

STATE OF CALIFORNIA

Public Utilities Commission
San Francisco

M e m o r a n d u m

Date: April 11, 2011

To: The Commission
(Meeting of April 14, 2011)

From: Edward Randolph, Director
Office of Governmental Affairs (OGA) — Sacramento

Subject: **SB 682 (Calderon) – Energy: Clean distributed generation units: oil and gas extraction.**
As introduced: February 18, 2011

LEGISLATIVE SUBCOMMITTEE RECOMMENDATION: OPPOSE UNLESS AMENDED

SUMMARY OF BILL: SB 682 would direct the California Public Utilities Commission (CPUC) to require an electrical corporation to develop and offer a specific tariff for the purchase of excess electricity from a customer that uses a microturbine or fuel cell that meets specified requirements and runs off of waste or stranded gas associated with the extraction of oil or gas.

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION:

The state currently has a number of procurement programs intended to drive the deployment of low and zero emission electricity generating technologies. These include the Combined Heat and Power Reduction Act pursuant to Assembly Bill 1613 (Blakeslee), the Self Generation Incentive Program, the California Solar Initiative pursuant to Senate Bill 1 (Murray), the Renewables Portfolio Standard, the Feed-In Tariff established pursuant to Assembly Bill 1969 (Yee), as well as Senate Bill 32 (Negrete McLeod). In addition to the myriad state programs supporting the deployment of low and zero emission generating technologies, under the Public Utilities Regulatory Policies Act, Qualifying Facilities are eligible for standard offer contracts with the price set at short run avoided cost (SRAC).

SB 682 would create an additional program to promote the deployment of microturbines and fuel cells up to 1 MW in size that utilize waste and stranded gas to produce and

export electricity to the grid as a means to facilitate the greenhouse gas emission reduction goals central to Assembly Bill 32. The bill would require the CPUC to establish a Feed-In Tariff under which the utilities would be obligated to procure excess electricity generated by these facilities at a price to be determined by the CPUC.

As a threshold matter, the potential greenhouse gas emission reductions that may result from the use of waste and stranded for electricity production is currently unknown and/or speculative. Before advancing this bill, it may be prudent to await more definitive information from the California Air Resources Board regarding the extent and magnitude of the potential emissions reductions use of the resource may provide.

Furthermore, assuming there is substantial emission reduction potential, the bill is overly prescriptive and premature in its determination that a new Feed-In Tariff, specifically designed to support the deployment of microturbines and fuel cells is the correct policy tool to promote use of this resource. As noted above, there are numerous programs currently in place to support the deployment of low and zero emission technologies, some of which may already create appropriate incentives for the development of these projects.

In addition, there may be other approaches rather than the creation of a specific and narrowly tailored feed-in tariff that could facilitate use of the waste or stranded gas resource that should be considered, including modifying the RPS eligibility rules to include electricity produced from waste or stranded gas as RPS eligible, or to explicitly reflect the emissions reductions that result from using waste or stranded gas to produce electricity in the ARB's cap and trade program.

Given the various alternatives that may exist, rather than directing the Commission to establish a feed-in tariff, the Commission should be directed to assess the various policy options that may reasonably promote the use of the stranded gas resource, and exercise its discretion to determine whether or not additional policies, or modifications to existing policies, are necessary.

SUMMARY OF SUGGESTED AMENDMENTS:

The bill should be modified to direct the Air Resources Board to develop and issue a report that assesses the greenhouse gas emission reduction potential embodied by the waste and/or stranded gas resource as compared to what would otherwise occur. In developing this study, the ARB should include an estimate of the cost per ton of avoided greenhouse gas emissions resulting from using waste and stranded gas based on a reasonable set of assumptions reflecting the various generating technologies and configurations that would be used and the emissions intensity of the state's energy system.

