

STATE OF CALIFORNIA

Public Utilities Commission
San Francisco

M e m o r a n d u m

Date: May 13, 2009

To: The Commission
(Meeting of May 21, 2009)

From: Pamela Loomis, Director
Office of Governmental Affairs (OGA) — Sacramento

Subject: **AB 1106 (Fuentes) - Renewable electric generation facilities: feed-in tariffs. As amended May 6, 2009**

LEGISLATIVE SUBCOMMITTEE RECOMMENDATION: SUPPORT IF AMENDED

SUMMARY OF BILL:

This bill adds Section 399.21 to the Public Utilities Code. It would create a new feed-in tariff (FIT) program for projects up to 20 MW. The bill keeps the tariff price at the market price referent (MPR). The bill also allows an existing project on net energy metering to switch to a FIT. Instead of a hard program cap, the bill allows an unlimited amount of must-take fixed-price energy. The bill does not allow third-party ownership of eligible facilities. Lastly, it requires a FIT project to be located on property owned or under the control of the customer. As amended, the provision calling for the CPUC and CEC to jointly develop a "European-style fee-in tariff" for projects over 20MW has been deleted.

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION:

The Commission is currently considering this expansion and may determine that a project size limit of smaller than 20 MW is more appropriate. When considering program design for a FIT program, the cost, risk, and timing need to be carefully balanced with the goals and progress of the overall RPS program. The chief policy argument in California for FITs is to minimize transaction costs for smaller renewable projects whose primary purpose is to serve local energy needs at the distributed generation (typically distribution interconnection) level. Projects larger than 10 MW typically do not interconnect at the distribution level and are likely more complex projects that require detailed project-by-project assessment such as site control, permitting, and

transmission access. Thus, they may not be as well suited to a one-size-fits-all FIT approach.

As written, this bill does not change the current MPR price limitation, which to-date has not attracted much program interest. The bill should provide the Commission flexibility in determining the FIT price through an open stakeholder process. In addition, the bill does not have a program capacity cap, which may lead to unneeded procurement. The Commission should have the flexibility to determine the program capacity cap through long-term renewable planning. The bill also restricts a project's location to the property under the generators' control, which limits the program's effectiveness because it shrinks the pool of eligible projects. The bill contradicts Commission decision (D.) 07-07-027 since it would allow existing projects to receive a FIT after they received net-metering and other subsidies from the California Solar Initiative or Self Generation Incentive Program.

SUMMARY OF SUGGESTED AMENDMENTS:

Size of Facility: The bill creates a new FIT program for all renewable projects that are less than or equal to 20 MW. The size limitation is the subject of an open proceeding at the CPUC, and a determination has not been made. CPUC staff is leaning towards FIT projects up to 10 MW. CPUC staff has analyzed the number of megawatts under a 10 MW size limit that could easily interconnect to the existing distribution substations without the need for upgrades and has found that there is enough technical potential to make significant progress in reaching the RPS program goals.

Commission staff believes projects of this size have fewer environmental permitting and viability issues relative to projects greater than 10 MW. In addition, projects under 10 MW are not expected to need new transmission. As a result, these projects should be able to come online in a short period of time compared to larger projects.

- **Recommended Amendment:** Allow the CPUC the flexibility to establish facility size pursuant to its open proceeding.

Price: This bill keeps the price at the market price referent (MPR), which has not been high enough to attract many new projects. The bill should be amended to allow the CPUC to set the price so that the FIT provides sufficient payment to stimulate untapped markets and build new renewable projects, but not overpay or reduce the ability of competitive solicitations to put downward pressure on price.

- **Recommended Amendment:** Allow the Commission full flexibility to determine the price paid for projects under the feed-in tariff.

Property restrictions: This bill requires that a FIT project be located on property owned or under the control of the customer. This restricts where a project can be located and does not support efficient utilization of the existing grid. Since most rooftops cannot fit large solar PV projects, many projects above 1 MW will probably not be able to participate in this program.

- **Recommended Amendment:** Remove this requirement and allow projects to be located anywhere within the CAISO controlled grid.

