Memorandum

Date: May 16, 2007

To: The Commission
(Meeting of May 24, 2007)

From: Delaney Hunter, Director
Office of Governmental Affairs (OGA) — Sacramento

Subject: AB 1428 (Gagliani) Energy: biogas digester and manure-fueled customer-generator pilot program.
As Amended: May 2, 2007

LEGISLATIVE SUBCOMMITTEE RECOMMENDATION: SUPPORT

SUMMARY OF BILL:

This bill would expand Public Utilities (PU) Code 2827.9 that offers generation rate net metering for eligible biogas digester customer-generators to include manure-fueled customer generation.

The author and sponsors are seeking to ensure that the existing biogas net-metering pilot program in PU Code 2827.9 will include electricity produced from the thermo-decomposition of poultry and livestock waste.

According to the author and sponsors, this bill is needed to ensure that technology that turns poultry waste into electricity is also eligible for the program.

The bill increases the current program’s net-metering cap from 50 megawatts to “50 megawatts for eligible biogas digester facilities and 20 megawatts for any other eligible manure-fueled facilities.” Thus, the bill would effectively expand the biogas/manure net-metering cap from 50 to 70 megawatts.

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION:

The bill has undergone several changes. The bill initially created a new, stand-alone net-metering pilot program for biomass and biogas with an emphasis on poultry waste. The bill now seeks to redefine the existing biogas generation-rate net metering program
that has primarily been for dairies to encompass all poultry and livestock waste technologies.

It should be noted that net metering for biomass customer generation may impose additional costs on non-participants due to interconnection costs and the ratepayer funding of any distribution upgrades that may be needed because of the new generation. Factors affecting the need for distribution upgrades to accommodate the generation include, but are not limited to, the size of the generator, and the length, capacity, voltage conditions and feeder protection scheme of the distribution line to which the net metered DG is interconnected.

These concerns may be somewhat mitigated since the bill now fits within the existing biogas framework pilot program – with an additional 20 megawatts of gen-to-gen net metering.

**SUMMARY OF SUGGESTED AMENDMENTS (if any):**

N/A

**DIVISION ANALYSIS (Energy Division):**

- This bill would change the existing generation-rate net metering pilot program for agricultural was as follows:
  - The term “eligible biogas digester customer-generator” would be replaced throughout PU Code 2827.9 with “biogas digester and manure-fueled customer generator.”
  - The current 50 megawatt cap would be increased to 70 megawatts.
  - Other provisions of the pilot program remain unchanged.

- Existing law requires the Commission, in consultation with the Air Resources Board to report to the Legislature on various impacts of the pilot program by December 31, 2008

- The bill may reduce air pollution attributable to legal or illegal on-site combustion of biomass.

- If the pilot program demonstrates a market for on-site biomass energy or on site municipal solid waste energy, it could help achieve State goals of adding renewable energy capacity to the electric grid and reducing harmful emissions.

- By generating electricity using fuel that would be burned or would emit methane as it decayed, the bill may contribute to meeting climate change goals.
• The bill may increase demand for SGIP incentives.

• As mentioned above, PU Code 2827 exempts net metered customers from utility costs incurred to interconnect a generator to the distribution system; which means that costs associated with distribution upgrades needed to accommodate the generator are passed on to all ratepayers. Where biomass or other net metered generators are installed on distribution lines that require upgrades to accommodate the generation, there is the potential for biomass net metering to impose significant costs on non-participants that exceed the benefits they may receive from that generation.

PROGRAM BACKGROUND:

• D.01-03-073 adopted the Self Generation Incentive Program (SGIP) to comply with AB 970, which required the Commission to provide incentives for “super-clean” and renewable DG technologies This Decision required non-renewable DG technologies to utilize waste heat recovery equipment at the customer site in order to receive incentives.

• PU Code Section 399.20 encourages renewable energy production at public water and wastewater facilities by requiring utilities to purchase at the Market Price Referent. The CPUC is considering whether to expand this program to other renewable generators in the on-going RPS proceeding, R.06-05-027.

