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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue Implementation and Administration of California Renewables Portfolio Standard Program.	Rulemaking 08-08-009 (Filed August 21, 2008)

ADMINISTRATIVE LAW JUDGE'S RULING ON ADDITIONAL COMMISSION CONSIDERATION OF A FEED-IN TARIFF

This ruling files and serves a proposal by the Commission's Energy Division regarding key elements for a feed-in tariff. It also proposes taking official notice of the California Energy Commission 2008 Integrated Energy Policy Report Update. Respondents shall, and parties may, file and serve comments, reply comments and motions for hearing as provided herein. For the purpose of this ruling, respondents are Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company.

1. Background

In compliance with Pub. Util. Code § 399.20, each electrical corporation has a tariff for the purchase of electricity generated from certain electrical facilities. These are facilities powered by renewable resources owned and operated by a public water or wastewater agency retail customer of the electric utility. The tariffs are for projects up to 1.5 megawatts (MW), and most tariffs also include a standard contract.[1] Three electrical corporations (Southern California Edison

[1] The tariffs of some electrical corporations are limited to projects up to 1.0 MW.

Company, Pacific Gas and Electric Company, and San Diego Gas & Electric Company) also have a tariff/standard contract for the purchase of electricity generated from certain electrical facilities powered by renewable resources that are owned and operated by other customers. These tariffs/standard contracts are also for projects up to 1.5 MW.[2]

By Amended Scoping Memo and Ruling dated June 5, 2008, the assigned Commissioner sought comments and reply comments on several topics. One topic was whether or not the project size eligible for the tariffs/standard contracts should be increased from 1.5 MW to 20 MW. Parties filed comments on July 4, 2008, and reply comments on July 14, 2008. Among the comments, some parties stated that additional terms and conditions might be needed if the eligible project size is increased from 1.5 MW to 20 MW.

On October 10, 2008, the Commission's Energy Division (ED) sought further data from parties. The information and comments were received on October 24, 2008. A second ED data request was issued on January 28, 2009, focusing specifically on contract terms and conditions. Data responses and comments were received on February 4, 2009. On February 10, 2009, ED held a workshop regarding standard terms and conditions for feed-in tariffs (FITs).

Topics addressed at the workshop included: categories for project size; location restrictions; insurance requirements; project development security; project assurance/delivery term security; performance obligation/energy delivery obligation; damage calculation/energy replacement damage amount; and guaranteed project milestones. In addition, several questions were framed

[2] See Decision (D.) 07-07-027, D.08-02-010, D.08-09-033; Resolution No. E-4137.

for discussion, including those within the following subject areas: project queue process; maximum permissible number of years for a project to come on-line; duplication, if any, in certain terms and conditions regarding security and milestones; and whether or not a standard contract among all utilities is desirable.

2. ED FIT Proposal, Comments, Replies, Motions

ED has prepared a recommendation for key elements of an FIT. (*See* Attachment A.) This proposal is based on ED's work with respondents and parties (*e.g.*, comments, reply comments, data responses, workshop).

Respondents shall, and parties may, file and serve comments and reply comments on the ED FIT Proposal. Comments and reply comments should also identify and discuss any other issue the party believes should be considered at this time. These pleadings should present and discuss all relevant arguments, facts and law asserted by each respondent and party to be material and relevant to the ED FIT proposal and issues.

Motions for hearing may be filed and served on the schedule stated below. Respondents and parties are reminded that pleadings must be verified; respondents and parties must use their best efforts to employ the same outline in their pleadings (in order to facilitate understandability, consistency and completeness); and motions for hearing must include certain specific information. (*See* September 26, 2008 Scoping Memo and Ruling, pages 7-9 and Ordering Paragraphs (OPs) 2, 3, 5 and 6.)

3. Official Notice

It is proposed that official notice be taken of the California Energy Commission (CEC) 2008 Integrated Energy Policy Report Update (California Energy Commission 2008, 2008 *Integrated Energy Policy Report Update*,

CEC-100-2008-008-CMF). (Rule 13.9 of the Commission's Rules of Practice and Procedure.) In particular, this includes elements that deal with the FIT such as, but not necessarily limited to, the Executive Summary and Chapter 1. Respondents and parties may comment.

