SENATE BILL No. 1398

Introduced by Senator Morrow

February 18, 2004

An act to add Section 41514.11 to the Health and Safety Code, and to amend Sections 216, 218.5, 353.1, 353.2,, 353.3, 353.5, 353.7, 353.13, and 379.6 of, and to add Sections 353.4, 353.10, 353.14, and 2775.8 to, the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

SB 1398, as introduced, Morrow. Distributed energy resources.

(1) Existing law designates air pollution control districts and air quality management districts as having the primary responsibility for the control of air pollution from all sources other than vehicular sources. Existing law also designates the State Air Resources Board as the state entity responsible for the coordination and review of all levels of government in their efforts to control air pollution.

This bill would require the state board to develop guidelines for districts to permit the installation of distributed energy resources, as prescribed.

(2) Existing law defines the term ''public utility'' for the purposes of regulation.

This bill would exempt from that definition the ownership, control, operation, or management of a distributed energy resource, as defined.

(3) Existing law defines the term ''cogeneration'' to mean the sequential use of energy for the production of electrical and useful thermal energy, and requires, where useful thermal energy follows power production, the useful annual power output plus one-half the useful annual thermal energy output to equal not less than 42.5 percent of any natural gas and oil energy input.

This bill would modify that requirement to allow as an alternative that the facility's total system efficiency at 100% equals at least 60% efficiency on a high heating value.

(4) Existing law defines ''distributed energy resources'' to mean any electric generation technology that meets certain criteria, including having commenced initial operation between May 1, 2001, and June 1, 2003, except that gas-fired distributed energy resources that are not operated in a combined heat and power application must commence operation no later than September 1, 2002. Existing law defines ''ultra-clean and low-emission distributed generation'' as an electric generation technology that produces zero emissions during operation or that produces emissions that are equal to or less than limits established by the State Air Resources Board, if the electric generation technology commences operation between January 1, 2003, and December 31, 2008. That definition requires that technologies operating by combustion operate in a combined heat and power application with a 60-percent system efficiency on a higher heating value.

This bill would expand the distributed energy resources criterion in the definition of distributed energy resources to include electric generation technology that commenced initial operation between May 1, 2001, and June 1, 2008. The bill would modify the ultra-clean and low-emission distributed generation requirement to require technologies operating by combustion in a combined heat and power application operate with a 60-percent system efficiency on a higher heating value.

(5) Existing law requires the commission to require each electrical corporation under the operational control of the Independent System Operator (ISO) as of January 1, 2001, to modify its tariffs so that all customers that install new distributed energy resources in accordance with specified criteria are served under rates, rules, and requirements identical to those of a customer within the same rate schedule that does not use distributed energy resources, and to withdraw any provisions in otherwise applicable tariffs that activate other tariffs, rates, or rules if a customer uses distributed energy resources. Existing law imposes certain requirements on customers with distributed energy resources to qualify for the modified tariffs. Existing law requires each electrical corporation, as part of its distribution planning process, to consider nonutility owned distributed energy resources as a possible alternative to investments in its distribution system in order to ensure reliable electric service at the lowest possible cost.

This bill would require each electrical corporation, in setting rates and establishing tariffs, to treat customer use of distributed energy resources as a reduction of customer load. The bill would delete those tariff qualification requirements.

The bill would prohibit the ISO from requiring the metering, telemetry, or scheduling of a retail customer's consumption of electric energy that is satisfied by onsite or over-the-fence generation by distributed energy resources beyond the point of interconnection. The bill would also prohibit the ISO from assessing any grid management or transmission charges on a retail customer's consumption of electric energy that is satisfied by onsite or over-the-fence generation by distributed energy resources beyond the point of interconnection. The bill would require the ISO to establish and maintain an ongoing demand reduction tariff that allows for the participation of distributed energy resources no later than January 1, 2005. The bill would require the ISO to establish and maintain a capacity market that recognizes the value of generation capacity supplied by distributed energy resources as being functionally equivalent to central station generation.

