

**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)

**FIT COALITION COMMENTS ON
RENEWABLE AUCTION MECHANISM PROPOSED DECISION**

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FIT COALITION COMMENTS ON RENEWABLE AUCTION MECHANISM PROPOSED DECISION

The FIT Coalition respectfully submits these comments on the Renewable Auction Mechanism Proposed Decision (“PD”), pursuant to Rule 14.3 of the California Public Utilities Commission’s Rules of Practice and Procedure. We also note that the Administrative Law Judge granted, via email, a two-week extension to file comments. Accordingly, these comments are timely.

The FIT Coalition is a California-based advocacy group, part of Natural Capitalism Solutions, which is based in Colorado. The FIT Coalition advocates primarily for vigorous feed-in tariffs and “wholesale distributed generation,” which is generation that connects primarily to distribution lines close to demand centers. FIT Coalition staff are active in proceedings at the Commission, Air Resources Board, Energy Commission, the California Legislature, Congress, the Federal Energy Regulatory Commission, and in various local governments around California.

Our recommendations are as follows:

- The PD should dedicate the program to wholesale distributed generation, with all the attendant benefits of generation located close to load, and requiring minimal or no line upgrades
- The PD should require that bid normalization include all locational benefits, akin to the Commission’s decision to include a 10% congestion bonus in implementing the AB 1613 cogeneration feed-in tariff in D.09-12-042
- The PD should focus further on interconnection issues and data availability
- The PD should adjust bidder qualifications so as to avoid inadvertently creating market concentration among a few participants
- The PD should specify a set of confidentiality rules specific to the RAM and completely independent of the Confidentiality Decision
- The PD should include rules against illegitimate splitting of larger projects into smaller projects
- The termination provisions in the PD should be eliminated because they impose an unbearably high financing hurdle on developers; short of elimination of these provisions, the PD should require inclusion of a liquidated damages clause sufficiently high to strongly disincentivize termination or material changes

- The RAM program should include a fixed-price, value-based FIT for projects 5 MW and below, with pricing at the Market Price Referent plus Time of Delivery plus Locational Benefits; this recommendation is congruent with CAISO's pending expansion of Fast Track interconnection to 5 MW and the Commission's support for this expansion
- The Commission should establish procedures to allow for modifications of the RAM program without a new Decision

I. INTRODUCTION

The FIT Coalition commends the Commission for recognizing the importance of wholesale distributed generation ("WDG") as an essential tool for achieving California's Renewables Portfolio Standard (RPS) and greenhouse gas reduction mandates on schedule.

Having commented extensively in the earlier stage of this proceeding, we appreciate the attention given to previous comments and the incorporation in the PD of many parties' suggestions and concerns. Our goal is to maximize the impact of the Commission's laudable new focus on WDG.

The PD includes numerous positive initiatives that will help the burgeoning WDG market substantially. However, based on extensive research, the FIT Coalition concludes that the proposed program design is not optimized to achieve the PD's own stated goals. Among other reasons, because the program is not focused on WDG projects, the planned RAM bid solicitation process will likely result in excessive investor risk, reduced competition and higher ratepayer impact than necessary. We also note that what the Commission calls a "feed-in tariff" in the PD is not a feed-in tariff. The RAM program is, as the name suggests, an auction program and auction programs are not feed-in tariff programs.

Several market design elements will define the success of the RAM program, including most importantly the contractual options and the pricing mechanism. While the proposed decision constructively addresses a number of design elements, the PD should be strengthened in a number of ways. We believe that improvements in program elements of the proposed RAM solicitation process can be easily incorporated to reduce these problems, and we outline specific recommendations related to termination procedures, pricing and interconnection.

Companies make long-term capital investments when they know there will be a stable, sizable and predictable market opportunity; they are far more cautious in the face of

uncertainty and consequent risk. California's renewable energy programs need to be adequately scaled and predictably structured to attract investment sufficient to achieve the state's goals. International feed-in tariff programs have been remarkably successful in many countries and we look to many of these programs for some of our recommendations for improving the proposed RAM program.

II. DISCUSSION

A. **The PD should limit the program specifically to wholesale distributed generation, with all the attendant benefits of generation located close to load**

The FIT Coalition feels that the proposed RAM program is not sufficiently focused on wholesale distributed generation (WDG), with all the attendant benefits of distribution-interconnected renewables close to load. Rather, the Proposed Decision (PD) seems to be focused almost solely on providing a new program for 20 MW and below projects without any consideration of the interconnection and locational benefits of optimally located and interconnected smaller projects. This is a major oversight because the interconnection and locational benefits of WDG represent a large part of the ratepayer value for projects 20 MW and under. Because the locational benefits of distribution-connected energy in terms of ratepayer and ancillary impacts have been well-documented, the FIT Coalition strongly recommends that the RAM program be limited to distribution-connected projects.

The FIT Coalition's predecessors previously provided¹ detailed evidence for the conclusion that distribution-connected energy provides up to 35% higher value to the ratepayer than transmission-connected energy. This value difference arises from several factors, including: avoided network construction costs, avoided line losses, and avoided congestion. Furthermore, ratepayers incur an additional cost of approximately 1.5 cents for every kWh that is stepped down from the transmission grid to the distribution grid. This Transmission Access Charge is applied across the board and is a clear and immediate benefit of interconnection renewable generation to the distribution grid.

