ID #5586

April 17, 2006 E-3996

TO: PARTIES TO ADVICE LETTERS SDG&E 1776-E, SCE 1971-E AND PG&E 2792-E

Enclosed is draft Resolution E-3996 of the Energy Division. It will be on the agenda at the May 25 Commission meeting. The Commission may then vote on this Resolution or it may postpone a vote until later.

When the Commission votes on a draft Resolution, it may adopt all or part of it as written, amend, modify or set it aside and prepare a different Resolution. Only when the Commission acts does the Resolution become binding on the parties.

Parties may submit comments on the draft Resolution.

An original and two copies of the comments, with a certificate of service, should be submitted to:

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

A copy of the comments should be submitted to:

Werner Blumer
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Any comments on the draft Resolution must be received by the Energy Division by May 8, 2006. Those submitting comments must serve a copy of their comments on 1) the entire service list attached to the draft Resolution, 2) all Commissioners, and 3) the Director of the Energy Division, on the same date that the comments are submitted to the Energy Division.

Comments shall be limited to five pages in length plus a subject index listing the recommended changes to the draft Resolution, a table of authorities and an appendix setting forth the proposed findings and ordering paragraphs.

Comments shall focus on factual, legal or technical errors in the proposed draft Resolution. Comments that merely reargue positions taken in the advice letter or protests will be accorded no weight and are not to be submitted.

Replies to comments on the draft resolution may be filed (i.e., received by the Energy Division) on May 15, 2006, 7 days after comments are filed, and shall be limited to identifying misrepresentations of law or fact in the comments of other parties. Replies shall not exceed five pages in length, and shall be filed and served as set forth above for comments.

Late submitted comments or replies will not be considered.

Ken Lewis
Program Manager
Energy Division

Enclosure: Service List

CERTIFICATE OF SERVICE

I certify that I have by mail this day served a true copy of Draft Resolution E-3996 on all parties in
these filings or their attorneys as shown on the attached list.

Dated April 17, 2006 at San Francisco, California.

_____
Jerry Royer

NOTICE

Parties should notify the Energy Division, Public Utilities Commission, 505 Van Ness Avenue, Room 4002
San Francisco, CA 94102, of any change of address to ensure that they continue to receive documents. You must indicate the Resolution number on the service list on which your name appears.

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PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

I. D. #5586

ENERGY DIVISION **RESOLUTION E-3992**

5/25/06

R E S O L U T I O N

Resolution E-3992. PG&E, SCE & SDG&E

By Advice Letters PG&E 2793-E, SCE 1969-E & SDG&E 1777-E filed on February 27, 22 & 27, 2006, respectively.

PG&E filed substitute sheets of AL 2793-E to update earlier approved revisions to Schedules NEM, NEMBIO and NEMFC on March 2, 2006, and to Schedule NEMCT to correct section numbering, on March 22, 2006.

SUMMARY

This Resolution rejects the proposed tariffs (for SDG&E and PG&E: NEM-CT, for SCE: CT-NEM), for implementing Net Energy Metering (NEM) for Customer Generating Facilities (GF) comprised of multiple generators under multiple NEM and/or non-NEM tariffs. The tariffs propose a pro-rationing of exported NEM energy for credit that is contrary to Decision (D).05-08-013 (Decision) and the California Public Utilities Code Section 2827et seq. After deleting the proposed pro-rating provisions the remaining provisions of the proposed tariffs belong in the existing NEM tariffs and Rule 21.

SCE's proposed Form 14-773, Generating Facility Interconnection Agreement for Combined Technologies, duplicates most of the provisions in SCE's existing forms or can easily be amended for GFs under multiple tariffs.
All three utilities should submit essentially uniform revisions of existing NEM and associated tariffs and forms using consistent and precise language to prevent misunderstandings.

BACKGROUND

PUC 2827 et seq. regulates the crediting of net energy exported by Customer-Generators eligible for either the bundled rate or the energy component only. It does not spell out the method of crediting the net energy exported by Generating Facilities (GF) incorporating Net Energy Metered (NEM)-eligible and non-NEM eligible generators, or multiple NEM-eligible generators under different subsections of PUC 2827, on the same utility meter/account.

