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CALIFORNIA LEGISLATURE—2007—08 REGULAR SESSION

**ASSEMBLY BILL**

**No. 1613**

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

February 23, 2007

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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 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 ~~to obtain an unspecified number of megawatts of new electrical generation by the year 2015 by achieving improved efficiencies utilizing waste heat through combined heat and power systems;~~ (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 and utility-owned combined heat and power systems, ~~and to not shift the costs for the implementation and administration of the act to the other customers of an electrical corporation or other load-serving entity, as defined.~~

This bill would require ~~a load-serving entity~~ *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, ~~and for a load-serving entity that is an electrical corporation, under the terms, conditions, and prices established by the PUC in a standardized electricity purchase agreement.~~ The bill would require that the existence of the electricity

~~purchase agreement between a combined heat and power generator and the load-serving entity does not result in either an increase or decrease in charges to other ratepayers and customers as compared to other options for additional generation. The bill would require that the terms and rates determined by the PUC result in a statewide reduction in emissions of greenhouse gases from combined heat and power systems compared to the greenhouse gases that would otherwise have been emitted from the separate generation of electricity and thermal energy from combined-cycle natural gas powerplants and conventional thermal energy plants. The bill would additionally require that the rates be time-of-use rates that encourage energy conservation and net generation of electricity during periods of peak system demand, prohibits the adoption or maintenance of standby rates or charges for combined heat and power systems unless based upon assumptions that are supported by factual data, and requires that the rates provide additional incentives to encourage energy conservation and net generation of electricity in those areas of the transmission grid that are experiencing transmission constraints or congestion. 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 benefitting 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 incorporate 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 the Energy Commission, by January 1, 2010, to adopt regulations for various applications of combined heat and power systems that reduce waste energy, that ensure that a system is

sized to offset part or all of the customer's own electrical and thermal requirements, meets minimum efficiency standards *match an eligible customer-generator's thermal load*, is 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 ~~a combined heat and power generator~~ *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 standards established by the Energy Commission. ~~The bill would require that combined heat and power systems meet certain air pollution control requirements~~ *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 gas emission reductions 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.* The bill would state the intent of the Legislature to establish for each electrical corporation, a variable rate program that is applicable to eligible ~~customers with a combined heat and power system and customer-generators~~ who utilize ~~a electric vehicles or plug-in hybrid vehicle, that will encourage charging plug-in hybrid vehicles during nonpeak periods of electricity usage, and that results in vehicles in their fleet that will encourage bi-directional sharing of~~

*electricity between vehicles and the electrical grid, to increase grid reliability and achieve an overall reduction of greenhouse gases and other air pollutants emitted from both electricity generation and mobile sources.*

(3) Executive Order S-20-04 (Green Building Order) ordered certain state entities, and requested certain other state entities, to undertake measures to reduce state building electricity usage consistent with a Green Building Action Plan, and encouraged commercial building owners, cities, counties, and schools to undertake measures to reduce electricity usage. The Green Building Order ordered that state agencies, departments, and other entities under the direct executive authority of the Governor cooperate in taking measures to reduce grid-based energy purchases for state-owned buildings by 20% by 2015, through cost-effective efficiency measures and distributed generation technologies.

This bill would require state-owned buildings that have been occupied prior to January 1, 2008, to have their existing systems upgraded to utilize combined heat and power systems to assist in achieving the goal of reducing grid-based energy purchases for state-owned buildings. The bill would require all state-owned buildings that are first occupied after December 31, 2007, to incorporate combined heat and power systems to maximize energy efficiency whenever doing so is cost effective, technologically feasible, and environmentally beneficial. ~~The bill would require the Department of General Services, in consultation with the Energy Commission and the State Air Resources Board, to develop a means for valuing reductions in emissions of greenhouse gases consistent with the California Global Warming Solutions Act of 2006, to be utilized in determining whether employing combined heat and power systems in any particular retrofit or new building application is cost effective, technologically feasible, and environmentally beneficial.~~

(4) ~~This bill would require the Energy Commission 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.*

(5) 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.