Should the ARB determine that the use of stranded and waste gas for electricity generation would be net GHG reducing, the bill should be amended to require the CPUC to open a proceeding to determine whether market interventions or incentive programs beyond those already in place are necessary to provide appropriate incentives for the development of these resources. For example, staff believes that the

projects targeted by this bill could be eligible for short-run avoided cost (SRAC) pricing under PURPA QF program. SRAC pricing may provide the appropriate market signal for the deployment of these facilities. Similarly, these projects may be eligible for incentives under the SGIP to the extent the electricity they produce is used onsite¹, or, if configured as a combined heat and power application, under the AB 1613 CHP feed in tariff (FIT). A central objective of the Commission's proceeding would be to understand the degree to which these existing programs provide an adequate market opportunity for the development of the stranded and waste gas resource, and if they are found to be lacking, to identify, and, where practicable, pursue, modifications to those programs or additional policy interventions that may be necessary.

Suggested language is attached to this memo.

DIVISION ANALYSIS (Energy Division):

1. SB 682 would result in several impacts on CPUC policies, programs and practices, as carried out by the regulated utilities, and overseen by the CPUC. Namely, expected electrical generation resulting from implementation of SB 682 would need to be integrated into the Long Term Procurement Planning proceeding, which models all generation required in the state for the upcoming ten years. In addition, due to the size of the projects contemplated under the bill (not more than one MW) SB 682 would need to be considered in current analyses regarding grid integration of distributed generation and small generator interconnection.
2. The CPUC has experience with development of feed-in-tariffs (FiT) through the renewables and CHP programs. These FiTs can be administratively complex and time consuming. Details of the CHP FiT still are being finalized after over two years of negotiations and litigation with the utilities. This legislation would require that the CPUC add one staff analyst in the Energy Division, and one administrative law judge in the ALJ Division to implement the mandate.
3. The projects targeted by this bill may be eligible under a number of different existing state and federal programs that seek to promote the deployment of low and zero emission distributed generation technologies. Staff believes the projects targeted by this bill may be eligible for designation as Qualifying Facilities pursuant to the Public Utilities Regulatory Policies Act². If projects proposed in this bill can achieve QF status under PURPA, they are eligible to secure power contracts through the IOUs that are filed with the CPUC. SRAC pricing under PURPA QF contracts may be

¹ Pursuant to SB 412, the Commission is considering modifications to the Self Generation Incentive Program including technology eligibility.

² The benefits that are conferred upon QFs by Federal law generally fall into three categories: (1) the right to sell energy or capacity to a utility, (2) the right to purchase certain services from utilities, and (3) relief from certain regulatory burdens. ^{See} FERC Qualifying Facilities: <http://www.ferc.gov/industries/electric/gen-info/qual-fac/benefits.asp>.

sufficient to motivate the economically appropriate level of deployment of these facilities. Similarly, generators contemplating using power primarily to meet on-site load may be eligible to participate in the Self Generation Incentive Program or SGIP (currently up to 5 MW). Currently, fuel cells are eligible under SGIP, and, pursuant to SB 412, the Commission is considering modifications to this program including expanding the range of eligible technologies. And lastly, projects configured as combined heat and power applications may be eligible to participate in the combined heat and power feed-in tariff implemented pursuant to AB 1613.

PROGRAM BACKGROUND:

1. The CPUC's SGIP provides incentives to support existing, new, and emerging distributed energy resources. The SGIP provides rebates for qualifying distributed energy resources installed on the customer's side of the utility meter. Qualifying technologies include wind turbines, fuel cells, and corresponding energy storage systems. Although currently not eligible, the PUC has an on-going proceeding to consider including additional technologies, including some microturbines.
2. The purpose of the QF program is to increase the amount of environmentally beneficial and efficient generation on California's grid. When a facility of this type meets the Federal Energy Regulatory Commission's requirements for ownership, size and efficiency, utility companies are obliged to purchase energy from these facilities at avoided cost rates, which are periodically determined by the CPUC.
3. Pursuant to AB 1613, the Commission is implementing a feed-in tariff to support the deployment of CHP applications that meet specified efficiency and GHG reducing requirements.
4. The CPUC already tracks GHG emission reductions from its oversight of authorized energy resource procurement and customer-focused programs, and provides an annual progress report to CARB.

LEGISLATIVE HISTORY:

Last year's SB 1465 (Lowenthal) contained nearly identical language to this bill. It was referred though not considered by the Senate Committee on Energy, Utilities and Communications

FISCAL IMPACT:

\$250,603 for a PURA IV and Administrative Law Judge I to implement SB 682.

STATUS:

SB 682 is scheduled for hearing in the Senate Committee on Energy, Utilities and Communications on April 28, 2011.

