Assembly Bill No. 1637

Passed the Assembly August 31, 2016

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Chief Clerk of the Assembly

Passed the Senate August 22, 2016

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Secretary of the Senate

This bill was received by the Governor this _____ day of _____, 2016, at _____ o'clock ___M.

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Private Secretary of the Governor

CHAPTER _____

An act to amend Sections 379.6 and 2827.10 of the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 1637, Low. Energy: greenhouse gas reduction.

(1) Under existing law, the Public Utilities Commission (PUC) has regulatory authority over public utilities. Existing law requires the PUC to require the administration, until January 1, 2021, of a self-generation incentive program for distributed generation resources and energy storage technologies. Existing law authorizes the PUC, in consultation with the State Energy Resources Conservation and Development Commission, to authorize the annual collection of not more than the amount authorized for the program in the 2008 calendar year.

This bill would increase the maximum annual collection the PUC may authorize for the program to double the amount authorized for the program in the 2008 calendar year.

(2) Existing law requires an electrical corporation to file with the PUC a standard tariff providing for net energy meeting for eligible fuel cell customer-generators and make the tariff available, on a first-come-first-served basis, until the total cumulative rated generating capacity of the eligible fuel cell electrical generating facilities receiving service pursuant to the tariff reaches a level equal to the electrical corporation's proportionate share of a statewide limitation of 500 megawatts cumulative rated generation capacity served (program cap). Existing law requires the eligible fuel cell customer-generator to meet certain requirements, including requirements that the customer-generator uses: (A) a fuel cell electrical generation facility with a capacity of not more than one megawatt and (B) technology the PUC has determined will achieve certain reductions in emissions of greenhouse gases. Existing law provides that fuel cell electrical generation facilities are not eligible for the tariff unless the facilities commence operation prior to January 1, 2017.

This bill would increase the program cap by authorizing 500 megawatts in addition to the total installed capacity as of January

1, 2017. The bill would increase to 5 megawatts the maximum amount of generation capacity for a fuel cell electrical generation facility in the program. The bill would require, by March 31, 2017, the State Air Resources Board, in consultation with the Energy Commission, to establish a schedule of annual greenhouse gas emissions reduction standards, as specified, for fuel cell electrical generation resources and would require the PUC to determine if the technology used by the eligible fuel cell customer-generator will achieve those standards. The bill would require the fuel cell electrical generation resource to comply with emission standards adopted by the State Air Resources Board under the distributed generation certification program.

This bill would provide that fuel cell electrical generation facilities are not eligible for the tariff unless the facilities commence operation on or before December 31, 2021.

The people of the State of California do enact as follows:

SECTION 1. Section 379.6 of the Public Utilities Code is amended to read:

379.6. (a) (1) It is the intent of the Legislature that the self-generation incentive program increase deployment of distributed generation and energy storage systems to facilitate the integration of those resources into the electrical grid, improve efficiency and reliability of the distribution and transmission system, and reduce emissions of greenhouse gases, peak demand, and ratepayer costs. It is the further intent of the Legislature that the commission, in future proceedings, provide for an equitable distribution of the costs and benefits of the program.

(2) The commission, in consultation with the Energy Commission, may authorize the annual collection of not more than double the amount authorized for the self-generation incentive program in the 2008 calendar year, through December 31, 2019. The commission shall require the administration of the program for distributed energy resources originally established pursuant to Chapter 329 of the Statutes of 2000 until January 1, 2021. On January 1, 2021, the commission shall provide repayment of all unallocated funds collected pursuant to this section to reduce ratepayer costs.

(3) The commission shall administer solar technologies separately, pursuant to the California Solar Initiative adopted by the commission in Decisions 05-12-044 and 06-01-024, as modified by Article 1 (commencing with Section 2851) of Chapter 9 of Part 2 of Division 1 of this code and Chapter 8.8 (commencing with Section 25780) of Division 15 of the Public Resources Code.

(b) (1) Eligibility for incentives under the self-generation incentive program shall be limited to distributed energy resources that the commission, in consultation with the State Air Resources Board, determines will achieve reductions in emissions of greenhouse gases pursuant to the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code).

(2) On or before July 1, 2015, the commission shall update the factor for avoided greenhouse gas emissions based on the most recent data available to the State Air Resources Board for greenhouse gas emissions from electricity sales in the self-generation incentive program administrators' service areas as well as current estimates of greenhouse gas emissions over the useful life of the distributed energy resource, including consideration of the effects of the California Renewables Portfolio Standard.