LEGISLATIVE HISTORY:

• SB 656 of 1995 required all electric utilities to buy back any electricity generated by a customer-owned solar or wind system. This buy-back program, known as "net metering" requires the utilities to credit the customer generators the full retail rate for their excess power production.

• AB 2228 of 2002 created a pilot program providing partial net metering to customer-owned electric generation projects fueled by manure methane, or biogas. Under AB 2228, the net-metered customer only gets credit at the generation rate, rather than the full retail rate offered to solar customers.

• AB 728 of 2005 expanded and extended to the program to January 1, 2009.
FISCAL IMPACT:

This fiscal impacts caused by the workload associated with this bill would be $192,534.

This bill, as amended May 2, 2007, requires one PURA IV and one PURA II to complete the data collection and analysis associated with preparing a report to the Legislature by December 31, 2008 on the effects of a biogas and biomass net metering program on grid-reliability, air emissions and ratepayers. The bill’s reporting requirements are unchanged from when the bill was first introduced but are moved forward from 2010 to 2008.

STATUS:
The bill is pending hearing in the Assembly Appropriations Committee.

SUPPORT/OPPOSITION:

Support:
• California Grain and Feed Association (Sponsor)
• Pacific Egg and Poultry Association

Oppose:
• None on file.

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Date: May 16, 2007
BILL LANGUAGE:

BILL NUMBER: AB 1428 AMENDED
BILL TEXT

AMENDED IN ASSEMBLY MAY 2, 2007
AMENDED IN ASSEMBLY APRIL 17, 2007
AMENDED IN ASSEMBLY APRIL 9, 2007

INTRODUCED BY Assembly Member Galgiani

FEBRUARY 23, 2007

An act to amend Section 2827.9 of the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

Under existing law, the Public Utilities Commission has regulatory authority over public utilities, as defined. Existing law authorizes the commission to fix the rates and charges for every public utility, and requires that those rates and charges be just and reasonable. Under existing law, electric service providers, as defined, are required to provide eligible customer-generators with net energy metering, as defined. Under existing law, electrical corporations are required to provide eligible biogas digester customer-generators, that commence operation by December 31, 2009, with net energy metering, as defined, under a pilot program.

This bill would replace include certain manure-fueled electrical generating facilities in the existing pilot program for , which the bill would recast to apply to eligible biogas digester customer-generators with a pilot program for eligible agricultural waste customer-generators, as defined.


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

SECTION 1. Section 2827.9 of the Public Utilities Code is amended to read:

2827.9. (a) (1) The Legislature finds and declares that a pilot program to provide net energy metering for eligible agricultural waste biogas digester and manure-fueled customer-generators would enhance the continued diversification of California's energy resource mix and would encourage the installation of livestock air emission controls that the State Air Resources Board believes may produce multiple environmental benefits.
(2) The Legislature further finds and declares that the net energy metering pilot program authorized pursuant to this section for eligible agricultural waste biogas digester and manure-fueled customer-generators, which nets out generation charges against generation charges on a time-of-use basis, furthers the intent of Chapter 7 of the Statutes of 2001, First Extraordinary Session, by facilitating the implementation of energy efficiency programs in order to reduce consumption of energy, reduce the costs associated with energy demand, and achieve a reduction in peak electricity demand.

(b) As used in this section, the following definitions apply:

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

(2) (A) "Eligible agricultural waste customer-generator" means a customer of an electrical corporation that meets both of the following criteria:

(i) Uses an eligible manure-fueled electrical generating facility with a capacity of not more than one megawatt that is located on or adjacent to the customer's owned, leased, or rented premises, is interconnected and operates in parallel with the electric grid, and is sized to offset part or all of the eligible agricultural waste customer-generator's own electrical requirements.

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

(B) Notwithstanding subparagraph (A), up to three large manure-fueled biogas digester electrical generating facilities with a generating capacity of more than one megawatt and not more than 10 megawatts, otherwise meeting the criteria of this section, shall be eligible for participation in the pilot program.

(3) "Eligible manure-fueled electrical generating facility" means a generating facility used to produce electricity by either a manure methane production project, as a byproduct of the anaerobic digestion of biosolids and animal waste, or through thermal decomposition or other means of conversion of manure.