SUPPORT/OPPOSITION:

None on file.

STAFF CONTACTS:

Dan Chia, Deputy Director-OGA (916)327-3277; dc2@cpuc.ca.gov

BILL LANGUAGE:

BILL NUMBER: SB 682 INTRODUCED

BILL TEXT

INTRODUCED BY Senator Calderon

FEBRUARY 18, 2011

An act to add Article 2 (commencing with Section 2848) to Chapter 8 of Part 2 of Division 1 of the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

SB 682, as introduced, Calderon. Energy: clean distributed generation units: oil and gas extraction.

(1) The Waste Heat and Carbon Emissions Reduction Act authorizes the Public Utilities Commission (PUC) to require an electrical corporation to purchase excess electricity, as defined, from an eligible customer-generator. The act defines "eligible customer-generator" as a customer of an electrical corporation that uses a combined heat and power system, as defined, with a generating capacity of not more than 20 megawatts, that first commences operation on or after January 1, 2008, and uses a time-of-use meter capable of registering the flow of electricity in 2 directions.

This bill would require the PUC to require an electrical corporation to purchase excess electricity from a customer of an electrical corporation that uses a microturbine or a fuel cell meeting specified requirements that runs off of waste or stranded gas associated with the extraction of oil or gas and has a time-of-use meter capable of registering the flow of electricity in 2 directions.

Because a violation of an order or decision of the commission implementing its requirements would be a crime, the bill would impose a state-mandated local program by creating a new crime.

(2) 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. Article 2 (commencing with Section 2848) is added to Chapter 8 of Part 2 of Division 1 of the Public Utilities Code, to read:

Article 2. Clean Distributed Generation Units

2848. (a) As used in this article:

(1) "Eligible customer-generator" means a customer of an electrical corporation that meets both of the following requirements:

(A) Uses a microturbine or a fuel cell that meets the following requirements:

(i) If a microturbine, the microturbine is certified as meeting air pollution standards consistent with the guidance given by the State Air Resources Board pursuant to Section 41514.10 of the Health and Safety Code.

(ii) The microturbine or fuel cell runs off of waste or stranded gas associated with the extraction of oil or gas.

(iii) The microturbine or fuel cell has a generating capacity of not more than one megawatt.

(B) Uses a time-of-use meter capable of registering the flow of electricity in two directions. If the existing electrical meter of an eligible customer-generator is not capable of measuring the flow of electricity in two directions, the eligible customer-generator shall be responsible for all expenses involved in purchasing and installing a meter that is able to measure electricity flow in two directions. If an additional meter or meters are installed, the electricity flow calculations shall yield a result identical to that of a time-of-use meter.

(2) "Excess electricity" means the net electricity exported to the electrical grid, generated by a microturbine or fuel cell that meets the requirements of subparagraph (A) of paragraph (1).

(b) The commission shall require an electrical corporation to purchase excess electricity from an eligible customer-generator. The commission may establish a maximum kilowatthours limitation on the amount of excess electricity that an electrical corporation is required to purchase if the commission finds that the anticipated excess electricity generated has an adverse effect on long-term resource planning or reliable operation of the grid. The commission shall establish, in consultation with the Independent System Operator, tariff provisions that facilitate both this section and the reliable operation of the grid.

(c) (1) Every electrical corporation shall file with the commission a standard tariff for the purchase of excess electricity from an eligible customer-generator pursuant to this article.

(2) The tariff shall provide for payment for every kilowatthour delivered to the electrical grid by the microturbine or fuel cell at a price determined by the commission.

(3) The tariff shall include flexible rates with options for different durations, not to exceed 10 years, and fixed or variable rates relative to the cost of natural gas.

(4) The commission shall ensure that ratepayers that are not eligible customer-generators are held indifferent to the existence of this tariff.

(d) The commission, in reviewing the tariff filed by an electrical corporation, shall establish time-of-delivery rates that encourage demand management and net generation of electricity during periods of peak system demand.

(e) Every electrical corporation shall make the tariff available to eligible customer-generators within the service territory of the electrical corporation, upon request. An electrical corporation may make the terms of the tariff available to an eligible customer in the form of a standard contract.

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.