PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

I.D.# 8259

ENERGY DIVISION **RESOLUTION E-4228**

February 20, 2009

R E S O L U T I O N

Resolution E-4228. Pacific Gas & Electric Company (PG&E) submits new electric tariff NEMCCSF – Net Energy Metering Service for City and County of San Francisco Municipal Load Served by Hetch Hetchy and Solar Generators. Approved with modifications.

By Advice Letter 3363-E filed on November 17, 2008

SUMMARY

This Resolution approves with modifications PG&E's new tariff NEMCCSF. It requires that all "environmental attributes" of the self generated energy be retained by the City and County of San Francisco (CCSF), but provides credit to CCSF only for the generation component of the energy produced by Hetch Hetchy Water and Power At-Site Photovoltaic (PV) Generating Facilities. This resolution also requires clarifications to be made to the tariff language.

BACKGROUND

Existing Net Energy Metering (NEM) tariffs apply to retail customers per Public Utilities (PU) Code Section 2827. Since the City and County of San Francisco (CCSF) is not a PG&E retail customer for its entire load the California Legislature enacted and then amended PU Code Section 2828.

The first version, Assembly Bill (AB) 594, signed by the Governor on September 24, 2004, authorized the CCSF to designate specific photovoltaic (PV) generation facilities meeting specified conditions as "Hetch Hetchy Water and Power (HHWP) solar generation facilities." Upon the CCSF's first designation of such a facility, the law provides PG&E with 10 days to submit to the Commission an advice letter (AL) establishing a special NEW rate for CCSF solar generation serving on-site load.

Under AB 594, the total peak generating capacity of all HHWP solar generation is not to exceed 5 megawatts (MW) and each individual photovoltaic generation project is not to exceed one MW of peak generation capacity.

On a monthly basis, any electricity exported to PG&E's grid will, for each Time-Of-Use (TOU) period, result in either a monetary credit, or an offset against the invoice created pursuant to the existing PG&E/CCSF Interconnection Agreement (CCSF IA)filed with the Federal Energy Regulatory Commission (FERC). The credit or offset is valued at the generation component of the energy charge of the applicable TOU tariff. AB 594 gives the Commission discretion to

increase this credit to reflect any additional value derived from the location or environmental attributes of such a facility.

Annually, a true-up must be performed, and if the total electricity delivered to the site by PG&E since the previous true-up is less than the energy exported to the grid, the CCSF receives no credit or offset for the electricity exported to the grid in excess of the electricity delivered to the site from the grid. Such an arrangement would terminate 1) upon notice from the CCSF or 2) upon the CCSF engaging in retail sales to PG&E's customers as a result of becoming a Community Choice Aggregator (CCA), or 3) upon the CCSF's municipalization.

The provisions of PU Code Section 2828 were subsequently amended by Assembly Bill (AB) 2573, signed into law by the Governor on September 29, 2006. AB 2573 authorized two different types of HHWP photovoltaic electricity generation arrangements:

1) HHWP at-site solar generation.
HHWP at-site solar generation incorporated almost all of the existing provisions established by AB 594 - remote load is not credited, credit is issued at the generation component of an identified TOU tariff, and surplus credit is lost at an annual true-up. AB 2573 made some revisions, however: the maximum total peak generation for CCSF under the new program increased from 5 megawatts to 15 megawatts, and the tariff would no longer terminate should CCSF become a CCA or a municipal utility.

2) HHWP remote solar generation.
As a result of AB 2573, PG&E and the CCSF negotiated amendments to the terms of the FERC approved CCSF IA to permit the CCSF photovoltaic facilities to serve remote load. Since the CCSF IA serves as the "tariff" for the HHWP remote solar generation portion of the statute, this Advice Letter and Resolution does not apply to HHWP solar facilities generating electricity where load is remote from the generating site.

PU Code 2828 section (f) provides that:
"Pacific Gas and Electric Company shall file an advice letter with the
Commission, that complies with this section, not later than 10 days after the
City and County of San Francisco first designates the specific generation facilities that will comprise HHWP solar generation. The Commission, within 30 days of the date of filing of the advice letter, shall approve the advice letter or specify conforming changes to be made by Pacific Gas and Electric Company to be filed in an amended advice letter within 30 days."