4. Next Step

The record is composed (with limited exceptions) of documents and pleading formally filed in this proceeding with the Commission's Docket Office, and served on the service list. (*Id.*, pages 8-9 and OP 5.) This ruling puts the ED FIT Proposal in the record and provides for comments and reply comments. The comments and reply comments will be filed, and will become part of the record.

After receipt of these comments and replies, I anticipate preparing a proposed decision based on the complete record (*e.g.*, comments and reply comments from parties in July 2008, the March 2009 ED FIT Proposal, comments and reply comments on the ED FIT Proposal). I may later ask each respondent to prepare a draft FIT and standard contract to permit consideration of more specific or exact language, if necessary.[3]

IT IS RULED that:

1. Respondents shall, and parties may, file and serve comments and reply comments on the Energy Division Feed-In Tariff Proposal (Attachment A), proposed official notice, and anything else necessary for full consideration of the issues. For the purpose of this ruling, respondents are Pacific Gas and Electric

[3] For example, *see* March 12, 2007 Amended Scoping Memo and Ruling of Assigned Commissioner Regarding Implementation of Pub. Util. Code § 399.20 (Assembly Bill 1969). Also *see* November 18, 2008 Administrative Law Judge's Ruling Requiring Draft Revised Tariffs Based on Senate Bill 380.

Company, Southern California Edison Company, and San Diego Gas & Electric Company.

2. Comments shall be filed and served within 14 days of the date of this ruling. Reply comments shall be filed and served within seven days of the date of comments. Motions for hearing shall be filed and served within five days of the date reply comments are filed, and responses to motions within three days of motions.

Dated March 27, 2008, at San Francisco, California.

/s/ BURTON W. MATTSON
Burton W. Mattson
Administrative Law Judge

ATTACHMENT A

Feed-in Tariff for Renewable Generators Greater Than 1.5 MW

Energy Division Staff Proposal

March 27, 2009

1. Background

Public Utilities Code § 399.20 requires each electrical corporation to establish a tariff for the purchase of electricity from an eligible renewable electric facility at a market price determined by the Commission. The Commission implemented § 399.20 by establishing a Feed-In Tariff program (called a feed-in tariff since customers are "feeding into" the grid) in Decision (D.)07-07-027[4] on July 26, 2007. The decision adopted tariffs and standard contracts for the purchase of this electricity up to 1.5 MW from water and wastewater customers and other renewable customers.[5] The Commission's implementation of § 399.20 was considered Phase 1 of the Tariff and Standard Contract Implementation for RPS Generators. Resolution E-4137 approved the final Phase 1 tariffs and standard contracts and set the effective date of the tariffs as February 14, 2008. The Phase 1 utility tariffs also have a standard contract for the purchase of renewable energy product as its attachment.[6] The tariff is open to utility customers according to the terms of the program defined in D.07-07-027. Lastly, on September 28, 2008, SB 380 (Kehoe) amended Public Utilities Code § 399.20.[7] As a result of SB 380, the Commission is currently considering modifications to the existing program for generators up to 1.5 megawatts (MW).[8]

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[4] http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/70660.htm

[5] The tariffs went into effect on February 14, 1008 with the adoption of Resolution E-4137.

[6] The Sierra Pacific tariff does not have a standard contract as an attachment.

[7] http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_380_bill_20080928_chaptered.html

[8] This staff proposal does not contemplate modifications to the existing FIT program from 1 – 1.5 MW

On June 5, 2008, the Commission put forth in R.06-05-027[9] an Amended Scoping Memo and Ruling Regarding Phase 2 of Tariff and Standard Contract Implementation for RPS Generators.[10] The purpose of the scoping memo was to investigate various issues related to the feed-in tariff (FIT) program, including expanding the eligibility of the FIT contracts from 1.5 MW up to 20 MW. Parties filed comments on July 3, 2008.[11] Some parties indicated in their comments that there should be additional terms and conditions if the tariffs are going to be available to projects of a larger size. On October 10, 2008, Energy Division issued a Data Request to parties of R.08-08-009 for further information and received comments on October 24, 2008.[12] Based on the comments received, Energy Division issued a second Data Request on January 28, 2009 and received comments on February 4, 2009.