Furthermore, when evaluating alternative procurement mechanisms, major differences in ancillary impacts should be considered. A [recent study](#) by Dan Kammen, Director of the Renewable and Appropriate Energy Laboratory at UC Berkeley, and newly

¹ In comments to the Commission submitted by GreenVolts, CleanTech America and the Community Environmental Council, on 6 March 2008 in R.06-02-012.

appointed head of the World Bank's alternative-energy lending program (which represents more than 1/3rd of the bank's total energy lending), specifically addresses this issue with respect to fulfilling California's RPS standards with a robust feed-in tariff (Wei, Kammen, 2010). Policy choices can have marked variation in the effective deployment of renewables, employment and state revenues (even if projects were to come online with similar PPA prices under alternative programs). Moreover, local air pollution benefits from increased deployment of renewables will often stay out-of-state if projects are out-of-state.

In general, WDG has been [recognized by the CPUC](#) as having very substantial potential for timely and cost-effective deployment within the existing distribution infrastructure (CPUC Long-term Procurement Proceeding (LTPP), R.10-05-006). Moreover, a review of the 2010 [RETI project database](#) reveals that out-of-state projects are considerably more expensive than in-state projects, so much of the ostensible benefit of allowing out-of-state projects disappears under the latest RETI analysis.²

Therefore, probably the most significant improvement to the proposed RAM would be to limit the program to projects connected to the distribution grid. However, if the Commission does not concur with this limitation, the FIT Coalition proposes below a refinement of the bid normalization procedures that would capture the locational benefits within a broader auction process, as well as a number of other improvements to the proposed RAM program.

Perhaps most substantially, we recommend that the PD be modified to include a value-based feed-in tariff (FIT) for projects 5 MW and below, with pricing at the Market Price Referent plus Time of Delivery plus Locational Benefits. We believe such a modification is feasible at this point and that it would help improve the proposed RAM program considerably.

B. The PD should focus further on interconnection issues and data availability

The Commission is to be commended for attention to the critical issue of transmission access data availability. This builds on work completed by the Commission and IOUs with respect to the IOUs' new solar PV programs, in which SCE (the first out of the gate) made some data available to bidders with Google Earth maps.

² EarthJustice highlighted this conclusion in their recent comments on renewable energy integration models in the Commission's long-term procurement proceeding: <http://docs.cpuc.ca.gov/published/proceedings/R1005006.htm> (filed on Sept. 21, 2010).

However, we recommend that the Commission go further than the PD currently provides and require that the IOUs make more detailed information available online about each distribution line and IOU-jurisdictional substation's capacity. Much of this work has been completed already by the IOUs and E3 and Black & Veatch (which have been studying this issue in the long-term procurement proceeding and as part of the Commission's ReDEC process). Accordingly, the FIT Coalition believes that detailed interconnection availability information could be, and should be, made available on a short-term basis. This information will dramatically enhance the process for many smaller developers and community groups seeking to develop community-based renewable energy projects.

Similarly, the PD should provide more direction with respect to improving the interconnection process for IOU-jurisdictional interconnection (generally 20 MW and below, though each utility varies). Interconnection delays and expenses are now probably the single biggest hurdle for WDG in California. The IOU and CAISO queues are severely backed up, with the number of 20 MW and under project applications surging in recent years. The FIT Coalition has been active at CAISO in seeking to improve the CAISO's proposal for resolving the queue issues – known as the GIP proposal – and we support some aspects of the CAISO proposal. However, we are also pressing CAISO and now FERC to focus more specifically on improving the IOU and CAISO internal processes for reviewing and interconnecting projects. We hear from various parties that the IOU interconnection teams are highly understaffed and overworked. We also heard from IOUs in CAISO workshops that software is antiquated to the degree that only one engineer at a time can work on each project. Clearly, there is much room for improvement in interconnection processes and these issues are in many situations CPUC-jurisdictional.

CAISO's proposal is focused on transmission lines, leaving the distribution interconnection process to IOU discretion – which is Commission-jurisdiction. Accordingly, **the FIT Coalition urges the Commission to turn its attention to this highly important issue and either open a new proceeding that would focus exclusively on interconnection issues or to add a phase to this proceeding that would focus on this issue.**

As an example of the issues facing small developers, see the attached letter on one developer's experience (Attachment A).

C. The Commission should specify procedures for “normalization” of bids

The FIT Coalition supports normalization of bids in order for IOUs to arrive at a fair comparison of costs. We note also that the administrative work of normalizing bids would be avoided under a standard FIT contract. The PD allows each IOU to develop its own normalization formula, but does not establish any minimum requirements for factors that must or must not be included, nor does it require approval by the Commission or staff for the formulae used. While the presumption is that factors such as transmission and locational benefits would be included and used to evaluate the total delivered cost of energy, this cannot be taken for granted. IOUs may be subject to factors beyond the interests of the Commission and ratepayers in establishing these formulae, and some oversight is warranted, particularly given the fact that IOUs are more aggressively pursuing ownership of renewable energy projects because of tax benefit changes that allow IOUs to absorb federal tax benefits from renewable energy projects. Accordingly, the FIT Coalition recommends that the Commission require a number of factors be included in the IOUs’ normalization procedures.

