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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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

Rulemaking 10-12-007
(Filed December 16, 2010)

**ASSIGNED COMMISSIONER'S RULING
PROPOSING STORAGE PROCUREMENT TARGETS AND
MECHANISMS AND NOTICING ALL-PARTY MEETING**

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**ASSIGNED COMMISSIONER'S RULING
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1. Summary

This Assigned Commissioner's Ruling (ACR) sets out a straw proposal with potential procurement targets for load-serving entities to procure viable and cost-effective energy storage systems from among emerging storage technologies, as well as companion policies to encourage the cost-effective deployment of energy storage, consistent with Assembly Bill (AB) 2514.¹ Parties are invited to comment on any or all aspects of this proposal, including several specific questions included in this ACR. Comments are due on July 3, 2013; reply comments are due on July 19, 2013. This ACR also notices an all-party meeting on June 25, 2013, from 10:00 a.m. to 12 p.m. in the Commission's Courtroom, 505 Van Ness Avenue, San Francisco, CA 94102.

2. Guiding Principles and Policy

Energy storage has the potential to transform how the California electric system is conceived, designed, and operated. In so doing, energy storage has the potential to offer services needed as California seeks to maximize the value of its generation and transmission investments: optimizing the grid to avoid or defer investments in new fossil fuel-powered plants, integrating renewable power, and minimizing greenhouse gas emissions.²

¹ AB 2514 is codified at Pub. Util. Code § 2835 *et seq.*

² AB 2514 Sec. 1 (Stats. 2010).

This ACR sets out a proposal for planning, procurement and evaluation of energy storage and its emerging role within the electric system. It is guided by the vision and requirements established in AB 2514, and builds on the work accomplished within this proceeding to date.³ This ACR suggests procurement targets for energy storage with the goal of market transformation. The primary mechanisms are a reverse auction mechanism and a requirement to include energy storage alternatives in distribution system planning. The hoped-for result is that when the energy storage market becomes sustainable, procurement targets for storage will no longer be needed and it will compete to provide services alongside other types of resources.

3. Market Barriers to Emerging Storage Technologies

The market barriers hindering broader adoption of emerging energy storage technologies have been identified and discussed in Phase 1 of this proceeding:

1. Lack of definitive operational needs;
2. Lack of cohesive regulatory framework;
2. Evolving markets and market product definition;
3. Resource Adequacy accounting;
4. Lack of cost-effectiveness evaluation methods;
5. Lack of cost recovery policy;
6. Lack of cost transparency and price signals (wholesale and retail);
7. Lack of commercial operating experience; and

³ Order Instituting Rulemaking Pursuant to AB 2514 to Consider the Adoption of Procurement Targets for Viable and Cost-Effective Energy Storage Systems, Rulemaking (R.) 10-12-007, filed December 16, 2010.

8. Further define the energy storage interconnection process.⁴

Some of these market barriers have been resolved or may be resolved in the near future within other California Public Utilities Commission (CPUC) proceedings. In addition, resolution of some of these market barriers may lie outside the CPUC's jurisdiction. However, I also believe that additional market barriers for emerging storage technologies will only diminish through a procurement process in which certain data, such as cost-effectiveness, operational data, and greenhouse gas impacts, are specifically solicited and evaluated. Thus, I am proposing a set of procurement targets that will allow this learning to occur for policy makers and industry participants alike.

In addition, I note that many of these barriers are substantially similar to those faced by the rooftop solar photovoltaic industry when this Commission first designed the California Solar Initiative (CSI) program during the middle of the last decade. The CSI program broadened California's approach to the solar industry to a larger scale following a decade of support from the emerging renewables program, which had been funded with research and development funds at the California Energy Commission, as well as the Self-Generation Incentive Program (SGIP).