Under PUC 2827 et seq., solar generators up to 1 MW capacity and wind generators up to 50 kW capacity are credited at the bundled otherwise applicable tariff (OAT) rate monthly for net energy exported and these accrued credits are applied against the annual charges for net energy supplied by the utility. Wind generators above 50 kW and Biogas and Fuel Cell generators up to 1 MW capacity are only credited for the energy component of the OAT rate.
No payment is made by the utilities for excess credits over consumption charges in a year's time.

GFs with so-called Combined Technologies (CT) are comprised of multiple generators qualifying for different tariffs on one service account. The more correct term would be "Multiple Tariffs (MT)", because the utilities already have individual tariffs for various technologies of NEM-eligible generators and for non-NEM eligible generators.

Decision (D). 03-02-068 affirmed that NEM-eligible generators connected to the same service account with non-NEM eligible generators are eligible for NEM tariffs for the eligible generators but not for the non-NEM eligible generators. Use of non-export power relays for the prevention of energy export from non-NEM eligible generators to the distribution system is required per Rule 21.

Subsequently, the Rule 21 Working group discussed ways to accommodate customers of GFs who desire to operate non-NEM eligible generators with one or more NEM-eligible generators under multiple NEM tariffs for operational and economical reasons without a reverse power relay. Any compensation for the energy exported by the non-NEM generators would be under a Power Purchase Agreement not discussed herein.
The Rule 21 Working Group is comprised of utility personnel, manufacturers of DG facilities, DG developers, DG customers, and regulators. The Commission

ordered the Working Group to develop and refine the utilities' Rule 21, Interconnection of Generating Facilities.

The California Energy Commission issued a report (Recommended Changes to Interconnection Rules, CEC-100-2005-003-CTF) to the Commission, based on the Rule 21 Working Group's discussions, and the Commission adopted the recommendations regarding crediting NEM-eligible energy exported from GFs containing non-NEM eligible generators. The Decision's Ordering Paragraph (OP) 2, Bullet 5 stated "three protections …designed to assure the policy protects utility ratepayers while furthering the state's general goal of promoting renewable energy technologies":

> "With regard to DG facilities that include an NEM-eligible generator and a generator that does not qualify for net energy metering (non-NEM): (1) any energy generated by the renewable DG that exceeds the customer's annual energy usage will not be compensated as renewable DG; (2) in no event will non-net metering generators receive credits designed for NEM projects; and (3) any DG owner operating under two tariffs must install at its cost individual meters for the separate generators or breakers that prevent export from the non-net metering generator. Otherwise, for DG facilities that operate under two tariffs applicable to different technologies, utility tariffs should prohibit any provision or methodology that prevents export from an NEM generator even if the non-NEM generator is operating".

There is no question about the metering and crediting of energy export from such GFs under only one type (bundled rate or energy only credit) of NEM tariff and breakers (non-export relays) on the non-NEM eligible generators, per OP 2, Bullet 5, Item (3), above. The non-export relay requirements for this option are already incorporated in Rule 21.

However the metering and crediting for GFs with multiple NEM-eligible generators under different type of NEM tariffs and/or with one or more non-NEM eligible generators without non-export breaker (relay) is not considered in PUC 2827 et seq.

For multiple tariff GFs there are at least two methods of crediting net energy exported against net energy consumed, as described below. Both methods can meet the three protections of the Decision, OP 2, Bullet 5. However, the pro-rating method may prevent credit for some of the

energy produced by the NEM-eligible generators when non-NEM generators operate at the same time without non-export breakers (relay).

A third," Physical", method, discussed in the Rule 21 Working Group was dismissed early on because of serious flaws.

The two methods still considered here are as follows:

"Pro-Rating" – The Pro Rating method assumes that net energy from a GF, with generators operating under multiple NEM and non-NEM tariffs in parallel, is exported to the utility system on a pro rata basis of each generators energy output during the Time of Use (TOU) period, in relation to the total energy output of all generators during the TOU period. This method is based on the physical reality of power flow. The monetary credit is for the net energy exported by the NEM-eligible generators, calculated in proportion of their share of energy generated to the total energy generated by the GF in each TOU period. This method requires TOU meters.

"Stacking " – The Stacking method assigns the net energy exported from a GF, with generators operating under multiple NEM and non-NEM tariffs in parallel, first to the NEM-eligible generator(s). The remainder of the exported energy is assigned to the non-NEM eligible generator(s) and not credited. Because the annual energy export credit of the NEM eligible generators is capped by the smaller of the actual generation of such generators or the consumption, it does not matter when they generated.

