STATE OF CALIFORNIA

Public Utilities Commission
San Francisco

M e m o r a n d u m

Date: May 16, 2007

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

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

Subject: **AB 1064 (Lieber) Energy: heat corporations: self-generation incentive program (SGIP). As amended: May 2, 2007**

LEGISLATIVE SUBCOMMITTEE RECOMMENDATION: **SUPPORT WITH AMENDMENTS**

SUMMARY OF BILL:

The bill amends PU Code Section 379.6 to deem advanced solar thermal (AST) technologies that displace natural gas eligible to receive incentives under the Self-Generation Incentive Program (SGIP).

The bill deems petroleum flare gas, landfill gas and wastewater digester gas technologies eligible for SGIP incentives.

The bill no longer limits SGIP to wind and fuel cells in 2008. AST and the waste gas technologies would be eligible for SGIP until 2012.

The bill would prohibit CARE ratepayers from paying for the SGIP.

Directs the Energy Commission, in consultation with the CPUC, to evaluate the past costs and benefits of providing ratepayer subsidies to natural gas and fossil fuel fired DG thorough the SGIP.

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION:

This bill was initially sponsored by the CPUC to restore clean gas-fired DG to the SGIP as well as deem solar thermal technologies eligible for SGIP. In the bill's first policy committee, the provision restoring gas-fired DG was deleted from the bill and replaced

with an Energy Commission study regarding the benefits of ratepayer subsidies to natural gas and fossil fuel DG projects. The broad question is do we support adding solar thermal and waste gas technologies to the SGIP via legislation when our original intent with this bill was to restore clean gas-fired DG to the SGIP?

The bill also requires the Energy Commission to study a CPUC program and report to the Legislature by 2009.

Currently both gas and electric customers fund the SGIP. Allowing advanced solar thermal technologies that displace gas usage and other waste gas technologies to participate in the SGIP supports the Commission's preferred loading order established in the Energy Action Plan by promoting renewables.

SUMMARY OF SUGGESTED AMENDMENTS:

AB 1064 should not limit the SGIP to a few select renewable technologies. The bill should be amended to use the standard RPS definition of renewables to define eligible DG technologies. Standardizing of the definition of "renewable technologies" would simplify program administration and permit continued eligibility of combined renewable technologies ("hybrids"). The recommendation would ensure that all bonafide renewable technologies be made eligible for SGIP.

> **Add Section 379.6 (a) (5):**
>
> *Distributed generation technologies defined as renewable electric generation in Section 25741 of the Public Resources Code, which are not hydroelectric or electric generating solar, and which meet or exceed the emissions standards required under the distributed generation certification program requirements of Article 3 (commencing with Section 94200) of Subchapter 8 of Chapter 1 of Division 3 of Title 17 of the California Code of Regulations are eligible for the program, as determined by the commission. Any incentives authorized by the commission shall be performance-based so that incentives are earned based on the actual energy savings.*

DIVISION ANALYSIS (Energy Division):

- The bill amends PU Code Section 379.6 to deem advanced solar thermal (AST) technologies that displace natural gas eligible to receive incentives under the Self-Generation Incentive Program (SGIP).

- The bill deems petroleum flare gas, landfill gas and wastewater digester gas technologies eligible for SGIP incentives.

- The bill no longer limits SGIP to wind and fuel cells in 2008. AST and the waste gas technologies would be eligible for SGIP until 2012.

- The bill would prohibit CARE ratepayers from paying for the SGIP.

- Directs the Energy Commission, in consultation with the CPUC, to evaluate the past costs and benefits of providing ratepayer subsidies to natural gas and fossil fuel fired DG thorough the SGIP.

- The Commission's language to restore clean gas-fired technologies to the SGIP was deleted from the bill.

PROGRAM BACKGROUND:

- D.01-03-073 created the Self-Generation Incentive Program in response to AB 970 on March 21, 2001.