On February 10, 2009, Energy Division held a workshop regarding potential contract terms and conditions for the FIT program if it were expanded. The purpose of the workshop was to clarify party positions and identify areas of consensus regarding the terms and conditions for projects greater than 1.5 MW. Utilizing party responses to the data requests and comments at the February 10th workshop, a staff proposal for additional "terms and conditions" is outlined below. Since the content of those data requests is not currently part of the record of the proceeding, parties are welcome to repeat their responses to the data request(s) when they submit comments on this staff proposal.

2. Energy Division Staff Proposal Introduction

To help expedite consideration of FIT contract terms and conditions for projects greater than 1.5 MW, outlined below is a staff proposal from Energy Division that recommends specific terms and conditions. The Staff Proposal has three separate sections:

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[9] This rulemaking was closed on August 21, 2008, and superseded by R.08-08-009 (http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/87123.htm)

[10] http://docs.cpuc.ca.gov/efile/RULC/83784.pdf

[11] http://docs.cpuc.ca.gov/published/proceedings/R0605027.htm#documents

[12] See FIT website to review the questions from the October 10, 2008 Data Request. http://www.cpuc.ca.gov/PUC/energy/Renewables/FITPhase2.htm

- General FIT program guiding principles that should be taken into consideration, to the extent possible, when developing FIT terms and conditions
- FIT program design elements that impact the FIT terms and conditions (e.g., project size)
- Specific FIT terms and conditions for projects greater than 1.5 MW

Staff proposes that additional terms and conditions apply to projects greater than 1.5 MW, and by *additional*, we assume that the existing feed-in tariffs already approved by the Commission serve as the starting point of each utility contract and that additional terms and conditions would be included if the project size is larger than 1.5 MW. This proposal does not suggest modifications to the existing terms and conditions of the existing utility contracts, all of which are available for renewable projects up to 1.5 MW.[13] See Appendix A for a comparison between the existing program and the staff proposal.

Lastly, this proposal does not suggest modifying the price paid under the FIT. Staff proposes to separately consider price in a new proceeding or as an additional phase in this proceeding, which is explained below (see Section 4.f).

3. FIT Guiding Principles

Staff proposes that the Commission consider the following general FIT program guiding principles, to the extent possible, when modifying the FIT program in the future. Staff introduces these guiding principles as a framework for making modifications to the existing FIT program. Staff does not assert that this staff proposal addresses all of the guiding principles below, since some of these guiding principles will be addressed during future phases of the FIT program. In general, the FIT program should:

1. Be open to all RPS-eligible technologies, but the program design elements should focus on technologies that possess sufficient renewable potential

[13] The existing FIT contracts can be accessed via the CPUC website: http://www.cpuc.ca.gov/PUC/energy/Renewables/hot/feedintariffs.htm

and scale to address state renewable and climate change goals within the 2020 timeframe.

2. Provide sufficient payment to stimulate untapped markets and build new projects, but not overpay or reduce the ability of competitive solicitations to put downward pressure on price.
3. Focus on projects of a certain size that can effectively mitigate the market and regulatory constraints (such as site control and permitting) that slow down development of larger renewable projects.
4. Be simple and transparent to the greatest extent possible and lower the transaction costs for the seller, buyer, and the regulator.
5. Equitably allocate risk, relative to project size, between the buyer and the seller.
6. Utilize long-term renewable planning to determine the appropriate total FIT program capacity and cost cap relative to the program's impact on greenhouse gas (GHG) reduction strategies, system reliability, and electricity rates.
7. Adopt program design elements and a contract that adequately address project viability.
8. Facilitate interconnection of projects that efficiently utilize the existing distribution system.
9. Compliment, but not impede or replace existing programs, especially the California Solar Initiative and the existing Renewable Portfolio Standard programs, which are both aimed at achieving the state's energy policy and climate change goals.
10. Provide some market certainty for project development, but also avoid creating a "boom and bust" market for renewable energy that brings many projects online quickly, but does not create a long-term sustainable marketplace for renewable energy.

4. FIT Program Design Issues

a. Utility Applicability

Staff proposes that the expanded feed-in tariff program only apply to the three large investor-owned utilities (IOUs), i.e., PG&E, SCE, and SDG&E, and not other CPUC jurisdictional investor-owned utilities.