(6) 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:*

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 for the generation of electricity that ~~utilizes heat both for the generation of electricity and for an energy application other than the generation of electricity, that is cost effective, technologically feasible, environmentally beneficial, and meets the sizing and efficiency standards established by the Energy Commission pursuant to, and the air pollution control requirements of subdivision (d) of, Section~~ *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) *Utilizes waste heat for the generation of electricity.*

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(3) *Is sized to meet the eligible customer-generator’s on-site thermal demand.*

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

4 ~~(b) “Eligible customer” includes residential customers,~~  
5 ~~master-meter customers serving users who are tenants of a~~  
6 ~~mobilehome park, apartment building, or similar residential~~  
7 ~~complex, and small commercial customers. The commission may~~  
8 ~~order that additional categories of customers are eligible consistent~~  
9 ~~with the intent of the Legislature as stated in this article.~~

10 (b) *“Eligible customer-generator” means a customer of an*  
11 *electrical corporation that meets both of the following*  
12 *requirements:*

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

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

25 (c) *“Electrical corporation” has the same meaning as defined*  
26 *in Section 218.*

27 ~~(e)~~

28 (d) *“Energy Commission” means the State Energy Resources*  
29 *Conservation and Development Commission.*

30 ~~(d)~~

31 (e) *“Excess electricity” means the net electricity exported to the*  
32 *electrical grid, generated by a combined heat and power system*  
33 *that conforms to regulations regarding appropriate sizing for*  
34 *particular applications and energy efficiency adopted by the Energy*  
35 *Commission pursuant to is in compliance with Section 2843.*

36 ~~(e)~~

37 (f) *“Greenhouse gas” or “greenhouse gases” includes all of the*  
38 *following gases: carbon dioxide, methane, nitrous oxide,*  
39 *hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.*

1 ~~(f) “Load-serving entity” has the same meaning as defined in~~  
2 ~~Section 380.~~

3 2840.4. The Legislature finds and declares all of the following:

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

8 (b) Combined heat and power systems recover heat that would  
9 otherwise be wasted in separate energy applications, and use this  
10 heat to avoid consumption of fuel that would otherwise be required  
11 to produce heat.

12 (c) Combined heat and power systems recycle the valuable  
13 waste heat produced in electricity generation and use it for heating,  
14 cooling, and other useful applications.

15 (d) Gigawatthours of potential useful electricity and millions  
16 of british thermal units of thermal energy could be derived from  
17 unused waste heat that is currently being vented into the  
18 atmosphere.

19 ~~2840.6. (a) It is the intent of the Legislature to obtain \_\_\_\_\_~~  
20 ~~megawatts of new electrical generation by the year 2015, while~~  
21 ~~decreasing emissions of carbon dioxide and other greenhouse~~  
22 ~~gases, by achieving improved efficiencies utilizing excess waste~~  
23 ~~heat through combined heat and power systems.~~

24 ~~(b)~~

25 2840.6. (a) It is the intent of the Legislature that state policies  
26 dramatically advance the efficiency of the state’s use of natural  
27 gas by capturing unused waste heat, and in so doing, help offset  
28 the growing crisis in electricity supply and transmission congestion  
29 in the state.

30 ~~(e)~~

31 (b) It is the intent of the Legislature to reduce wasteful  
32 consumption of energy through improved residential, commercial,  
33 institutional, industrial, and manufacturer utilization of waste heat  
34 whenever it is cost effective, technologically feasible, and  
35 environmentally beneficial, particularly when this reduces  
36 emissions of carbon dioxide and other carbon-based greenhouse  
37 gases.

38 ~~(d)~~

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

4 ~~(e) It is the intent of the Legislature to not shift costs for the~~  
5 ~~implementation and administration of this chapter to other~~  
6 ~~customers of an electrical corporation or other load-serving entity.~~

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

11 ~~2841. A load-serving entity shall purchase excess electricity~~  
12 ~~delivered from a combined heat and power system that complies~~  
13 ~~with the regulations, or interim guidelines, adopted by the Energy~~  
14 ~~Commission pursuant to Section 2843, and for a load-serving entity~~  
15 ~~that is an electrical corporation, under the terms, conditions, and~~  
16 ~~prices established by the commission in a standardized electricity~~  
17 ~~purchase agreement. The existence of the electricity purchase~~  
18 ~~agreement between a combined heat and power generator and the~~  
19 ~~load-serving entity shall not result in either an increase or decrease~~  
20 ~~in charges to other ratepayers or customers, as compared to other~~  
21 ~~options for additional generation.~~

22 ~~2842. (a) In determining those terms and rates that are just~~  
23 ~~and reasonable pursuant to Section 2841, the commission shall do~~  
24 ~~all of the following:~~

25 ~~(1) Establish terms and rates that result in a statewide reduction~~  
26 ~~in emissions of greenhouse gases from combined heat and power~~  
27 ~~systems compared to the greenhouse gases that would otherwise~~  
28 ~~have been emitted from the separate generation of electricity and~~  
29 ~~thermal energy from combined-cycle natural gas powerplants and~~  
30 ~~conventional thermal energy plants.~~

31 ~~(2) Establish time-of-use rates that encourage energy~~  
32 ~~conservation and net generation of electricity during periods of~~  
33 ~~peak system demand.~~