The bill would additionally require each electrical corporation, as part of its distribution planning process, to establish a minimum target for nonutility owned distributed energy resources in its procurement plans. The bill would require the commission to authorize each electrical corporation to retain certain ratepayer savings as profits.

(6) Existing law requires the commission to require each electrical corporation to establish new tariffs on or before January 1, 2003, for customers using distributed energy resources, but, after January 1, 2003, distributed energy resources that meet certain criteria are subject only to those tariffs in existence, until June 1, 2011, subject to a specified exception. Existing law requires those tariffs to ensure that all net distribution costs incurred to serve each customer class are fully recovered only from that class. Existing law requires the commission to prepare and submit to the Legislature, on or before June 1, 2002, a report describing its proposed methodology for determining the new rates and the process by which it will establish those rates.

This bill would extend all of those deadlines by 3 years, would delete that specified exception, and, with respect to cost recovery, would require the commission to require that benefits that inure to all rate classes be netted from the costs, if any, in each customer class. The bill would require the commission to require the modification of tariffs as prescribed.

The bill would provide that, if nonbypassable charges are duplicated as a result of switching from electric to gas service, charges levied under gas rate schedules that support the same programs covered by the nonbypassable electric charges may not be assessed on customers.

(7) Existing law requires the commission, in consultation with the State Energy Resources Conservation and Development Commission, to administer until January 1, 2008, a self-generation incentive program for distributed generation resources, in the same form as existed on January 1, 2004, but requires that combustion-operated distributed generation projects using fossil fuels commencing January 1, 2005, meet a NOx emission standard, and commencing January 1, 2007, meet a more stringent NOx emission standard and a minimum efficiency standard, to be eligible for incentive rebates under the program.

This bill would also require the self-generation incentive program to allow all projects that meet the definition of distributed energy resources to participate in the program, except that only the first 1,000 kilowatts of facility capacity would be eligible for funding.

(8) Under existing law, the commission has regulatory authority over public utilities, including gas corporations, and authorizes the commission to fix just and reasonable rates and charges.

This bill would require the commission, on or before May 1, 2005, to require a gas corporation to establish a new distributed energy resources gas rate.

(9) Under existing law, the violation of an order, decision, or other requirement of the commission is a crime.

This bill, by requiring the commission to impose a number of requirements on electrical corporations, the violation of which requirements by an electrical corporation would be crimes, would create new crimes, thereby imposing a state-mandated local program.

(10) 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:

SECTION 1. The Legislature finds and declares all of the following:

(a) California energy customers continue to face a critical shortage of electricity in the years 2004 and beyond.

(b) A shortage of electric generation supply and inadequacies in the transmission and distribution system endangers the state's economic recovery.

(c) The state's economic recovery itself could bring about rolling blackouts or large scale grid disruptions if no action is taken to improve the reliability of the grid.

(d) Electric customers need the ability to use all of the tools available to them to increase energy reliability and manage price without penalty.

(e) Distributed energy resources (DER) provide unique benefits to all consumers by immediately shifting demand off of the grid and increasing the supply of generation within California while contributing to improved environmental quality and public health and safety.

(f) The cost of customer-sited DER, and the benefits provided to the grid, are paid for by the individual customer using the DER and are not borne by other ratepayers.

(g) It is essential that California encourage the installation of clean DER to increase the supply of electricity, to increase self-sufficiency of consumers, improve system reliability, and encourage new generation to connect to the grid.

(h) In compliance with the Governor's Energy Plan, and other policies regarding load reduction and new generation, the provisions of this act are urgently needed.

(i) The Independent System Operator can and should play an active role in encouraging markets and programs that recognize the value of DER.

(j) DER provides benefits to all Californians equal to or greater than large central station powerplants. However, because of the individual small volume demands for natural gas, DER is underserved and unfairly competitively disadvantaged in the gas market.