1. The PD should require that bid normalization include locational benefits, akin but not limited to the Commission’s decision to include a 10% congestion bonus in implementing the AB 1613 cogeneration feed-in tariff in D.09-12-042

The Commission’s recent inclusion of locational benefits as part of its [AB 1613 implementation](#), by providing a 10% congestion bonus for qualifying projects, demonstrated that the Commission recognizes the ratepayer value associated with the location of generation facilities. Locational benefits also include reduced transmission losses and reduced infrastructure required to interconnect renewables closer to load that result from optimally sited WDG. Essentially, **locational benefits refer to using the existing grid more efficiently** by avoiding unnecessary improvements, avoiding transmission line losses and in-filling the grid with projects that don’t require upgrades.

The most appropriate mechanism to appropriately account for locational benefits value is to include this value in the normalization of bids. While the resulting contract price for any accepted RAM project would remain the price bid by the developer, the ranking methodology would be adjusted for this normalization.

As part of the requirement for utilities to publish information about preferred sites, we recommend a similar formula for awarding locational benefits. Accordingly, IOUs

should be required to identify areas that are eligible for a set “bonus” based on each type of locational benefit. For example:

- All projects located in congested zones (as already identified) receive an x % congestion bonus
- All projects located in “close-to-load” zones (as defined per utility) receive a y % avoided line loss bonus
- All projects connected to the distribution grid receive a \$z/MWh bonus for avoided transmission access charges

Under such a system, the utilities will not need to calculate a project-by-project normalization for locational benefits (which would likely be too cumbersome). Rather, each project will be easily normalized based on pre-identified zones.

The FIT Coalition strongly recommends that such a normalization procedure, which ensures fair valuation of locational benefits, be included as an IOU requirement in the RAM program.

D. The PD should adjust bidder qualifications so as to avoid inadvertently creating market concentration among a few participants

The FIT Coalition agrees that project viability criteria are an essential component of any procurement program and that such criteria should be commensurate with the risk presented by the potential for non-viable bids. However, we feel that a better balance between project and bidder viability criteria and ratepayer benefits should be struck.

1. Overly stringent viability criteria prevent new market entrants

Imposing overly stringent criteria on developers will have the effect of both limiting new market entrants and potentially increasing ratepayer costs. Imposing high financial barriers to market entry disadvantages smaller companies and limits the involvement of community groups or less experienced developers. In particular, the criterion that developers demonstrate they have completed a similar size project, or that they have such a project in process, will limit participants to only a few companies, depending on how stringently this criterion is applied. If applied literally, it will severely limit participation.

The FIT Coalition feels, conversely, that market participation should be expanded as broadly as possible, while ensuring that non-serious market participants do not unduly

impact the success of the program. This is of course a hard balance to strike but we feel that the balance chosen in the PD is a little off the mark.

In particular, we are concerned about the Developer Experience screen (section 7.6.2.2), which requires prior or current experience with a project of similar size. While this is clearly a legitimate concern, two factors weigh against it: a) the rationale for establishing this program is based upon the fact that projects of this size have had difficulty participating in existing programs and few have been built despite the substantial technical potential. Since few projects have been built, few potential participants have had the opportunity to meet this criterion, and there is little opportunity for new entrants to gain such experience in other procurement processes, creating a Catch-22; b) the remaining screens, and the substantial investment required to meet them, are more than sufficient to avoid burdening the program with unrealistic and non-viable bids.

In addition, we are concerned about the lack of guidance provided in defining the meaning of “similar” size projects or consistency between IOUs’ application of the screen. A company, either new or well-established, will have a strong incentive to hire experienced project personnel even if that company has not yet built a project similar to the one to be bid; on the other hand, even a company that has been associated with similar projects in the past may not have the same personnel available for the one being bid, while persons experienced in such projects will be prohibited from forming a new company to submit a bid.

The FIT Coalition recommends revising the provision requiring prior experience with development of similar size facilities to apply only to the involvement of qualified personnel, as is the practice in many RFP solicitations. This will avoid creating artificial barriers to effective competition instead of limiting opportunity for new entrants, and generally promote innovation and cost reduction.

Overly stringent project viability criteria may unnecessarily increase upfront costs and investor risk, leading to project exclusion, market concentration, and reduced competition. This will result in higher bid prices and ratepayer impact while not offering significant benefit. In circumstances where unduly large numbers of non-viable bid submissions are a concern, preference should be given to screening measures that promote an open and competitive market; substantial capacity-based application fees and contract acceptance deposits may be an appropriate, effective and easily administered solution to this problem.

2. The lack of restrictions on seller concentration will similarly concentrate market power

Market concentration is a closely related issue. The Commission feels that it would be impractical to enforce restrictions on seller concentration (section 9.3). In a market in which seller concentration is not or cannot be restricted, program designers must pay particular attention to factors that either discourage or engender market concentration due to the increased risk of improper functioning of the market, including market domination and effective exclusion of competition.

