

STATE OF CALIFORNIA

Public Utilities Commission
San Francisco

M e m o r a n d u m

Date: April 2, 2013

To: The Commission
(Meeting of April 4, 2013)

From: Lynn Sadler, Director
Office of Governmental Affairs (OGA) – Sacramento

Subject: **AB 1258 (Skinner) – Electricity: Hydroelectric Facilities.**
As amended: March 13, 2013

RECOMMENDED POSITION: SUPPORT IF AMENDED

SUMMARY OF BILL:

This bill would require the CPUC to open a new proceeding, or expand the scope of a current proceeding, to assess the potential impact of hydroelectric and pumped storage facilities to provide operational flexibility, with the aim of enabling the integration of renewable resources.

CURRENT LAW:

The bill would add language to Public Utilities Code Sections 2835-2839, which were chaptered upon approval of AB 2514 (Skinner) in 2010. The intent of AB 2514 was to direct the Commission to open a proceeding to consider procurement policies for energy storage, without highlighting any specific storage technologies. AB 1258, in contrast, directs specific analysis of hydroelectric and pumped storage facilities to deliver operational flexibility, either in an existing or new proceeding.

AUTHOR'S PURPOSE:

The purpose of the author is to facilitate the integration of renewable resources by exploring the potential of existing hydroelectric and pumped storage facilities to deliver operational flexibility. The bill focuses on the potential of these resources to provide operational flexibility in order to reduce the need for gas fired "peakers," which tend to be both high in cost and carbon emissions.

DIVISION ANALYSIS (Energy Division):

AB 1258 requires the CPUC to open a new proceeding (or expand the scope of an existing proceeding) to determine the potential use of existing hydroelectric and pumped storage facilities to provide additional operational flexibility.

The CPUC is already engaged in assessing the potential of energy storage systems in meeting system reliability through the Energy Storage Proceeding (R.10-12-007). The CPUC's 2012 Long-Term Procurement Plan Proceeding (R.12-03-014) is evaluating system flexibility needs. As part of the 2012 LTPP's Track II, the California Independent System Operator (CAISO) is conducting operational flexibility modeling ten years out based on planning assumptions and standards adopted in the LTPP. The CAISO has confirmed to Energy Division staff that key existing hydroelectric and pumped storage facilities are included in their modeling. In addition, CPUC's current Resource Adequacy (RA) Proceeding (R.11-10-023) is considering proposals to add a flexibility requirement to the Commission's RA program.

While the Energy Storage, LTPP and RA proceedings each relate to AB 1258, none of these proceedings directly achieve AB 1258's goal of providing a technical assessment of the potential of hydroelectric and pumped storage, in particular, to deliver operational flexibility benefits to the system. Therefore, Energy Division would require an increase in staff resources in order to expand its work into performing this level of analysis.

Further, the Energy Division does not currently have the technical resources required to conduct operational flexibility modeling, which is why it relies on the CAISO to perform its operational flexibility modeling in the LTPP. In order for the CPUC to conduct this form of analysis, Energy Division would need additional funding to obtain the necessary modeling resources.

SAFETY IMPACT:

Optimizing existing sources of flexibility is a crucial factor in mitigating the chances of a loss of load event, which have detrimental implications for public safety. By requiring a technical assessment to better understand the potential of our current fleet, AB 1258 potentially enhances the safety of California citizens.

RELIABILITY IMPACT:

By assessing the potential of existing resources to contribute to system operating flexibility, AB 1258 potentially increases overall system reliability.

RATEPAYER IMPACT:

To the extent that the analysis required by AB 1258 finds efficiencies in the electric system not previously identified, the overall cost to the ratepayers could decrease as a result of this technical assessment. This savings to ratepayers is insignificant relative to the overall cost of operating the system.

FISCAL IMPACT:

If the Energy Division's proposed amendments are accepted, AB 1258 would not result in any foreseen fiscal impacts to the CPUC. If the amendments are not accepted, additional staff will be required.

ECONOMIC IMPACT:

Energy Division does not anticipate any significant economic effects stemming from AB 1258.

