

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 11-05-005  
(Filed May 5, 2011)

**JOINT MOTION OF THE  
CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES;  
AG POWER GROUP, LLC;  
SUSTAINABLE CONSERVATION;  
AGRICULTURAL ENERGY CONSUMERS ASSOCIATION;  
GREEN POWER INSTITUTE;  
CALIFORNIA WASTEWATER CLIMATE CHANGE GROUP;  
CALIFORNIA FARM BUREAU FEDERATION;  
FUEL CELL ENERGY; AND  
FLEXENERGY, INC.,  
FOR A RULING DIRECTING THE CONSIDERATION OF AN  
ADMINISTRATIVELY DETERMINED AVOIDED COST PRICING METHODOLOGY  
FOR THE RENEWABLE FIT AT A JANUARY 2012 WORKSHOP THAT WOULD BE  
PART OF THE RECORD FOR THE DECISION ON THE RENEWABLE FIT**

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December 19, 2011

Joint Parties

SB\_GT&S\_0428426

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The Center for Energy Efficiency and Renewable Technologies (CEERT); Ag Power Group, LLC (AgPower); Sustainable Conservation (SC); Agricultural Energy Consumers Association (AECA); Green Power Institute (GPI); California Wastewater Climate Change Group (CWCCG); California Farm Bureau Federation (Farm Bureau); Fuel Cell Energy (FCE); and FlexEnergy, Inc. (“Joint Parties”) jointly move for a ruling directing the consideration of an administratively determined avoided cost pricing methodology for use in the Renewable Portfolio Standard (“RPS”) Program Feed in Tariff (“FIT”) at a Workshop to be scheduled during January 2012 that would be part of the record for the Commission’s decision on the Renewable FIT. This Joint Motion is filed and served pursuant to Rule 11.1 of the Commission’s Rules of Practice and Procedure.

**I.**  
**REQUESTED RELIEF**

On October 13, 2011, Administrative Law Judge (ALJ) DeAngelis issued a ruling on Section 399.20 (October 13 ALJ’s Ruling) that did the following: (1) “incorporate[d]...into the record of this proceeding” the October 13, 2011 Renewable Feed in Tariff (FIT) Staff Proposal (Staff Proposal), appended as Attachment A to the Ruling, and (2) sought comments on the topic of “implementation of the Senate Bill 32 and Senate Bill 21X amendments to §399.20” *limited* to parties “specifically stat[ing] their support or opposition to each item in the October 13, 2011 Renewable FIT Staff Proposal and provid[ing] a rationale for their support or opposition.”<sup>1</sup> The October 13 ALJ’s Ruling further indicated that, following the receipt of comments, the ALJ anticipated issuing “a proposed decision toward the end of 2011.”<sup>2</sup>

The Opening and Reply Comments filed by the Joint Parties individually objected to the scope of the inquiry set by the October 13 ALJ’s Ruling being limited to the Staff Proposal’s pricing approach as the only pricing mechanism to be considered or adopted for the Section 399.20 FIT.<sup>3</sup> In fact, CEERT observed that, by doing so, the October 13 ALJ’s Ruling was effectively “dispositive of the issue of Sec. 399.20 implementation especially as to key ‘elements’ such as ‘a. Pricing.’”<sup>4</sup>

This circumstance was particularly troubling because multiple parties, including the Joint Parties, objected in their Comments to the price methodology selected by the Staff Proposal for application to the Sec.399.20 FIT, one based on bid prices in the Renewable Auction Mechanism (“RAM”), as inappropriate, as a matter of fact and law, for the implementation of the Section

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<sup>1</sup> October 13 Sec.399.20 Ruling, at pp. 2-3.

<sup>2</sup> *Id.*, at p. 3.

<sup>3</sup> See, e.g., CEERT Opening Comments, at pp. 1-2; AgPower Opening Comments, p. 4; AgPower Reply Comments at p. 3; FCE Opening Comments, at p. 9; SC/GPI Opening Comments, at pp. 6-8.

<sup>4</sup> October 13, 2011 Renewable FIT Staff Proposal, at p. 8.