34 ~~(3) Not adopt or maintain standby rates or charges for combined~~  
35 ~~heat and power systems unless based upon assumptions that are~~  
36 ~~supported by factual data, including any assumption that forced~~  
37 ~~outages or other reductions in electricity generation by all~~  
38 ~~combined heat and power systems will occur simultaneously, or~~  
39 ~~during periods of peak electrical system demand, or both.~~

1 ~~(4) Ensure that the time-of-use rates provide additional~~  
 2 ~~incentives to encourage energy conservation and net generation~~  
 3 ~~of electricity in those areas of the transmission grid that are~~  
 4 ~~experiencing transmission constraints or congestion and the~~  
 5 ~~attendant costs.~~  
 6 ~~(b) The commission shall, for each electrical corporation,~~  
 7 ~~establish a pay-as-you-save program for combined heat and power~~  
 8 ~~system that does all of the following:~~  
 9 ~~(1) Enables eligible customers to finance all of the upfront costs~~  
 10 ~~for the purchase and installation of a combined heat and power~~  
 11 ~~system by repaying those costs over time at the difference between~~  
 12 ~~what the customer would have paid for electricity and the actual~~  
 13 ~~savings derived by the customer.~~  
 14 ~~(2) Limits eligible systems to those that are cost effective,~~  
 15 ~~technologically feasible, and environmentally beneficial and that~~  
 16 ~~meet the energy efficiency and air pollution control requirements~~  
 17 ~~of Section 2843.~~  
 18 ~~(3) Ensures that the reasonable costs of the electrical corporation~~  
 19 ~~are recovered.~~  
 20 ~~(4) Ensures that all costs of the pay-as-you-save program or~~  
 21 ~~financing mechanisms are solely borne by the combined heat and~~  
 22 ~~power generators that use the program or financing mechanisms,~~  
 23 ~~and are not shifted to the other customers or classes of customers~~  
 24 ~~of the electrical corporations.~~  
 25 ~~(e) The commission may modify or adjust the requirements of~~  
 26 ~~this article for any load-serving entity with less than 100,000~~  
 27 ~~service connections, as individual circumstances merit.~~  
 28 *2841. (a) An electrical corporation shall purchase from an*  
 29 *eligible customer-generator, excess electricity that is delivered to*  
 30 *the grid that is generated by a combined heat and power system*  
 31 *that is in compliance with Section 2843.*  
 32 *(b) (1) Every electrical corporation shall file with the*  
 33 *commission a standard tariff for the purchase of excess electricity*  
 34 *from an eligible customer-generator.*  
 35 *(2) The tariff shall provide for payment for every kilowatthour*  
 36 *delivered to the electrical grid by the combined heat and power*  
 37 *system at a price determined by the commission.*  
 38 *(3) The tariff shall include flexible rates with options for*  
 39 *different durations, not to exceed 10 years, and fixed or variable*  
 40 *rates relative to the cost of natural gas.*

1 (4) *The commission shall ensure that ratepayers not utilizing*  
2 *combined heat and power systems are held indifferent to the*  
3 *existence of this tariff.*

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

8 (d) *Every electrical corporation shall make the tariff available*  
9 *to eligible customer-generators that own, or lease, and operate a*  
10 *combined heat and power system within the service territory of*  
11 *the electrical corporation, upon request. An electrical corporation*  
12 *may make the terms of the tariff available to an eligible customer*  
13 *in the form of a standard contract.*

14 (e) *The costs and benefits associated with any tariff or contract*  
15 *entered into by an electrical corporation pursuant to this section*  
16 *shall be allocated to all benefiting customers. For purposes of this*  
17 *section “benefiting customers” means all bundled service*  
18 *customers of the electrical corporation, customers of the electrical*  
19 *corporation that receive their electric service through a direct*  
20 *transaction, and customers of an electrical corporation that receive*  
21 *their electric service from a community choice aggregator.*

22 (f) *The physical generating capacity of the combined heat and*  
23 *power system shall count toward the resource adequacy*  
24 *requirements of load serving entities for purposes of Section 380.*

25 (g) *The commission shall adopt or maintain standby rates or*  
26 *charges for combined heat and power systems that are based only*  
27 *upon assumptions that are supported by factual data, and shall*  
28 *exclude any assumptions that forced outages or other reductions*  
29 *in electricity generation by combined heat and power systems will*  
30 *occur simultaneously on multiple systems, or during periods of*  
31 *peak electrical system demand, or both.*

32 ~~2842.2. The Public Utilities Commission~~

33 2842. *The commission, in approving a procurement plan for*  
34 *an electrical corporation pursuant to Section 454.5, shall require*  
35 *that the electrical corporation’s procurement plan incorporate*  
36 *combined heat and power solutions to the maximum degree that*  
37 *does not create system unreliability, is cost effective compared to*  
38 *other competing forms of wholesale generation, technologically*  
39 *feasible, and environmentally beneficial, particularly as it pertains*

1 to reducing emissions of carbon dioxide and other greenhouse  
 2 gases.