- D.04-12-045 modified the program on December 16, 2004 in response to AB 1685, extending the program through January 1, 2008 and adopting thermal efficiency standards for participating CHP.

- D.06-01-024, adopted on January 12, 2006, created the California Solar Initiative Program for PV distributed technologies and other solar thermal technologies to begin accepting application on January 1, 2007.

- California created the California Solar Initiative through the adoption of D.06-01-024 by the CPUC on January 12, 2006. The decision committed $2.8 billion dollars to the development of solar and solar thermal in California and established a program goal to bring on line or displace 3,000 MW of power.

- D.06-08-028 adopted on August 24, 2006, established performance-based incentives, an administrative structure, and other phase one program elements, for payments to qualifying solar photo-voltaic technologies through the Commission's California Solar Initiative.

- D.06-12-033 adopted on December 14, 2006 modified the CSI program to conform to SB1, and removed solar thermal technologies from the CSI program to avoid cross-subsidization of gas-displacing projects by electric ratepayers.

LEGISLATIVE HISTORY:

- AB 970, adopted on August 31, 2000, allowed the Commission to meet legislative intent by giving it the authority to develop a program to reduce load. In adopting D.01-03-073, the Commission relied on Section 1(d) or AB 970 to create the SGIP:

  > (d) The purpose of this act is to provide a balanced response to the electricity problems facing the state that will result in significant new investments in new, environmentally superior electricity generation, while also making significant new investments in conservation and demand-side management programs in order to meet the energy needs of the state for the next several years."

- SB 1 adopted by the legislature on August 21, 2006 required additional parameters for implementing the California Solar Initiative (CSI) which provides incentives to photovoltaic and electric displacing solar thermal technologies. This legislation also precluded the Commission from charging retail gas customers for CSI program costs.

- AB 1685 of 2003 required gas-fired SGIP projects to meet stricter emission standards.

- AB 2778 adopted by the legislature on August 31, 2006 extended the SGIP through 1/1/12 and removed photovoltaic technologies eligible for CSI incentives from participating in the SGIP as of 1/1/07. AB 2778 also restricted technologies eligible for SGIP beginning 1/1/08 through 1/1/12 to wind and fuel cells.

OTHER STATES' OR FEDERAL INFORMATION (if known):

N/A

FISCAL IMPACT:

- To complete the workload associated wit this bill, the Commission would require an additional PURA III and work by existing staff to:
  - Establish new performance-based incentive structures for the new technologies added to the SGIP.
  - Revamp and review our existing process to expand SGIP eligibility to new technologies.
  - Work with the Energy Commission on the 2009 study on gas-fired DG subsidies.

The total fiscal impact would be $94,127 per year.

STATUS:

The bill is pending hearing in the Assembly Appropriations Committee.

SUPPORT/OPPOSITION:

Support:
- Clean Power Campaign (Sponsor)
- Environment California
- Sacramento Municipal Utility District
- Natural Resources Defense Council

Opposition:
- None on file.

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Date: May 16, 2007

BILL LANGUAGE:

BILL NUMBER: AB 1064 AMENDED
BILL TEXT

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

INTRODUCED BY Assembly Member Lieber

FEBRUARY 23, 2007

An act to amend Sections 224 and 379.6 of, and to add Section 230.8 to, the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 1064, as amended, Lieber. Energy: heat corporations: self-generation incentive program.

(1) Under existing law, the Public Utilities Commission (PUC) has regulatory authority over public utilities, including electrical corporations and heat corporations, as defined.

This bill would except from the definition of a heat corporation, a person employing *advanced* solar thermal distributed technology, as defined, for the production or generation of heat for its own use or the use of its tenants or for sale to a heat corporation or state or local public agency.