399.20 FIT. As the Joint Parties detailed in their individual Opening and Reply Comments, using the RAM or considering the Sec.399.20 FIT to be a “subset” of the RAM is wrong for the following reasons:

- *Inconsistency with statute:* Section 399.20 indicates an express statutory intent to create a pricing mechanism different than an auction for “small projects of less than three megawatts that are otherwise eligible renewable energy resources” because of the “difficulties” faced by this sized resource “in participating in competitive solicitations under the renewables portfolio standard program.”<sup>5</sup>
- *Inconsistency with Commission precedent:* As several of the Joint Parties have emphasized, the Commission itself in creating the RAM made clear it was *not* a FIT.<sup>6</sup> Thus, in Decision (D.) 10-12-048, the Commission stated:

“[T]he RAM is distinct from a feed-in tariff as that term has traditionally been used. While it is a streamlined contracting mechanism and utilizes a standard contract, RAM relies on market-based pricing, utilizes project viability screens, and selects based on least cost rather than a first-come, first-served basis at an administratively determined price.”<sup>7</sup>

- *Failure to acknowledge differences in project size and technology:* Basing the FIT program on the RAM, which is sized for projects up to 20 MW projects would ultimately exclude projects below 1 MW from participating in the Renewable FIT “because the price would be set based on the cost of generation from larger (and presumably, less expensive) renewable generators.”<sup>8</sup> Further, there is no evidence that the RAM will provide an accurate avoided cost benchmark for all technologies, defeating the goal of a diversified distributed generation portfolio.<sup>9</sup>

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<sup>5</sup> PU Code Section 399.20(c); SC/GPI Opening Comments, at p. 7.

<sup>6</sup> CEERT Opening Comments, at pp. 8-9; SC/GPI Opening Comments, at p. 7.

<sup>7</sup> D.10-12-048, p. 1. See also, SC/GPI Opening Comments, at p. 7 (“The Legislature did not intend for projects under 3 MWs to compete in auctions. It is therefore difficult to see how using the results of an auction process in which those technologies are not expected to participate would provide an adequate benchmark.”)

<sup>8</sup> Under the RAM, developers are allowed to bid generation from two 500 kW projects, but the contract would still be for 1 MW. (California Solar Energy Industries Association (CalSEIA) Opening Comments, at p. 5.)

<sup>9</sup> SC/GPI Opening Comments, at p. 8; FCE Opening Comments at 7.

- *Inappropriate reliance on an unknown and untested mechanism:* Of great concern is that that the RAM is “not yet an ‘established’ benchmark” and certainly has not provided any experience, much less confirmation, of its ability to yield actual deliveries of renewable generation.<sup>10</sup> As to the first auction, it will also include tax incentives that will not be available beyond this initial auction.<sup>11</sup>

This disconnect between the statute (Sec. 399.20) and the Staff Proposal’s adoption of the RAM mechanism may be rooted in the Staff’s “guiding principles” failing to include the established rules of statutory construction that are to be followed in implementing a statute (i.e., Sec. 399.20). By failing to give effect to each and every word in the statute, according to its plain meaning, the Staff Proposal ignores the following key requirements of Section 399.20 that *distinguish* the FIT intended by that statute from the RAM: (1) Section 399.20 is directed to, and includes within its scope, only eligible renewable resource projects of up to 3 MWs in size,<sup>12</sup> and (2) Section 399.20 specifically intended that pricing for this procurement was to reflect the utilities’ avoided cost of procuring generators with “particular characteristics.”<sup>13</sup>

While each of the Joint Parties opposed the use of the RAM in favor of an administratively determined pricing methodology, AgPower in its Opening and Reply Comments went further and specifically proposed a “technology-specific avoided cost-based pricing methodology for biogas-fueled FIT projects.”<sup>14</sup> Since filing these Opening and Reply Comments, AgPower has worked toward revising its proposed methodology to be more broadly applicable to other technologies. That proposal, as revised and reformatted is attached hereto as Appendix A and discussed further in Section II below.

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<sup>10</sup> CWCCG Opening Comments, at p. 5; FCE Opening Comments at 7-8.

<sup>11</sup> SC/GPI Opening Comments, at p. 8.

<sup>12</sup> PU Code Section 399.20 (b)(1).

<sup>13</sup> PU Code Section 399.20(b) – (d); FCE Opening Comments, at p. 6.

<sup>14</sup> AgPower Reply Comments, at p. 4.