Program Cap: The proposed cap is until the electrical corporation meets its RPS target. This cap is problematic since it allows for an unlimited amount of fixed-price energy. Currently, the utilities procure the renewables they need to fit their unique portfolios. Since a FIT is a must-take obligation, the utility risks over-procuring energy that it does not need. This trade-off can be managed in small quantities, but the language proposed in this bill risks over-procurement.

- **Recommended Amendment:** Delete this language and allow the PUC to determine the capacity cap through long-term renewable planning. Long-term renewable planning can properly balance the risk and costs of a 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.

Impact on Incentive Programs: This bill would allow existing projects on net-metering to switch to a FIT. The bill would allow a customer electing this tariff to also be eligible to receive ratepayer-funded incentives for the capacity needed to offset part or all of the electrical demand of the customer. This provision of the program would be new and would conflict with D.07-07-027. The Commission's policy has been that customer-side of the meter incentives provided through the Self Generation Incentive Program (SGIP) or the California Solar Initiative (CSI) should not be provided to system-side of the meter wholesale generators since this would effectively allow the same project to receive payments twice. Customers that have taken SGIP and CSI should not be eligible for the feed-in tariff, especially if the price under the feed-in tariff is raised above avoided cost.

- **Recommended Amendment:** Delete provisions that allow customers to take the SGIP, CSI and NEM incentives and then participate in the feed-in tariff. Customers should choose to be on the customer side of the meter and receive incentives or a wholesale generator and receive a feed-in tariff. Suggested language: "The Commission shall determine a process or program for existing customers that have taken a ratepayer funded incentive but who wish to expand their generating capacity and become a wholesale generator. The Commission shall ensure that the cost to ratepayers for this program is just and reasonable and also meets the State's renewable energy goals. "

DIVISION ANALYSIS (Energy Division):

This bill would require the Commission to create a new code section and thus a new feed-in tariff program in addition to the existing program. It appears that the author's intent maybe to create a FIT focused on larger, potentially wholesale-only, facilities. It would require the Commission to:

- Create a new FIT program for projects up to 20 MW

- o Remove the hard program cap of 500MW and allow an unlimited amount of must-take fixed-price energy.
- o Limit the Commission's ability to further modify the feed-in tariff program in response to the needs of the RPS program.
- o Reduce competition in the RPS program in exchange for growing the market for small to medium sized projects. The Commission's existing RPS program requires by law open, competitive solicitations for renewable projects. A fixed price FIT may lower a project developer's incentive to build at low-cost.

PROGRAM BACKGROUND:

Public Utilities Code § 399.14 requires the Commission to establish a competitive process to select renewable contracts based on least cost and best fit. Competitive markets benefit ratepayers by using competitive pressures to lower total costs. Fixed price standard contracts use administrative processes to set the price, which does not benefit from competition. Thus, it is very difficult to determine the right price for a feed-in tariff. If the price is too low, then the project will not attract new investment. If the project is too high, then ratepayers will overpay.

Public Utilities Code § 399.20 requires each electrical corporation to establish a tariff for the purchase of electricity from an eligible renewable, water, or wastewater facility at a market price determined by the Commission. The Commission implemented § 399.20 by D.07-07-027 on June 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 additionally it made the same program available to all other renewable customer generators in PG&E and SCE territory. Later, the Commission expanded the program to all customers in SDG&E's territory. The Commission's implementation of § 399.20 is considered phase 1 of the Tariff and Standard Contract Implementation for RPS Generators. The Commission is currently considering phase 2, which includes consideration of expanding the contract to facilities up to 20 MW under R.08-08-009.

On September 28, 2008, SB 380 amended Public Utilities Code § 399.20 to allow purchase of electricity from any eligible renewable electric facility and increased the statewide cap from 250 MW to 500 MW, and it removed any requirement that the tariff be available to water or wastewater facilities. Comments have been filed with the Commission concerning implementing the changes mandated in SB 380, and the Commission is currently working on a Decision to implement SB 380.

The California Energy Commission (CEC) has been investigating feed-in tariffs. They held staff workshops on June 30, 2008 and October 1, 2008 in order to discuss policy directions for feed-in tariffs. Prior to the October 1, 2008 workshop a draft consultant report was issued entitled "California Feed-in Tariff Design and Policy Options". Based on that report and workshops, the CEC has recommended that the Commission immediately implement a feed-in tariff program for all RPS-eligible generating facilities up to 20 MW in size. They recommend that such a program should include must-take

provisions as well as cost-based technology-specific prices that generally decline over time and are not linked to the MPR.

