

AMENDED IN SENATE AUGUST 19, 2016  
AMENDED IN SENATE AUGUST 2, 2016  
AMENDED IN SENATE JUNE 20, 2016  
AMENDED IN SENATE JUNE 6, 2016  
AMENDED IN SENATE SEPTEMBER 4, 2015  
AMENDED IN SENATE AUGUST 18, 2015  
AMENDED IN SENATE JUNE 23, 2015  
AMENDED IN ASSEMBLY JUNE 1, 2015  
AMENDED IN ASSEMBLY APRIL 6, 2015  
CALIFORNIA LEGISLATURE—2015–16 REGULAR SESSION

**ASSEMBLY BILL**

**No. 33**

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**Introduced by Assembly Member Quirk**  
**(Coauthors: Assembly Members Chávez, Jones, and Weber)**  
(Coauthors: Senators Anderson and Hueso)

December 1, 2014

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An act to add Section 2836.8 to the Public Utilities Code, relating to electricity.

LEGISLATIVE COUNSEL'S DIGEST

AB 33, as amended, Quirk. Electrical corporations: energy storage systems: *systems: long duration bulk energy storage resources.*

Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including electrical corporations, as defined. Existing law requires the commission to open a proceeding to

determine appropriate targets, if any, for each load-serving entity, as defined, to procure viable and cost-effective energy storage systems to be achieved by ~~December 31, 2015, and December 31, 2020.~~ ~~If determined to be appropriate, the commission is required to adopt the procurement targets by October 1, 2013, and to reevaluate the determinations not less than once every three years. Pursuant to these requirements the commission adopted Decision 13-10-040 (October 17, 2013), Decision Adopting Energy Storage Procurement Framework and Design Program.~~

~~If, beginning January 1, 2017, the commission increases the targets for a load-serving entity to procure viable and cost-effective energy storage systems, this bill would require the commission to authorize pumped hydroelectric storage facilities of any size that become operational on or after January 1, 2017, to be eligible to meet those increased targets to the extent that those facilities meet otherwise applicable requirements.~~

*This bill would require the commission to evaluate and analyze the potential for all types of long duration bulk energy storage resources to help integrate renewable generation into the electrical grid, as specified.*

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

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

- 1 SECTION 1. The Legislature finds and declares all of the
- 2 following:
- 3 (a) According to the California Independent System Operator
- 4 (ISO), the state is experiencing unprecedented changes in the
- 5 generation, delivery, and consumption of electricity. Along with
- 6 these changes come challenges for operating the state’s electrical
- 7 grid and resources in the most efficient manner, particularly in
- 8 terms of timing of generation in relation to the demand for
- 9 electricity.
- 10 (b) As part of the long-term procurement planning process at
- 11 the Public Utilities Commission, the ISO has identified a need for
- 12 fast-ramping and flexible resources to balance the electrical grid
- 13 and mitigate the effects of over-generation from renewable energy
- 14 resources.

1 (c) The ISO has identified energy storage, with its unique ability  
2 to both utilize excess electricity generated by renewable energy  
3 resources and to quickly inject that electricity back onto the  
4 electrical grid to meet ramping and peak demand needs, as a part  
5 of the new strategy for efficiently operating the electrical grid in  
6 a manner that best protects the environment.

7 (d) ~~Pumped-Long duration bulk energy storage and pumped~~  
8 hydroelectric storage, in particular, when constructed in a  
9 sufficiently large scale, possesses the characteristics to meet our  
10 electrical grid's need for rapid ramping capability and the capacity  
11 to utilize over-generation from renewable energy resources.

12 ~~(e) Even with the recognized need identified by the ISO, there~~  
13 ~~remains a lack of incentive for the state's electrical utilities to~~  
14 ~~procure large pumped hydroelectric energy storage because that~~  
15 ~~procurement does not meet any current utility mandate.~~

16 ~~SEC. 2.~~ Section 2836.8 is added to the Public Utilities Code,  
17 to read:

18 ~~2836.8. (a) Beginning January 1, 2017, if the commission~~  
19 ~~increases the targets for a load-serving entity to procure viable and~~  
20 ~~cost-effective energy storage systems, pumped hydroelectric~~  
21 ~~storage facilities of any size that become operational on or after~~  
22 ~~January 1, 2017, shall be eligible to the extent that those facilities~~  
23 ~~meet otherwise applicable requirements.~~

24 ~~(b) Subdivision (a) is declaratory of existing law and does not~~  
25 ~~limit the commission's discretion in developing or adopting targets~~  
26 ~~for a load-serving entity to procure viable and cost-effective energy~~  
27 ~~storage systems.~~

28 *SEC. 2. The commission, in coordination with the Energy*  
29 *Commission, shall, as part of a new or existing proceeding,*  
30 *evaluate and analyze the potential for all types of long duration*  
31 *bulk energy storage resources to help integrate renewable*  
32 *generation into the electrical grid. As part of the evaluation, the*  
33 *commission shall assess the potential costs and benefits of all types*  
34 *of long duration bulk energy storage resources, including impacts*  
35 *to the transmission and distribution systems of location-specific*  
36 *long duration bulk energy storage resources.*