On November 5, 2008, the CCSF notified PG&E that it is designating solar facilities located at PIER 96 (Account #8BFRG8BF) as its first HHWP at-site solar generation. In accordance with this requirement, PG&E submitted this AL with proposed Electric Rate Schedule - NEMCCSF in a timely fashion.

NOTICE

Notice of AL 3363-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section 3.14 of General Order 96-B.

PROTESTS

PG&E's Advice Letter AL 3363-E was timely protested by the CCSF on December 8, 2008. PG&E replied to the protests of the CCSF on December 15, 2008.

CCSF's protest

CCSF states the following in its protest:

1. CCSF should receive all value and credits associated with the "Environmental Attributes" of its solar generators.

   The proposed tariff states that

   > "Ownership and use of the "Environmental Attributes" associated with the electricity delivered to the electric grid by the HHWP At-Site Solar Generation Facility and purchased by PG&E shall be retained by PG&E".

   This violates PUC Section 2828(j) that states that

   > "Ownership and use of the environmental attributes associated with the electricity delivered to the electric grid by HHWP at-site solar generation and HHPW remote solar generation shall be determined by the Commission in accordance with Article 16 (commencing with Section 399.11 of Chapter 2.3 of Part 1" (aka Renewable Portfolio Standard (RPS)).

   Decision (D.) 07-01-018, Ordering Paragraph (OP) #3 states:

   > "The Commission should allow all renewable DG system owners to retain the RECs (Renewable Energy Credits) produced by their facilities irrespective of whether or not they receive ratepayer funding from programs such as CSI (California Solar Initiative), SGIP (Self Generation Incentive Program), or net metering."

   The text of D.07-01-018 also refers to D.02-10-062 which articulates policy to encourage the installation of additional renewable DG facilities, which were included in the definition of renewable generation under RPS to encourage their installation.

   The Commission's determination that system owners, rather than PG&E, should retain the RECs is particularly telling considering the stark contrast between the magnitude of ratepayer-funded incentives that other customers will receive relative to CCSF. CCSF solar facilities will only receive the net metering payments under AB 594. PG&E's proposed tariff language must be modified to meet the statutory requirement of the legislation and so as to read in the second Paragraph under Applicability:

> "Ownership and use of the "Environmental Attributes" associated with the electricity delivered to the electric grid by the HHWP At-Site Solar Generation Facility and purchased by PG&E shall be retained by CCSF".

CCSF's protest continues as follows:

2. <u>CCSF should receive Net Metering credit for the "Generation Component" of the otherwise applicable Demand charge as required by AB 594.</u>

   In drafting AB 594, the Legislature specifically stated that CCSF's eligible solar generation provided to PG&E shall:

   > For each TOU period, resulting in a monetary credit to be applied monthly as a credit or offset against the invoice created pursuant to the Interconnection Agreement and **shall be valued at the generation component of the appropriate TOU tariff** (PUC Section 2828(c)).

   In contrast, PG&E has limited the requirements of AB 594, proposing that:

   > For each TOU period …shall be valued at the generation component **of the Energy Charge** of the appropriate TOU tariff (PG&E proposed tariff Sheet 27833-E).

   PG&E's larger TOU Customers pay three different charges for their service – a flat customer charge, a per kWh energy charge, and a per kW demand charge based on the highest recorded usage during the month. Each of these components is then further broken down into various components – a **generation component**, distribution component, transmission component, and other components.

   CCSF should receive a net-metering credit for the demand charge based on the difference between what demand would have been with and without the solar generation.

   Further support for CCSF's position is found in AB 2466, signed into law on September 28, 2008, which allows other local governments to use net-metering. In AB 2466 the bill credit is limited to:

   The TOU electricity **generation component of the electricity usage charge** of the generation account, multiplied by the quantity of electricity …exported to the grid during the corresponding time period. (New PUC Section 2830(a) (2), effective January 1, 2009).

In AB 594 the Legislature clearly stated that the credit applies to the generation component of the "appropriate tariff", not just the "electric usage charge" as AB 2466 does.

CCSF's protest continues as follows:

3. <u>The resolution should be effective as of December 17, 2008</u>

   Under the statuary requirement the tariff implementing AB 594 must be approved by the Commission by December 17, 2008. Rule 7.3.1 of General Order (G.O.) 96-B allows for Resolution to become effective "if a statute … specifically authorizes an AL to go into effect on a date different from that otherwise provided by these General Rules."

