rule 21 Working Group and should therefore be removed from the DR. In Decision 05-08-013 the Commission directed the utilities to submit tariff modifications "following consultation with the Rule 21 Working Group."[5] The Energy Division should not be permitted to ignore the Commission's directive and arbitrarily add language to Rule 21 without it being addressed by the Rule 21 Working Group.

There is No Netting of Exported Energy on an Annual Basis

SDG&E is unsure what the Energy Division intends by the statement on page 15 of the DR wherein it says, "The utilities forget that PUC 2827 is the 'net energy law', not the 'net power law.' Therefore, PUC 2827 specifies a time period, namely one year, for the true up of energy credit against energy consumption." SDG&E would like to be sure that this does not conflict with the following statement on page 9 of the DR which correctly points out for "both methods net energy exported is credited in dollars monthly and carried forward to offset charges for net consumption in a year, when any positive balance expires without payment from the utility." There is no netting of exported energy on an annual basis.

The "Stacking" Method Will Require New Calculations

The DR denies SDG&E's request to implement its Combined Technologies tariff 90 days from the date it is approved on the grounds that the "stacking method requires no new calculations and the existing NEM tariffs can easily be amended to incorporate provisions for GFs under multiple existing tariffs."[6] It is not clear to SDG&E why the Energy Division would believe that the "stacking" method will not require new calculations. Regardless whether the Commission adopts the "stacking" method or the "pro-rata" method, the billing calculations will be new. Under existing NEM tariffs, SDG&E's billing system is able to sum up 15-minute interval data into monthly TOU periods (semi-peak, off-peak, etc.) and use these monthly sums to calculate applicable credits. However, with Combined Technologies SDG&E will have to review each 15-minute interval of each NGOM that is separately tracked to determine if the NEM-eligible generator exported to the grid and whether it is a rate credit or a departing load credit on the distributed generation. Regardless whether existing tariffs are modified or a new tariff is established, implementation is not as simple as the Energy Division suggests.

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[4] DR, Finding 18
[5] D.05-08-013, p 8
[6] DR, Finding 13

The Non-Export Breaker (Relay) Option Is Included in SDG&E's Proposed Tariffs

Finding 16 of the DR indicates that the non-export breaker (relay) option for preventing non-NEM eligible energy export from obtaining credit is not included in the proposed tariffs. However, this is addressed in SDG&E's tariffs. In the Rates section it states: "...power produced by a generation technology that is constructed to prevent export to the grid shall be excluded from the assignment of exported power." In addition, Special Condition 2 states: "Metering is not required on any technology that has a breaker (relay) installed at the customer's expense that will prevent the flow of power from that technology onto the grid, or if all but one generation technology has such a breaker." The DR should be modified accordingly.

Provisions for Combined Technologies Should Not Be Incorporated Into Existing NEM Tariffs

The DR directs the utilities to incorporate the provisions for combined technologies into the existing NEM tariffs in lieu of having a separate tariff. SDG&E is not opposed to referring to the NEM-CT tariff in its existing NEM, NEM-FC and NEM-BIO, but to add the provisions for combined technologies to each of these schedules will unnecessarily complicate the tariffs. Separate tariffs were established for each of the NEM technologies (photovoltaic/wind, fuel cell, and biogas) because the provisions for each were slightly different and it made it easier for the customer to follow. The tariff for combined technologies should be separate as well.

Respectfully Submitted,

Monica Wiggins for/

Steve Rahon
Director – Tariffs & Regulatory Accounts

cc: President Michael Peevey
Commissioner Geoffrey Brown
Commissioner Dian Grueneich
Commissioner John Bohn
Commissioner Rachelle Chong
Sean Gallagher, Energy Division
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Service List for Draft Resolution E-3992