Unless required by other applicable tariffs, this method does not require TOU metering. It can be administered with regular NGOMs and a consumption meter on the load, in addition to a non-ratcheted or bi-directional utility revenue meter.

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.

For the metering option in the Decision, OP 2, Bullet 5, Item (3), all three utilities propose pro-rating the exported NEM-eligible net energy from

GFs with multiple generators under NEM and non-NEM tariffs without non-export relays on the non-NEM eligible generators.

SDG&E also enclosed, but does not favor, an alternate tariff (B), which provides full credit first ("stacking") for the NEM-eligible net energy output in case a non-NEM eligible generator operates in parallel.

SDG&E requests additional three month for the implementation of this alternate tariff, should it be adopted.

SCE describes the "stacking" method in its AL, but has not filed such an alternate tariff.

All three utilities propose TOU type utility-owned/grade net generator output meters (NGOM) on each generator.

Under Special Conditions 5, PG&E proposes to prioritize the attribution of prorated net energy from multiple NEM eligible generators to consumption in the following order: NEM (solar and wind<10 kW), NEMEXP (10 kW>solar< 1 MW, 10 kW>wind<=50 kW), NEMBIO (Biogas with aggregated accounts), NEMBIO (Biogas), NEM (50>wind<1MW), NEMFC (fuel cell).

SCE's and PG&E's ALs include minor changes to the Standby tariffs (Schedule S) to exclude load served from NEM-eligible customer generators under PUC 2827 et seq. from standby charges.

PG&E is further proposing to revise the existing NEM tariffs (NEM, NEMFC and NEMBIO) to delete restrictions on eligibility for multiple NEM tariffs and to coordinate the true up periods of aggregated accounts under NEMBIO.

SCE's AL proposes a specific "Generating Facilities Interconnection Agreement for Combined Technologies" with Appendix C, Producer's Warranty that the GF is a "Distributed Energy Resources Generation" Facility pursuant to Section 353.1 of the PUC; Appendix D, List of Eligible Accounts to be included in NEM Calculations pursuant to Schedule BG-NEM Special Condition 2; Appendix E, Producer's Warranty that it meets the Requirements for an Eligible Biogas Digester Customer-Generator and the GF is an Eligible Biogas Digester GF pursuant to PUC 2827.9; and Appendix F, Specific Conditions and Limitations for Power Deliveries from Non-Eligible Generator(s).

NOTICE

Notice of AL 2793 –E, AL 1969 and AL 1777-E was made by publication in the Commission's Daily Calendar. PG&E, SCE and SDG&E state that a copy of the Advice Letter was mailed and distributed in accordance with Section III-G of General Order 96-A.

PROTESTS

Advice Letters AL 2793-E, AL 1969-E and 1777-E were timely protested by the City of San Diego (San Diego) on March 13, 2006.

SDG&E's AL 1777-E was protested two days late by the Commission's Department of Ratepayer Advocates (DRA) on March 22, 2006.

SDG&E responded to San Diego's protest on March 20, 2006.
SCE responded to San Diego's protest on March 21, 2006.
PG&E responded to San Diego's and DRA's protests on March 27, 2006.
SDG&E responded to DRA's protest on March 29, 2006.

DISCUSSION

City of San Diego's Protest

The first issue of San Diego's protest is with regards to GFs with non-NEM eligible generators without non-export relay, namely the proposed pro-rating of the net energy export from NEM-eligible generators, while the non-NEM eligible generator is operating. This protest is raised with all three utilities' ALs, because they do not comport to the Decision.

San Diego quotes the CEC report on which the Decision is based and which concluded that pro-rating of the NEM-eligible energy from a GF with generators qualifying for multiple tariffs would potentially reduce the economic benefit the customer might otherwise (with stacking) enjoy under the NEM tariff, potentially reduce the efficiency at which the non-NEM eligible generator operates, and runs counter to the state's need for additional generation.

