

AMENDED IN SENATE SEPTEMBER 4, 2007

AMENDED IN SENATE AUGUST 20, 2007

AMENDED IN SENATE JULY 10, 2007

AMENDED IN SENATE JUNE 27, 2007

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CALIFORNIA LEGISLATURE—2007—08 REGULAR SESSION

ASSEMBLY BILL

No. 1613

**Introduced by Assembly Member Blakeslee
(Coauthors: Assembly Members Adams, Emmerson, Huffman,
Parra, and Torrico)**

February 23, 2007

An act to add Chapter 8 (commencing with Section 2840) to Part 2 of Division 1 of the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 1613, as amended, Blakeslee. Energy: Waste Heat and Carbon Emissions Reduction Act.

~~(1) Under~~

Under existing law, the Public Utilities Commission (PUC) has regulatory authority over public utilities, including electrical corporations, as defined. Existing law authorizes the PUC to fix the rates and charges for every public utility, and requires that those rates and charges be just and reasonable. The existing Public Utilities Act

requires the PUC to review and adopt a procurement plan for each electrical corporation in accordance with specified elements, incentive mechanisms, and objectives. The act additionally requires the PUC, in consultation with the Independent System Operator, to establish resource adequacy requirements for all load-serving entities, as defined, in accordance with specified objectives.

The existing Warren-Alquist State Energy Resources Conservation and Development Act establishes the State Energy Resources Conservation and Development Commission (Energy Commission) and requires it to undertake a continuing assessment of trends in the consumption of electricity and other forms of energy and to analyze the social, economic, and environmental consequences of those trends and to collect from electric utilities, gas utilities, and fuel producers and wholesalers and other sources, forecasts of future supplies and consumption of all forms of energy. ~~The PUC and the Energy Commission have jointly adopted an Energy Action Plan II that includes a loading order that describes the priority sequence for actions to address the state's increasing electricity needs, and that identifies energy efficiency and demand response measures as the state's preferred means of meeting growing electricity needs.~~

This bill would enact the Waste Heat and Carbon Emissions Reduction Act. ~~The bill would provide that it is the policy of the state that the conversion of waste heat to electricity or other useful energy applications be the preferred generation measure immediately following renewables for purposes of the loading order.~~ The bill would state the intent of the Legislature: (A) to dramatically advance the efficiency of the state's use of natural gas by capturing unused waste heat, (B) to reduce wasteful consumption of energy through improved residential, commercial, institutional, industrial, and manufacturer utilization of waste heat whenever it is cost effective, technologically feasible, and environmentally beneficial, particularly when this reduces emissions of carbon dioxide and other carbon-based greenhouse gases, and (C) to support and facilitate both ~~customer-owned~~ *customer-* and utility-owned combined heat and power systems.

~~This bill would require an electrical corporation to purchase excess electricity, as defined, delivered by a combined heat and power system, as defined, that complies with certain sizing, energy efficiency, and air pollution control requirements, but would authorize the PUC to 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, the wholesale generation market, or the reliable operation of the grid. The bill would require the commission to consult with the Independent System Operator prior to making any determination of an adverse effect on the wholesale generation market or reliable operation of the grid. The bill would require every electrical corporation to file a standard tariff with the PUC for the purchase of excess electricity from an eligible customer-generator, as defined, would require the electrical corporation to make the tariff available to eligible customer-generators within the service territory of the electrical corporation upon request, and would authorize the electrical corporation to make the terms of the tariff available in the form of a standard contract. The bill would require that the costs and benefits associated with any tariff or contract be allocated to benefiting customers, as defined. The bill would require the PUC to establish for each electrical corporation, a pay-as-you-save pilot program, meeting certain goals, for eligible customers, as defined, to finance all of the upfront costs for the purchase and installation of combined heat and power systems. The bill would require the PUC, in approving an electrical corporation's procurement plan, to require the plan to assess the reliability of incorporating combined heat and power solutions to the maximum degree that is cost effective compared to other competing forms of wholesale generation, technologically feasible, and environmentally beneficial, particularly as it pertains to reducing emissions of carbon dioxide and other greenhouse gases.~~

~~This bill would require a local publicly owned electric utility serving retail end-use customers to establish a program that allows retail end-use customers to utilize combined heat and power systems that reduce emissions of greenhouse gases by achieving improved efficiencies utilizing heat that would otherwise be wasted in separate energy applications and that provides a market for the purchase of excess electricity generated by a combined heat and power system, at a just and reasonable rate, to be determined by the governing body of the utility. By placing additional requirements upon local publicly owned electric utilities, the bill would impose a state-mandated local program.~~

~~This bill would require the Energy Commission, by January 1, 2010, to adopt guidelines that require combined heat and power systems be designed to reduce waste energy, meet an eligible customer-generator's expected thermal load, operate continuously in a manner that meets the expected thermal load and optimizes the efficient use of waste heat,~~

~~and are cost effective, technologically feasible, and environmentally beneficial. The bill would authorize the Energy Commission to adopt temporary guidelines for combined heat and power systems prior to January 1, 2010. The bill would require an eligible customer-generator's combined heat and power system to meet certain efficiency and emissions requirements. The bill would require an eligible customer-generator to adequately maintain and service the combined heat and power system so that during operation, the system continues to meet or exceed the efficiency and emissions requirements.~~