(k) California continues to have a series of statutes, regulations, rules and tariffs regarding DER that are inconsistent, send mixed

signals, and generally discourage DER by allowing certain fees, charges, and other restrictions that inhibit customer deployment of clean DER.

(*l*) It is in the best interest of all Californians to establish a public policy across all levels of government that encourages and promotes the development of clean DER technologies that are environmentally sensitive, help manage the cost of electricity, and improve reliability.

SEC. 2. Section 41514.11 is added to the Health and Safety Code, to read:

41514.11. (a) The state board shall develop guidelines for districts to permit the installation of distributed energy resources. The guidelines shall take into account all of the following:

(1) The total volumetric level of emissions attributable to the facility at the installation location before the installation of the distributed energy resources system shall be determined. The district shall consider the average annual electricity consumption at the facility, the average grid emissions level, as well as specific sources at the facility in determining the attributable emissions.

(2) The total volumetric level of emissions attributable to the facility at the installation location after the installation of the distributed energy resources system shall be determined taking into account the same factors described in paragraph (1).

(3) The state board shall develop methodologies for which the districts shall consider the effect on emissions of reduced line losses, the application of cogeneration, accompanying energy efficiency and optimization measures, and other factors, including, but not limited to, the installation of zero or near-zero emissions technologies.

(b) For the purposes of this section, ‘‘distributed energy resources’’ shall have the same meaning as in Sections 353.1 and 353.2 of the Public Utilities Code.

SEC. 3. Section 216 of the Public Utilities Code is amended to read:

216. (a) ‘‘Public utility’’ includes every common carrier, toll bridge corporation, pipeline corporation, gas corporation, electrical corporation, telephone corporation, telegraph corporation, water corporation, sewer system corporation, and heat corporation, where the service is performed for, or the commodity is delivered to, the public or any portion thereof.

(b) Whenever any common carrier, toll bridge corporation, pipeline corporation, gas corporation, electrical corporation, telephone corporation, telegraph corporation, water corporation, sewer system corporation, or heat corporation performs a service for, or delivers a commodity to, the public or any portion thereof for which any compensation or payment whatsoever is received, that common carrier, toll bridge corporation, pipeline corporation, gas corporation, electrical corporation, telephone corporation, telegraph corporation, water corporation, sewer system corporation, or heat corporation, is a public utility subject to the jurisdiction, control, and regulation of the commission and the provisions of this part.

(c) When any person or corporation performs any service for, or delivers any commodity to, any person, private corporation, municipality, or other political subdivision of the state, that in turn either directly or indirectly, mediately or immediately, performs that service for, or delivers that commodity to, the public or any portion thereof, that person or corporation is a public utility subject to the jurisdiction, control, and regulation of the commission and the provisions of this part.

(d) Ownership or operation of a facility that employs cogeneration technology or produces power from other than a conventional power source or the ownership or operation of a facility which employs landfill gas technology does not make a corporation or person a public utility within the meaning of this section solely because of the ownership or operation of that facility.

(e) Any corporation or person engaged directly or indirectly in developing, producing, transmitting, distributing, delivering, or selling any form of heat derived from geothermal or solar resources or from cogeneration technology to any privately owned or publicly owned public utility, or to the public or any portion thereof, is not a public utility within the meaning of this section solely by reason of engaging in any of those activities.

(f) The ownership or operation of a facility that sells compressed natural gas at retail to the public for use only as a motor vehicle fuel, and the selling of compressed natural gas at retail from that facility to the public for use only as a motor vehicle fuel, does not make the corporation or person a public utility

within the meaning of this section solely because of that ownership, operation, or sale.

(g) Ownership or operation of a facility that has been certified by the Federal Energy Regulatory Commission as an exempt wholesale generator pursuant to Section 32 of the Public Utility Holding Company Act of 1935 (Chapter 2C (commencing with Section 79) of Title 15 of the United States Code) does not make a corporation or person a public utility within the meaning of this section, solely due to the ownership or operation of that facility.

