AMENDED IN SENATE JULY 17, 2001

AMENDED IN SENATE JUNE 26, 2001

CALIFORNIA LEGISLATURE—2001–02 SECOND EXTRAORDINARY SESSION

SENATE BILL No. 52

Introduced by Senator Chesbro

May 17, 2001

An act to add Section 25227 to the Public Resources Code, relating to thermal energy storage.

LEGISLATIVE COUNSEL'S DIGEST

SB 52, as amended, Chesbro. Thermal energy storage: off-peak electricity.

The existing Warren-Alquist State Energy Resources Conservation and Development Act declares that it is the policy of the state to develop all practicable and cost-effective conservation and improvements in the efficiency of energy use and distribution that offer equivalent or better system reliability, and which are not being exploited by any other entity.

This bill would require the commission to ~~establish a program to significantly increase~~ *analyze* the use of thermal energy storage technologies ~~in specified types of buildings~~*, as specified*. The bill would require the commission, on or before ~~November 1, 2001~~ *July 1, 2002*, to report to the Legislature regarding thermal energy storage technologies.

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

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

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

(1) California is experiencing a shortage of electricity supplies during peak demand periods due in large part to energy consumption related to air-conditioning and industrial process cooling.

(2) Thermal energy storage technologies reduce electrical demand during peak air-conditioning periods by shifting electrical usage to nighttime, off-peak periods.

(3) Numerous California businesses and public institutions have successfully used thermal energy storage systems in a variety of applications, including schools and universities, office buildings, wine making, and agricultural cooling applications.

~~(4) Architectural, engineering, heating, ventilation, and air-conditioning companies are not aware of the benefits of thermal energy storage systems, and consequently do not provide for their use in the design of new buildings or industrial process cooling, or the refurbishment of existing air-conditioning systems.~~

~~(5)~~

(4) Establishing public policy measures to increase the use of thermal energy storage technology will lead to a reduction in peak electricity demand, a reduction in the need for adding additional peaking electrical generating capacity in the state, and will decrease the likelihood of electricity shortages in the future.

(b) It is the intent of the Legislature to ~~increase~~ *evaluate* the use of thermal energy storage technologies in commercial, educational, ~~agricultural, and industrial facilities by establishing state policies to shift air-conditioning loads from peak to off-peak periods.~~ *agricultural, and industrial facilities.*

SEC. 2. Section 25227 is added to the Public Resources Code, to read:

~~25227. (a) The commission shall establish a program to significantly increase the use of thermal energy storage technologies in state-owned buildings, public and private schools, new commercial and industrial buildings, agricultural applications, and other commercial facilities where thermal energy storage technologies can help reduce consumption of electricity during peak load periods. The commission shall~~

~~consider both retrofit and new construction applications. On or before November 1, 2001, the commission shall report to the Legislature a plan to ensure that thermal energy storage technologies become a mainstream means of reducing peak electricity demand by shifting air-conditioning and process cooling electrical demand to off-peak load periods, including, but not limited to, consideration of the following:~~

~~(1) Changes in the nonresidential building energy efficiency standards of Title 20 and Title 24 of the California Code of Regulations to provide offsets or credits, or both, for energy budgets that incorporate thermal energy storage.~~

~~(2) Incentives to equip commercial buildings and electric utilities with the capacity to automatically reduce loads on air-conditioning equipment and shift these loads to thermal energy storage equipment during periods of peak electricity demand through dispatch signals from utilities or power suppliers.~~

~~(b) As used in this section, the following terms have the following meanings:~~

~~(1) ''Off-peak'' means electrical generating capacity between the hours of 10 p.m. and 6 a.m.~~

~~(2) ''Thermal energy storage'' means a form of technology that uses off-peak energy to produce and store cool energy in the form of ice or chilled water for use the next day in air-conditioning or process cooling.~~

25227. The commission shall analyze thermal energy storage technologies for cost-effectiveness and to determine if and how thermal energy storage technology can help California meet its peak energy needs. The analysis shall consider different settings for the technology, such as agricultural and commercial office applications. As part of the analysis, the commission shall consider the effectiveness of working installations of the technology. The commission shall complete its analysis on or before July 1, 2002, and shall report the analysis on that date to the Legislature.

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