PG&E's reply to CCSF's protest

1. <u>CPUC should look for guidance to the entire history of the DG/REC discussion</u>

   PG&E agrees that the language of AB 594 is clear about the CPUC determining ownership of the environmental attributes in accordance with the RPS legislation. However the entire history should be considered, not just the treatment of net metered customers (i.e. solar and small wind serving on-site load), for which the CPUC determined that the RECs for all power (serving on-site load or providing a bill credit) initially belongs to the system owner. Because a single channel for metering is used, there is no record of the customer's actual usage or export to the grid. PG&E bills the customer only according to its net usage at the end of a billing cycle and the customer is essentially using the grid as a battery.

   In contrast, AB 1969 and PG&E's implementing tariffs E-PWF (Eligible Public Water Facility Power Purchase Agreement (PPA)) and E-SRG (Small Renewable Generation PPA) clearly indicate that the renewable attributes are conveyed to PG&E for exported electricity and count towards compliance with PG&E's RPS.

   PG&E believes that AB 594 established a program more like tariff E-SRG because:
   - E-SRG and NEMCCSF can only offset simultaneous load occurring behind the meter. There is no use of the grid as a "battery".
   - Unlike NEM which typically uses one channel, E-SRG and NEMCCSF uses two separate channels.
   - NEM does not discuss ownership of the export to the grid, while the statute for E-SRG and NEMCCSF makes it clear that export becomes PG&E's property.

   Furthermore, the generation component of the energy charge (or credit) for NEMCCSF includes all generation energy costs, including the fully bundled rates for any renewable purchases, etc. (i.e. RPS purchases).

   The Assembly Floor analysis of AB 594 states that "The benefit for PG&E as a result of this net metering agreement comes from the lower costs of purchasing this electricity under

TOU tariffs versus retail rates and having the electricity purchased meet its RPS requirements under state law."

PG&E's reply to CCSF's protest continues:

2. The Generation component of the Demand charge is not credited on similar tariffs NEM-BIO and NEM-FC, and AB 594/2466 language differences are easily explained.

   At the time AB 594 was enacted, many of PG&E's tariffs had a negative value as the generation component of the demand charge – including tariff E-19P, the likely tariff Pier 96 will be assigned, and A-10, the tariff cited in CCSF's protest. Clearly the legislature did not intend PG&E to charge CCSF a demand charge for export under AB 594 and PG&E has understood that this is the reason the generation component of the demand charge was not included when the statute was crafted. At the time AB 2466 was passed, all of PG&E's tariffs had a positive value for the generation component of the demand charge.

   Contrary to what CCSF argues, "generation component" used in AB 594 to describe the rate component to be used in the CCSF net metering credit calculation, has consistently been interpreted by CPUC to represent the "generation component of the energy charge" of the applicable rate schedule.

   PUC Section 2827.8(b) (NEM credits for wind generators over 50 kW) uses the same "generation component" language that was later incorporated into PUC Section 2828. Long established NEM tariffs for large wind, biogas and fuel cell generators provide credits for export based on the generation component of the energy charge only.

PG&E's reply to CCSF's protest continues:

3. Other issues

   It is noteworthy that under the SGIP any Hetch Hetchy customer was eligible for SGIP funds if it was a PG&E electric or gas customer. The PV installation at Pier 96 therefore received $ 3.00 per Watt.

   PG&E would like CCSF to begin taking advantage of the NEMCCSF tariff as soon as possible but points out that the December 17, 2008 effective date is only established by statute in case the CPUC adopts the tariff as filed. Alternatively, the statute allows the Commission to order PG&E to amend the tariff, and still be in compliance with the requirement for action within 30 days.

DISCUSSION

We discuss the two issues raised by this AL, disagreeing with PG&E on the first issue (CCSF should receive all attributes), but agreeing with the utility on the second issue (not crediting the generation component of the demand charge).

Energy Division has reviewed the AL, protest of the CCSF and PG&E's reply to the protest.

1. Environmental attributes (or RECs)

We agree with the CCSF that D.07-01-018, Ordering Paragraph (OP) #3 clearly applies to PG&E's proposed tariff NEMCCSF because this tariff is a net (energy) metering tariff that only credits generation up to consumption. Therefore the NEMCCSF tariff paragraph under "Applicability" should read: "Ownership and use of the "Environmental Attributes" associated with all the electricity generated by the HHWP At-Site Solar PV Generation Facility shall be retained by CCSF."