San Diego provides the following example of the negative effect of the utilities' proposed prorating method. (As pointed out by SCE and PG&E, this example

contains an error, which has been corrected here to show consumption of 450 kWh, not 550 kWh):

"At a given hour a customer's cogeneration system provides 300 kWh, its photovoltaic array provides 200 kWh, and the site consumes 450 kWh. It therefore exports to the grid 50 kWh. Under the utilities' proposal, the customer would not get credit for those 50 kWh, but instead get credit for 50 kWh* (200kWh/(200 kWh+300 kWh), or 20 kWh."

San Diego points out that the original intent of PUC 2827 has changed with the expansion of the net energy metering program by the passage of Senate Bill 28X1.

The <u>second</u> of San Diego's issues is with the proposed effective time of the proposed alternate tariff of SDG&E, which does credit first (stacking) the energy generated by the NEM-eligible generators. SDG&E requests an additional three month for implementation of the alternate tariff, should the Commission adopt the alternate, because of required extensive system modifications. San Diego explains that SDG&E currently relies on manual calculations for NEM customers and that the tariff is defined.

<u>SDG&E's Response to San Diego's protest</u>

SDG&E agrees with San Diego that the CEC report was fundamental to the Decision, but claims the decision "generally supported the CEC's conclusion on this matter" but does not adopt the CEC report in its entirety. SDG&E believes that their pro-rata method tariff complies with the decision and incorporates the safeguards adopted in the Decision, OP 2.
SDG&E does not endorse the stacking method because of the potential adverse impact on the rates of non-participant customers by artificially increasing the NEM subsidy.
SDG&E denies withholding of a complete alternate "stacking" method tariff. General Order (G.O.) 96-A does not allow final tariff options to be filed.
SDG&E is in the process of automating the billing of NEM customers and believes incorporating the NEM-CT at the same time would be more cost effective and since it is much more complex needs an additional three months.

Department of Ratepayer Advocacy's (DRA) protest

DRA endorses SDG&E's Alternate B tariff, which contains the "stacking" method of energy crediting. It rejects Alternate A, the Prorating method of energy crediting because it has the potential to minimize the customer use of available incentives for NEM-qualified clean and green generation technologies.

DRA states that the "stacking" method better reflects the actual generation characteristics for the renewable energy systems were individual unit loading is manually supervised and approximated, as well as can be done economically. Additionally, it is more in line with the California Energy Commission's recommendations.

DRA made the erroneous assumption that the prorating would be in proportion of the individual generator's capacity, not actual output. However this error would not change its position.

SDG&E's response to DRA's protest

SDG&E corrects DRA's understanding that prorating would be in proportion of the generators' capacities. The utilities' proposals for prorating the exported energy credited to NEM-eligible generators are in proportion of the actual output of the generators. Even though, SDG&E understands that DRA advocates the stacking method and wants NEM customers to receive the maximum financial benefit, even if it increases costs for non-participating NEM customers. (SDG&E probably means "customers that do not participating in NEM"). SDG&E disagrees with DRA and urges the Commission to adopt the prorating method.

SCE Response to San Diego's protest

SCE corrects San Diego's statement that it has submitted an alternate "stacking" method tariff. SCE only described that method in the cover letter as having been discussed in the Rule 21 Working Group as input to the CEC report.

SCE does not dispute that the CEC report contains the statement that any methodology preventing export from the NEM-eligible generator, while the non-NEM eligible generator is operating, is inappropriate and that the Decision

incorporated this recommendation. SCE's proposed tariff does not prevent a NEM-eligible generator from exporting power to the grid.
San Diego confuses the ability to export (which is required by the Decision) with the right to NEM credit (which is only permitted for power exported from an NEM-eligible generator). Therefore SCE's proposal is in complete compliance with the CEC report and with the Decision, OP 2, Bullet 5.
SCE further mentions the physical reality of power flow as a reason to prefer the prorating method and the lack of San Diego's proposal for ways to crediting multiple NEM-eligible generators for export of energy under different tariffs. San Diego's approach would lead to uneconomic dispatch of resources that the decision's safeguards were designed to prevent.

San Diego's "stacking" method is in direct conflict with safeguards adopted in the Decision. The Commission instituted three safeguards to prevent customer – generators form gaming the system or receiving credit for power exported from a non-eligible generator.
SCE does acknowledge that PUC 2827 caps the credit of NEM energy export by the lower of the charges for annual consumption or NEM generator output.