LEGAL IMPACT:

It is not clear whether AB 1258 creates a legal obligation for the owners and operators of these hydroelectric and pumped storage units, including the State Water Project (SWP) and Los Angeles Department of Water and Power (LADWP), to provide the CPUC with information on their pumped storage units. Without mandated reporting requirements for all generation owners the CPUC would be unable to make a complete examination of the potential of existing hydro facilities to provide additional operating flexibility.

LEGISLATIVE HISTORY:

Energy Division is not aware of any legislative history directly related to AB 1258.

PROGRAM BACKGROUND:

Energy Storage Proceeding

The CPUC opened its Energy Storage proceeding (R.10-12-007) to set policy for California's three investor owned utilities (IOUs) and load-serving entities (LSEs) to consider the procurement of viable and cost-effective energy storage systems. The CPUC is required by law to adopt an energy storage procurement target, if determined to be appropriate, to be achieved by each LSE by December 15, 2015, and a second target to be achieved by December 31, 2020.

As part of this proceeding, the CPUC is considering a variety of possible policies to encourage the cost-effective deployment of energy storage systems. New hydro pumped storage resources are being considered as one technology to address a transmission-connected storage resource analysis.

Long-Term Procurement Plan (LTPP) Proceeding

The CPUC's LTPP proceeding develops assumptions and forecasts of resource availability and determines if the existing plus planned mix of resources is sufficient to meet future needs. The CPUC has designed the LTPP proceeding to occur every two years and look at least ten years forward.

The LTPP began a comprehensive examination of flexible procurement needs starting with the 2010 LTPP. Track II of the current 2012 LTPP (R.12-03-014) is focused on system wide resource needs, including flexibility. At this time, the CAISO is engaged in conducting operational flexibility modeling based on planning assumptions and standards adopted in December 2012 by the CPUC in D.12-12-010. The Commission expects to make a decision at the end of 2013 on the need for new system and/or flexible resources.

Resource Adequacy (RA) Proceeding

The CPUC's annual RA proceeding establishes minimum capacity obligation requirements for CPUC jurisdictional load serving entities (LSEs) on a one year-ahead basis at both the system and local level.

The current RA proceeding (R.11-10-023) is considering proposals to add a flexibility requirement to RA program. If adopted, LSEs would be required to procure, and report in their year-ahead and month-ahead filings, specific amounts of capacity resources that are considered flexible. The proceeding has scheduled a Proposed Decision by June 2013 with the expectation that the CPUC could establish flexible RA capacity procurement rules as early as the 2014 compliance year.

OTHER STATES' INFORMATION:

The CAISO is developing a flexible ramping product (also called Flexiramp) through a stakeholder process. The CAISO prepared its "Second Revised Draft Final Proposal" for the new product in October 2012. Once implemented, the CAISO Flexiramp product will be a new ancillary service that will provide energy market revenues to resources that fulfill operational flexibility needs. Flexiramp would provide a real time market signal for flexibility to resources such as hydroelectric and pumped storage facilities.

In 2010, the Federal Energy Regulatory Commission (FERC) opened Docket Number AD10-11 to consider the value of new energy technologies that have the potential to ramp faster and more accurately than traditional generation resources. The FERC issued a Notice of Inquiry to seek comment on how to facilitate the development of robust competitive markets for Ancillary Services provided by any/all resource types, with particular attention to Electric Storage technologies. As part of this Notice of Inquiry, FERC sought to revisit accounting and reporting requirements for FERC-jurisdictional entities that use storage for jurisdictional sales. The resulting rulemaking proceeding (RM11-24) has received input from a wide variety of parties. To date, FERC has not issued a final rule.

In addition, FERC has exclusive licensing jurisdiction over hydroelectric facilities and pumped storage facilities, and establishes conditions of operation, which may be key information relevant to the type of analysis envisioned in this bill.

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION:

Energy Division stands in favor of examining new ways to optimize electric system operations. Staff supports the aim of AB 1258, however the technical assessment envisioned by the bill would be more appropriately delegated to the California Energy Commission (CEC), rather than the California Public Utilities Commission (CPUC).