Energy storage represents a diverse set of technologies and approaches to providing benefits to the electricity grid. When identifying market barriers and presenting procurement targets for consideration, I am referring to the barriers faced by those storage applications and technologies that have not yet achieved widespread commercial operation. More well-established technologies and

⁴ Staff Phase 2 Interim Report (January 20, 2013) at 14.

applications with proven benefits and the ability to participate in California markets today, such as pumped hydrological storage, may not face all of the same types of barriers and issues as those energy storage technologies being used in new ways that have not been demonstrated or deployed on a wider scale.⁵

For such emerging uses of energy storage, the market barriers potentially create the need for a long-term and sustained strategy that assists the utilities and the storage industry alike in bringing forth projects that can provide long-term benefits if they overcome the short-term market and regulatory failures identified above. Thus, the market transformative aspect of this proposal is meant to help bring down market barriers, reduce costs, and increase scale of market penetration over time.

The purpose of the proposed procurement targets is distinct from a research, development, and demonstration (RD&D)-oriented purpose of promoting new technologies. For RD&D purposes, the Energy Commission and the utilities are already proposing to fund energy storage research and development in their Electric Program Investment Charge (EPIC) program, and other proposals. For purposes of this proceeding and this ACR, I am proposing procurement targets for commercially available, eligible storage technologies utilized in grid applications that may have been demonstrated but are not yet generally deployed on the grid in California.

⁵ See Pub. Util. Code § 2835(a)(4) (defining energy storage system eligible for procurement targets as those using “mechanical, chemical, or thermal processes”).

4. Proposal

The proposal discussed in this section presents a framework for energy storage procurement, energy storage procurement targets, an energy storage procurement program design, and evaluation. This proposal brings together aspects of suggestions from various parties during the course of this proceeding, as well as actions by the Commission in other venues such as the Long Term Procurement Planning (LTPP) proceeding, and the aforementioned SGIP. Ultimately, there are decisions being made in multiple arenas that impact storage, and this proposal is designed to supplement those activities, while moving forward with storage policy and deployment for the benefit of California.

This proposal structures market opportunities so that energy storage can become a key operational component of California's energy system. The proposal is designed to be aggressive but realistic, with opportunities for amendment and cost containment, should procurement of storage be more difficult or more expensive than anticipated or than current trends suggest.

a. Proposed Energy Storage Procurement Framework

Consistent with AB 2514,⁶ the Commission's energy storage procurement policy should be guided by three purposes:

- 1) The optimization of the grid, including peak reduction, contribution to reliability needs, or deferment of transmission and distribution upgrade investments;
- 2) The integration of renewable energy; and
- 3) The reduction of greenhouse gas emissions to 80 percent below 1990 levels by 2050, per California's goals.⁷

⁶ See Pub. Util. Code § 2835(a)(3).

While energy storage may serve additional purposes within California's energy supply, I propose that the Commission use these three overarching purposes in setting procurement targets, designing procurement, and measuring progress.

b. Proposed Energy Storage Procurement Targets

I propose that the Commission adopt energy storage procurement targets expressed in megawatt (MW) amounts for each investor-owned utility.⁸ Building on the storage use cases identified and defined by Commission staff earlier in this proceeding, each utility would be given a target allocated among the three sets of storage use cases: transmission-connected, distribution-connected, and customer-side applications, as set out in Table 1 below.

In this context, a target represents the number of MW of storage capacity that each utility would solicit. Thus, the targets should not be considered requirements or mandates, and will be subject to certain flexibility off-ramps as further described below.

The targets would be set to be met with solicitations every two years through 2020, with targets ramping up over the set of four auctions (over a period of 6-7 years) to allow for learning-by-doing, as well as the potential for

⁷ The Global Warming Solutions Act of 2006 (AB 32) requires California to reduce greenhouse gas emissions to 1990 levels by 2020. Cal. Health & Safety Code § 38500 *et seq.* Executive Order S-3-05 (Gov. Schwarzenegger, 2005) states an additional goal of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050.

⁸ Investor-owned utilities (IOU's) here refers jointly to Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE). AB 2514 also applies to direct access service providers and community choice aggregators, which are addressed below.

cost reductions in projects over time. The targets for the first auction reflect a modest to moderate reach above the storage projects that are currently planned, authorized for procurement, or in development by California utilities. A non-exhaustive list of those projects is discussed further below. In addition, these targets would potentially be adjusted to align with certain other determinations by the Commission in other venues, as discussed further in the sections below.

