**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

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| Order Instituting Rulemaking Pursuant to Assembly Bill 2514 to Consider the Adoption of Procurement Targets for Viable and Cost-Effective Energy Storage Systems. | R._____ |

## ORDER INSTITUTING RULEMAKING

### 1. Summary

We open this rulemaking in response to the enactment of legislation (Assembly Bill (AB) 2514 – Skinner, Stats. 2010 – ch. 469). This legislation directs this Commission to open a proceeding by March 1, 2012 to determine appropriate targets, if any, for each load-serving entity (LSE) as defined by Pub. Util. Code Section 380 (j) to procure viable and cost-effective energy storage systems and, by October 1, 2013, to adopt an energy storage system procurement target, if determined to be appropriate, to be achieved by each LSE by December 31, 2015, and a second target to be achieved by each LSE by December 31, 2020. We also open this proceeding on our own motion to initiate policy for California utilities to consider the procurement of viable and cost-effective energy storage systems.

Although the Legislature has given the Commission until March 1, 2012 to open this proceeding, we see the enactment of AB 2514 as an important opportunity for this Commission to continue its rational implementation of advanced sustainable energy technologies and the integration of intermittent resources in our electricity grid.

## 2. Assembly Bill (AB) 2514

On September 29, 2010, Governor Schwarzenegger signed AB 2514 into law. Section 1 states the Legislature's policy that:

> (a) Expanding the use of energy storage systems can assist electrical corporations, electric service providers, community choice aggregators, and local publicly owned electric utilities in integrating increased amounts of renewable energy resources into the electrical transmission and distribution grid in a manner that minimizes emissions of greenhouse gases;
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> (b) Additional energy storage systems can optimize the use of the significant additional amounts of variable, intermittent, and off-peak electrical generation from wind and solar energy that will be entering the California power mix on an accelerated basis;
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> (c) Expanded use of energy storage systems can reduce costs to ratepayers by avoiding or deferring the need for new fossil fuel-powered peaking power plants and avoiding or deferring distribution and transmission system upgrades and expansion of the grid;
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> (d) Expanded use of energy storage systems will reduce the use of electricity generated from fossil fuels to meet peak load requirements on days with high electricity demand and can avoid or reduce the use of electricity generated by high carbon-emitting electrical generating facilities during those high electricity demand periods. This will have substantial co-benefits from reduced emissions of criteria pollutants;
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> (e) Use of energy storage systems to provide the ancillary services otherwise provided by fossil-fueled generating facilities will reduce emissions of carbon dioxide and criteria pollutants; and
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> (f) There are significant barriers to obtaining the benefits of energy storage systems, including inadequate evaluation of the use of energy storage to integrate renewable energy resources into the transmission and distribution grid through long-term electricity resource planning, lack of recognition of technological and marketplace advancements, and inadequate statutory and regulatory support.

## 3. Policy Background

California has an aggressive suite of environmental policies. The California Global Warming Solutions Act of 2006 (AB 32) requires that California reduce statewide greenhouse gas emissions to 1990 levels by 2020.[1] Additionally, Executive Order S-3-05 calls for an 80% reduction in emissions from 1990 levels by 2050.[2]

California law requires that 20% of retail electricity sales come from renewable resources.[3] This mandate is in the process of being expanded to require that 33% of retail electricity sales come from renewable resources.[4]

California is currently undertaking an effort to retire, repower, or replace several thousand megawatts of aging, inefficient fossil fuel generation facilities in order to mitigate the environmental impacts of once-through cooling and to comply with the Clean Water Act.[5]

This Commission has also established a comprehensive set of policies and programs to promote energy efficiency, demand response, distributed

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[1] AB 32 (Stats. 2006, ch. 488).

[2] Governor Arnold Schwarzenegger, Executive Order S-3-05, June 1, 2005.

[3] California's Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill (SB) 1078 (Stats. 2002, ch. 516, Sec. 3) and accelerated in 2006 under S.B. 107 (Stats. 2006, ch. 464, Sec. 13).