Rationale: The small CPUC jurisdiction IOUs are too small to contract with multiple projects above 1.5 MW. Those IOUs can continue to utilize RPS program contracting process for all projects, including the existing 1.5 MW FIT, bilateral contracts, and competitive solicitations.

b. Eligible Generator Project Size

1.5 – 10 MW

Staff proposes expansion of the eligible generator project size in the existing must-take FIT program from 1.5 MW to 10 MW. Projects over 10 MW should not be eligible for a feed-in tariff. Consistent with the existing rules in the feed-in tariff program, the IOUs will not have to file an advice letter with the Commission upon execution of a feed-in tariff contract. The agreement will be effective according to the terms of the contract.

>10 – 20 MW

Staff also proposes that utilities be allowed to use a utility-specific standard-offer contract, which is not must-take, for >10 - 20 MW projects. The RPS proforma contract, which the IOUs submit with their yearly RPS procurement plans, could serve as the standard-offer contract. Once the Commission approves the proforma contract (which would happen at the same time that the Commission approves the yearly RPS procurement plans), the utility can use the proforma contract as a standard-offer contract for projects >10-20 MW. The IOUs will have discretion whether or not to sign the standard-offer contract. For all projects under this standard-offer agreement, the IOUs will only need to submit a Tier 2 advice letter to the Commission, which would become effective after 30 days unless the Commission suspends the advice letter. Since the Commission will not have an opportunity to review the viability of these larger sized contracts, the IOU cannot use these contracts for flexible compliance, i.e., justification for deferring RPS procurement obligations.

IOUs should also continue to procure projects over 10 MW through existing procurement mechanisms, including competitive solicitations or bilateral negotiations. Lastly, projects between 1.5 MW and 20 MW may choose to participate in the competitive solicitation process, if they believe the FIT (offered up to 10 MW) and the standard offer contract (offered between 10 and 20 MW) are not suited to their project needs.

Rationale: The scale and total project costs of a 10 MW project are large enough for a project developer to be able to effectively utilize the existing contracting processes that are available. Furthermore, as the size of a project increases from 1.5 to 20 MW, the impact on the distribution system increases. Staff worked with Energy and Environmental Economics (E3)[14] to determine the number of megawatts that could easily interconnect to the existing distribution substations without the need for upgrades. This analysis (see Appendix B) found that there is sufficient technical potential to make significant progress in reaching the RPS program goals. We estimated that there is about 5000 MW of solar PV potential to easily interconnect solar PV at little cost. The limit supports guiding principle #1, which proposes that a technology must possess sufficient renewable potential and scale to address state renewable and climate change goals. We also found that approximately 69% of the IOU distribution substations can interconnect projects 10 MW or smaller. Thus, a 10 MW limit supports guiding principle #8, which states that a FIT program should facilitate interconnection of projects that efficiently utilize the existing distribution system. Lastly, a 10 MW limit does not preclude full utilization of the distribution system if a substation can easily interconnect more than 10 MW. In that instance, the same distribution substation could serve more than one project.

In addition to efficient utilization of the distribution substation, limiting the FIT program to 10 MW and smaller supports guiding principle #3: focusing on smaller projects can effectively mitigate the market and regulatory constraints (such as site-control, permitting, and transmission-access) that impede development of larger renewable projects. Specifically, projects under 10 MW are not expected to need new transmission and are expected to have fewer environmental permitting and viability issues relative to projects greater than 10 MW. As a result, these projects should be able to come online within the 18 month project development window described below.

[14] http://www.ethree.com/home.html

c. Total Program Capacity Size Cap/ Wait-List

For projects 1.5 to 10 MW, staff recommends that 1000 MW be proportionately allocated across the utilities according to the share of coincident peak-demand. This program cap is in addition to the existing program capacity cap applicable to projects under 1.5 MW. The allocation methodology of using coincident peak-demand is the same methodology used in the current program, which was defined in D.07-07-027. Each utility will be able to sign-up projects for the tariff until the utility-specific capacity cap is reached. As is currently the case, the utilities will be required to publicly post the number of projects, the size of the projects, and other key information on their website. The utilities will also be required to keep a wait-list if the program cap is reached. If the program is fully subscribed, then projects will sign-up for the wait-list on a first-come first-serve basis. The Commission adopted this procedure in D.07-07-027.