As a part of R.08-08-009, the Commission is considering expanding the existing FIT program from 1.5 MW up to possibly 20 MW. The ALJ is currently finalizing a ruling that will contain a staff proposal on program design issues and terms and conditions. Staff recommends that the Commission expand the existing program to 10 MW and consider changing the FIT price in the next phase of the proceeding. The Commission issued a ruling in June, and staff issued two data requests in October and January to better understand party positions. Staff also held a workshop in February on FIT program design and terms and conditions. In designing an expanded FIT program, the Commission needs to carefully balance the cost, risk, and timing of the overall RPS program with the cost, risk, and timing of an expanded FIT program.

OTHER STATE OR FEDERAL INFORMATION:

Congress is currently considering proposed feed-in tariff national legislation, in conjunction with national RPS bills. There is currently no federal mandate related to feed-in tariffs.

Several other states are considering feed-in tariffs, and the City of Gainesville, Florida recently enacted a small feed-in tariff in lieu of a program like the California Solar Initiative.

Eighteen European countries have FIT programs and Germany leads the world in terms of installed capacity for both photovoltaics (PV) and for wind energy as a result of its feed-in tariff policies. By the end of 2007, Germany had 22,622 MW of wind and 3,800 MW of solar PV capacity installed in the country, with annual additions of 1,667 MW of wind and 1,100 MW of PV added in 2007 alone. The German FIT has been very successful in building new projects, but as mentioned previously, has come at a high price to ratepayers.

Spain also has a feed-in tariff program that has resulted in much development. By the end of 2007, Spain had installed 15,145 MW of wind capacity, and 500 MW of PV capacity. On the other hand, Spain had to freeze and then revise its feed-in tariff program midcourse because of lucrative payments and unexpected interest. This boom and bust hurt the solar market in Spain and has resulted in economic loss and oversupply. Thus, the success of a feed-in tariff is very dependent on the goals of the program and the program's design.

LEGISLATIVE HISTORY:

AB 1969 (Yee, 2006) led to the implementation of P.U. Code Section 399.20. As aforementioned, this Code Section provides California's only feed-in tariff to date.

SB 380 (Kehoe, 2008) altered P.U. Code Section 399.20 to include all renewables and increased the statewide cap to 500 MW.

The implementation of P.U. Code Section 399.11 established the RPS requirement of “generating 20 percent of total retail sales of electricity in California from eligible renewable energy resources by December 31, 2010.”

STATUS:

AB 1106 has been referred to the Assembly Appropriations Committee upon passage from both the Assembly Natural Resources Committee and the Assembly Utilities and Commerce Committee.

SUPPORT/OPPOSITION:

Support: Bloom Energy Corporation
Sierra Club California (if amended)

Opposition: California Association of Small and Multi-jurisdictional
Utilities (CASMU) (unless amended)

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Date: May 13, 2009

BILL LANGUAGE:

BILL NUMBER: AB 1106 AMENDED
BILL TEXT

AMENDED IN ASSEMBLY MAY 6, 2009

INTRODUCED BY Assembly ~~Member~~ ~~Fuentes~~
Members Fuentes and Ruskin

FEBRUARY 27, 2009

An act to add Section 399.21 to the Public Utilities Code,
relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 1106, as amended, Fuentes. Renewable electric generation
facilities: feed-in tariffs.

Under existing law, the Public Utilities Commission ~~is~~
~~vested with~~ has regulatory authority over public
utilities, including electrical corporations , as defined
. The Public Utilities Act imposes various duties and
responsibilities on the commission with respect to the purchase of
electricity by electrical corporations and requires the commission to
review and adopt a procurement plan and a renewable energy
procurement plan for each electrical corporation pursuant to the
California Renewables Portfolio Standard Program (*RPS program*)
. The program requires that a retail seller of electricity,
including electrical corporations, purchase a specified minimum
percentage of electricity generated by eligible renewable energy
resources, as defined, in any given year as a specified percentage of
total kilowatthours sold to retail end-use customers each calendar
year (renewables portfolio standard).