(h) The ownership, control, operation, or management of an electric plant used for direct transactions or participation directly or indirectly in direct transactions, as permitted by subdivision (b) of Section 365, sales into the Power Exchange referred to in Section 365, or the use or sale as permitted under subdivisions (b) to (d), inclusive, of Section 218, shall not make a corporation or person a public utility within the meaning of this section solely because of that ownership, participation, or sale.

(i) The ownership, control, operation, or management of a distributed energy resource as defined in Sections 353.1 and 353.2 that delivers energy or energy services to tenants within a building, or buildings within an area of common ownership, shall not make a corporation or person a public utility within the meaning of this section solely because of that ownership, control, operation, management participation, sale, or delivery.

SEC. 4. Section 218.5 of the Public Utilities Code is amended to read:

218.5. ''Cogeneration'' means the sequential use of energy for the production of electrical and useful thermal energy. The sequence can be thermal use followed by power production or the reverse, subject to the following standards:

(a) At least 5 percent of the facility's total annual energy output shall be in the form of useful thermal energy.

(b) Where useful thermal energy follows power production, the useful annual power output plus one-half the useful annual thermal energy output equals not less than 42.5 percent of any natural gas and oil energy input*, or the facility's total system efficiency at 100 percent equals at least a 60 percent efficiency on a high heating value*.

SEC. 5. Section 353.1 of the Public Utilities Code is amended to read:

353.1. As used in this article, ‘‘distributed energy resources’’ means any electric generation technology that meets all of the following criteria:

(a) Commences initial operation between May 1, 2001, and June 1, ~~2003~~ *2008*, except that gas-fired distributed energy resources that are not operated in a combined heat and power application must commence operation no later than September 1, 2002.

(b) Is located within a single facility.

(c) Is five megawatts or smaller in aggregate capacity.

(d) Serves onsite loads or over-the-fence transactions allowed under Sections 216 and 218.

(e) Is powered by any fuel other than diesel.

(f) Complies with emission standards and guidance adopted by the State Air Resources Board pursuant to Sections 41514.9 and 41514.10 of the Health and Safety Code. Prior to the adoption of those standards and guidance, for the purpose of this article, distributed energy resources shall meet emissions levels equivalent to nine parts per million oxides of nitrogen, or the equivalent standard taking into account efficiency as determined by the State Air Resources Board, averaged over a three-hour period, or best available control technology for the applicable air district, whichever is lower, except for distributed generation units that displace and therefore significantly reduce emissions from natural gas flares or reinjection compressors, as determined by the State Air Resources Control Board. These units shall comply with the applicable best available control technology as determined by the air pollution control district or air quality management district in which they are located.

SEC. 6. Section 353.2 of the Public Utilities Code is amended to read:

353.2. (a) As used in this article, ‘‘ultra clean and low emission distributed generation’’ means any electric generation technology that meets both of the following criteria:

(1) Commences initial operation between January 1, 2003, and December 31, 2008.

(2) Produces zero emissions during its operation or produces emissions during its operation that are equal to or less than the 2007 State Air Resources Board emission limits for distributed generation~~, except that technologies~~. *Technologies* operating by

combustion ~~must~~ *in a combined heat and power application shall* operate ~~in a combined heat and power application~~ with a 60-percent system efficiency on a higher heating value.

(b) In establishing rates and fees, the commission may consider energy efficiency and emissions performance to encourage early compliance with air quality standards established by the State Air Resources Board for ultra clean and low emission distributed generation.

SEC. 7. Section 353.3 of the Public Utilities Code is amended to read:

353.3. ~~(a)~~ The commission shall require each electrical corporation ~~under the operational control of the Independent System Operator as of January 1, 2001~~*, in setting rates and establishing tariffs, to treat customer use of distributed energy resources as a reduction of customer load and,* to modify its tariffs so that all customers installing new distributed energy resources in accordance with the criteria described in ~~Section~~ *Sections* 353.1 *and 353.2* are served under rates, rules, and requirements identical to those of a customer within the same rate schedule that does not use distributed energy resources, and to withdraw any provisions in otherwise applicable tariffs that activate other tariffs, rates, or rules if a customer uses distributed energy resources.