As projects withdraw from the program or fail to meet commercial online date requirements, projects on the wait-list will have an opportunity to sign a FIT contract. This program cap is provisional and will remain in place until the Commission revisits the total FIT program capacity cap and IOU-specific allocation as part of long-term renewable planning. At that time, the Commission could consider raising or lowering the program capacity cap as it evaluates the appropriate mix of resources to ensure GHG reductions, system reliability, and just and reasonable rates.

> *Rationale:* Long-term renewable planning can properly balance the risk and cost offered by the generators in the FIT program. The CPUC currently evaluates the IOU RPS plans every year. This one year planning cycle will allow the CPUC to revisit the program cap for each IOU based on renewable resource need. In the meantime, a total program cap of 1000 MW is enough to see if there is sufficient program interest.

d. Length of Time to Achieve Commercial Operation

Projects that sign-up for the feed-in tariff currently have 18 months from the time the contract is executed to come online. We propose keeping this provision. We propose that the contract be automatically cancelled if it does not come online within 18 months from the date the contract is executed. We also propose allowing a one time 6 month extension if the project can successfully demonstrate that the cause of project delay was due to regulatory

processes, such as transmission or generator permitting, or interconnection. A generator must demonstrate that any regulatory delays were outside of its control by showing the necessary applications and fees were filed and paid on time. A delay due to business risk, such as lack of project financing or equipment delivery, is not a justification for granting an extension of the project's commercial operation date. Thus, a project has a maximum of 2 years to come online.

If a project fails to come online in 2 years, and there is still room available under the total program size cap for a new project to sign-up for the feed-in tariff, then the project can sign a new contract. If, on the other hand, the project fails to come online and there is a wait-list, the project will be placed at the end of the wait-list. FIT projects may also be eligible to bid into a competitive solicitation or negotiate a bilateral contract with an IOU if they encounter project development challenges at some point during the 18 month project development window.

> *Rationale*: A shortened project development window will help address project viability because, by default, only viable projects will be able to come online within the 18 month project development window. Conversely, the process for granting extensions due to regulatory delays outside of the generator's control will ensure that viable projects will not be canceled prematurely due to regulatory delays.

e. Uniform FIT contract terms

For projects between 1.5 and 10 MW, all three IOUs will have consistent terms and conditions that apply to larger projects. Each IOU shall start with its existing 1.5 MW FIT contract and add or amend identical existing terms and conditions for projects greater than 1.5 MW. The Commission will require the utilities to submit the uniform terms and conditions as part of this proceeding. Separately, the three utilities shall be required to work with each other and the parties to standardize all FIT terms and conditions across all three investor-owned utilities. The Commission should require that a uniform standard offer contract be filed with the Commission no later than July 1, 2010 and in effect no later than January 1, 2011.

> *Rationale:* While the existing 1.5 MW feed-in tariff contract is simple and short, each utility FIT contract is different. As we expand the program, it is important to move towards a more standardized approach to must-

take contacting across the three investor-owned utilities. The current proposal would have a set of uniform "additional terms and conditions" be added to the non-uniform existing feed-in tariff contracts. Ultimately, the Commission should require uniform standard contracts for all terms. Having standard contract terms for projects below 10 MW will increase the transparency of the program and lower the transaction costs for the buyer, seller, and the regulator.

f. FIT contract price

Staff recognizes that the price level and rate structure of the proposed FIT is an essential element to the success of the program. A future phase of this proceeding will address what the appropriate price should be.

Rationale: This will give the Commission additional time to carefully balance the cost, risk and timing of the overall RPS Program with the cost, risk and timing of an expanded FIT Program.

g. Excess Sales versus Full Export

In D.07-07-027, the Commission authorized two options under the FIT program: full export and net excess sales. Full export is similar to the European model where all of the energy production is sold to the buyer. FIT projects using net excess sales first serve their own load and then sell the remaining energy production to the buyer. We propose that the expanded FIT program only be available as a full export tariff.

Rationale: The net excess sales option does not provide the utility sufficient certainty regarding the expected electricity output of the renewable projects. This uncertainty undermines guiding principle #6, which states that the IOUs should utilize long-term renewable planning to determine the appropriate total FIT capacity and cost cap relative to the program's impact on GHG reduction strategies, system reliability, and electricity rates. Allowing projects to serve their load first will undermine the IOUs' ability to effectively conduct long-term renewable planning.