<u>PG&E's response to San Diego's and DRA's protests</u>

PG&E echoes SDG&E's response that the Commission did not reject the prorating method of energy crediting, quoting the same safeguards in the Decision and pointing out that the Decision did not discuss the prorating method as such. Furthermore the decision incorporated the safeguards in response to SCE's concerns in the CEC report about uneconomic dispatch.
The prorating method reflects the physical reality of power flow and the stacking method affords benefits to export of the non-NEM eligible generators, in violation of the Decision.

PG&E rejects DRA's argument that prorating may create disincentives for clean renewable generation technologies. The decision considered this issue and determined that the goal of encouraging renewable generation should be balanced with concerns about uneconomic dispatch and inappropriate cost shifting resulting from the stacking method.
PG&E also misses DRA's addressing of credit treatment of NEM GF's with generators eligible under multiple tariffs, e.g. a solar and biogas, with the stacking method.

Analysis

The Decision did not entirely adopt the CEC report with regards to the cost allocation recommended for distribution system modifications required because of interconnection of non-NEM eligible generators without non-export relay in conjunction with NEM-eligible generators. This is an entirely different issue from the NEM energy crediting method, which was adopted as recommended by the CEC .

The three safeguards against crediting exported energy from a non-NEM eligible generator apply regardless if the stacking or pro-rating method of NEM energy export crediting is applied. The decision did not say that under no circumstances can energy from the non-NEM eligible generator be exported; rather it did say that it cannot be credited against net consumption.

There is no artificial increase of the NEM subsidy, because the NEM-eligible generators have to actually generate the energy credited, as in the case of a NEM eligible GF only. The energy credit is still capped by the annual net energy consumption from the utility by the load on the same meter/account.

Prorating essentially denies the customer the opportunity to accumulate and use credit at any time, for all energy actually produced by NEM-eligible generators, just because of non-NEM eligible generators on the same meter/account. PUC 2827 allows credits for energy to be accumulated and used over a year's time. It does not mandate that some NEM-eligible energy has to be used instantaneously. PUC 2728 is not based on actual power flow, rather is a policy.

In its cover letter, SCE admits that prorating may reduce the credits a customer receives from NEM-eligible energy export by stating "… any customer who desires to ensure that it receives full billing credit for its NEM eligible generator(s), independent of a metering methodology, is afforded the alternative of installing non-export breakers on its non-NEM generator(s), thus ensuring that only NEM eligible power is exported to the utility grid."

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.

We therefore conclude that D.05-08-013 implemented policy in agreement with PUC 2827 and also with the California Energy Plan loading order that prefers (stacks) renewable energy generation over other energy generation.

In the Decision, OP 2, Bullet 5(2) prohibits "export" from a non-NEM eligible generator. This can only mean "export for credit", because without credit it would be meaningless, and the decision does acknowledge export by allowing the metering option in addition to the non-export breaker (relay) option.

There are strong economic disincentives against gaming with multiple tariff GFs. Because of the high cost of especially solar NEM-eligible generators, there is no incentive for a customer to oversize them, because any net credit is not carried forward or paid out by the utility at the end of a year's time.
A customer will also have to consider the efficiency loss of a non-NEM eligible (fossil fuelled) generator that operates only at reduced power or partial time when an oversized NEM-eligible generator operates on the same meter/account.

Furthermore, per Decision, Section VI, the distribution system modification costs attributable to the export of energy from the non-NEM eligible generator is borne by the customer. This is a disincentive for exporting instead of installing a non-export breaker (relay), especially for a relatively large non-NEM eligible generator and small NEM-eligible generator on the same meter/account.

It may be more economical for a customer with a small solar and/or wind generator and larger other NEM-eligible generators in addition to non-NEM eligible generators to pay for only one combined NGOM and have all NEM-eligible energy export credited for energy only, because export from the small solar and wind generators may be minimal. This option should be offered to customers and would also simplify utility billing.

There is no additional subsidy afforded to customers that get credited for NEM-eligible energy by the stacking method, regardless if there are parallel non-NEM generators operating or not. In either case, only the total actually produced NEM-eligible energy receives credit, either instantaneously or within a year, up to the consumption. Only solar and small (<50 kW) wind generators get credited at the bundled rate for exported energy. These generators are not required to be metered TOU. Since these generators are most likely to export at peak system load periods anyway, shifting their high value credit to another time of

consumption does not impact ratepayers with additional subsidy and this is per PUC 2827.