On December 12, 2011, ALJ DeAngelis sent an email to the service list in this proceeding indicating that (1) Workshops on standard form contract language for the Renewable FIT would be held during the week of January 9 through 13, 2012 and (2) that a Proposed Decision, previously anticipated by the end of this month, would not be mailed until “the first quarter of 2012.” Given this development and with *no* opportunity to date to consider or discuss an alternative pricing mechanism to the Staff’s proposed reliance on the RAM, the Joint Parties move for an ALJ’s Ruling to be issued directing that an additional Workshop be held in January 2012 to consider an *administratively determined, avoided-cost based* pricing mechanism for the Renewable FIT. Further, the Joint Parties move for that Workshop, and any resulting comments, to be part of the record on which the Commission will base its decision implementing the Sec. 399.20 FIT.

With respect to the Workshop, the Joint Parties recommend that Appendix A serve as a starting point for that discussion, with any other alternative *administratively determined, avoided-cost based* mechanisms or refinements to Appendix A being considered at the same time. The failure to consider Appendix A and related alternatives will defeat the language and purpose of Section 399.20, ignore the record in this proceeding, and put the Commission on course to decide this issue in conflict with the law. It is, therefore, imperative, that the Commission grant the Joint Parties’ Motion.

## **II. OVERVIEW OF ALTERNATE PROPOSAL**

As noted above, AgPower presented an alternate, administratively determined avoided-cost based pricing methodology for the FIT in its Opening and Reply Comments on the Staff Proposal. Since that time, AgPower has revised the proposal consistent with the Opening and Reply Comments filed on the October 13, 2011 Renewable FIT Staff Proposal. These changes

are specifically aimed at ensuring that the proposed methodology could be used for multiple renewable technologies and not just biogas, which was the original focus of the proposal, and will meet the “ratepayer indifference” requirement of Section 399.20. That refined proposal is attached hereto as Appendix A.

Each of the Joint Parties reserve the right to offer alternatives or refinements to Appendix A, but support the basic structure of the administratively determined avoided cost pricing approach captured in this proposal, which has the advantage over the October 13, 2011 Renewable FIT Staff Proposal of being simple, flexible, and, most important, consistent with Section 399.20 and Commission wholesale pricing authority. A public forum, as part of this rulemaking, should be made available to conduct a broader discussion of this pricing approach for use in the Renewable FIT. Thus, as stated above, it is the purpose of this Motion to request that an ALJ’s Ruling be issued to add a Workshop in January 2012, in addition to those already scheduled, which can serve as the forum for consideration of such proposals.

In summary, the key features of the proposal in Appendix A are as follows:

- Explicit avoided-cost values for the energy, capacity and the green value of the power that would be provided through the feed-in-tariff
- Includes time-of-delivery multipliers so as to reward renewable sellers who provide power during peak hours and those that include storage (e.g.; temporary storage of biogas at the site of generation at a wastewater treatment plant or a dairy digester facility)
- Includes avoided transmission and distribution adders, which can be either used directly or tailored to reflect the specific avoided cost benefits of a project
- Includes the flexibility to include both general and/or project- or technology-specific monetized environmental benefits.

These are the features that are required for any pricing approach that complies with Section 399.20 for a Renewable FIT. The Commission should not proceed to adopt the October

13, 2011 Staff Renewable FIT Proposal without the opportunity for this proposal or other refinements or alternatives to be considered first in a public forum like a Workshop to be scheduled in January 2012.

### **III. CONCLUSION**

For the reasons stated herein, the Joint Parties move for a Ruling directing that an additional Workshop be held January 2012 to consider an administratively determined, avoided-cost based pricing mechanism for the Renewable FIT. Further, the Joint Parties move for that Workshop to be included in the record on which the Commission will base its decision implementing the Sec. 399.20 FIT. With respect to the Agenda for that Workshop, the Joint Parties recommend that Appendix A serve as a starting point for that discussion, with any other alternative administratively determined, avoided-cost based mechanisms or refinements to Appendix A to be considered at the same time.