(c) Eligibility for the funding of any combustion-operated distributed generation projects using fossil fuel is subject to all of the following conditions:

(1) An oxides of nitrogen (NO_x) emissions rate standard of 0.07 pounds per megawatthour and a minimum efficiency of 60 percent, or any other NO_x emissions rate and minimum efficiency standard adopted by the State Air Resources Board. A minimum efficiency of 60 percent shall be measured as useful energy output divided by fuel input. The efficiency determination shall be based on 100 percent load.

(2) Combined heat and power units that meet the 60-percent efficiency standard may take a credit to meet the applicable NO_x emissions standard of 0.07 pounds per megawatthour. Credit shall be at the rate of one megawatthour for each 3,400,000 British thermal units (Btus) of heat recovered.

(3) The customer receiving incentives shall adequately maintain and service the combined heat and power units so that during operation the system continues to meet or exceed the efficiency

and emissions standards established pursuant to paragraphs (1) and (2).

(4) Notwithstanding paragraph (1), a project that does not meet the applicable NO_x emissions standard is eligible if it meets both of the following requirements:

(A) The project operates solely on waste gas. The commission shall require a customer that applies for an incentive pursuant to this paragraph to provide an affidavit or other form of proof that specifies that the project shall be operated solely on waste gas. Incentives awarded pursuant to this paragraph shall be subject to refund and shall be refunded by the recipient to the extent the project does not operate on waste gas. As used in this paragraph, "waste gas" means natural gas that is generated as a byproduct of petroleum production operations and is not eligible for delivery to the utility pipeline system.

(B) The air quality management district or air pollution control district, in issuing a permit to operate the project, determines that operation of the project will produce an onsite net air emissions benefit compared to permitted onsite emissions if the project does not operate. The commission shall require the customer to secure the permit prior to receiving incentives.

(d) In determining the eligibility for the self-generation incentive program, minimum system efficiency shall be determined either by calculating electrical and process heat efficiency as set forth in Section 216.6, or by calculating overall electrical efficiency.

(e) Eligibility for incentives under the program shall be limited to distributed energy resource technologies that the commission determines meet all of the following requirements:

(1) The distributed energy resource technology shifts onsite energy use to off-peak time periods or reduces demand from the grid by offsetting some or all of the customer's onsite energy load, including, but not limited to, peak electric load.

(2) The distributed energy resource technology is commercially available.

(3) The distributed energy resource technology safely utilizes the existing transmission and distribution system.

(4) The distributed energy resource technology improves air quality by reducing criteria air pollutants.

(f) Recipients of the self-generation incentive program funds shall provide relevant data to the commission and the State Air

Resources Board, upon request, and shall be subject to onsite inspection to verify equipment operation and performance, including capacity, thermal output, and usage to verify criteria air pollutant and greenhouse gas emissions performance.

(g) In administering the self-generation incentive program, the commission shall determine a capacity factor for each distributed generation system energy resource technology in the program.

(h) (1) In administering the self-generation incentive program, the commission may adjust the amount of rebates and evaluate other public policy interests, including, but not limited to, ratepayers, energy efficiency, peak load reduction, load management, and environmental interests.

(2) The commission shall consider the relative amount and the cost of greenhouse gas emissions reductions, peak demand reductions, system reliability benefits, and other measurable factors when allocating program funds between eligible technologies.

(i) The commission shall ensure that distributed generation resources are made available in the program for all ratepayers.

(j) In administering the self-generation incentive program, the commission shall provide an additional incentive of 20 percent from existing program funds for the installation of eligible distributed generation resources manufactured in California.

(k) The costs of the program adopted and implemented pursuant to this section shall not be recovered from customers participating in the California Alternate Rates for Energy (CARE) program.

(*l*) The commission shall evaluate the overall success and impact of the self-generation incentive program based on the following performance measures:

(1) The amount of reductions of emissions of greenhouse gases.

(2) The amount of reductions of emissions of criteria air pollutants measured in terms of avoided emissions and reductions of criteria air pollutants represented by emissions credits secured for project approval.

(3) The amount of energy reductions measured in energy value.

(4) The amount of reductions of customer peak demand.

(5) The ratio of the electricity generated by distributed energy resource generation projects receiving incentives from the program to the electricity capable of being produced by those projects, commonly known as a capacity factor.

(6) The value to the electrical transmission and distribution system measured in avoided costs of transmission and distribution upgrades and replacement.