Because there are no new calculations required with the stacking method of crediting and no new tariffs to be implemented, we agree with San Diego, that a delay by SDG&E to implement crediting energy exported from NEM-eligible generators in a multiple tariff GF is not warranted.

The proposed NEM-CT tariffs do not include the non-export breaker (relay) option and the regular (non-TOU) NGOM and load meter option with a bi-directional or non-ratcheted revenue meter, which is currently available in cases where no OAT requires TOU metering. Modifications to existing NEM tariffs, in lieu of the proposed new NEM-CT tariffs, must include those options for multiple tariff GFs.

The proposed NEM-CT tariffs require NGOM on the non-NEM eligible generators. Since such meters would only be required for the prorating method, in case of a power purchase agreement, to administer OAT, or for operational reasons, they are not mandatory in this tariff. Furthermore, the Summary of Decision, Bullet 1 states that "We retain existing rules and tariffs which address the circumstances under which DGs receiving publicly-funded incentives or tariff exemptions must install NGOM equipment". Those existing rules are in Rules 21, Section F.3 and provide other options to utility owned/grade NGOMs for tariff administration of generators under any tariff. Section F does not distinguish between DGs that receive incentives or not. Therefore, the existing NEM tariffs need to be revised to refer to Rule 21 for NGOM requirements. NGOM required for verifying subsidy eligibility or performance monitoring is not part of the NEM tariffs and specified in the applicable program manuals.

PG&E commented on DRA's failure to propose rules for prioritizing energy credit for export from NEM-eligible generators under multiple tariffs. PG&E provided such a priority under Special Conditions 5. However such prioritization for usage is meaningless, because all energy consumed is charged at the bundled rate and consumption charges are offset from dollar credits which are not differentiated by TOU when energy is exported. The only restriction is that only dairy biogas generated energy credits can be used for aggregated accounts. This provision is already contained in the applicable NEM-BIO tariff.

PG&E's proposed changes to Schedule S, Standby Service, Special Condition 4, needs correction because the prohibition of meters with reverse registration for NEM-eligible generators is contrary to PUC 2827. Special Conditions 7.a and 7.c also need to exempt NEM and DER (Distributed Energy Resources) from the "generation" and "alternate power source", respectively. Special Condition 12 needs to add NEM generator capacity as qualifying for standby exemption, because the reference to DER in Rule 1 does not include NEM-eligible generators.

SCE's single GF Interconnection Agreement for all combinations of NEM and non-NEM eligible generators is a positive simplification and we encourage all utilities to consider the same. Any such GFIA should not refer to "Combined Technology" however, because it would serve any GF with or without multiple tariffs, and it also needs to consider all provisions in the existing NEM agreements.
Also, definitions should be referred to Rule 21, application of the agreement to power purchase excluded and the liability requirements for NEM and non-NEM eligible generators clarified per PUC 2827 (j).

SCE's proposed GF Interconnection Agreement for Combined Technology (GFIA-CT), Section 5.2 is in conflict with the very essence of operation of a GF with NEM-eligible and non-eligible generators, no matter which crediting method is used. This section prohibits power delivered from the non-NEM eligible generator to be used other than for the load of the service account to which it is connected. The term "power" is incorrect in this instance, because only the net "energy" exported from the NEM-eligible generators, up to the lesser of their actual output in a year's time or the annual load, is the limit for credits. "Power" is an instantaneous measure and may at times be exported from a non-NEM eligible generator without non-export relay to other customers.

SCE's GFIA-CT, Section 8, Insurance, is not in compliance with PUC 2827(j), which does not require a customer-generator, who's solar and/or wind turbine GF meets specified standards, to purchase additional liability insurance.

COMMENTS

Public Utilities Code section 311(g) (1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g) (2) provides that this 30-day

period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments.

Following are the summaries of the comments, replies and their discussions:

FINDINGS

1. Decision (D.) 05-08-013 (Decision) adopted CEC's recommendation for "stacking" the energy exported from NEM-eligible generators over the energy exported from non-NEM eligible generators on the same account.

2. The Decision did not adopt CEC's recommendation to relieve customers with GFs under multiple tariffs, consisting of NEM and non-NEM eligible generators, from costs incurred for distribution system modifications attributable to the non-NEM eligible generators.