~~Existing law requires every electrical corporation to file with
the commission a standard tariff for renewable energy output produced
at an electric generation facility, as defined, that is an eligible
renewable energy resource and meets other size, deliverability, and
interconnection requirements. Existing law requires the electrical
corporation to make this tariff available to public water or
wastewater agencies that own and operate an electric generation
facility within the service territory of the electrical corporation,
upon request, on a first come, first served basis, until the combined
statewide cumulative rated generating capacity of those electric
generation facilities equals 250 megawatts. Existing law requires
that the electric generation facility be located on property owned or
under the control of the public water or wastewater agency and be
sized to offset part or all of the generator's electricity demand.
Existing law provides that the renewable energy output of an electric
generation facility counts toward the electrical corporation's
renewables portfolio standard and resource adequacy requirements.~~

*Existing law requires every electrical corporation to file with
the commission a standard tariff for electricity generated by an*

electric generation facility, as defined, that is owned and operated by a retail customer of the electrical corporation. Existing law requires that the electric generation facility: (1) have an effective capacity of not more than 1.5 megawatts and be located on property owned or under the control of the customer, (2) be interconnected and operate in parallel with the electric transmission and distribution grid, (3) be strategically located and interconnected to the electric transmission system in a manner that optimizes the deliverability of electricity generated at the facility to load centers, and (4) meet the definition of an eligible renewable energy resource under the RPS program. Existing law requires that the tariff provide for payment for every kilowatthour of electricity generated by an electric generation facility at a market price referent established by the commission pursuant to the program. Existing law requires the electrical corporation to make this tariff available to customers that own and operate an electric generation facility within the service territory of the electrical corporation, upon request, on a first-come-first-served basis, until the combined statewide cumulative rated generating capacity of those electric generation facilities equals 500 megawatts, or the electrical corporation meets its proportionate share of the 500 megawatt limit based upon the ratio of its peak demand to total statewide peak demand of all electrical corporations. Existing law authorizes the commission to modify or adjust the above-described requirements for any electrical corporation with less than 100,000 service connections, as individual circumstances merit. Existing law provides that the electricity generated by an electric generation facility counts toward the electrical corporation's renewables portfolio standard and provides that the physical generating capacity counts toward meeting the electrical corporation's resource adequacy requirements.

This bill would require every electrical corporation to file with the commission a standard feed-in tariff for the electricity generated by a renewable electric generation facility, as defined, that is an eligible renewable energy resource and meets other size, deliverability, and interconnection requirements. The bill would require the commission to consult with the Energy Commission and the Independent System Operator in approving feed-in tariffs and rules for interconnection to the electrical grid. The bill would require the electrical corporation to make the feed-in tariff available to any customer of the electrical corporation, upon request, on a ~~first-come, first-served~~ *first-come-first-served* basis, until the electrical corporation meets its renewables portfolio standard. The bill would require the commission to ensure that a customer's eligibility to receive service pursuant to the feed-in tariff is determined in advance so that a customer can invest in a renewable electric generation facility knowing that the customer will be eligible to receive service pursuant to the feed-in tariff and the market price that will be applicable to that customer. The bill would authorize the commission to place time limitations upon a customer for completion of the renewable electric generation facility to remain eligible for the feed-in tariff at the applicable market price and to establish reasonable operation and reliability standards for a renewable electric generation facility to remain eligible for the feed-in tariff at the applicable market price. The bill would provide that the electricity generated by the renewable electric generation facility, including generation used to offset the customer's own

usage of electricity, counts toward the electrical corporation's renewables portfolio standard and resource adequacy requirements. The bill would authorize a customer receiving electrical service pursuant to an alternative net metering program, as defined, to elect to receive service pursuant to the feed-in tariff filed by an electrical corporation pursuant to the bill's requirements and would provide that a customer electing to receive service pursuant to the feed-in tariff waives any right the customer otherwise has to thereafter receive service pursuant to an alternative net metering program.