[4] In response to Executive Order S-21-09, the California Air Resources Board (CARB) adopted Resolution 10-7-1, which approved a thirty three percent Renewable Electricity Standard. CARB's finalization of this Resolution is expected by the end of 2010. The Resolution would take effect on January 1, 2012.

[5] *See*, Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, adopted on May 4, 2010.

generation, renewable energy, reliability, reasonable electricity rates, and other goals established in the Energy Action Plan and elsewhere.

California's energy policies require the development of new types of renewable and distributed generation resources, such as wind and solar. These resources by their nature are intermittent and may not be directly dispatched by system operators to meet customer load. Since operators of the electricity grid must constantly match electricity supply and demand, intermittent renewable resources are challenging to incorporate into the electricity grid. Additionally renewable generation can often occur at times when there is reduced demand for power. Energy storage technologies may provide an effective means for addressing the challenges of relying upon intermittent and off-peak renewable generation.

Energy storage technology may also offer California economic and environmental benefits. By utilizing energy storage technologies to store intermittent and off-peak renewable power, the state may: reduce greenhouse gas emissions from carbon-based electricity production; avoid the need to build more transmission and generation facilities; increase system efficiencies and reliability; and, generate economic activity through the manufacturing and operation of new technologies.

However, the full costs and benefits of energy storage technologies are not known. How those costs and benefits should be allocated throughout the electric system is also not established, in part because these technologies may provide multiple services such as generation, transmission and distribution.

## 4. Scope of This Proceeding

This Commission supports the review and possible adoption of viable, cost-effective energy storage technologies because they may provide a strategy

for meeting the state's long-term clean energy goals while maintaining system reliability.

The purpose of this proceeding is to: (1) review, analyze and establish, if appropriate, opportunities for the development and deployment of energy storage technologies throughout California's electricity system; (2) remove or lessen any barriers to such development and deployment; (3) review and weigh the associated costs and benefits of such development and deployment; and, (4) establish how those costs and benefits should be distributed.

On July 9, 2010, the Commission's Policy and Planning Division issued a white paper entitled, Electric Energy Storage: An Assessment of Potential Barriers and Opportunities. This white paper, which is appended to this order instituting rulemaking (OIR) as Attachment A, provides a starting point for shaping the issues to be considered in this rulemaking.

Because AB 2514 provides broad discretion to the Commission, we request parties provide us with their views of the issues to be addressed in this proceeding before we establish a precise scope. Accordingly, other than the guidance herein, we are not providing a preliminary scoping of the issues to be explored in this proceeding at this time. Rather we shall direct the parties to file initial comments responding to the guidance in this OIR and the Policy and Planning Division's white paper, which, together with an initial workshop, will serve as the basis for a future detailed scope of this proceeding.

### 4.1. Preliminary Schedule

The preliminary schedule for this proceeding shall be as follows:

By January 21, 2011, parties shall file comments that will identify the facts and issues of laws that they believe to be relevant to this proceeding's scope as guided by the directions and comments in this OIR and staff's white paper. The

Comments should also: identify the party and interest of the party in this proceeding (see Rule 1.4(b) of the Commission's Rules of Practice and Procedure (Rules)); raise any objections to or recommendations regarding this order's determinations as to categorization of the proceeding as quasi-legislative, the need for hearing, issues to be considered, or scheduling (see Rule 6.2); and, identify any other procedural or substantive issues parties believe to be relevant.

In the first quarter of 2011, Commission staff shall convene a workshop at which key stakeholders shall have the opportunity to present their views regarding the opportunities for development and deployment of energy storage technologies, the obstacles to such development and deployment, the costs and benefits of such development and deployment, and how those costs and benefits should be distributed.

Based on the parties' filings and the information presented at the workshop, the assigned Commissioner or the Administrative Law Judge shall develop a Preliminary Ruling, specifying the particular topics on which additional information and input from the parties will be solicited.

Following the issuance of this Preliminary Ruling, we anticipate holding a prehearing conference (PHC) to address scoping and scheduling issues. Shortly thereafter, the assigned Commissioner will issue a scoping memo setting forth the scope of the proceeding and establishing a procedural schedule.