Our concern about undue market concentration is in evidence in the recent SCE solar PV reverse auction in which 2/3rd of the 36 contracts awarded went to just two companies. We do not begrudge these two companies their success, but we are concerned that the RAM program not result in a similar degree of market concentration. There are many reasons to avoid such concentration, including the risk of companies folding and thus eliminating many of the accepted projects; price collusion; companies achieving an early market lead that prevents others from entering the market; and possible undue leverage by these companies exercising their market power to extract concessions that otherwise wouldn't be granted. Clearly many of these concerns are speculative at this point, yet there is good evidence from other markets that such concerns are well-founded. For these reasons, the FIT Coalition urges the Commission to relax viability criteria further as well as limiting seller concentration to 25% of each auction if and only if the auction at issue is fully subscribed.

E. Confidentiality rules should be relaxed further for aggregated price information

The FIT Coalition supports the PD's suggestion that parties explore all reasonable means to make price and other information widely available (sec 11.4). However, reference to the Confidentiality Decision potentially undermines this intent and we recommend that any reference to the Confidentiality Decision be removed.

The structure of the RAM, where relatively frequent auctions are held with the intent of capturing cost decreases in the market, warrants a set of confidentiality rules specific to the program. We recommend that the aggregate information that is currently an optional reporting requirement in the PD instead be required of the utilities for each auction within 30 days of the close of the auction.

Knowing that a project is likely to be within the winning bid range will bring in more bids in this range, discourage bids at higher prices, and prevent developers from wasting investment in potential projects that are unlikely to win contracts. When information on contract prices for electricity is not available to potential suppliers, the risk involved in developing qualifying proposals is greatly increased. Markets are more fair and efficient when all buyers and sellers have access to up-to-date information – and ratepayers will benefit from a more fair and efficient market.

F. The Commission should include rules against illegitimate splitting of larger projects into smaller projects

A significant risk with the proposed RAM program is illegitimate splitting of larger projects into projects small enough to qualify for RAM. This appears to be one of the main reasons for the queue clogging in California's SGIP, though we have insufficient data from CAISO and IOUs to confirm this speculation. In the RAM program, there is a real risk of illegitimate splitting because of the potentially higher PPA prices under this program. Accordingly, the FIT Coalition recommends that the PD be revised in line with [CAISO's SGIP rules](#) (Nov., 2009) or a similar set of rules. Most RAM projects will probably interconnect to IOU-jurisdictional distribution lines. And even though CAISO has recently proposed eliminating SGIP by collapsing it into the same process as the LGIP, into a single GIP, the current SGIP rules are nevertheless appropriate for consideration in the RAM program context.

CAISO applies the following rules in evaluating a potential SGIP project:

1. Interconnection Requests for new Generating Facilities proposing to interconnection to the ISO Control Grid with an aggregated nameplate capacity of 20 MW or less will be evaluated for consideration under the ISO SGIP.
2. Interconnection Requests for an expansion/increase of an existing Generating Facility with the resultant aggregated nameplate capacity of 20 MW or less will be evaluated for consideration under the ISO SGIP.
3. In determining whether the Interconnection Request(s) shall be evaluated on the basis of the aggregate capacity of the multiple devices, the ISO shall consider whether the multiple devices effectively seek a single point of interconnection or injection to the ISO Controlled Grid;
4. In determining whether the Interconnection Request(s) include multiple energy production devices at a site, the ISO shall consider the ownership structure and any Affiliated relationships of the owner of the project or Generating Facility or the entity submitting the Interconnection Request(s).

These rules are helpful in the RAM context because if a RAM bid shows the same interconnection request for, as an example, two 20 MW solar projects, it would be deemed ineligible as a RAM application. Each RAM bid should have a separate interconnection request pending with CAISO or an IOU if the bid at issue is seeking to share an interconnection point with one or more other projects that would, combined, exceed the maximum RAM size of 20 MW. Conversely, if a RAM bid is for a ten MW project and it will share the same interconnection point (whether CAISO-jurisdictional or IOU-jurisdictional) with another ten MW project, it will be deemed eligible. It is only if the sum of the RAM projects sharing an interconnection point exceed 20 MW that the RAM bid(s) should be rejected as ineligible.

G. The termination provisions in the PD should be eliminated because they impose an unbearably high hurdle on financing of projects

Several developers have expressed grave concern over the insecurity of contract terms under the termination and change provisions expressed in the PD (section 10.9), following indications from lenders that these terms create unacceptable risk in otherwise viable projects. The FIT Coalition strongly agrees with these concerns because we fear that these termination provisions would inject the possibility of complete program failure into the RAM program before it is even off the ground. It is highly unreasonable for developers, after obtaining a RAM contract, to invest millions of dollars in developing and constructing renewable energy projects with the threat of contract termination hanging over their heads at all times.

Neglecting to provide contract certainty to developers may dramatically increase risk to the seller, which will slow the market and add substantial risk-related financing costs to the energy price – if and when financing can be obtained. There is already sufficient anecdotal evidence that financing institutions will refuse to finance a project specifically based on the termination clause referenced in the PD.