(2) Existing law requires the commission, in consultation with the State Energy Resources Conservation and Development Commission (Energy Commission), to administer, until January 1, 2012, a self-generation incentive program for distributed generation resources. The program is applicable to all eligible technologies, as determined by the commission and subject to certain air emissions and efficiency standards, until January 1, 2008, except for solar technologies, which the commission is required to administer separately, after January 1, 2007, pursuant to the California Solar Initiative. Commencing January 1, 2008, until January 1, 2012, existing law limits eligibility for nonsolar technologies to fuel cells and wind distributed generation technologies that meet or exceed emissions standards adopted by the State Air Resources Board.

This bill would make ~~waste gas technologies, as defined and meeting certain requirements,~~ *waste gas, fuel cell, and wind distributed generation technologies meeting certain requirements* eligible for the self-generation incentive program for distributed generation ~~commencing January 1, 2008, until January 1, 2012~~ . The bill would make solar thermal distributed technologies that displace usage of natural gas eligible for the self-generation incentive program, as determined by the commission, and would require that any incentives authorized by the commission be performanced-based so that incentives are earned based on the actual energy savings.

(3) Existing law requires the commission to establish a program of assistance to low-income electric and gas customers, referred to as the California Alternate Rates for Energy or CARE program.

This bill would prohibit any costs of the self-generation incentive program from being recovered from customers participating in the CARE program.

(4) Existing law require the Energy Commission, on or before November 1, 2008, in consultation with the commission and the State Air Resources Board, to evaluate the costs and benefits of providing ratepayer subsidies for renewable and fossil fuel "ultraclean and low-emission distributed generation," as defined, as part of the Energy Commission's integrated energy policy report.

This bill would require the Energy Commission, on or before ~~January 1, 2010~~ *November 1, 2009* , in consultation with the commission and the board, to evaluate past costs and benefits of providing ratepayer subsidies to natural gas and fossil fuel fired distributed generation through the self-generation incentive program.

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

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

SECTION 1. Section 224 of the Public Utilities Code is amended to read:

224. (a) "Heat corporation" includes every corporation or person owning, controlling, operating, or managing any heating plant for compensation within this state, except where heat is generated on or distributed by the producer through private property alone solely for his own use or the use of his tenants and not for sale to others.

(b) "Heat corporation" does not include a corporation or person employing landfill gas technology or *advanced* solar thermal distributed technologies for the production or generation of heat for its own use or the use of its tenants or for sale to a heat corporation or state or local public agency.

SEC. 2. Section 230.8 is added to the Public Utilities Code, to read:

~~230.8. "Solar thermal distributed technologies" means devices or systems that utilize solar thermal energy (sunlight) for space heating, space cooling, industrial or commercial process water for heating or cooling, or a combination of those purposes.~~

230.8. (a) "Solar photovoltaic system" means a device or system that has the primary purpose of providing for the collection of solar thermal energy sunlight and utilizing solar cells or solar photovoltaic arrays to convert that energy into electricity.

(b) "Advanced solar thermal distributed technology" means a mechanical device or system that utilizes solar thermal energy sunlight for residential, commercial, or industrial space cooling, process cooling, or a cooling system that includes space heating, process heating, or hot water.

SEC. 3. Section 379.6 of the Public Utilities Code is amended to read:

379.6. (a) ~~(1)~~ – The commission, in consultation with the State Energy Resources Conservation and Development Commission, shall administer, until January 1, 2012, the self-generation incentive program for distributed generation resources originally established pursuant to Chapter 329 of the Statutes of 2000.

~~(2) Except as provided in paragraph (3), the extension of the program pursuant to Chapter 894 of the Statutes of 2003, as amended by Chapter 675 of the Statutes of 2004 and Chapter 22 of the Statutes of 2005, shall apply to all eligible technologies, as determined by the commission, until January 1, 2008.~~

~~(3)~~

(b) The commission shall administer solar electrical generation and electrical displacement technologies *, eligible pursuant to Chapter 123 of the Statutes of 2006,* separately, ~~after January 1, 2007,~~ pursuant to the California Solar Initiative adopted by the commission in Decision 06-01-024.