~~(b) To qualify for the tariffs described in subdivision (a), each customer with distributed energy resources that meet the criteria of Section 353.1 shall participate in a real-time metering and pricing program, when these programs become available, in which rates for any energy purchased from the electrical corporation reflect the actual cost to the electrical corporation of energy it purchases at the time it is consumed by the customer. Prior to the time these programs become available, the customer shall participate in a time-of-use pricing tariff. On or before December 31, 2001, the commission shall adopt a real time pricing tariff for the purpose of this section.~~

~~(c) Except as specified in Section 353.7, customers may not be subject to the application of additional rates or tariffs solely because of their use of distributed energy resources to serve onsite loads or over-the-fence transactions allowed under Sections 216 and 218.~~

SEC. 8. Section 353.4 is added to the Public Utilities Code, to read:

353.4. (a) The Independent System Operator may not require the metering, telemetry, or scheduling of a retail customer's consumption of electric energy that is satisfied by onsite or over-the-fence generation by distributed energy resources behind the point of interconnection. The Independent System Operator may not assess any grid management or transmission charge on a retail customer's consumption of electric energy that is satisfied by onsite or over-the-fence generation by distributed energy resources behind the point of interconnection.

(b) The Independent System Operator shall establish and maintain an ongoing demand reduction tariff that allows for the participation of distributed energy resources no later than January 1, 2005.

(c) The Independent System Operator shall establish and maintain a capacity market that recognizes the value of generation capacity supplied by distributed energy resources as being functionally equivalent to central station generation.

SEC. 9. Section 353.5 of the Public Utilities Code is amended to read:

353.5. ~~Each~~ *(a) The commission shall direct each* electrical corporation, as part of its distribution planning process, ~~shall~~ *to establish a minimum target for nonutility owned distributed energy resources in its procurement plans and to* consider nonutility owned distributed energy resources as a possible alternative to investments in its distribution system in order to ensure reliable electric service at the lowest possible cost.

(b) The commission shall authorize each electrical corporation to retain as profits, 10 percent of the ratepayer savings realized from the deployment of nonutility owned distributed energy resources.

SEC. 10. Section 353.7 of the Public Utilities Code is amended to read:

353.7. ~~Notwithstanding~~ *Except for the requirements of* Section 353.3, nothing in this article may result in any exemption from reasonable interconnection charges, lead to any reduction in contributions by each customer class to public purpose programs funded under Section 399.8, or relieve any customer of any obligation determined by the commission to result from participation in the purchase of power through the Department of

Water Resources pursuant to Division 27 (commencing with Section 80000) of the Water Code.

SEC. 11. Section 353.13 of the Public Utilities Code is amended to read:

353.13. (a) The commission shall require each electrical corporation to establish new tariffs on or before January 1, ~~2003~~ *2006*, for customers using distributed energy resources, including, but not limited to, those that do not meet all of the criteria described in ~~Section~~ *Sections* 353.1 *and 353.2*. However, after January 1, ~~2003~~ *2006*, distributed energy resources that meet all of the criteria described in Section 353.1 shall continue to be subject only to those tariffs in existence pursuant to Section 353.3, until June 1, ~~2011~~ *2014*~~, except that installations that do not operate in a combined heat and power application will be subject to those tariffs in existence pursuant to Section 353.3 only until June 1, 2006~~. Those tariffs required pursuant to this section shall ensure that all net distribution costs incurred to serve each customer class, taking into account the actual costs and benefits of distributed energy resources, proportional to each customer class, as determined by the commission, are fully recovered only from that class*, except that the commission shall require that those benefits that inure to all rate classes, be netted from the costs, if any, in each customer class*. The commission shall require each electrical corporation, in establishing those rates, to ensure that customers with similar load profiles within a customer class will, to the extent practicable, be subject to the same utility rates, regardless of their use of distributed energy resources to serve onsite loads or over-the-fence transactions allowed under Sections 216 and 218. Customers with dedicated facilities shall remain responsible for their obligations regarding payment for those facilities.