Respectfully submitted,

December 19, 2011

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## APPENDIX A

### AN ALTERNATIVE FEED-IN-TARIFF PRICING METHODOLOGY BASED ON AVOIDED COSTS

The Staff proposal for feed-in-tariffs (“FITs”) is based on the premise that the market price for 1-20 MW renewable products can be used to set the FIT price for purposes of implementing SB 32. This is not, however, the only approach. An Alternative Proposal, presented here, starts with the avoided cost for generic “brown power” and adds to it additional costs avoided by the Utilities specific to the renewable power that would be provided by eligible renewables selling power to the Utilities under the feed-in-tariffs and related forms of contract that are the subject of this proceeding. This approach is conceptually consistent with the proposals presented in Opening and Reply Comments of AgPower, Fuel Cell Energy, California Solar Energy Industries Association (CalSEIA); and CEERT filed in this proceeding on July 21, 2011.

#### **I. General Avoided Cost for Energy**

There are a number of "avoided cost" pricing mechanisms for non-renewable resources, which are used for different purposes at the Commission. These include the market price referent (“MPR”) (long-run avoided cost based on a gas-fired combined cycle power plant), avoided costs for payments to Qualifying Facilities (“QFs”) (short-run based on a negotiated "market value" for capacity plus market energy); avoided costs for evaluating the cost-effectiveness of energy-efficiency and other public purpose programs. Of these, the MPR best reflects the long-run avoided costs that should be included as the “Base Price” part of a FIT price. Current Draft 2011 MPR baseload prices range from 6.931¢/kWh (5-year contract beginning in 2012) to 13.503¢/kWh (20-year contract beginning in 2023).

As with the current method, time-of-delivery (“TOD”) multipliers should be used to reflect the time value of power delivery. These TOD factors would appropriately reflect the delivery profiles of the different renewable technologies that would provide power under the FITs. The TOD multipliers are applicable only to the Base Price element of the Alternative Proposal’s FIT price.

## **II. Renewable Content Value (“RCV”)**

The resources that will provide power to the Utilities under the FITs discussed in these Opening Comments can be used by the Utilities for complying with the state’s Renewable Portfolio Standard (“RPS”) requirements. This value, dubbed here the Renewable Content Value (“RCV”), must be included in the FIT so as to fully compensate the generator. For a FIT, a floor value for the RCV should be the incremental long-term price of Type 1 renewables, as the renewable attributes of the generation would be delivered simultaneously with electric energy into the California Independent System Operator’s (“CAISO’s”) grid.

Given that the “Bundled” Type 1 product is the most tightly constrained of those available for RPS compliance, and the fact that the load serving entities (“LSEs”) in California will have to increasingly rely upon them for RPS compliance as the more flexible “Tradable” RECs are phased out, it is reasonable to place the RCV at the higher estimates for Bundled values. To that end, this alternative proposal uses the high value for presented in Attachment A to CalSEIA’s Opening Comments in this proceeding, \$50/MWh (5¢/kWh). The RCV would be fixed and applied equally to all renewables providing power under a FIT.

## **III. Adders**

In their Opening and Reply Comments, AgPower, Fuel Cell Energy, CalSEIA and CEERT all listed factors that should be taken into account via adders when formulating the FIT rate. The Alternative Proposal presented here groups these adders into two broad categories: power related, such as avoided transmission investment; and environmental, such as reduced water use/air emissions. Many of these adders will be the same across all renewable technologies that may be eligible to sign the FIT; others will differ, as specific technologies can provide attributes with differing avoided costs.

### **A. Avoided Transmission Investment**

The primary alternative to small, modular renewables such as would participate in the FIT program is large, “utility-scale” projects. The Commission has spent years on siting cases to allow the Utilities to invest billions on transmission lines whose primary justification was

connecting remote utility-scale renewables into the California grid.<sup>1</sup> FIT-scale projects require no such investment. As such, an adder for avoided transmission is clearly justified.

This Alternative Proposal calculates an avoided transmission cost based on the dollar per kilowatt-year values used in the cost-effectiveness evaluation of the 2012-2014 Utility Demand Response Programs, Pilots and Budgets (A.11-03-001, *et al*). The deferred transmission values are then averaged across all three years for each Utility. To adapt the dollar per kilowatt value to an energy rate, appropriate capacity factors need to be used. For example, for a baseload renewable plant providing power under a FIT contract, an “effective load carrying capacity” of 95% can be applied (to account for the generator’s ability to contribute to meeting the utility’s peak load) along with an annual capacity factor of 85%.<sup>2</sup> The resulting average avoided transmission costs are shown in the table below.<sup>3</sup>