The balance the PD strikes between ratepayer costs and developer risk is way off. There are many ratepayer protections inherent in the RAM program, including: a price cap on bids, transparent long-term pricing for winning bids; a relatively small program cap of 1,000 MW; public review of PPA prices before Commission approval; performance deposits, etc. Conversely, a developer's entire portfolio may be at risk under the proposed termination and change conditions. The overall effect will be to increase the cost of energy to ratepayers under this 1 GW program, disadvantaging both the public and market development.

It is not reasonable to expect, as the PD discusses, that project developers will seek a different program to sell their projects to IOUs because, as the PD itself notes, there is a programmatic gap for 20 MW and below projects in California. **We urge the Commission to revise the PD and eliminate the termination provisions discussed in section 10.9 of the PD.**

In the case that the PD retains a termination clause similar to the proposed clause, the FIT Coalition recommends that a form of liquidated damages be specified to protect the project investment. These damages would require that the project owner be paid an amount commensurate with the remaining future payments lost at termination.

H. The Commission should reconsider inclusion of a , fixed-price FIT for projects 5 MW and below, congruent with CAISO’s pending expansion of Fast Track interconnection to 5 MW and the Commission’s support for this expansion

The PD considers the various arguments in favor of a fixed-price, value-based FIT, supported by many parties, including the FIT Coalition, GPI, Sierra Club, etc., and rejects these arguments in favor of the RAM. However, material facts have come to light in recent months that warrant reexamination of this major market design issue. In particular, the CAISO has proposed expanding the Fast Track interconnection process from 2 MW to 5 MW in its recent [Generator Interconnection Procedures](#) (GIP) proposal. The Commission supported this expansion in its [comments](#). Moreover, it seems clear, based on the history of the RPS program and our discussions with developers, that projects 5 MW and below are unlikely to be able to compete very well in the RAM program.

Accordingly, the FIT Coalition recommends that the PD be modified to allow for a fixed-price FIT for projects 5 MW and below. With Fast Track interconnection and a FIT in place, a robust new market for projects large enough to make a significant difference in meeting California’s ambitious renewable energy and greenhouse gas reduction goals will be created. At the same time, projects of this size are small enough to be interconnected and permitted relatively quickly in most situations and small enough to not arouse significant community opposition. For example, a 5 MW solar project will require from 25 to 40 acres. This is not insignificant, but it is a far cry from the many thousands of acres required by some of the larger solar energy proposals for California. A 5 MW wind farm would consist of 2-5 turbines, each of which would have a footprint of ¼ to ½ an acre. Numerous farms of 2-5 turbines could be constructed rapidly around the state under our suggested FIT, if the pricing is favorable.

Pricing is the key issue with respect to a FIT, of course, and price discovery through market forces works differently for a FIT than it does under an auction mechanism. For example, we already know from experience with AB 1969's 1.5 MW and under FIT that Market Price Referent (MPR) plus Time of Delivery (TOD) pricing has failed to spur much development. This program is now over two years old and still only a handful of new projects have come online under this program. Two new projects are [now online](#) in PG&E territory, with 21 new projects pending. [Only one project](#) is online in SCE territory and it is not clear if this is a new project or an existing project with a new contract. SCE does not offer public data for pending projects.

It is fair to state that the AB 1969 program has thus far been a failure. Indeed, this is why the Legislature passed SB 32 last year, to expand the size cap from 1.5 MW to 3 MW. It is also a motivating factor for the Commission's RAM proposal. We can conclude from the AB 1969 program that MPR plus TOD pricing is insufficient to spur a significant market in this size range.

Two options present themselves to snatch success from the jaws of defeat: 1) increase the project size cap; 2) increase the price paid; or a combination of the two. The FIT Coalition recommends, as already mentioned, that the project size cap be expanded to 5 MW, in line with CAISO's recent proposal to expand Fast Track to 5 MW. We would prefer to see pricing somewhere between MPR plus TOD and 1.5 times MPR plus TOD, which would still likely result in ratepayer savings when compared to the RAM pricing proposal, because the PD sets a *de facto* reasonableness level at 1.5 times MPR plus TOD (it is not at all clear at this point how many projects will be bid above MPR plus TOD, but surely some will be).

However, due to the recent FERC decision³ clarifying that states may not set above-market FITs even for projects 20 MW and below, we recommend that the Commission simply expand the current value-based FIT from 1.5 MW to 5 MW, with pricing at MPR plus TOD and locational benefits⁴ (as discussed above), and provide this contractual

³ *California Public Utilities Commission*, 132 FERC ¶61,047 (Docket Nos. **EL10-64-000** and EL10-66-000, issued July 15, 2010. Online at: http://go2.wordpress.com/?id=725X1342&site=indianadg.wordpress.com&url=http%3A%2F%2Findianadg.files.wordpress.com%2F2010%2F08%2Fferc_el10-64-000-and-el10-66-000_cpuc_15july2010.pdf&sref=http%3A%2F%2Findianadg.wordpress.com%2F2010%2F08%2F06%2Fferc-issues-first-major-ruling-on-compatibility-of-state-feed-in-tariffs-with-applicable-federal-energy-law%2F

⁴ Locational benefits pricing is clearly within the purview of the avoided-cost methodology of PURPA (18 C.F.R. § 292.304(e)) and thus allowed by the recent FERC decision. The FIT Coalition was pleased to see the Commission follow a FERC strategy very similar to what we recommended in our comments to FERC with respect to the preemption issue, seeking clarification of the degree to which FERC will exercise deference to state avoided-cost determinations.

option as an additional option for developers of projects 5 MW and below. As a value-based FIT, no preemption issues arise. Developers may prefer to bid into the RAM program and hope for a higher price, but providing developers the option of a FIT or making a bid achieves the right balance between seeking cost certainty, contract certainty and ratepayer savings.