(7) The ability to improve onsite electricity reliability as compared to onsite electricity reliability before the self-generation incentive program technology was placed in service.

SEC. 2. Section 2827.10 of the Public Utilities Code is amended to read:

2827.10. (a) As used in this section, the following terms have the following meanings:

(1) "Electrical corporation" means an electrical corporation, as defined in Section 218.

(2) "Eligible fuel cell electrical generating facility" means a facility that includes the following:

(A) Integrated powerplant systems containing a stack, tubular array, or other functionally similar configuration used to electrochemically convert fuel to electricity.

(B) An inverter and fuel processing system where necessary.

(C) Other plant equipment, including heat recovery equipment, necessary to support the plant's operation or its energy conversion.

(3) (A) "Eligible fuel cell customer-generator" means a customer of an electrical corporation that meets all the following criteria:

(i) Uses a fuel cell electrical generating facility with a generating capacity of not more than five megawatts that is located on or adjacent to the customer's owned, leased, or rented premises, is interconnected and operates in parallel with the electrical grid while the grid is operational or in a grid independent mode when the grid is nonoperational, and is sized to offset part or all of the eligible fuel cell customer-generator's own electrical requirements.

(ii) Is the recipient of local, state, or federal funds, or who self-finances projects designed to encourage the development of eligible fuel cell electrical generating facilities.

(iii) Uses technology the commission has determined will achieve reductions in emissions of greenhouse gases pursuant to subdivision (b).

(B) Complies with the emissions standards adopted by the State Air Resources Board pursuant to the distributed generation certification program requirements of Section 94203 of Title 17 of the California Code of Regulations, or any successor regulation.

(C) For purposes of this paragraph, a person or entity is a customer of the electrical corporation if the customer is physically located within the service territory of the electrical corporation and receives bundled service, distribution service, or transmission service from the electrical corporation.

(4) "Net energy metering" means measuring the difference between the electricity supplied through the electrical grid and the difference between the electricity generated by an eligible fuel cell electrical generating facility and fed back to the electrical grid over a 12-month period as described in subdivision (e). Net energy metering shall be accomplished using a time-of-use meter capable of registering the flow of electricity in two directions. If the existing electrical meter of an eligible fuel cell customer-generator is not capable of measuring the flow of electricity in two directions, the eligible fuel cell 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 net energy metering calculation shall yield a result identical to that of a time-of-use meter.

(b) (1) Not later than March 31, 2017, the State Air Resources Board, in consultation with the Energy Commission, shall establish a schedule of annual greenhouse gas emissions reduction standards for a fuel cell electrical generation resource for purposes of clause (iii) of subparagraph (A) of paragraph (3) of subdivision (a) and shall update the schedule every three years with applicable standards for each intervening year.

(2) The greenhouse gas emissions reduction standards shall ensure that each fuel cell electrical generation resource, for purposes of clause (iii) of subparagraph (A) of paragraph (3) of subdivision (a), reduces greenhouse gas emissions compared to the electrical grid resources, including renewable resources, that the fuel cell electrical generation resource displaces, accounting for both procurement and operation of the electrical grid.

(c) (1) Every electrical corporation, not later than March 1, 2004, shall file with the commission a standard tariff providing for net energy metering for eligible fuel cell customer-generators, consistent with this section. Subject to the limitation in subdivision (g), every electrical corporation shall make this tariff available to eligible fuel cell customer-generators upon request, on a first-come-first-served basis, until the total cumulative rated

generating capacity of the eligible fuel cell electrical generating facilities receiving service pursuant to the tariff, in addition to the installed capacity as of January 1, 2017, reaches a level equal to its proportionate share of a statewide limitation of 500 megawatts cumulative rated generation capacity served under this section. The proportionate share shall be calculated based on the ratio of the electrical corporation's peak demand compared to the total statewide peak demand.

(2) To continue the growth of the market for onsite electrical generation using fuel cells, the commission may review and incrementally raise the limitation established in paragraph (1) on the total cumulative rated generating capacity of the eligible fuel cell electrical generating facilities receiving service pursuant to the tariff in paragraph (1).

(d) In determining the eligibility for the cumulative rated generating capacity within an electrical corporation's service territory, preference shall be given to facilities that, at the time of installation, are located in a community with significant exposure to air contaminants or localized air contaminants, or both, including, but not limited to, communities of minority populations or low-income populations, or both, based on the ambient air quality standards established pursuant to Division 26 (commencing with Section 39000) of the Health and Safety Code.