5. Additional Terms and Conditions for Projects between 1.5 MW and 10 MW

a. Location Restriction

Any project is eligible for the feed-in tariff offered by any IOU if the project is developed within the CAISO control area.

> *Rationale:* This will provide generators the flexibility to site projects where they can (1) quickly and cost-effectively interconnect at the distribution level and (2) utilize higher quality renewable resources. However, project sponsors are not allowed to submit multiple projects to multiple utilities, utilizing the same project site. Transparent reporting of existing contracts will be available on each utility website in order to prevent a project sponsor from submitting the same project to multiple utilities.

b. Project Milestones

The only project milestone that the project sponsor needs to guarantee is the commercial online date. The project sponsor must submit a project development milestone timeline to the utility upon signing the FIT contract and provide quarterly milestone progress reports to the IOU so that the IOU and Commission can monitor project development progress.

> *Rationale*: The shortened project development window will help ensure project viability by forcing projects to come online quickly (commercial online date milestone) or be removed from the FIT program. This approach gives the project sponsor flexibility in achieving the other project milestones, but still provides the IOUs a firm guarantee that a project will either come online or be canceled within 18 months, assuming that an extension is not granted due to regulatory delays (see section 4.d).

c. Project Development Security

Projects must post a project development security of $20/kilowatt ($30,000 – $200,000, assuming a 10 MW program cap) at the time of signing the contract.

> *Rationale*: Generators posting project development security upon signing the contract will help ensure project viability. In addition, project development security mitigates the risk of non-viable projects

fully subscribing the program cap and, effectively, preventing more viable projects from signing a FIT contract.

d. Performance Assurance/Delivery Term Security

The performance assurance/delivery term security would be zero for projects 1.5 – 5 MW and 5% of expected total project revenue for projects greater than 5 MW.

Rationale: Performance assurances mitigate the risk of a generator not honoring its contractual arrangements with the utility after the project has come online. It also provides the IOU with a mechanism to quickly collect performance security with minimal litigation risk.

e. Performance Obligation/Energy Delivery Obligation

The current FIT contracts have language that support this term. For example, current FIT contracts allow the IOUs to terminate a contract if the generator does not deliver within a specified timeframe. The existing contracts also require the seller to maintain and operate the facility according to good utility practice or prudent electrical practices. We propose keeping this existing language, but adding an explicit term for performance obligation so that generators must meet a minimum threshold for utility planning purposes. We propose the performance obligation to be 140% of expected annual net energy production based on two years of rolling production. In addition, utilities will bear the risk of scheduling deviations if the generator 1) participates in the California Independent System Operator's Participating Intermittent Resource Program (PIRP), 2) provides the utility, as scheduling coordinator, with timely information on its availability, or 3) provides the utility with remote access to metered output.

Rationale: If the utilities are required to enter into 10 to 20 year FIT contracts, they need to be able to count on the energy deliveries in the future to effectively conduct long-term renewable planning. Thus, a minimum threshold is needed.

f. Damage Calculation

Capped damages should be equal to contract energy price minus average market price for the term year, but not greater than $0.05 nor less than $0.02/kWh.

Rationale: Damage calculation is needed to enforce a performance obligation/energy delivery obligation (section e). Damages should be capped to ensure financeability and investor certainty.

g. Force Majeure and Events of Default

These terms must be included in the FIT contract for projects between 1.5 MW and 10 MW.

Rationale: These terms protect the buyer and seller from events outside of their control.

h. Insurance

These terms should continue as same requirements as existing FIT contracts

Rationale: Existing insurance requirements are adequate even if the size of project expands.

i. FERC Certification

Current SCE and SDG&E standard contracts require the generator to register with the Federal Energy Regulatory Commission (FERC) as a Qualifying Facility (QF). Independently of the tariff/standard contract, PG&E requires the generator to obtain certification at FERC as either a QF or exempt wholesale generator. This language should be removed from the IOU FIT contract, tariff, and related documents.

Rationale: The generator may or may not need to obtain certification from FERC, but that is not a requirement of eligibility for the Commission-approved FIT. In addition, the generator (and not the IOU) should choose which certification option is in the generator's best interest.