Table 1 - Initial Proposed Energy Storage Procurement Targets (in MW)

Use case category, by utility	2014	2016	2018	2020	Total
Southern California Edison					
Transmission	50	65	85	110	310
Distribution	30	40	50	65	185
Customer	10	15	25	35	85
Subtotal SCE	90	120	160	210	580
Pacific Gas and Electric					
Transmission	50	65	85	110	310
Distribution	30	40	50	65	185
Customer	10	15	25	35	85
Subtotal PG&E	90	120	160	210	580
San Diego Gas & Electric					
Transmission	10	15	22	33	80
Distribution	7	10	15	23	55
Customer	3	5	8	14	30
Subtotal SDG&E	20	30	45	70	165
Total - all 3 utilities	200	270	365	490	1,325

The proposed targets in Table 1 above ramp up every two years by approximately 33 percent. The years represent the time frame in which projects would be solicited, not necessarily installed. Winning projects would be given a reasonable amount of time in which to be constructed and interconnected, but would not necessarily be complete before the next auction would take place. The

concept is to allow storage technologies to bid into solicitations when they become ready over time; their capabilities may be evolving rapidly between now and 2020.

c. Adjustments to Procurement Targets

The Commission has authorized or is considering authorizing expenditures for commercialized energy storage projects through various mechanisms and proceedings. As these projects reach commercial operation and demonstrate their ability to meet one or more of the purposes – grid optimization, integration of renewable energy, or the reduction of greenhouse gas emissions - I propose that they be counted toward each utility’s procurement targets, as follows:

All IOUs:

- Commission-approved incentive payments for advanced energy storage systems within the SGIP, presently approved for up to 35 MW of advanced energy storage projects statewide.⁹
- Projects installed as part of Commission-approved incentive payments for the IOU permanent load shifting programs, presently authorized for approximately \$32 million in funding statewide.

SCE:

- At least 50 MW of energy storage, and the energy storage portion of any other generation resources that are procured consistent with the Commission’s recent authorization within the LTPP proceeding to meet local reliability needs in the Western Los Angeles basin.¹⁰

⁹ See <http://www.cpuc.ca.gov/PUC/energy/DistGen/sgip/>.

¹⁰ See Decision (D.) 13-02-015.

- The 8 MW Tehachapi Wind Energy Storage Project to be installed in the Tehachapi renewable resource area.¹¹
- The Department of Defense vehicle-to-grid electric fleet project at the Los Angeles Air Force Base.¹²

PG&E:

- The Commission-approved power purchase agreement between PG&E and Rice Solar for a solar thermal generation project paired with molten salt storage.¹³

SDG&E:

- The Borrego Springs microgrid project, undertaken as part of SDG&E's smart grid deployment plan.¹⁴
- Up to 44.6 MW of distribution system storage recently approved as part of Sempra's General Rate Case (GRC) application.¹⁵

The California Energy Commission has approved storage projects through the Public Interest Energy Research (PIER) program, and this Commission, along

¹¹ Comments of SCE on the Energy Storage Phase 2 Interim Staff Report and Energy Storage Workshops, filed February 4, 2013 in R.10-12-007 at 3.

¹² Comments of SCE on the Energy Storage Phase 2 Interim Staff Report and Energy Storage Workshops, filed February 4, 2013 in R.10-12-007 at 3-4.

¹³ Res. E-4545, January 24, 2013.

¹⁴ See Annual Status Report of SDG&E for Smart Grid Deployments and Investments, filed October 1, 2012 in R.08-12-009.

¹⁵ D.13-05-010, Decision on General Rate Cases of San Diego Gas & Electric Company and Southern California Gas Company (Application 10-12-005), May 9, 2013. I note that this MW amount accounts for a large proportion of SDG&E's distribution-connected storage target, and under this proposal, would not have been eligible to request within the GRC as a utility-owned asset because it would not comply with the 50 percent non-utility ownership requirement proposed here. I propose allowing this amount to count toward SDG&E's procurement target in order to encourage progress toward deployment.

with the California Energy Commission, are presently considering the approval of storage pilot projects through the EPIC program. The primary purpose of both programs is technology development or demonstration, not commercial deployment. At this stage, I propose that any PIER- or EPIC-funded projects shall only count toward the procurement targets set in this proceeding if a load-serving entity subject to AB 2514 is a financial partner in the project, and the project reaches actual operations and can be shown to meet one of the three purposes set out here.