3 ~~2842.4. The Public Utilities Commission~~

4 2842.2. *The commission shall ensure that an electrical*  
 5 ~~corporation utilizes long-term planning~~ *corporation utilizes*  
 6 *long-term planning and a reliability assessment for upgrades to*  
 7 *its transmission and distribution systems and that any upgrades*  
 8 ~~are consistent~~ *not inconsistent* with promoting combined heat and  
 9 power systems that are cost effective, technologically feasible, and  
 10 environmentally beneficial, particularly as those combined heat  
 11 and power systems reduce emissions of greenhouse gases.

12 2842.4. (a) *The commission shall, for each electrical*  
 13 *corporation, establish a pay-as-you-save pilot program for eligible*  
 14 *customers.*

15 (b) *For the purposes of this section, an “eligible customer”*  
 16 *means a customer of an electrical corporation that meets the*  
 17 *following criteria:*

18 (1) *The customer uses a combined heat and power system with*  
 19 *a generating capacity of not more than 20 megawatts that is in*  
 20 *compliance with Section 2843.*

21 (2) *The customer is a nonprofit organization described in*  
 22 *Section 501(c) (3) of the Internal Revenue Code (26 U.S.C. Sec.*  
 23 *501(c) (3)), that is exempt from taxation under Section 501(a) of*  
 24 *that code (26 U.S.C. Sec. 501(a)).*

25 (c) *The pilot program shall enable an eligible customer to*  
 26 *finance all of the upfront costs for the purchase and installation*  
 27 *of a combined heat and power system by repaying those costs over*  
 28 *time through on-bill financing at the difference between what an*  
 29 *eligible customer would have paid for electricity and the actual*  
 30 *savings derived.*

31 (d) *The commission shall ensure that the reasonable costs of*  
 32 *the electrical corporation associated with the pilot program are*  
 33 *recovered.*

34 (e) *All costs of the pay-as-you-save program or financing*  
 35 *mechanisms shall be borne solely by the combined heat and power*  
 36 *generators that use the program or financing mechanisms, and*  
 37 *the commission shall ensure that the costs of the program are not*  
 38 *shifted to the other customers or classes of customers of the*  
 39 *electrical corporation.*

1 (f) Each electric corporation shall make on-bill financing  
2 available to eligible customers until the statewide cumulative rated  
3 generating capacity from pilot program combined heat and power  
4 systems in the service territories of the three largest electrical  
5 corporations in the state reaches 100 megawatts.

6 2843. (a) The Energy Commission shall, by January 1, 2010,  
7 adopt regulations for various applications of combined heat and  
8 power systems that reduce waste energy, ~~that ensure that a system~~  
9 ~~is sized to offset part or all of the combined heat and power~~  
10 ~~generator's own electrical and thermal requirements, meets~~  
11 ~~minimum efficiency standards, match an eligible~~  
12 ~~customer-generator's thermal load, and is cost effective,~~  
13 ~~technologically feasible, and environmentally beneficial. It is the~~  
14 ~~intent of the Legislature that combined heat and power systems~~  
15 ~~be functionally matched to the customer's location and that the~~  
16 ~~regulations do not permit customers to operate as de facto~~  
17 ~~wholesale generators with guaranteed purchasers for their~~  
18 ~~electricity.~~

19 (b) Prior to January 1, 2010, the Energy Commission may adopt  
20 temporary guidelines for combined heat and power systems that  
21 comply with the parameters set forth in subdivision (a).

22 ~~(e) The combined heat and power generator shall adequately~~  
23 ~~maintain and service the combined heat and power system so that~~  
24 ~~during operation, the system continues to meet or exceed the~~  
25 ~~efficiency standards established by the Energy Commission~~  
26 ~~pursuant to subdivisions (a) and (b).~~

27 ~~(d) (1) A combined heat and power system that is exempt from~~  
28 ~~an air pollution control district or air quality management district's~~  
29 ~~permitting requirements, shall produce emissions during operation~~  
30 ~~that meet or are less than the most recent emissions standards~~  
31 ~~required under the distributed generation certification program~~  
32 ~~adopted by the State Air Resources Board pursuant to Section~~  
33 ~~41514.9 of the Health and Safety Code and any regulations adopted~~  
34 ~~by the board to implement that section.~~