IOU	\$/kw-yr	c/kWh
PG&E	\$19.97	0.25
SCE	\$24.33	0.30
SDG&E	\$21.93	0.27

For a solar PV installation, an “effective load carrying capacity” of 60% and annual capacity factor of 21% can be used, resulting in the average avoided transmission costs shown in the table below.<sup>4</sup>

IOU	\$/kw-yr	c/kWh
PG&E	\$19.97	0.71
SCE	\$24.33	0.79
SDG&E	\$21.93	0.72

**B. Avoided Distribution Investment**

The small renewable FIT projects will likely interconnect to the grid at primary- or secondary-voltages and thus be much nearer to load centers than the utility-scale renewables. As

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<sup>1</sup> See, e.g., D.08-12-058 (Sunrise Powerlink) and D.09-12-011 (Tehachapi Renewable Transmission Project, Segments 4 through 11).

<sup>2</sup> AgPower Reply Comments (8/26/11), at p. 8.

<sup>3</sup> CalSEIA’s Opening Comments, Attachment A, at pp. 8, 12.

<sup>4</sup> Id.

such, some deferred distribution investment should also be accounted for in the avoided costs underlying the FIT price.

This Alternative Proposal calculates an avoided distribution cost in a similar manner as is used to calculate avoided transmission cost: begin with the dollar per kilowatt-year values used in the cost-effectiveness evaluation of the 2012-2014 Utility Demand Response Programs, Pilots, and Budgets (A.11-03-001 *et al*). To adapt the dollar per kilowatt value to an energy rate, appropriate load carrying and capacity factors must be applied. The table below shows the resulting avoided distribution cost for a baseload renewable plant and a solar PV generator, using the same load carrying and capacity factors assumptions as above.

IOU	\$/kW-yr	Baseload, ¢/kWh	Solar PV, ¢/kWh
PG&E	\$58.18	0.73	2.0
SCE	\$31.32	0.39	1.0
SDG&E	\$54.35	0.68	1.7

**C. Line Losses (Beyond that Included in the Base Price)**

The 2011 MPR calculation used to set the Base Price includes approximately 2% for losses, while average transmission and distribution (“T&D”) losses are on the order of 7.8%.<sup>5</sup> This implies an additional 5.8% for losses should be applied to the energy portion of the FIT avoided cost.

**D. Resource Adequacy Value**

Some FIT resources can provide firm, reliable power when a utility requires it, and hence help the utility meet its Resource Adequacy (“RA”) requirement. The megawatt amount that a generator can count toward meeting RA requirements is its “net qualifying capacity” or “NQC.” NQCs are often specified per month, so as to reflect resources’ differing outputs throughout the year.

To arrive at a value for the RA capacity a FIT resource is providing, the NQC of the resource can be multiplied by the price for capacity established by the CAISO in Interim Capacity Procurement Mechanism (“ICPM”) proceedings. The ICPM is the capacity price paid by the CAISO to procure capacity when this becomes necessary due to failure by an LSE to meet its

<sup>5</sup> *Self-Generation Incentive Program (SGIP) Staff Proposal*, September 2010 (R.10-05-004), at p. 58. Also noted by CALSEIA’s Opening Comments, Attachment A, at p. 20.

RA obligation or when system conditions necessitate procurement of additional capacity. It is currently set at \$41/kW-yr.

Thus, to arrive at a cents-per-kWh RA value to be included in the FIT, this Alternative Proposal would use the following:

Take the average summer NQC (June through September) of the resource.

Multiply that by the ICPM price.

Divide that dollar amount by the annual generation of the resource.

Therefore, for a 500 kW baseload generator with a summer NQC that equals 95% of its rated capacity and an average capacity factor of 85%, the adder would be:  $500 \text{ kW} \times 95\% \times \$41/\text{kW-yr} / (500 \text{ kW} \times 8760 \text{ hours/yr} \times 85\%) = 0.52\text{¢}/\text{kWh}$ .

For a solar PV generator with a summer NQC of 60%<sup>6</sup> of its rated capacity and an average capacity factor of 21%<sup>7</sup> the adder would be 1.34¢/kWh.

In practice, the Alternative Proposal would have the Commission maintain a table showing effective load capacity and load factor values for type of renewable generator to be used in the calculation of avoided transmission, distribution, and RA to be paid for that type of renewable resource.