~~This bill would require the commission, in consultation with the Energy Commission, to develop feed-in tariffs for eligible renewable energy resources of more than 20 megawatts that value a diverse mix of sources of renewable energy based upon the most successful feed-in tariffs utilized in Europe. The bill would~~
require the commission, in consultation with the Independent System Operator, to establish tariff provisions that facilitate both the ~~renewables portfolio standard~~
RPS program and the reliable operation of the electrical grid.

Under existing law, a violation of the Public Utilities Act or an order or direction of the commission is a crime. Because this bill would require an order or other action of the commission to implement its provisions and a violation of that order or action would be a crime, the bill would impose a state-mandated local program by creating a new crime.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: yes.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 399.21 is added to the Public Utilities Code, to read:

399.21. (a) It is the policy of this state and the intent of the Legislature to encourage energy production from renewable resources in an amount commensurate with electricity demand.

(b) As used in this section the following terms have the following meanings:

(1) "Alternative net metering program" means any program that requires an electrical corporation to purchase or credit electricity generated by a subscriber pursuant to Article 3 (commencing with Section 2821) of Chapter 7 of Part 2.

(2) "Renewable electric generation facility" means a facility for the generation of electricity that is owned and operated by a customer of an electrical corporation and that meets all of the following criteria:

(A) Has an effective generating capacity of not more than 20 megawatts and is located on property owned or under the control of the customer.

(B) Is interconnected and operates in parallel with the electric

transmission and distribution grid.

(C) Is strategically located and interconnected to the electric transmission system in a manner that optimizes the deliverability of electricity generated at the facility to load centers.

(D) Is an eligible renewable energy resource pursuant to this article.

(c) Every electrical corporation shall file with the commission a standard feed-in tariff for the electricity generated by a renewable electric generation facility. The commission shall consult with the Energy Commission and the Independent System Operator in approving feed-in tariffs and rules for interconnection.

(d) The feed-in tariff shall provide for payment for every kilowatthour of electricity generated at a renewable electric generation facility at the market price as determined by the commission pursuant to Section 399.15 for a period of 10, 15, or 20 years, as authorized by the commission.

(e) Every electrical corporation shall make the feed-in tariff available to customers that own and operate a renewable electric generation facility within the service territory of the electrical corporation, upon request, on a ~~first come, first served~~ *first-come-first-served* basis, until the electrical corporation meets its renewables portfolio standard. An electrical corporation may make the terms of the feed-in tariff available to customers in the form of a standard contract subject to commission approval. An electrical corporation shall only be required to offer service or contracts under this section until that electrical corporation meets its renewables portfolio standard, as determined by the commission.

(f) The commission shall ensure that a customer's eligibility to receive service pursuant to the feed-in tariff is determined in advance so that a customer can invest in a renewable electric generation facility knowing that the customer will be eligible to receive service pursuant to the feed-in tariff and the market price that will be applicable to that customer. The commission may place time limitations upon a customer for completion of the renewable electric generation facility to remain eligible for the feed-in tariff at the applicable market price. The commission may establish reasonable operation and reliability standards for a renewable electric generation facility to remain eligible for the feed-in tariff at the applicable market price.

(g) Every kilowatthour of the electricity generated by the renewable electric generation facility, including generation used to offset the customer's own usage of electricity, shall count toward the electrical corporation's renewables portfolio standard annual procurement targets for purposes of paragraph (1) of subdivision (b) of Section 399.15.

(h) The physical generating capacity of a renewable electric generation facility shall count toward the electrical corporation's resource adequacy requirement for purposes of Section 380.

(i) (1) A customer receiving electrical service pursuant to an alternative net metering program may elect to receive service pursuant to the feed-in tariff filed by an electrical corporation pursuant to this section.

(2) A customer that elects to receive electrical service pursuant to the feed-in tariff filed by an electrical corporation pursuant to this section waives any right that the customer otherwise has to thereafter receive service pursuant to an alternative net metering

program.

~~—(j) The commission, in consultation with the Energy Commission, shall develop feed in tariffs for eligible renewable energy resources of more than 20 megawatts that value a diverse mix of sources of renewable energy based upon the most successful feed in tariffs utilized in Europe.~~

~~—(k)~~

(j) The commission shall, in consultation with the Independent System Operator, establish tariff provisions that facilitate both the provisions of this section and the reliable operation of the grid.

SEC. 2. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.