~~(4) Solar~~

(c) Advanced solar thermal distributed technologies *, as defined in Section 230.8,* that displace usage of natural gas are eligible for the *self-generation incentive* program, as determined by the commission. Any incentives authorized by the commission shall be performance-based so that incentives are earned based on the actual energy ~~savings~~ *produced* .

~~(b) (1) Commencing January 1, 2008, until January 1, 2012, eligibility for the program pursuant to paragraphs (1) and (2) of subdivision (a) shall be limited to waste gas technologies pursuant to paragraph (2), and to fuel cells and wind distributed generation~~

(d) (1) Eligibility for the program pursuant to subdivision (a) is limited to eligible waste gas, fuel cell, and wind distributed generation technologies that meet or exceed the emissions standards required under the distributed generation certification program requirements of Article 3 (commencing with Section 94200) of Subchapter 8 of Chapter 1 of Division 3 of Title 17 of the California Code of Regulations.

(2) ~~Commencing January 1, 2008, until January 1, 2012, eligible~~ *Eligible* waste gas technologies shall meet both of the following conditions:

(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 *landfill gas, wastewater digester gas, or* 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.

~~(c) Eligibility for the self-generation incentive program's level 3 incentive category shall be subject to the following conditions:~~

(e) Eligibility for the self-generation incentive program is

subject to the following conditions:

(1) ~~Commencing January 1, 2007, all combustion-operated distributed generation projects using fossil fuel~~ *All combustion-operated distributed generation projects using waste gas* shall meet an oxides of nitrogen (NOx) emissions rate standard of 0.07 pounds per megawatthour and a minimum efficiency of 60 percent. 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 NOx emissions standard of 0.07 pounds per megawatthour. Credit shall be at the rate of one megawatthour for each 3.4 million British thermal units (Btus) of heat recovered.

(3) Notwithstanding paragraph (1), a project that does not meet the applicable NOx 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.~~ *the requirements of paragraph (2) of subdivision (d).*

~~(d)~~

(4) 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 218.5, or by calculating overall electrical efficiency. the requirements of paragraph (2) of subdivision (d)

~~(e)~~

(f) In administering the self-generation incentive program, the commission may adjust the amount of rebates, include other ultraclean and low-emission distributed generation technologies, as defined in Section 353.2, and evaluate other public policy interests, including, but not limited to, ratepayers, and energy efficiency and environmental interests.

~~(f)~~

(g) The costs of the self-generation incentive program adopted and implemented pursuant to this section may not be recovered from customers participating in the California Alternate Rates for Energy or CARE program established pursuant to Section 739.1.

~~(g)~~

(h) On or before November 1, 2008, the State Energy

Resources Conservation and Development Commission, in consultation with the commission and the State Air Resources Board, shall evaluate the costs and benefits, including air pollution, efficiency, and transmission and distribution system improvements, of providing ratepayer subsidies for renewable and fossil fuel "ultraclean and low-emission distributed generation," as defined in Section 353.2, as part of the integrated energy policy report adopted pursuant to Chapter 4 (commencing with Section 25300) of Division 15 of the Public Resources Code. The State Energy Resources Conservation and Development Commission shall include recommendations for changes in the eligibility of technologies and fuels under the program, and whether the level of subsidy should be adjusted, after considering its conclusions on costs and benefits pursuant to this subdivision.

~~(h) On or before January 1, 2010,~~

(i) On or before November 1, 2009,

the State Energy Resources Conservation and Development Commission, in consultation with the commission and the State Air Resources Board, shall evaluate past costs and benefits of providing ratepayer subsidies to natural gas and fossil fuel fired distributed generation through the self-generation incentive program. The evaluation shall be provided to the Legislature and the Governor, and include the following:

(1) The costs and benefits of the self-generation incentive program to residential and small commercial ratepayers, since the inception of the program.

(2) The significance of societal benefits, including reductions in the emission of greenhouse gases, voltage support and grid reliability, and the opportunity costs of alternatives.