SUMMARY OF SUGGESTED AMENDMENTS:

This bill should be amended in the following way:

- (1) Direct the CEC to Conduct the Operational Flexibility Technical Assessment
Direct the CEC, instead of the CPUC, to conduct the technical assessment of the potential for hydroelectric and pumped storage to provide operational flexibility. As the state's primary energy policy and planning agency, the CEC has the technical expertise and resources to study the hydroelectric and pumped storage potential impacts on system flexibility. The CPUC's limited modeling resources would impede its ability to conduct this analysis independently.

STATUS:

AB 1258 is pending hearing in the Assembly Utilities and Commerce Committee.

SUPPORT/OPPOSITION:

None yet.

VOTES:

None yet.

STAFF CONTACTS:

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BILL LANGUAGE:

BILL NUMBER: AB 1258 AMENDED
BILL TEXT

AMENDED IN ASSEMBLY MARCH 13, 2013

INTRODUCED BY Assembly Member Skinner

FEBRUARY 22, 2013

An act to amend Section 2836 of the Public Utilities Code,
relating to electricity.

LEGISLATIVE COUNSEL'S DIGEST

AB 1258, as amended, Skinner. Electricity: hydroelectric
facilities.

Under existing law, the Public Utilities Commission (PUC) has
regulatory authority over public utilities and can establish its own
procedures, subject to statutory limitations or directions and
constitutional requirements of due process.

Existing law requires the PUC to open a new proceeding to
determine the appropriate targets, if any, for each load-serving
entity to procure viable and cost-effective energy storage systems to
be achieved by December 31, 2015, and December 31, 2020.

This bill would require the ~~commission~~
PUC, on or before March 1, 2014, to open a new proceeding or
expand the scope of an existing proceeding to determine the potential
use of *existing* hydroelectric facilities and specified
pumped storage facilities to provide ~~energy resources with~~
~~deliverability characteristics that may include dispatchable~~
~~baseload, firm, and as available capacity~~ *additional*
operational flexibility that could facilitate the integration of
renewable resources .

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. It is the intent of the Legislature that load serving
entities maximize the use of existing hydroelectric and pumped
storage facilities for energy storage and renewable energy
integration, subject to constraints required to protect fish,
wildlife, and public safety.

SEC. 2. Section 2836 of the Public Utilities Code is amended to
read:

2836. (a) (1) On or before March 1, 2012, the commission shall
open a proceeding to determine appropriate targets, if any, for each
load-serving entity to procure viable and cost-effective energy
storage systems to be achieved by December 31, 2015, and December 31,
2020. As part of this proceeding, the commission may consider a

variety of possible policies to encourage the cost-effective deployment of energy storage systems, including refinement of existing procurement methods to properly value energy storage systems.

(2) The commission shall adopt the procurement targets, if determined to be appropriate pursuant to paragraph (1), by October 1, 2013.

(3) The commission shall reevaluate the determinations made pursuant to this subdivision not less than once every three years.

(4) Nothing in this section prohibits the commission's evaluation and approval of any application for funding or recovery of costs of any ongoing or new development, trialing, and testing of energy storage projects or technologies outside of the proceeding required by this chapter.

(b) (1) On or before March 1, 2012, the governing board of each local publicly owned electric utility shall initiate a process to determine appropriate targets, if any, for the utility to procure viable and cost-effective energy storage systems to be achieved by December 31, 2016, and December 31, 2020. As part of this proceeding, the governing board may consider a variety of possible policies to encourage the cost-effective deployment of energy storage systems, including refinement of existing procurement methods to properly value energy storage systems.

(2) The governing board shall adopt the procurement targets, if determined to be appropriate pursuant to paragraph (1), by October 1, 2014.

(3) The governing board shall reevaluate the determinations made pursuant to this subdivision not less than once every three years.

(c) (1) On or before March 1, 2014, the commission shall open a new proceeding or expand the scope of an existing proceeding to determine the potential use of *existing* hydroelectric facilities and pumped storage facilities specified in paragraph (2) to provide ~~energy resources with deliverability characteristics that may include dispatchable baseload, firm, and as available capacity~~ *additional operational flexibility that could facilitate the integration of renewable resources* .

(2) The pumped storage facilities to which paragraph (1) applies are the Helms pumped storage facility, the Balsam Meadow pumped storage facility, the Oroville pumped storage facility, *the Castaic pumped storage facility*, and the San Luis pumped storage facility.