(b) The commission shall prepare and submit to the Legislature, on or before June 1, ~~2002~~ *2005*, a report describing its proposed methodology for determining the new rates and the process by which it will establish those rates.

(c) In establishing the tariffs, the commission shall consider coincident peakload, and the reliability of the onsite generation, as determined by the frequency and duration of outages, so that customers with more reliable onsite generation and those that reduce peak demand pay a lower cost-based rate.

(d) To ensure that customers with distributed energy resources receive the economic benefits of their investment and pay the true economic costs when their distributed energy resources system is unreliable, the commission shall require each electrical corporation to modify its tariffs so that both of the following occur:

(1) The component of the tariff commonly referred to as the "demand charge" is calculated on a daily basis and measured against the actual peak rate for the period of the day when the demand is called for by that customer.

(2) A premium of 10 percent is assessed on the generation component of the rate for that period of time when the customer's distributed energy resources equipment was unavailable due to an unplanned outage. Customers shall not be penalized for outages during off peak periods or if it provides an electrical corporation a 14-day advance notice for peak outages.

SEC. 12. Section 353.14 is added to the Public Utilities Code, to read:

353.14. Where nonbypassable charges are duplicated as a result of switching from electric to gas service, charges levied under gas rate schedules that support the same programs covered by the nonbypassable electric charges may not be assessed on customers.

SEC. 13. Section 379.6 of the Public Utilities Code is amended to read:

379.6. (a) The commission, in consultation with the State Energy Resources Conservation and Development Commission, shall until January 1, 2008, administer a self-generation incentive program for distributed generation resources, in the same form as exists on January 1, 2004.

(b) Notwithstanding subdivision (a), the self-generation incentive program shall do all of the following:

(1) Commencing January 1, 2005, require all combustion-operated distributed generation projects using fossil fuels to meet an oxides of nitrogen (NO_x) emissions rate standard of 0.14 pounds per megawatthour to be eligible for self-generation rebates.

(2) Commencing January 1, 2007, require all combustion-operated distributed generation projects using fossil fuels to meet an oxides of nitrogen (NOx) emissions rate standard of 0.07 pounds per megawatthour and a minimum efficiency of 60

percent, to be eligible for self-generation rebates. 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.

(3) Combined heat and power units that meet the 60 percent efficiency standard may take a credit to meet the applicable oxides of nitrogren (NOx) emission standard of 0.14 pounds per megawatthour or 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.

(4) *Allow all projects that meet the definitions in Sections 353.1 and 353.2 of distributed energy resources to participate in the program provided that only the first 1,000 kilowatts of facility capacity shall be eligible for the funds.*

(5) Provide the commission with flexibility in administering the self-generation incentive program, including, but not limited to, flexibility with regard to the amount of rebates, inclusion of other ultra clean and low emission distributed generation technologies, and evaluation of other public policy interests, including, but not limited to, ratepayers, and energy efficiency and environmental interests.

SEC. 14. Section 2775.8 is added to the Public Utilities Code, to read:

2775.8. On or before May 1, 2005, the commission shall require a gas corporation to establish a new distributed energy resources gas rate. This rate shall be a noninterruptible rate and the price charged to a customer taking service on this rate shall be equal to, or less than, the price charged to any other comparable electric generation rate. This rate shall be available to any natural-gas fueled distributed energy resource that meets the requirements of Sections 353.1 and 353.2.

SEC. 15. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a

crime within the meaning of Section 6 of Article XIII B of the California Constitution.

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