If the Commission agrees that providing a FIT option for projects 5 MW and below is good policy, it will be necessary to also create a carve-out for these projects (if auctions are fully subscribed, as they probably will be). This is the case because if these projects are “must-take,” developers must know how many megawatts will be offered as must-take versus RAM projects. We recommend that the PD be modified to create a carve-out of 250 MW for 5 MW and below FIT projects – 25% of the 1,000 MW pilot program. 250 MW translates to 50-100 FIT projects statewide, depending on the average size of projects over a two-year period. This would, if successful, be a remarkable improvement over the handful of projects that have come online under AB 1969’s 1.5 MW FIT program.

When the Commission implements SB 32, which authorizes the Commission to create a 750 MW FIT program, an additional 500 MW of 5 MW and below projects could be added to the RAM/FIT program, for a total of 1,500 MW in the first two years of the program.

The Commission has broad inherent authority under the California Constitution. Under this authority, the Commission could enact the proposed 5 MW and under FIT without any legislative direction. However, having SB 32 in law provides some support for our proposed 5 MW and below true FIT. The Commission’s broad inherent authority also allows the Commission to exceed SB 32’s 3 MW suggested cap increase without concerns about legal challenges.

It will also be important for FIT projects to register as Qualifying Facilities, again pursuant to the July FERC decision. The PD opts against requiring QF registration to qualify as a RAM project and we are not suggesting that the Commission should require such. However, it is clear under recent FERC guidance that for this value-based FIT program to be compliant with federal law that projects receiving FIT contracts will have to register as QFs.

Our suggested 5 MW and below FIT program will reduce risk for developers and ratepayers. An important goal of renewable energy procurement programs is to clarify and minimize risk, including energy supply and price security for both suppliers and consumers. As a general rule, lower risk translates into a lower required return for

investors and a lower cost of energy from a project, all else being equal. The impact of renewable energy policy design on financing costs has been well-documented in recent studies (Gross, et al., 2007). The International Energy Agency, for example, conducted a survey of renewable energy policies and concluded that designs which minimize investor risk can reduce renewable electricity costs by 10-30 percent (de Jager & Rathmann, 2008). In California, the Energy Commission identified market certainty and investor security as key policy objectives for implementing a feed-in tariff (Grace, et al., 2008), and the Commission has identified project financing as one of the key risk factors for renewable energy development in California (CPUC, 2008). This focus on financing risk has been made even timelier, however, by the ongoing financial crisis and the inability of many renewable energy project developers to attract capital to their projects. For developers, a pricing policy that is transparent, predictable, clearly defined and easy to understand will decrease the duration and cost of completing a project (Guillet, 2009). From an investment standpoint, simple and clearly defined pricing structures allow for more complete risk identification and uncertainty reduction, leading to a greater number of capital providers and a lower cost of capital.

Contract certainty is also important, especially from the standpoint of development capital. There is a high risk factor associated with competitive bid situations. Developers have to incur costs and substantial time advancing a project that will not be financeable without an off-take agreement. This uncertainty creates a barrier to entry for early-stage capital providers. Mitigating contracting risk by assuring PPAs for eligible projects reduces development expenses, as well as development financing cost and availability, especially during periods of tight credit.

To sum up, by creating a 5 MW and below market-priced true FIT as a second option for developers of smaller projects, the Commission will be partially implementing SB 32 and laying the groundwork for full implementation. Additional pricing options, such as providing a Renewable Energy Certificate second revenue stream on top of the FIT price, as is allowed under recent FERC guidance, should be discussed when the Commission takes up SB 32 in detail. The FIT Coalition will have more comments regarding FIT pricing when the Commission takes up SB 32 later this year.

We believe that many 5 MW and below projects could be developed quickly in California at MPR plus TOD plus congestion bonus, most of which would not require any substantial distribution line upgrades. Moreover, if the PD's directions regarding transmission access transparency are implemented quickly, akin to SCE's recent solar PV program transmission availability data, the Commission would help ensure that

projects that require minimal upgrades will be most prevalent in the true FIT portion of the RAM/FIT program.

I. The Commission should establish procedures to allow for modifications of the RAM program without a new Decision

Because this would be a totally new program, with many potential pitfalls, both large and small, the FIT Coalition recommends that the PD include provisions for staff modifications to the program without requiring a new decision be issued. We recommend that these provisions set a threshold for the type of issue(s) that would trigger a new decision and those that wouldn't, at staff's discretion, with potential review by the ALJ and/or complaints by parties who feel that higher-level review is necessary in any given situation. Our fear is that without such modifications in this new program, if pitfalls are encountered it may take entirely too long to modify the program to get it back on track.