Finally, any project listed above that a utility counts toward its procurement target may not be bid into the reverse auction mechanism described below.

d. Proposed Energy Storage Procurement Design

i. Factors Shaping the Proposed Design

In designing this energy storage procurement proposal, I have taken into account the still-emerging role of energy storage within the California electric system that has been established in the record of this proceeding. The factors that shape my proposal are set out below.

First, the law requires that appropriate targets be set for “viable”¹⁶ energy storage systems, and that the Commission draw on operational data from testing and trial projects.¹⁷ I note that California has invested in a number of energy storage pilot projects, many of which are detailed above. Some have begun operation, and others will commence operation between 2013 and 2015. In some

¹⁶ Pub. Util. Code § 2836(a)(1).

¹⁷ Pub. Util. Code § 2836.2(a)-(b).

instances, operational data will be collected and reported as a result of public funding provided for the project; this will not be the case in all instances.

As I note above, this proposal is intended to support emerging uses of storage technologies. Consequently, it is to be expected that operational data is not yet fully available. For example, below is the list of twenty-one end uses for storage within different components of the grid, as developed in this proceeding.¹⁸ The list is comprehensive, but energy storage is not yet installed or performing all of these services:

California Independent System Operator (CAISO)/Market:

- Ancillary services: frequency regulation;
- Ancillary services: spin/non-spin/replacement reserves;
- Ancillary services: ramp;
- Black start;
- Real time energy balancing;
- Energy price arbitrage; and
- Resource Adequacy.

Generation:

- Intermittent resource integration: wind (ramp/voltage support);
- Intermittent resource integration: photovoltaic (time shift, voltage sag, rapid demand support); and
- Supply firming.

Transmission/Distribution:

- Peak shaving;

¹⁸ R.10-12-007, Energy Storage Framework Staff Proposal (Final), April 3, 2012, available at <http://www.cpuc.ca.gov/PUC/energy/electric/storage.htm>.

- Transmission peak capacity support (upgrade deferral);
- Transmission operation (short duration performance, inertia, system reliability);
- Transmission congestion relief;
- Distribution peak capacity support (upgrade deferral); and
- Distribution operation (voltage / VAR support).

Customer:

- Outage mitigation: micro-grid;
- Time-of-use energy cost management;
- Power quality; and
- Back-up power.

My proposal for evaluation, measurement, and verification of an energy storage procurement program, including operational data, is set out in greater detail below.

Based on the list of projects set out above, several of which have received partial funding from local, state, or federal sources, I anticipate that over the next one to three years, certain non-confidential operational data will be available from the utilities, the CAISO, and other entities, such as Electric Power Research Institute.

Second, the law also requires that the Commission set appropriate procurement targets for cost-effective energy storage systems.¹⁹ The Commission has implemented this requirement by developing a framework – the use cases – for understanding the diverse services that energy storage can provide at

¹⁹ Pub. Util. Code § 2836(a)(1).

the transmission, distribution, and customer levels, and then performing a cost-effectiveness analysis of selected use cases.

The cost-effectiveness evaluation of energy storage conducted within this proceeding to date is groundbreaking, but preliminary. While some results will be published and reviewed by parties to this proceeding, the models used are the first of their kind and may require further refinement. Moreover, the models developed in this proceeding do not set out a Commission-approved methodology for the evaluation of the cost-effectiveness of energy storage. As more information is gained through deployment of storage projects and applications, more refinements and better analysis of cost-effectiveness will become possible, including potential comparisons between the tools to be used by the utilities and those developed within this proceeding. Cost-effectiveness is addressed further in the evaluation section below.