35 ~~(2) A combined heat and power system that is subject to~~  
36 ~~permitting requirements by an air pollution control district or air~~  
37 ~~quality management district, shall produce emissions during~~  
38 ~~operation that meet or are less than the emissions requirements~~  
39 ~~adopted by the district.~~

1 (c) (1) An eligible customer-generator's combined heat and  
2 power system shall meet an oxides of nitrogen (NOx) emissions  
3 rate standard of 0.07 pounds per megawatthour and a minimum  
4 efficiency of 60 percent. A minimum efficiency of 60 percent shall  
5 be measured as useful energy output divided by fuel input. The  
6 efficiency determination shall be based on 100 percent load.

7 (2) An eligible customer-generator's combined heat and power  
8 system that meets the 60-percent efficiency standard may take a  
9 credit to meet the applicable NOx emissions standard of 0.07  
10 pounds per megawatthour. Credit shall be at the rate of one  
11 megawatthour for each 3.4 million British thermal units of heat  
12 recovered.

13 (d) An eligible customer-generator's combined heat and power  
14 system shall comply with the greenhouse gases emission  
15 performance standard established by the commission pursuant to  
16 Section 8340.

17 (e) An eligible customer-generator shall adequately maintain  
18 and service the combined heat and power system so that during  
19 operation, the system continues to meet or exceed the efficiency  
20 and emissions standards established pursuant to subdivisions (c)  
21 and (d).

22 2844. (a) A state building that has been occupied prior to  
23 January 1, 2008, shall have its existing systems upgraded to utilize  
24 combined heat and power systems to assist in achieving the goal  
25 of reducing grid-based energy purchases for state buildings  
26 whenever doing so is cost effective, technologically feasible, and  
27 environmentally beneficial.

28 (b) State buildings that have been first occupied after December  
29 31, 2007, shall have their combined heat and power systems  
30 incorporated to maximize energy efficiency whenever doing so is  
31 cost effective, technologically feasible, and environmentally  
32 beneficial.

33 ~~(e) The Department of General Services, in consultation with~~  
34 ~~the Energy Commission and the State Air Resources Board, shall~~  
35 ~~develop a means for valuing reductions in emissions of greenhouse~~  
36 ~~gases that is consistent with Section 38530 of the Health and Safety~~  
37 ~~Code, to be utilized in determining whether employing combined~~  
38 ~~heat and power systems in any particular retrofit or new building~~  
39 ~~application is cost effective, technologically feasible, and~~  
40 ~~environmentally beneficial.~~

1     2845. ~~The Energy Commission~~ *State Air Resources Board*  
2 shall report to the Governor and the Legislature by December 31,  
3 2011, on the reduction in emissions of greenhouse gases resulting  
4 from the increase of new electrical generation that utilizes excess  
5 waste heat through combined heat and power systems. ~~The Energy~~  
6 ~~Commission shall value reductions in emissions of greenhouse~~  
7 ~~gases using methodology developed pursuant to subdivision (d)~~  
8 ~~of Section 2844.~~ *and recommend policies that further the goals of*  
9 *this article.*

10     SEC. 2. It is the intent of the Legislature to establish for each  
11 electrical corporation, a variable rate program that is applicable to  
12 ~~eligible customers with a combined heat and power system and~~  
13 ~~who utilize a plug-in hybrid electric vehicle, that will encourage~~  
14 ~~charging of plug-in hybrid electric vehicles during nonpeak periods~~  
15 ~~of electricity usage, and that results in~~ *eligible customer-generators*  
16 *who utilize electric vehicles or plug-in hybrid electric vehicles in*  
17 *their fleet, that will encourage vehicle-to-grid technology that*  
18 *allows for the bi-directional sharing of electricity between vehicles*  
19 *and the electric power grid, thereby increasing grid reliability and*  
20 *the amount of renewable energy available to the grid during peak*  
21 *electricity usage, while at the same time achieving an overall*  
22 reduction of greenhouse gases and other air pollutants emitted  
23 from both electricity generation and mobile sources.

24     SEC. 3. No reimbursement is required by this act pursuant to  
25 Section 6 of Article XIII B of the California Constitution because  
26 the only costs that may be incurred by a local agency or school  
27 district will be incurred because this act creates a new crime or  
28 infraction, eliminates a crime or infraction, or changes the penalty  
29 for a crime or infraction, within the meaning of Section 17556 of  
30 the Government Code, or changes the definition of a crime within  
31 the meaning of Section 6 of Article XIII B of the California  
32 Constitution.