III. Conclusion

We again applaud the Commission for taking this significant step toward unleashing the vast potential of the WDG market. We remind the Commission of the almost 19 GW of WDG potential identified by E3 and Black & Veatch in ReDEC and it is our belief that the recommendations we make in these comments will significantly strengthen what promises to be an excellent start in tapping this enormous potential.

Respectfully submitted,

TAM HUNT

A handwritten signature in black ink, appearing to be 'TH' followed by a long horizontal stroke.

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Cited References

Bolinger, M. (2004). Making European-style community wind power development work in the United States (LBNL-55140). Berkeley, CA: Lawrence Berkeley National Laboratory.

Bürer, M. J., & Wüstenhagen, R. (in press). Which renewable energy policy is a venture capitalist's best friend? Empirical evidence from a survey of international cleantech investors Energy Policy.

California Public Utilities Commission (CPUC). (2008). Renewables Portfolio Standard Quarterly Report to the Legislature. San Francisco, Calif. July 2008.

California Public Utilities Commission (CPUC). (2010). Long-term Renewable Resource Planning Standards, Renewables Portfolio Standard Workshop Presentation: PV Assessment. Black & Veatch, E3. R.10-05-006. San Francisco, Calif. June, 2010.

Chadbourne & Parke (2009). "Trends in Tax Equity for Renewable Energy," Project Finance NewsWire, January 2009.

Commission of the European Communities (CEC). (2005). The Support of Electricity from Renewable Energy Sources. Brussels.

Corfee, K., Rickerson, W., Karcher, M., Grace, B., Burgers, J., Faasen, C., Cleijne, H., Gifford, J., & Tong, N. (2010). KEMA. Feed-In Tariff Designs for California: Implications for Project Finance, Competitive Renewable Energy Zones, and Data Requirements. California Energy Commission. Publication Number: CEC- 300- 2010- 006. Sacramento, Calif.

Cory, K., Couture, T., & Kreycik, C. (2009). Feed-in tariff policy: Design, implementation and RPS policy interactions (NREL/TP-6A2-45549). Golden, CO: National Renewable Energy Laboratory.

Couture, T., & Cory, K. (2009). State Clean Energy Policies Analysis (SCEPA) Project: An analysis of renewable energy feed-in tariffs in the United States (NREL/TP-6A2-45551). Golden, CO: National Renewable Energy Laboratory.

DB Climate Change Advisors. (2009b). Global climate change policy tracker: An investor's assessment. New York, NY: Deutsche Bank Group.

Ernst & Young. (2008). Renewable energy country attractiveness indices. London, UK: Ernst & Young.

de Jager, D., & Rathmann, M. (2008). Policy instrument design to reduce financing costs in renewable energy technology projects. Utrecht, Netherlands: Ecofys International BV. Prepared for the International Energy Agency, Renewable Energy Technology Development.

Fouquet, D., & Johansson, T. B. (2008). European renewable energy policy at crossroads: Focus on electricity support mechanisms. Energy Policy, 36(9), 4079–4092.

Fritz-Morgenthal, S., Greenwood, C., Menzel, C., Mironjuk, M., & Sonntag-O'Brien, V. (2009). The global financial crisis and its impact on renewable energy finance. Paris, France: UNEP Sustainable Energy Finance Initiative, New Energy Finance, Frankfurt School of Finance & Management.

Grace, R., Rickerson, W., Corfee, K., Porter, K., & Cleijne, H. (2009). California feed-in tariff design and policy options (CEC-300-2008-009F). Sacramento, CA: California Energy Commission.

Grace, R., Rickerson, W., Porter, K., DeCesaro, J., Corfee, K., Wingate, M., et al. (2008). Exploring feed-in tariffs for California: Feed-in tariff design and implementation issues and options (CEC-300-2008-003-F). Sacramento, CA: California Energy Commission.

Greentech. Installing rows of solar panels requires getting all your ducks in a row. greentechmedia.com 2010.

Gross, R., P. Heptonstall. and W. Blyth. (2007). Investment in Electricity Generation: The Role of Costs, Incentives and Risks. Imperial College Centre for Energy Policy and Technology. London. Prepared for the Technology and Policy Assessment Function of the UK Energy Research Centre.

Guillet, J. & Midden, M. February (2009). Financing Renewable Energy: Feed- in Tariffs Compared to Other Regulatory Regimes. Proceedings of the Florida Alliance for Renewable Energy Effective Renewable Energy Policies Conference, Gainesville, Florida.

Klein, A., Held, A., Ragwitz, M., Resch, G., & Faber, T. (2007). Evaluation of different feed-in tariff design options: Best practice paper for the International Feed-in Cooperation. Karlsruhe, Germany and Laxenburg, Austria: Fraunhofer Institut für Systemtechnik und Innovationsforschung and Vienna University of Technology Energy Economics Group.

Laurent, C., Rickerson, W., Flynn, H., (2010). Fitness Testing: Exploring the myths and misconceptions about feed-in tariff policies. Meister Consultants Group. Prepared for the World Future Counsel, Hamburg.

Martinot, E., & Sawin, J. (2009). Renewables global status report: 2009 update. Paris, France: REN21 Secretariat.

Mendonça, M., Jacobs, D., & Sovacool, B. (2009). Powering the green economy: The feed-in tariff handbook. London: Earthscan.