Subsequent to the issuance of such a scoping memo, we expect that additional workshops and filed comments will be required to establish a full record.

### 4.2. Proceeding Category and Need for Hearing

Rule 7.1(d) of the Commission's Rules specifies that an OIR will preliminarily determine the category of the proceeding and the need for hearing.

We determine that this proceeding is quasi-legislative as defined in Rule 1.3(d). While it appears that the issues may be resolved through comments and workshops without the need for evidentiary hearings, a final determination on the need for hearings will be made in the assigned Commissioner's scoping memo.

## 5. Becoming a Party; Joining and Using the Service List

Pacific Gas & Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall be respondents in this proceeding. All load serving entities (LSEs), as defined in Pub. Util. Code § 380(j), are placed on notice that they may be subject to the decisions issued in this rulemaking, and this OIR shall be served upon them. Respondents shall be placed on the service list automatically as parties, but other LSEs as well as other interested parties and those interested in monitoring the proceeding shall follow the instructions below.

To ensure you receive all documents, send your request within 30 days after the OIR is published. The Commission's Process Office will publish the official service list at the Commission's website (www.cpuc.ca.gov) and will update the list as necessary.

### 5.1. During the First 30 days

Within 30 days of the publication of this OIR, any person may ask to be added to the official service list. Send your request to the Process Office. You may use e-mail (Process_Office@cpuc.ca.gov) or letter (Process Office, California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, CA 94102). Include the following information:

- Docket Number of this Rulemaking;

- Name (and party represented, if applicable);
- Postal Address;
- Telephone Number;
- E-mail Address; and
- Desired Status (Party, State Service, or Information Only).[6]

If the OIR names you as respondent, you are already a party, but if you wish a different representative, you must still ask to be added to the official service list.

### 5.2. After the First 30 Days

If you want to become a party after the first 30 days, you may do so by filing and serving timely comments in the Rulemaking (Rule 1.4(a)(2)), or by making an oral motion (Rule 1.4(a)(3)), or by filing a motion (Rule 1.4(a)(4)). If you file a motion, you must also comply with Rule 1.4(b). These rules are in the Commission's Rules of Practice and Procedure, which you can read at the Commission's website.

If you want to be added to the official service list as a non-party (that is, as State Service or Information Only), follow the instructions in section 2.1 above.

### 5.3. Updating Information

Once you are on the official service list, you must ensure that the information you have provided is up-to-date. To change your postal address, telephone number, e-mail address, or the name of your representative, send the

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[6] If you want to file comments or otherwise actively participate, choose "Party" status. If you do not want to actively participate but want to follow events and filings as they occur, choose "State Service" status if you are an employee of the State of California; otherwise, choose "Information Only" status.

change to the Process Office by letter or e-mail, and send a copy to everyone on the official service list.

### 5.4. Serving and Filing Documents

When you serve a document, use the official service list published at the Commission's website as of the date of service. You must comply with Rules 1.9 and 1.10 when you serve a document to be filed with the Commission's Docket Office. If you are a party to this Rulemaking, you must serve by e-mail any person (whether Party, State Service, or Information Only) on the official service list who has provided an e mail address.

The Commission encourages electronic filing and e-mail service in this Rulemaking. You may find information about electronic filing at http://www.cpuc.ca.gov/PUC/efiling. E-mail service is governed by Rule 1.10. If you use e-mail service, you must also provide a paper copy to the assigned Commissioner and Administrative Law Judge. The electronic copy should be in Microsoft Word or Excel formats to the extent possible. The paper copy should be double-sided. E-mail service of documents must occur no later than 5:00 p.m. on the date that service is scheduled to occur.

If you have questions about the Commission's filing and service procedures, contact the Docket Office.

## 6. Service List

The Executive Director shall serve copies of this rulemaking on respondents, all other LSEs listed on the Commission's official records, the California Energy Commission (CEC), the California Independent System Operator (CAISO), and the service lists for Rulemaking (R.) 07-01-041 (Demand Response), R.10-05-006 (Procurement Rulemaking), R.09 10 032 (Long Term Resource and Adequacy Rulemaking), R.08-12-009 (Smart Grid) and R.09-08-009

(Alternative-Fueled Vehicles). Such service does not confer party status in this proceeding upon any person or entity other than respondents, and does not result in that person or entity being placed on the service list for this proceeding.