~~(2) The existing California Global Warming Solutions Act of 2006, requires the State Air Resources Board (state board) to adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with the reporting and verification program, as specified, and requires the state board to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990 to be achieved by 2020. The act requires the state board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective reduction in emissions of greenhouse gases and authorizes the state board to adopt market-based compliance mechanisms, as defined, meeting specified requirements. Existing law requires the PUC, by February 1, 2007, through a rulemaking proceeding and in consultation with the Energy Commission and the state board, to establish a greenhouse gases emission performance standard for all baseload generation of load-serving entities.~~

~~This bill would require that a combined heat and power system comply with the greenhouse gases emission performance standard established by the PUC.~~

~~(3) This bill would require the state board to report to the Governor and the Legislature by December 31, 2011, on the reduction in emissions of greenhouse gases resulting from the increase of new electrical generation that utilizes excess waste heat through combined heat and power systems and recommend policies that further the goals of the bill.~~

~~(4) Existing law makes any public utility, as defined, and any corporation other than a public utility, that violates or that fails to comply with any part of any order, decision, rule, direction, demand, or requirement of the commission, guilty of a crime.~~

~~Because certain provisions of the bill would require commission action to implement and a violation or failure to comply with any part~~

of any order, decision, rule, direction, demand, or requirement of the commission would be a crime, the bill would impose a state-mandated local program by creating a new crime.

~~(5) 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 specified reasons:~~

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

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

1 SECTION 1. Chapter 8 (commencing with Section 2840) is
2 added to Part 2 of Division 1 of the Public Utilities Code, to read:

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CHAPTER 8. ENERGY EFFICIENCY SYSTEMS

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Article 1. Waste Heat and Carbon Emissions Reduction Act

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2840. This article shall be known and may be cited as the Waste Heat and Carbon Emissions Reduction Act.

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~~2840.2. For purposes of this article, the following terms have the following meanings:~~

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~~(a) "Combined heat and power system" means a system that produces both electricity and thermal energy for heating or cooling from a single fuel input that meets all of the following:~~

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~~(1) Is interconnected to, and operates in parallel with, the electric transmission and distribution grid.~~

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~~(2) Is sized to meet the eligible customer-generator's onsite thermal demand.~~

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~~(3) Meets the efficiency standards of subdivision (c) and the greenhouse gases emissions performance standard of subdivision (d) of Section 2843.~~

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

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~~(1) Uses a combined heat and power system with a generating capacity of not more than 20 megawatts, that first commences operation on or after January 1, 2008.~~

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

10 ~~(e) “Electrical corporation” has the same meaning as defined~~
 11 ~~in Section 218.~~

12 ~~(d) “Energy Commission” means the State Energy Resources~~
 13 ~~Conservation and Development Commission.~~

14 ~~(e) “Excess electricity” means the net electricity exported to the~~
 15 ~~electrical grid, generated by a combined heat and power system~~
 16 ~~that is in compliance with Section 2843.~~

17 ~~(f) “Greenhouse gas” or “greenhouse gases” includes all of the~~
 18 ~~following gases: carbon dioxide, methane, nitrous oxide,~~
 19 ~~hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.~~

20 2840.4. The Legislature finds and declares all of the following:

21 (a) Combined heat and power systems produce both electricity
 22 and thermal energy from a single fuel input, thus achieving much
 23 greater efficiency than the usual separate systems for producing
 24 these forms of energy, and reducing consumption of fuel.

25 (b) Combined heat and power systems recover heat that would
 26 otherwise be wasted in separate energy applications, and use this
 27 heat to avoid consumption of fuel that would otherwise be required
 28 to produce heat.

29 (c) Gigawatthours of potential useful electricity and millions of
 30 British thermal units of thermal energy could be derived from
 31 unused waste heat that is currently being vented into the
 32 atmosphere.

33 2840.6. (a) It is the intent of the Legislature that state policies
 34 dramatically advance the efficiency of the state’s use of natural
 35 gas by capturing unused waste heat, and in so doing, help offset
 36 the growing crisis in electricity supply and transmission congestion
 37 in the state.

38 (b) It is the intent of the Legislature to reduce wasteful
 39 consumption of energy through improved residential, commercial,
 40 institutional, industrial, and manufacturer utilization of waste heat

1 whenever it is cost effective, technologically feasible, and
2 environmentally beneficial, particularly when this reduces
3 emissions of carbon dioxide and other carbon-based greenhouse
4 gases.

5 (c) It is the intent of the Legislature to support and facilitate
6 ~~both customer- and~~ *customer- and* utility-owned combined heat
7 and power systems.

8 (d) This article does not apply to, and shall not impact, combined
9 heat and power systems in operation prior to January 1, 2008, or
10 combined heat and power systems with a generating capacity
11 greater than 20 megawatts.

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**All matter omitted in this version of the bill
appears in the bill as amended in Senate,
August 20, 2007 (JR11)**