We disagree with PG&E's arguments for the following reasons:

- Like other NEM tariffs, the proposed tariff provides for banking of monthly credits for a year and then trues them up against charges for the year. There is no compensation for overproduction delivered to PG&E's grid. The NEMCCSF tariff actually trues up kWh, which mimics use of the grid more like a battery than the true up of the monthly monetized kWh provided by the other NEM tariffs.
- Other NEM tariffs under TOU otherwise applicable tariffs also require two channel meters (able to measure separately the flow in both directions) and even the NEM tariff for solar and small wind generators may use this option.
- Other NEM tariffs have language that states that excess energy will be retained by PG&E without compensation.

In D.07-01-018 most parties strongly agreed that ownership of RECs should not be split between the producer and the utility, assigning all of them to the producer. This principle makes sense for accounting simplicity and since generators under NEM tariffs are generally not oversized for economical reasons (forfeiture of overproduction) and only minimal REC assignments to the utility would occur therefore.

2. Generation component of Demand charge

Utility rates usually have fixed customer charges and variable Energy rates. The energy rates are unbundled into Generation, Transmission, Distribution, Public Purpose, Nuclear Decommissioning and other components.

Some TOU tariffs also include Demand charges, which are unbundled into Generation, Transmission and Distribution Components.

PU Code Section 2828(c) states that

> "…electricity exported … shall be valued at the generation component of the appropriate TOU tariff."

The term "electricity" is generally equated with "energy" (kWh), regardless of voltage, power factor, or other attributes, like demand, and the term "component" is singular in this legislation.

Accordingly, NEM tariffs under PU Code Sections 2827.8, 2827.9 and 2827.10 credit the generation component only, and not the demand component, of the energy charge.

However, PU Code Section 2828(c) states:

> "The Commission shall determine if it is appropriate to increase the credit to reflect any additional value derived from the location or the environmental attributes of, the designated HHWP solar generation."

Thus CCSF asks the Commission to increase the credit that PG&E's tariff would give it, by giving CCSF credit for the generation component of the <u>demand</u> charge.

At this point however NEM tariffs under PU Code Sections 2827.8, 2827.9 and 2827.10, which are similar to the proposed tariff, do not credit the customer-generator for its generation component of the demand charge. The report on the cost and benefits of net energy metering, due by the end of this year under PU Code Section 2827(c)(4), may result in changes to the tariffs under Proceeding R. 08-03-008.

Therefore it would be premature and inconsistent for the Commission to give CCSF credit for the generation component of the demand charge.

3. <u>Other issues</u>

We agree with PG&E's Reply position that the Commission timely fulfilled the statute when it commenced this resolution draft process in accordance with Commission Rules 7.5.2 and 7.6.2 upon receipt of PG&E's AL, followed by protest, and reply to the protest, allowing for due review, and by scheduling it for the earliest Commission calendar date.

4. <u>Clarifications</u>

We request that the following editorial changes be made to the proposed NEMCCSF tariff for clarification:

a. Change the title and each applicable occurrence to: "Net Energy Metering Service for City and County of San Francisco Municipal Load Served by Hetch Hetchy and At-Site Photovoltaic Generating Facilities." This is to clarify that tariff only applies to At-Site PV solar systems.
b. Clarify, where applicable, "meter" as "utility meter" or "PG&E meter" and "grid" as "PG&E grid".
c. Change the last paragraph under "Applicability" to say: "HHWP At-Site PV Generating Facility Interconnections in portions of San Francisco where PG&E has a network grid may be export limited." CCSF would not know where the networks are and therefore could not notify PG&E.

d. Delete or change last sentence under "Rates" to: "Costs to administer this tariff will be funded through bundled customer rates." This is to clarify that not all implementation costs, like meters and grid modifications, are funded through bundled customer rates. This sentence does not generally appear in other tariffs though.
e. Change the second paragraph under "Billing" to read "Any electricity exported to the PG&E grid by a HHWP At-Site PV Generating Facility shall be valued in dollars at the generation component of the Energy Charge of the Appropriate TOU Tariff for each time-of-use period, and applied monthly as a credit or offset against the invoice created pursuant to the Interconnection Agreement." Delete the remainder of the paragraph because it is a repetition of the previous sentence or violates the required carry-over of credits to the end of the year.
f. Change the second sentence of the third paragraph under "Billing" to "A separate true-up shall be performed annually for each site served …"
g. In the second sentence of the fourth paragraph under "Billing" add "site" to "For any HHWP At-Site PV Generating Facility site …"
h. Under "Special Conditions 2." change "…Parallel Operation, the customer generator must …" to "… Parallel Operation, CCSF must …"

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, and will be placed on the Commission's agenda no earlier than 30 days from mailing.