(e) (1) Each net energy metering contract or tariff shall be identical, with respect to rate structure, all retail rate components, and any monthly charges, to the contract or tariff to which the customer would be assigned if the customer was not an eligible fuel cell customer-generator. Any new or additional demand charge, standby charge, customer charge, minimum monthly charge, interconnection charge, or other charge that would increase an eligible fuel cell customer-generator's costs beyond those of other customers in the rate class to which the eligible fuel cell customer-generator would otherwise be assigned are contrary to the intent of the Legislature in enacting this section, and shall not form a part of net energy metering tariffs.

(2) The commission shall authorize an electrical corporation to charge a fuel cell customer-generator a fee based on the cost to the utility associated with providing interconnection inspection services for that fuel cell customer-generator.

(f) The net metering calculation shall be made by measuring the difference between the electricity supplied to the eligible fuel cell customer-generator and the electricity generated by the eligible fuel cell customer-generator and fed back to the electrical grid over a 12-month period. The following rules shall apply to the annualized metering calculation:

(1) The eligible fuel cell customer-generator shall, at the end of each 12-month period following the date of final interconnection of the eligible fuel cell electrical generating facility with an electrical corporation, and at each anniversary date thereafter, be billed for electricity used during that period. The electrical corporation shall determine if the eligible fuel cell customer-generator was a net consumer or a net producer of electricity during that period. For purposes of determining if the eligible fuel cell customer-generator was a net consumer or a net producer of electricity during that period, the electrical corporation shall aggregate the electrical load of the meters located on the property where the eligible fuel cell electrical generating facility is located and on all property adjacent or contiguous to the property on which the facility is located, if those properties are solely owned, leased, or rented by the eligible fuel cell customer-generator. Each aggregated account shall be billed and measured according to a time-of-use rate schedule.

(2) At the end of each 12-month period, where the electricity supplied during the period by the electrical corporation exceeds the electricity generated by the eligible fuel cell customer-generator during that same period, the eligible fuel cell customer-generator is a net electricity consumer and the electrical corporation shall be owed compensation for the eligible fuel cell customer-generator’s net kilowatthour consumption over that same period. The compensation owed for the eligible fuel cell customer-generator’s consumption shall be calculated as follows:

(A) The generation charges for any net monthly consumption of electricity shall be calculated according to the terms of the tariff to which the same customer would be assigned to or be eligible for if the customer was not an eligible fuel cell customer-generator. When the eligible fuel cell customer-generator is a net generator during any discrete time-of-use period, the net kilowatthours produced shall be valued at the same price per kilowatthour as the electrical corporation would charge for retail kilowatthour sales

for generation, exclusive of any surcharges, during that same time-of-use period. If the eligible fuel cell customer-generator's time-of-use electrical meter is unable to measure the flow of electricity in two directions, paragraph (4) of subdivision (a) shall apply. All other charges, other than generation charges, shall be calculated in accordance with the eligible fuel cell customer-generator's applicable tariff and based on the total kilowatthours delivered by the electrical corporation to the eligible fuel cell customer-generator. To the extent that charges for transmission and distribution services are recovered through demand charges in any particular month, no standby reservation charges shall apply in that monthly billing cycle.

(B) The net balance of moneys owed shall be paid in accordance with the electrical corporation's normal billing cycle.

(3) At the end of each 12-month period, where the electricity generated by the eligible fuel cell customer-generator during the 12-month period exceeds the electricity supplied by the electrical corporation during that same period, the eligible fuel cell customer-generator is a net electricity producer and the electrical corporation shall retain any excess kilowatthours generated during the prior 12-month period. The eligible fuel cell customer-generator shall not be owed any compensation for those excess kilowatthours.

(4) If an eligible fuel cell customer-generator terminates service with the electrical corporation, the electrical corporation shall reconcile the eligible fuel cell customer-generator's consumption and production of electricity during any 12-month period.

(g) A fuel cell electrical generating facility shall not be eligible for the tariff unless it commences operation on or before December 31, 2021, unless a later enacted statute, that is chaptered on or before December 31, 2021, extends this eligibility commencement date. The tariff shall remain in effect for an eligible fuel cell electrical generating facility that commences operation pursuant to the tariff on or before December 31, 2021. A fuel cell customer-generator shall be eligible for the tariff established pursuant to this section only for the operating life of the eligible fuel cell electrical generating facility.

Approved _____, 2016

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Governor