#### **E. Environmental/Health-Related Adders**

Fuel Cell Energy and CALSEIA reported in their comments that in addition to the avoided costs directly experienced by the Utilities (and their ratepayers) described above there are environmental and health costs that can be avoided by generation from FIT-renewables. These include:

- Avoided water use beyond that assumed in the Base Price (MPR) variable operation and maintenance (“O&M”) costs.
- Value of avoided criteria pollutant emissions beyond that assumed in the Base Price model.
- Value of avoided CO<sub>2</sub> emissions beyond that assumed in the Base Price model.
- Value of health benefits associated with other avoided emissions.

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<sup>6</sup> Assumes that the NQC equals the ELCC used in the avoided T&D calculations.

<sup>7</sup> Calculated from data in CALSEIA Opening Comments, Attachment A, at p. 8 (South 10° tilt).

It should come as no surprise that the estimated values of these factors can vary widely. For example, CALSEIA's Opening Comments, Attachment A shows values that can exceed 2¢/kWh when health-related externalities are included.<sup>8</sup> However, simply because it is difficult to monetize these benefits does not mean they should be ignored. To do so would effectively set their values to zero. To the degree that the Commission finds that there are environmental benefits to FIT renewable projects, it should include some compensation to the providers of those benefits through the FIT.

Some technologies may provide additional benefits through avoided environmental costs that are unique to the technology and thus not appropriate to include in the general cost above. For example, for dairy-based biogas this includes air emissions benefits associated with better manure/waste management. Using on-site digesters for manure management results in net reductions in VOCs that would have otherwise been emitted from the dairies' lagoons, storage ponds and settling basins in these non-attainment areas.<sup>9</sup> Similarly, an anaerobic digester located at a wastewater treatment plant that also serves to divert other organic waste away from the landfills or other non-sustainable end points, has a higher cost of implementation and a higher environmental benefit<sup>10</sup>, and these avoided environmental benefits and costs can be accounted for.

In practice, the Alternative Proposal would have the Commission maintain a table showing basic environmental benefits adders applicable to each technology. Site-specific benefits for which a developer wishes to be compensated for would be presented to the Utility and Energy Division for approval prior to having them incorporated into that project's FIT price.

#### **F. Additional Factors**

Rather than a flat levelized price to be paid for the length of the contract, an annual escalation factor, on the order of inflation, can be used. This escalation factor could be explicitly built into the FIT tariff or tied to a published index.

#### **IV. Numeric Sample Calculations**

The formula and example calculation below illustrate the Alternative Proposal's recommended FIT calculation methodology. Note that the energy value will vary per the

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<sup>8</sup> CalSEIA Opening Comments, Attachment A, at pp. 33-34.

<sup>9</sup> AgPower Reply Comments (8/26/11), at p. 8 (proffering an estimate of 0.4¢/kWh for avoided dairy VOCs).

<sup>10</sup> CWCCG Comments (7/21/11).

structure of the Base Price (*i.e.*, TOD factors) while the RA adder and the avoided transmission and distribution components will vary among the three Utilities and with the operating characteristics of the generator.

The Alternative Proposal recommended FIT pricing formula is:

$$\text{FIT}_{\text{hour},x} = \text{Base Price} \times (\text{TOD factor}_{\text{hour},x}) \times (1 + \text{losses}) + \text{RCV} + \text{Avoided T\&D} + \text{RA value} + \text{quantifiable environmental benefits}$$

While the Alternative Proposal’s sponsor believes the numbers in the tables below are generally accurate, they are presented for illustrative purposes, and anticipate further refinements, which it will present at any future Commission workshop on FIT pricing.

**Alternative Proposal Illustrative FIT Pricing for a Dairy Digester-Based Baseload Generator**

Feed-in-Tariff Element, c/kWh	PG&E	SCE	SDG&E
Base Price <sup>1</sup>	8.1	8.1	8.1
Above-MPR Line Losses <sup>2</sup>	5.8%	5.8%	5.8%
Base Price grossed up for losses			
RCV <sup>3</sup>	5.00	5.00	5.00
Avoided Transmission <sup>4</sup>	0.25	0.30	0.27
Avoided Distribution <sup>4</sup>	0.73	0.39	0.68
RA Value <sup>5</sup>	0.52	0.52	0.52
VOC Savings at Dairies <sup>6</sup>	0.40	0.40	0.40
Other Environmental Benefits <sup>7</sup>	0.29	-0.06	0.41
<b>TOTAL</b>	<b>15.8</b>	<b>15.2</b>	<b>15.9</b>