FINDINGS

1. CCSF is not a retail customer of PG&E therefore other net energy metering (NEM) tariffs do not apply.
2. Assembly Bill 594 directed PG&E to file an Advice Letter to implement a NEM tariff for HHWP At-Site PV generation that credits the CCSF for electricity exported.
3. The proposed tariff is modeled after the existing net energy (NEM) tariffs for PG&E bundled customers.
4. The essence of proposed and existing NEM tariffs is to offset a customer's energy purchase needs but to not create a generator of energy for sale; therefore, NEM tariffs do not compensate the customer-generator for excess energy exported to the PG&E grid.

5. D.07-01-018 ruled that NEM customer-generators retain all environmental attributes of the self-generation.
6. The Commission interprets "electricity" as used in Section 2828 to mean "energy", measured in kWh.
7. AB 594 requires electricity to be credited at the generation component (singular) of the appropriate TOU tariff.
8. Existing NEM tariffs each apply to an otherwise existing tariff (OAT) and do not credit the generation component of the demand charge of the OAT.
9. AB 594 allows the Commission to determine if it is appropriate to increase the credit to reflect any additional value derived from the location or the environmental attributes of the designated HHWP solar generation.
10. Accordingly CCSF asks to increase the credit PG&E's tariff would give it, but it would require a proceeding to do so, and the Commission has not increased the credit for any DG to date.
11. Crediting the generation component of the demand charge for the proposed NEMCCSF tariff would be inconsistent with treatment adopted in other NEM tariffs.
12. CPUC is in compliance with AB 594 by acting upon PG&E's filed tariff within 30 days. This is evident by placing this draft resolution on the Commission calendar.
13. The proposed tariff should be revised per Clarifications a. through h. of the Discussion Section 4.

THEREFORE IT IS ORDERED THAT:

1. The request of PG&E to provide a new electric rate schedule NEMCCSF as requested in Advice Letter 3363-E is approved with modifications.

2. PG&E shall change the second to last paragraph of the "Applicability " section to read: "Ownership and use of the "Environmental Attributes" associated with all the electricity generated by the HHWP At-Site Solar PV Generation Facility shall be retained by CCSF."

3. PG&E shall make Clarifications a. through h. of the Discussion in its proposed tariff.

4. PG&E shall submit a supplemental AL revised per Ordering Paragraphs 3 and 4 within 10 days.

5. The tariff, as modified by this resolution, shall be effective as of this date.

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 February 20, 2009, the following Commissioners voting favorably thereon:

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Paul Clanon
Executive Director

STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

I.D.# 8259

January 16, 2009 **E-4228**

TO: PARTIES TO PG&E's ADVICE LETTER 3363-E

Enclosed is draft Resolution E-4228 of the Energy Division. It will be on the agenda at the February 20, 2009 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:

Honesto Gatchalian
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
Energy Division

California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Fax: 415-703-2200
Email: wmb@cpuc.ca.gov

Any comments on the draft Resolution must be received by the Energy Division by Friday, January 30, 2009. Those submitting comments must serve a copy of their comments on 1) the entire service list appearing below, 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 Thursday, February 5, 2009, six days after comments are due, 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.

/s/

Brian Schumacher
Supervisor
Energy Division

Service List:

San Francisco Public Utilities Commission
1155 Market St. 11th Floor
San Francisco, CA 94103
Attention: James Hendry

Brian K. Cherry
Vice President, Regulatory Relations
Pacific Gas and Electric Company
P.O. Box 770000, Mail Code B10C

San Francisco, CA 96177
E-mail PGETariffs@pge.com

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CERTIFICATE OF SERVICE

I certify that I have by mail this day served a true copy of Draft Resolution E-4228 on all parties in these filings or their attorneys as shown on the service list in the cover letter.

Dated January 16, 2009 at San Francisco, California.

/s/

Werner Blumer

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.