Finally, I note that the timing of this proposal predates two important procurement and planning efforts within the Commission's Resource Adequacy (RA) proceeding and LTPP proceedings. Parties to the RA proceeding have been evaluating a new flexible RA capacity product. Within the LTPP proceeding, the Commission is presently conducting an evaluation of system need, which is anticipated to be completed in early 2014, and has added a new track, to consider the local reliability impacts of a potential long-term outage at the San Onofre Nuclear Power Station (SONGS).²⁰ The procurement targets and the schedule for solicitations proposed here are not presently tied to need determinations within

²⁰ R.12-03-014, Revised Scoping Ruling and Memo of the Assigned Commissioner and Administrative Law Judge at 3-4.

the LTPP proceeding. Instead, in the near term, I view this proposal as moving in parallel to the ongoing LTPP evaluations of need – system and local, and with the new consideration of the outage at SONGS. In the longer term, I propose that procurement of energy storage be increasingly tied to need determinations within the LTPP proceeding.

ii. Electric Service Providers and Community Choice Aggregators

AB 2514 requires storage procurement targets for load-serving entities, including direct access electric service providers (ESPs) and community choice aggregators (CCAs).²¹ While our regulatory authority over ESPs and CCAs is limited, I believe these entities should have the option and should be encouraged to procure storage, similar to the proposal for the IOUs. ESPs and CCAs should have the option to either: a) pay their share of energy storage procurement costs to utilities through the Cost Allocation Mechanism, and/or b) procure energy storage projects commensurate with their load share.

iii. Procurement of Utility-Owned Energy Storage Through General Rate Case Applications

I propose that each utility investigate energy storage alternatives within its distribution system planning activities, and may propose up to fifty percent of its distribution system procurement target for utility-owned energy storage.²²

The utility may propose the energy storage asset within its applicable GRC proceeding, and must make a showing of cost-effectiveness and viability within

²¹ Pub. Util. Code § 2835(b).

²² Pub. Util. Code § 2835(a)(2)(B) (procurement targets may be met by energy storage systems owned by a load-serving entity, publicly owned utility, customer-owned storage, third-party owned storage, or joint ownership by two or more such entities).

the GRC proceeding using the same methodology described within the competitive reverse auction procurement process below. Where a utility-owned energy storage asset has been funded in part by a local, state, or federal public program, only the expenditures not publicly funded may be proposed for rate recovery. An IOU proposing utility-owned storage shall simultaneously offer a procurement opportunity for third party-owned energy storage as described below. Finally, any energy storage asset approved within a GRC proceeding would be ineligible to participate in competitive reverse auctions for third party-owned energy storage.

iv. Procurement of Third Party-Owned Energy Storage Through Reverse Auctions

To procure third-party owned energy storage²³ to meet the procurement targets, I propose that the utilities hold a reverse auction, similar to the Commission's Renewables Auction Mechanism (RAM).²⁴ The key components of this approach are that projects are able to bid their costs and be paid their costs as bid, over the life of the contract. In addition, future winning bid prices will adjust over time as the IOUs learn more about the projects, the storage market develops, and the Commission and the CAISO continue to assess the storage needs for the state.

1. Schedule

Preliminarily, the first auction would be held in 2014, with auctions biannually thereafter, in 2016, 2018, and 2020. This will allow sufficient time

²³ Pub. Util. Code § 2835(a)(2)(B).

²⁴ See

<http://www.cpuc.ca.gov/PUC/energy/Renewables/hot/Renewable+Auction+Mechanism.htm> for information on the RAM program.

between auctions for the IOUs to refine their approach prior to conducting another round of solicitations. In addition, as more technologies become viable, it allows them to enter the procurement arena at a time that is appropriate for each technology. This proposed schedule for the 2020 procurement targets may be changed subject to the Commission's need determinations in the LTPP proceeding and reevaluation of energy storage procurement targets and policies, as discussed below.

2. Reverse Auction Eligibility

All third-party owned energy storage resources as defined by law, except for pumped hydrological resources, would be eligible to bid into the energy storage reverse auctions.²⁵ Where a third-party owned energy storage system has received funds from a local, state, or federal publicly-funded program, only the expenditures not publicly funded may be proposed for rate recovery by the IOUs through the auction mechanism. Thus, the project will be bid in and evaluated based upon its full cost, but rate recovery shall be authorized only for the portion of the cost that is not publicly funded.