The Commission notes that the CAISO and the CEC could play important roles in the identification of viable and cost-effective energy storage systems that could be amenable for large-scale deployment in California, and we therefore invite and welcome the active participation of the CAISO and the CEC in this rulemaking.

## 7. Public Advisor

Any person or entity interested in participating in this rulemaking who is unfamiliar with the Commission's procedures should contact the Commission's Public Advisor in San Francisco at (415) 703-2074 or (866) 849 8390 or e-mail public.advisor@cpuc.ca.gov; or in Los Angeles at (213) 576-7055 or (866) 849 8391, or e-mail public.advisor.la@cpuc.ca.gov. The TYY number is (866) 836 7825.

## 8. Intervenor Compensation

Any party that expects to claim intervenor compensation for its participation in this rulemaking shall file its notice of intent to claim intervenor compensation no later than 30 days after the first PHC, or as otherwise provided in Rule 17.1.

## 9. *E x Parte* Communications

Pursuant to Rule 8.2(a) *ex parte* communications in this rulemaking are allowed without restriction or reporting requirement.

**IT IS ORDERED** that:

1. The Commission hereby institutes this rulemaking pursuant to Assembly Bill 2514 as well as its own motion to initiate policy for California utilities to consider the procurement of viable and cost-effective energy storage systems.

2. Pacific Gas & Electric Company, San Diego Gas & Electric Company and Southern California Edison Company are named as respondents and are parties to this proceeding pursuant to Rule 1.4(d) the Commission Rules of Practice and Procedure (Rules). All load serving entities (LSEs), as defined in Pub. Util. Code § 380(j), are placed on notice that they may be subject to the decisions issued in this rulemaking, and this order instituting rulemaking shall be served upon them. Attachment B lists such entities as reflected in the Commission's records. Any error or omission in Attachment B shall not excuse any LSE from compliance with decisions issued in this proceeding.

3. Respondents shall be placed on the service list automatically as parties, but other load serving entities as well as other interested parties and those interested in monitoring the proceeding must follow the directions set forth in Section 5 of this order instituting rulemaking to become a party or be placed on the official service list as a non-party.

4. This proceeding is classified as quasi-legislative, as that term is defined in Rule 1.3(d).

5. Parties shall file comments that will serve as the basis for the establishment of a detailed scope for this proceeding and shall identify any other relevant procedural issues by January 21, 2011. Any person who objects to this order's determinations regarding categorization of the proceeding as quasi-legislative, the need for hearing, issues to be considered or scheduling shall state such objections in their comments.

6. Pursuant to the requirements of Assembly Bill 2514, we anticipate that this proceeding shall be completed before October 1, 2013.

7. The Executive Director shall cause this order instituting rulemaking to be served on the Respondents, all load serving entities listed in the Commission's official records (see Attachment B), the California Energy Commission, the California Independent System Operator, and the service lists for Rulemaking (R.) 07-01-041 (Demand Response), R.10-05-006 (Procurement Rulemaking), R.09-10-032 (Long Term Resource Adequacy Rulemaking) R.08-12-009 (Smart Grid) and R.09-08-009 (Alternative-Fueled Vehicles).

8. Parties serving documents in this proceeding shall comply with Section 5.4 of this order instituting rulemaking regarding electronic service. Any documents served on the assigned Commissioner and Administrative Law Judge shall be both by e-mail and by delivery or mailing a paper format copy of the document.

9. A party that expects to request intervenor compensation for its participation in this rulemaking shall file its notice of intent to claim intervenor compensation in accordance with Rule 17.1 of the Rules.

10. *Ex parte* communications in this rulemaking are governed by Rule 8.2(a).

11. The assigned Commissioner or the Administrative Law Judge may make such revisions to the scheduling determinations made herein as may be necessary to facilitate the efficient management of this proceeding.

This order is effective today.

Dated _____, at San Francisco, California.