Mitchell, C., Bauknecht, D., & Connor, P. M. (2006). Effectiveness through risk reduction: A comparison of the renewable obligation in England and Wales and the feed-in system in Germany. *Energy Policy*, 34(3), 297–305.

Ölz, S. 2008. Deploying Renewables: Principles for Effective Policies. Paris, France. International Energy Agency.

Stern Review. (2006). Policy responses for mitigation: Accelerating technological innovation (Part IV, Chapter 16) The economics of climate change. Cambridge, UK: Cambridge University Press.

Summit Blue Consulting, & Rocky Mountain Institute. (2007). An analysis of potential ratepayer impact of alternatives for transitioning the New Jersey solar market from rebates to market-based incentives (Final Report). Boulder, CO: Summit Blue Consulting. Prepared for the New Jersey Board of Public Utilities, Office of Clean Energy.

Wei, M., Kammen, D. (2010) Economic Benefits of a Comprehensive Feed- In Tariff: An Analysis of the REESA in California. Renewable and Appropriate Energy Laboratory Energy and Resources Group, University of California, Berkeley.

Wiser, R., & Barbose, G. (2008). Renewables portfolio standards in the United States: A status report with data through 2007 (LBNL-154E). Berkeley, CA: Lawrence Berkeley National Laboratory.

Attachment A

One developer's (identifying labels redacted) experience with Fast Track interconnection in SCE territory.

Our experiences with SCE's Rule 21 Interconnection procedure:

As one of the necessary steps to participate in SCE's CREST program, we are required to follow the procedures set forth in SCE's Rule 21 "Generating Facility Interconnections". We have found the rules themselves to be a serious constraint and SCE's administration of those rules make them even more difficult to deal with. Instead of an expedited, efficient, predictable process, there are high costs and long delays and a lack of transparency and predictability. SCE doesn't follow the schedules or procedures set forth in the rules, is unresponsive and uncommunicative and attributes most of its failures to being "overworked" and "understaffed".

We filed our application for interconnection in January, 2010. SCE had an obligation to perform an Initial Review within 10 days of determining that our application was complete and upon our payment of the \$800 Initial Review fee. [Rule 21; C. 1. c. (2)] If we passed that screening process, our projects would qualify for Simplified Interconnection and SCE would provide us with an Interconnection Agreement. [C. 1. C. (2)] If the projects failed that screening, SCE was supposed to request a \$600 additional fee and perform a Supplemental Review within 20 days [C. 1. c. (3)].

We didn't get any response from SCE until four months after we applied, when SCE told us we had to pay them a \$25,000 deposit (for each of our two 1.5 MW projects on one parcel of land) and sign an agreement to have SCE perform additional comprehensive interconnection studies. SCE never told us that our projects failed the Initial Review or the reason they didn't pass. SCE never asked us to apply for and pay the \$600 fee for the Supplemental Review and never informed us if that required Supplemental Review was performed.

We told SCE to send us the necessary agreement so we could pay our money and obtain the comprehensive study. It took SCE two additional months to provide us with the Interconnection Study Agreement, so we could request the study and pay the money. While we were reviewing the agreement, SCE told us they needed to revise it. It's now two months later and we still don't have the final agreement.

In addition to the administrative nightmare described above, the Interconnection Study Agreement SCE prepared contains the following serious flaws:

1. The \$25,000 payment is described as a “deposit” because SCE will charge us more (or less), depending on SCE’s “actual” cost of doing the study. THERE IS NO SET PRICE TO DO THE STUDY!
2. The Agreement provides that the study will be done in 60 days, unless it takes longer. There is no consequence if SCE fails to meet that deadline. SCE has already told us, before beginning our study, that they are “very backed up” and we should estimate an additional 60 days. NO SET TIME TO DO THE STUDY!
3. The final result of the study will be an “estimate” of interconnection costs and necessary system upgrades, not a fixed and certain amount and the estimated amount can change without notice. So the study provides NO SET COST TO DO THE INTERCONNECTION AND ANY REQUIRED SYSTEM UPGRADES!
4. The apportionment rules are unclear and unfair. It appears that our project will be “debited” for the capacity of any uninstalled project that applied before we did, and that we would be responsible to pay for the system upgrades necessitated by our project AND by the other project, whether or not the other project gets built. At the least, we should only have to pay for upgrades related to our projects’ proportional impact on the grid.

It should be clear from our experience that the process, as administered by SCE, doesn’t facilitate simple, timely and predictable interconnection at a reasonable cost. Combined with the time and cost of land acquisition and obtaining local governmental approvals, this process makes it very difficult to deploy capital effectively and build these mid-size solar projects. So far as we can determine, not surprisingly, no CREST projects have actually been built and connected to the grid.

CERTIFICATE OF SERVICE

I hereby certify that I have served by electronic service a copy of the foregoing **FIT COALITION COMMENTS ON RENEWABLE AUCTION MECHANISM PROPOSED DECISION** on all known interested parties of record in R.08-08-009 included on the service list appended to the original document filed with this Commission. Service by first class U.S. mail has also been provided to those who have not provided an email address.

Dated at Santa Barbara, California, this 27th day of September, 2010.



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