3. The three safeguards in the Decision against crediting energy export from non-NEM eligible generators apply regardless of which crediting method is used.

4. The Decision prohibits eligibility for credit for energy export from non-NEM eligible generators, but not export.

5. With the stacking method of crediting there is no additional or artificial subsidy afforded to NEM-eligible energy export in a GF with multiple NEM/non-NEM eligible generators because the NEM-eligible energy is capped by the value of the smaller of the actual annual energy output of the NEM-eligible generators or the consumption on the same account, per Public Utilities Code Section (PUC) 2827 et seq.

6. Pro-rating forces the customer to use some of the NEM-eligible energy at the time it is generated, where PUC 2827 et seq. grants the customer a year's time to offset the credit from this energy against consumption charges.

7. The "stacking" method of exported net-energy crediting mimics the loading order of the California Energy Action Plan (CEAP). The Decision is consistent with the CEAP.

8. PUC 2827 is based on policy, not actual power flow. It is also known as the "Net Energy Law", not "Net Power Law".

9. The requirements to prevent non-NEM eligible energy export to the utility system (non-export relay), without restricting the non-NEM eligible generators at any time from serving the load (load following) and NGOM requirements (customer option of installing Rule 22 compliant meters or utility meters), are already contained in Rules 21, GF Interconnections, Sections I and F, respectively, and/or proposed in pending ALs (SCE 1971-E, SDG&E 1776-E, PG&E 2792-E).

10. Powerful disincentives to "gaming the system" with GFs under multiple tariffs include the limitation on carry over of credits to the following year, high cost of NEM-eligible generators, cost for distribution system modifications attributable to non-NEM eligible generators and efficiency considerations of non-NEM eligible generators operating at partial load or time.

11. The proposed NEM-CT tariffs contain few provisions not already in existing NEM tariffs or Rule 21, except for the pro-rating of NEM-eligible energy credits, and are therefore not necessary. The necessary additions can be incorporated in the existing tariffs and rules.

12. PG&E's proposed prioritizing order of usage of NEM energy export under multiple tariffs is not required, because credits are in undifferentiated dollars and all energy consumption charges are for the bundled rate. Credits in dollars are also not differentiated by TOU.

13. 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. Considerable time has passed since the utilities filed the ALs. SDG&E's request for three months delay to implement the stacking method of crediting, beyond the effective date ordered in this

resolution, is not warranted. The three months will already have occurred by then.

14. TOU or real-time NGOM at the NEM-eligible generators and at the PCC is not the only metering scheme available for tariff administration of GFs with generators under different tariffs in compliance with PUC 2827 et seq. and the Decision, in the absence of a non-export relay at the non-NEM eligible generators.

15. For GFs comprising, only wind generators under 50 kW aggregate capacity and/or, solar generators for the balance of 1 MW total NEM-eligible capacity, the monthly energy true up can be accomplished by a simple metering scheme. This scheme employs one regular NGOM for the NEM-eligible generator(s), and one regular energy consumption meter at the load, in addition to a reversible or bi-directional meter at the PCC, per PUC 2827(b) (3). This is however subject to any TOU metering requirements in the OAT.

16. The non-export breaker (relay) option for preventing non-NEM eligible energy export from obtaining credit is not included in the proposed tariffs or Generating Facility Interconnection Agreement (GFIA).

17. With the stacking method there are no NGOMs required at the non-NEM eligible generators, with or without non-export relay, for tariff administration of a GF under multiple tariffs without power purchase agreement. They may be required by other tariffs (Standby, CRS, non-bypassable, etc.) and/or operational purpose though.

18. Separate NGOM for this tariff administration 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.

19. The Summary of Decision, states in the first bullet that the receipt of "regulated subsidy or tariff exemption" by generators (DG) does not change the requirements of metering for tariff administration, as currently shown in Rules 21, Section F. This section does not distinguish between "subsidized" and "non-subsidized" DG and permits other options than utility owned/grade NGOMs for certain tariff administrations.

20. The Decision adopted CEC's recommendation that NGOMs need not be utility owned if the meters are acceptable and conform to the requirements of Rule 22. This option applies to GFs with multiple NEM-eligible and/or non-NEM eligible generators and is proposed in pending ALs SCE 1971-E, SDG&E 1776 and PG&E 2792-E (Revisions to Rule 21)

21. GFs with multiple NEM-eligible and/or non-NEM eligible generators without non-export relay may require interconnection studies, additional interconnection facilities and distribution system modifications for the total rated or limited export capacity of the GF.