Appendix A: Comparison Between Existing FIT Program and Staff Proposal

	Existing FIT program (0 - 1.5 MW)	**Staff proposal for FIT program expansion (>1.5 MW to 10 MW)**
Program Design Issues		
Utility Applicability	All CPUC jurisdictional IOUs	Only the 3 large IOUs: PG&E, SCE, and SDG&E
Total Program Size Cap	500 MW	Additional 1000 MW for all projects in this category
Contract Price	Market price referent	No change
Location Restrictions	Must be an IOU retail customer	Must be within CAISO Controlled Grid
FIT contract terms	Each IOU developed own language based on D.07-07-027	New terms and conditions must be the same across all 3 IOUs
Contract Terms and Conditions		
Length of Time to Achieve Commercial Operation	Within 18 months, with opportunity to extend online date	Within 18 months, with opportunity to extend online date by 6 months for regulatory delays
Excess Sales/Full Export	Projects can choose either excess sales or full export	No choice, all producers must export all energy production
Development Security	None	$20/kW
Performance Assurance	None	5% of expected total project revenue for projects (only applies to >5 MW – 10 MW)
Performance Obligation/Energy Delivery Obligation	Utility can terminate contract if deliveries are not made according to good utility practice or prudent electrical practices	Add minimum requirement: 140% of expected annual net energy production based on two years of rolling production
Damage Calculation	Damages are actual direct damages; they are neither calculated by a formula nor capped	Capped damages equal to contract energy price minus average market price for the term year, but not greater than $0.05 nor less than $0.02/kWh
Insurance	SCE/SDG&E: $2 million (>100 kW) PG&E: $1 million (>100 kW)	No change
FERC Certification	IOUs currently require FERC Certification	Not required

Appendix B: Determination of Appropriate Feed-in Tariff Size

Background and Stakeholder Process

Energy Division staff determined the 10 MW feed-in tariff project size limit based on the information and analysis gained in the 33% RPS Implementation Analysis[15] completed in the Long-Term Procurement Plans (LTPP) proceeding. In this proceeding, Energy Division worked with the consulting firm Energy and Environment Economics (E3)[16] and formed a working group to study a 'Transmission Constrained Scenario' to evaluate meeting a 33% RPS requirement without the construction of new large transmission lines. Parties included the utilities and utility distribution engineers, ratepayer advocates and environmental groups (PG&E, SDG&E, SCE, Community Environment Council, First Solar, and Greenvolts). Energy Division held a workshop on December 16, 2008 to review preliminary results, and parties filed comments on the analysis, which were incorporated into the analysis.

Methodology

In the assessment of a transmission constrained scenario, an estimate of achievable potential for photovoltaics (PV) was developed by evaluating a number of 'screens'. While the gross potential of solar resource in California is vast, the analysis also considered the following criteria to develop achievable potential:

1. Suitable Sites
    - In urban areas;
        - Available large roof area (greater than 0.5 acre flat roof)
    - In rural areas;
        - Available land with low slopes near substations
2. Willing Customers

[15] http://www.cpuc.ca.gov/PUC/energy/Renewables/hot/33implementation.htm

[16] www.ethree.com

- Participation percentage among suitable host sites

3. Ability to 'easily' interconnect to the distribution system

The third screen evaluated the potential to 'easily' interconnect, which provides the basis for establishing the appropriate feed-in tariff size.

The methodology for establishing this was done in the following manner.

1. Define criteria for 'easily' interconnect. Consistent with the purpose of a feed-in tariff, the potential for 'easy' interconnection in the LTPP proceeding was done such that the renewable project (a) makes use of existing distribution system without significant upgrades, and (b) is likely to be built within a relatively short time-horizon.

2. Establish the size range of PV systems that meet criteria. The working group relied heavily on the Rule 21 interconnection standard to define size range of interconnection.[17] Rule 21 specifies maximum generator size relative to the peak load on the load at the point of interconnection at 15%. So, for example, if a generator is interconnected on the low side of a distribution substation bank with a peak load of 20 MW, the maximum Rule 21 interconnection criteria would allow a 3 MW system (3 MW = 15% * 20 MW).