(4) "Manure" means any substance composed primarily of animal excrement, plant remains, or mixtures of those substances, containing no municipal solid waste, producing no discharge to surface or ground waters of the state, and containing or producing no hazardous waste.

(5) "Net energy metering" means measuring the difference between the electricity supplied through the electric grid and the difference between the electricity generated by an eligible agricultural waste customer-generator and fed back to the electric 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 agricultural waste customer-generator is not capable of measuring the flow of electricity in two directions, the eligible agricultural waste 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.

(c) Every electrical corporation shall file with the commission a standard tariff providing for net energy metering for eligible agricultural waste customer-generators, consistent with this section. Every electrical corporation shall make this tariff available to eligible agricultural waste customer-generators upon request, on a first-come-first-served basis, until the combined statewide cumulative rated generating capacity used by the eligible agricultural waste customer-generators in the service territories of the three largest electrical corporations in the state reaches 50 megawatts for eligible biogas digester facilities and 20 megawatts for any other eligible manure-fueled facilities. An eligible agricultural waste customer-generator shall be eligible for the tariff for the life of the eligible manure-fueled electrical generating facility.

(d) 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 same customer would be assigned if the customer was not an eligible agricultural waste customer-generator, except as set forth in subdivision (e). Any new or additional demand charge, standby charge, customer charge, minimum monthly charge, interconnection charge, or other charge that would increase an eligible agricultural waste customer-generator's costs beyond those of other customers in the rate class to which the eligible agricultural waste customer-generator would otherwise be assigned are contrary to the intent of this legislation, and shall not form a part of net energy metering tariffs.

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

(1) The eligible agricultural waste customer-generator shall, at the end of each 12-month period following the date of final interconnection of the eligible manure-fueled electrical generating system 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 agricultural waste customer-generator was a net consumer or a net producer of electricity during that period. For purposes of determining if the eligible agricultural waste customer-generator was a net consumer or a net producer of electricity during that period, the electrical corporation shall aggregate the electrical load of an agricultural operation under the same ownership, including, but not limited to, the electrical load attributable to operating the agricultural production facility, and water pumping located on property adjacent or contiguous to the property on which the eligible
manure-fueled electrical generating facility is located. 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 agricultural waste customer-generator during that same period, the eligible agricultural waste customer-generator is a net electricity consumer and the electrical corporation shall be owed compensation for the eligible agricultural waste customer-generator's net kilowatthour consumption over that same period. The compensation owed for the eligible agricultural waste 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 agricultural waste customer-generator. When those eligible agricultural waste customer-generators are net generators 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 agricultural waste customer-generator's time-of-use electrical meter is unable to measure the flow of electricity in two directions, paragraph (4) of subdivision (b) shall apply. All other charges, other than generation charges, shall be calculated in accordance with the eligible agricultural waste customer-generator's applicable tariff and based on the total kilowatthours delivered by the electrical corporation to the eligible agricultural waste 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 agricultural waste customer-generator during the 12-month period exceeds the electricity supplied by the electrical corporation during that same period, the eligible agricultural waste 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 agricultural waste customer-generator shall not be owed any compensation for those excess kilowatthours.

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

(f) No eligible manure-fueled electrical generating facility shall be eligible for participation in the tariff established pursuant to this section, that has not commenced
operation by December 31, 2009. An eligible agricultural waste customer-generator shall be eligible for the tariff established pursuant to this section, only for the operating life of the eligible manure-fueled electrical generating facility.

(g) No manure-fueled electrical generating facility that is subject to the best available control technology (BACT) requirements shall be eligible for participation in the tariff pursuant to this section unless the manure-fueled electrical generating facility has installed the best available control technology as required by the regional air pollution control applicable air pollution control district or air quality management district at the time of installation to ensure the maximum feasible reductions in toxic and criteria pollutants.

(h) On or before December 31, 2008, the commission, in collaboration with the State Air Resources Board, shall report to the Legislature all of the following information:

(1) The impact of the pilot program on emissions of air pollutants.

(2) The impact of the pilot program on the reliability of the transmission and distribution grid.

(3) The impact of the pilot program on ratepayers.