AMENDED IN ASSEMBLY JULY 8, 2009

AMENDED IN SENATE MAY 5, 2009

AMENDED IN SENATE APRIL 20, 2009

AMENDED IN SENATE APRIL 15, 2009

# SENATE BILL No. 17

**Introduced by Senator Padilla**
**(Coauthor: Senator Wiggins)**

December 1, 2008

An act to add Chapter 4 (commencing with Section 8360) to Division 4.1 of the Public Utilities Code, relating to electricity.

## LEGISLATIVE COUNSEL'S DIGEST

SB 17, as amended, Padilla. Electricity: smart grid systems.

Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including electrical corporations, as defined. Under existing law, the governing board of a local publicly owned electric utility, as defined, generally has authority over the activities of the utility.

This bill would require the commission, by July 1, 2010, and in consultation with the State Energy Resources Conservation and Development Commission (Energy Commission), the Independent System Operator (ISO), and other key stakeholders, to determine the requirements for a smart grid deployment plan consistent with the policies set forth in the bill and federal law. The bill would require that the smart grid improve overall efficiency, reliability, and cost-effectiveness of electrical system operations, planning, and maintenance. The bill would require each electrical corporation, by July 1, 2011, to develop and submit a smart grid deployment plan to the commission for approval. The bill would authorize a smart grid deployment plan that is adopted to provide for deployment of smart grid products, technologies, and services by entities other than electrical corporations. The bill would authorize smart grid technologies to be deployed in an incremental manner to maximize the benefit to ratepayers and to achieve the benefits of smart grid technology, would authorize the commission to modify or adjust the bill's requirements for an electrical corporation with fewer than 100,000 service connections as individual circumstances merit, and would require the commission, in consultation with the Energy Commission, the ISO, and electrical corporations, at each step of deployment, to evaluate the impact of deployment on major initiatives and policies. The bill would require the commission to report, by January 1, 2011, and by January 1 of each year thereafter, to the Governor and the Legislature on the commission's recommendations for a smart grid, the plans and deployment of smart grid technologies by the state's electrical corporations, and the costs and benefits to ratepayers.

The bill would require a local publicly owned electric utility, as defined, to develop by July 1, 2011, a smart grid deployment plan consistent with the policies set forth in federal law. By placing requirements upon local publicly owned electric utilities, the bill would impose a state-mandated local program.

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. Chapter 4 (commencing with Section 8360) is added to Division 4.1 of the Public Utilities Code, to read:

### Chapter 4. Smart Grid Systems

8360. It is the policy of the state to modernize the state's electrical transmission and distribution system to maintain safe, reliable, efficient, and secure electrical service, with infrastructure that can meet future growth in demand and achieve all of the following, which together characterize a smart grid:

(a) Increased use of cost-effective digital information and control technology to improve reliability, security, and efficiency of the electric grid.

(b) Dynamic optimization of grid operations and resources, including appropriate consideration for asset management and utilization of related grid operations and resources, with cost-effective full cyber security.

(c) Deployment and integration of cost-effective distributed resources and generation, including renewable resources.

(d) Development and incorporation of cost-effective demand response, demand-side resources, and energy-efficient resources.

(e) Deployment of cost-effective smart technologies, including real time, automated, interactive technologies that optimize the physical operation of appliances and consumer devices for metering, communications concerning grid operations and status, and distribution automation.

(f) Integration of cost-effective smart appliances and consumer devices.

(g) Deployment and integration of cost-effective advanced electricity storage and peak-shaving technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air-conditioning.

(h) Provide consumers with timely information and control options.

(i) Develop standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid.

(j) Identification and lowering of unreasonable or unnecessary barriers to adoption of smart grid technologies, practices, and services.

8361. For purposes of this chapter,

"ISO" means the Independent System Operator operating pursuant to Article 3 (commencing with Section 345) of Chapter 2.3 of Part 1 of Division 1.

8362. (a) By July 1, 2010, the commission, in consultation with the Energy Commission, the ISO, and other key stakeholders shall determine the requirements for a smart grid deployment plan consistent with Section 8360 and federal law, including the provisions of Title XIII (commencing with Section 1301) of the Energy Independence and Security Act of 2007 (Public Law 110-140). The commission shall institute a rulemaking or expand the scope of an existing rulemaking to adopt standards and protocols to ensure functionality and interoperability developed by public and private entities, including, but not limited to, the National Institute of Standards and Technology, Gridwise Architecture Council, the International Electrical and Electronics Engineers, and the National Electric Reliability Organization recognized by the Federal Energy Regulatory Commission. An adopted smart grid deployment plan may provide for deployment of cost-effective smart grid products, technologies, and services by entities other than electrical corporations. The smart grid technologies and services shall improve overall efficiency, reliability, and cost-effectiveness of electrical system operations, planning, and maintenance.

(b) This section does not require or authorize the commission to delay action on an application by an electrical corporation that is submitted prior to the commission determining the requirements for a smart grid deployment plan.

8363. This chapter shall be implemented in a manner that does not compromise customer or worker safety or the integrity or reliability of the electrical transmission and distribution system in this state.

8364. (a) By July 1, 2011, each electrical corporation shall develop and submit a smart grid deployment plan to the commission for approval.

(b) This section does not require or authorize the commission to delay action on an application by an electrical corporation that is submitted prior to the commission's approval of the electrical corporation's timely filed smart grid deployment plan.

8366. Smart grid technology may be deployed in a manner to maximize the benefit and minimize the cost to ratepayers and to achieve the benefits of smart grid technology. The commission, in consultation with the Energy Commission, the ISO, and electrical corporations, shall evaluate the impact of deployment on major initiatives and policies including:

(a) Implementation of new advanced metering initiatives.

(b) Achievement of the renewables portfolio standard program requirements and the need to operate the smart grid of the future with a substantial increased percentage of electricity generated by eligible renewable energy resources.

(c) Achievement of state goals for reducing emissions of greenhouse gases as set forth in the California Global Warming Solutions Act of 2006 and other state directives.

(d) Achievement of the energy efficiency and demand response goals as required by Sections 454.5 and 454.55 and other state directives.

(e) Modernizing the aging utility grid infrastructure.

(f) Meeting the future energy growth needs of the state with new and innovative technologies and methods that utilize the existing assets more efficiently, result in a less environmentally adverse net impact on the state, meet stringent costs versus benefit assessments, and provide the ratepayers with new options in meeting their individual energy needs.

(g) Implementation of technology to improve worker safety, protection, and productivity.

~~(h)~~

*8367.* By January 1, 2011, and by January 1 of each year thereafter, the commission shall report to the Governor and the Legislature on the commission's recommendations for a smart grid, the plans and deployment of smart grid technologies by the state's electrical corporations, and the costs and benefits to ratepayers.

*8368. The commission may modify or adjust the requirements of this chapter for any electrical corporation with fewer than 100,000 service connections, as individual circumstances merit.*

~~8367.~~

*8369.* Each local publicly owned electric utility with more than 100,000 service connections, shall, by July 1, 2011, develop a smart grid deployment plan, that is consistent with federal law, including the provisions of Title XIII (commencing with Section 1301) of the Energy Independence and Security Act of 2007 (Public Law 110-140).

SEC. 2. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because a local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the program or level of service mandated by this act, within the meaning of Section 17556 of the Government Code.

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