22. Cost allocation for such interconnection studies and distribution system modifications is per D. 02-03-057 and D.03-02-068. The Decision Section VI confirmed that non-NEM generators are not exempt from those costs, subject to future Commission decisions. The Decision also allocated the liability for costs that cannot be readily attributed to the non-NEM eligible generators according to the generators share of annual expected energy to that generated by the entire GF.

23. It is reasonable that customer are allowed to agree to aggregation of all NEM-eligible generators under an energy component-only crediting NEM tariff to avoid extra meter costs for relatively small bundled rate credits.

24. One GFIA for GFs of NEM and/or non-NEM eligible generators under multiple tariffs is preferable to avoid duplication and contradictions. It should contain all provisions of the existing NEM agreements.

25. SCE's proposed GFIA-CT contradicts the Decision by prohibiting power exported by non-NEM generators to be used at other than the load on the same account.

26. SCE's proposed GFIA-CT violates PUC 2827 (j) by requiring insurance for NEM-eligible generators.

27. Language in the proposed tariffs is not consistent and accurate with regards to the use of the words "power, energy, electricity, combined technology, multiple tariffs".

THEREFORE IT IS ORDERED THAT:

1. The proposed tariffs and alternates, NEM-CT (CT-NEM for SCE), shall be replaced by incorporating the "stacking" method of net energy export crediting in existing NEM tariffs, the requirement for NGOMs on the non-NEM eligible generators deleted, unless required for OATs, operational purposes or with a power purchase agreement, and the NGOM requirements referred to and incorporated into Rule 21.

2. The existing NEM tariffs (for PG&E NEM, NEMFC and NEMBIO; similar for SCE and SDG&E) shall be revised to state that multiple generators on the same service account will be treated under their applicable tariffs; multiple NEM-eligible generators may require NGOM per Rule 21 for each type of crediting (bundled rate or energy only); NGOM at the NEM-eligible generators and/or load metering may also be required in case non-NEM eligible generators without non-export relay per Rule 21 are connected on the same service account. Also, the existing NEM tariffs shall make clear that the maximum NEM-eligible capacity and the liability limits provisions of a GF under multiple NEM tariffs are not cumulative and per PUC 2827 (j). Any prohibition of NEM-eligible and non-NEM eligible generators on the same service account shall be deleted from the NEM tariffs.

3. Rule 21, Section F.3 shall be revised to make the proposed (PG&E AL 2792-E, SCE AL 1971-E, SDG&E AL 1776-E) Rule 22 (SDG&E Rule 25) NGOM requirements applicable to NEM-eligible generators in a GF under multiple tariffs, as stated in the Decision Summary.
4. Rule 21, Section I shall refer to Section F for NGOM requirements in GFs comprising non-NEM eligible generators without non-export relay.
5. Rule 21, Section F shall contain all three NGOM options; the proposed TOU, the alternate reversible or bi-directional meter option per Finding 15, and the customer selected option for combined NGOM under an energy-only credit NEM tariff per Finding 23.

6. PG&E's proposal (Special Conditions 5) of prioritizing application of NEM energy export credits under multiple tariffs to consumption charges is to be deleted. Existing NEM tariffs should be amended to state that energy credits cannot be used on aggregated accounts of the GF unless generated by dairy Biogas generators.
7. The existing GF Interconnection Agreements shall be revised to include references to the technical data in the Applications for Interconnection and shall incorporate any changes and Appendices required for GFs with multiple NEM-eligible and/or non-eligible generators.
8. Standby and other tariffs affected by this resolution shall be revised as required and discussed above (PG&E in particular).
9. Tariffs shall not include the statement in Findings 26 or liability requirements contrary to PUC 2827 (j).
10. Terminology shall be precise and uniform as much as possible within tariffs and between utilities and ambiguous words avoided (e.g. "electricity", "power" versus "energy")
11. Above Ordering Paragraphs shall be incorporated by and become effective for PG&E, SCE and SDG&E within 30 days of the effective date of this resolution.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on May 25, 2006; the following Commissioners voting favorably thereon:

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STEVE LARSON
Executive Director