Sources

- 1 2011 baseload MPR (Draft), 10-year contract beginning in 2013; no TOD factors applied
- 2 Based on 7.8% total T&D losses, as used in September 2010 Staff Report in SGIP modifications proceeding (R.10-05-004), page 58.
- 3 CALSEIA’s Opening Comments, Attachment A, page 9.
- 4 Calculated for baseload generator per calculations, above, from data used to evaluate the cost-effectiveness of demand response in A.11-03-001, *et al.*
- 5 Baseload generator per calculations, above
- 6 AgPower’s August 26, 2011 Reply Comments, page 9
- 7 CALSEIA’s Opening Comments, Attachment A, 32. The value for PG&E is for the San Joaquin Valley. The value for PG&E not in the San Joaquin valley is -0.04¢/kwh

### Alternative Proposal Illustrative FIT Pricing for a Solar PV Generator

Feed-in-Tariff Element, c/kWh	PG&E	SCE	SDG&E
Base MPR <sup>1</sup>	8.10	8.10	8.10
TOD Factors	1.28	1.29	1.11
Above-MPR Line Losses <sup>2</sup>	5.8%	5.8%	5.8%
MPR grossed up for losses	10.97	11.04	9.50
RCV <sup>3</sup>	5.00	5.00	5.00
Avoided Transmission <sup>4</sup>	0.71	0.79	0.72
Avoided Distribution <sup>4</sup>	2.07	1.02	1.73
RA Value <sup>5</sup>	1.34	1.34	1.34
Additional Solar-Specific Environmental Benefits <sup>6</sup>			
Other Environmental Benefits <sup>7</sup>	0.29	-0.06	0.41
<b>TOTAL</b>	<b>20.4</b>	<b>19.2</b>	<b>18.7</b>

#### Sources

- 1 2011 baseload MPR (Draft), 10-year contract beginning in 2013;
- 1a TOD factors from CALSEIA's Opening Comments, Attachment A, page 6. PG&E for non-San Joaquin Valley (Oakland).
- 2 Based on 7.8% total T&D losses, as used in September 2010 Staff Report in SGIP modifications proceeding (R.10-05-004), page 58.
- 3 CALSEIA's Opening Comments, Attachment A, page 9.
- 4 Calculated for solar PV generator per calculations, above, from data used to evaluate the cost-effectiveness of demand response in A.11-03-001, *et al.* and ELCC/capacity factors discussed above.
- 5 Solar PV generator per calculations, above
- 6 Placeholder, no illustrative data provided.
- 7 CALSEIA's Opening Comments, Attachment A, 32. The value for PG&E is for the San Joaquin Valley. The value for PG&E not in the San Joaquin valley is -0.04¢/kwh

**VERIFICATION  
(Rule 1.11)**

I am the attorney for the Center for Energy Efficiency and Renewable Technologies (CEERT) and have further been authorized to submit this verification on behalf of AgPower Group, LLC; Sustainable Conservation; Agricultural Energy Consumers Association; Green Power Institute; California Wastewater Climate Change Group; California Farm Bureau Federation; Fuel Cell Energy; and FlexEnergy, Inc. (“Joint Parties”). Because these parties are absent from the City and County of San Francisco, California, where I have my office, I make this verification for each said party for that reason. The statements in the foregoing Joint Motion of the Center for Energy Efficiency and Renewable Technologies; AgPower Group, LLC; Sustainable Conservation; Agricultural Energy Consumers Association; Green Power Institute; California Wastewater Climate Change Group; California Farm Bureau Federation; Fuel Cell Energy; and FlexEnergy, Inc., for a Ruling Directing the Consideration of an Administratively Determined Avoided Cost Pricing Methodology for the Renewable FIT at a January 2012 Workshop that Would Be Part of the Record for the Decision on the Renewable FIT has been prepared or read by me and are true of my own knowledge, except as to matters which are therein stated on information or belief, and as to those matters I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct and executed on December 19, 2011, at San Francisco, California.

Respectfully submitted,

/s/ SARA STECK MYERS

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For the Joint Parties