However, the 15% criterion, which is established for all generators regardless of type, was adjusted to 30% for the purposes of determining the technical potential of PV. The 15% limit is established at a level where it is unlikely the generator would have a greater output than the load at the line segment, even in the lowest load hours in the off-peak hours and seasons (such as the middle of the night and in the spring). Since the peak output for photovoltaics is during the middle of the day, PV is unlikely to have any output when loads are lowest. Therefore, a 30% criterion was used for technical interconnection potential estimates. The discussion was held with utility distribution engineers, however, we did not consider formal engineering studies or Rule 21 committee deliberation since the purpose of the analysis was only to define potential.

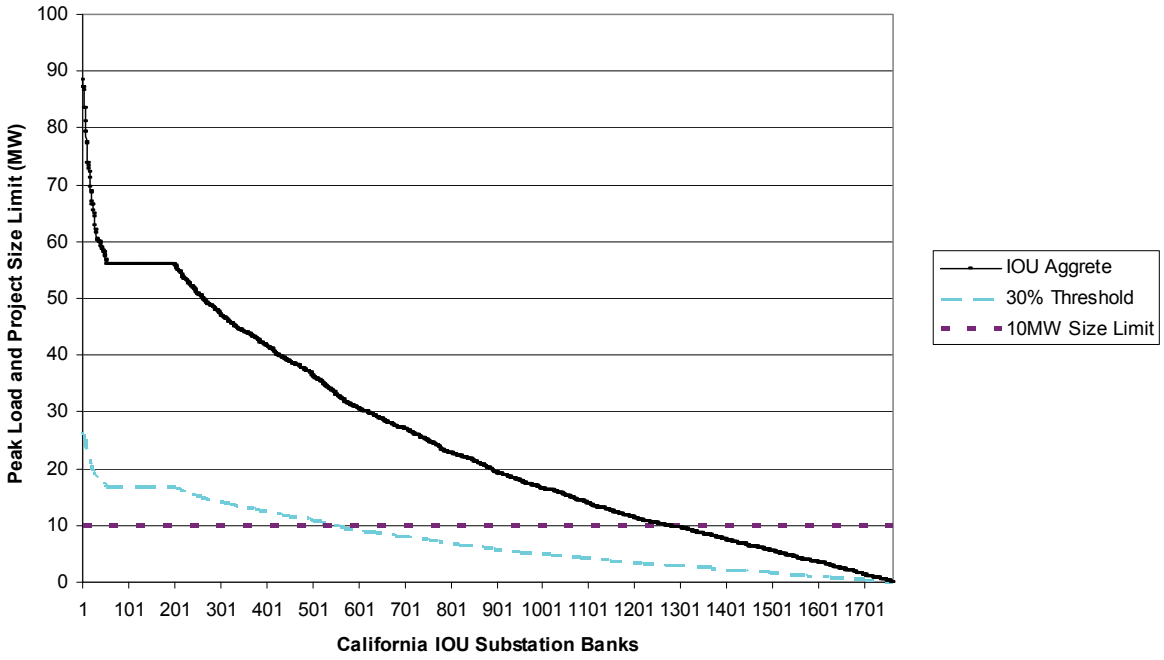
[17] http://www.energy.ca.gov/distgen/interconnection/california_requirements.html

3. Gather utility substation data on peak loading. With the size criteria, we gathered peak load data from distribution substation banks and substations for all of the IOUs for all distribution substations. The maximum size of 'easy' interconnection is then defined by a range of distribution substation bank loads, and the size threshold.

Results

Figure 1 below, compares the 30% size criteria to the substations for each utility distribution substation. The graph shows the maximum size for PV project interconnection if connected directly to the distribution substation bank. From this analysis, it appears that the 10 MW PV system size is the largest possible for the vast majority of distribution system interconnections. If the PV generator is connected at a different point closer to the end of a distribution feeder where the load is lower, then the allowable size of the PV installation would be smaller. However, it is unlikely that a PV system larger than this size can be readily interconnected in a streamlined process.

Figure 1: Comparison of Investor-owned Utility Bank Peak Loads, 30% Threshold and 10 MW Feed-in Tariff Size limit[18]



[18] Note that the chart is adapted from 12/16/08 Workshop presentation for the 33% RPS Implementation Analysis

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Dated March 27, 2009, at San Francisco, California.

/s/ ERLINDA PULMANO
Erlinda Pulmano