3. Auction Solicitations

On or before January 1, 2014, each IOU should be required to file an application containing a proposal for the first energy storage auction protocol modeled on the auction mechanism used for the RAM program. A minimum of nine months prior to each subsequent auction, the IOUs should file applications containing a proposal for the auction protocol, with any proposed modifications based on data and experiences from previous auctions.

²⁵ Pub. Util. Code § 2835(a)(1).

The auction protocol should include, at a minimum:

- A MW target sufficient to meet the biennial procurement targets for transmission, distribution, and customer-sited storage systems as set out in Table 1, and subject to the adjustments discussed here;
- Reference to the most recent need determination by the Commission or needs study by the CAISO for the IOU's system, local, and flexible needs, if available;
- Product definition, to be applied either to all bids or separately with respect to transmission, distribution, and customer-sited storage. Product definition shall include, at a minimum:
 - Grid optimization services specific to the operational needs of the load-serving entity, such as any service intended to integrate renewable energy or contribute to reliability needs;
 - Greenhouse gas emissions-reducing attributes, such as permanent load shifting away from greenhouse gas emitting fossil generation or reduction of demand for peak electrical generation using fossil fuels.
- A methodology for a least-cost, best-fit analysis of bids that draws on:
 - The use case framework developed in this proceeding, and
 - A proposed methodology for evaluating cost-effectiveness for energy storage bids that may be offered at the transmission, distribution, and customer levels, based on an articulated method of comparing energy storage to other resources.
- A proposed storage power/services purchase agreement for successful bids.

Following Commission review and approval of the energy storage auction protocol, the IOUs should then issue a request for bids into an energy storage

reverse auction. The auction should be scheduled for no later than June 30, 2014, and may be held concurrently with a RAM auction, if appropriate.

4. Independent Evaluator

Each IOU should employ an independent evaluator to assess the competitiveness and integrity of its auction. The IOU should submit the independent evaluator's report as part of its Tier 2 advice letter requesting approval of contracts resulting from the auctions.

5. Cost-Effectiveness Review and Cost Containment

Each IOU may be relieved from a declining percentage of its procurement targets with an affirmative showing of unreasonableness of cost, such as offers that are evaluated as cost-ineffective based on the IOU's proposed methodology, the lack of a competitive number of bids in the energy storage auction, or other showing. Each IOU would have the burden to make such a showing and have the Commission approve a lower procurement target in that instance. As an example, an IOU may be permitted relief from up to 40 percent of its 2014 procurement target with such a showing, from up to 30 percent of its 2016 procurement target with such a showing, and from up to 20 percent of its 2018 and 2020 procurement targets with such a showing.

In addition, each IOU, when presenting its solicitation results to the Commission, should also include cost-effectiveness analysis utilizing the two models that have been developed in this proceeding for all bids received, to provide a consistent basis for comparison across utilities, bids, and use cases.

6. Procurement Review Group

Each IOU shall be required to present the design of each auction protocol and the results of each auction to its Procurement Review Group.

7. Commission Approval

Following each auction, each IOU shall submit a Tier 2 advice letter setting out the winning energy storage bids for Commission approval and rate recovery.

v. Treatment of Data

All data related to all bids, both successful and unsuccessful, in each auction should be considered non-confidential, except for cost data. The cost data of successful bids would be confidential for one year following Commission approval of a storage power/services purchase agreement.

e. Energy Storage Procurement Program Evaluation, Measurement, and Verification

AB 2514 requires that the Commission reevaluate its determinations with respect to energy storage at least once every three years.²⁶ Thus, I propose that the Commission should evaluate, measure, and verify the progress of this program toward its stated purposes. Specifically, an evaluation, measurement, and verification program should investigate and assess the following:

- i. Whether the energy storage procured pursuant to this proposal meets the stated purposes of optimizing the grid, integrating renewables, and/or reducing greenhouse gas emissions;
- ii. Progress toward market transformation;
- iii. Learning from collection, analysis, and reporting of energy storage operational data; and
- iv. Learning from collection, analysis, and reporting of the cost-effectiveness of the energy storage systems procured, with attention to data confidentiality.

²⁶ Pub. Util. Code § 2836(a)(3).

Consistent with the approach taken in other Commission programs, I propose that the utilities collectively fund an annual budget of approximately \$500,000 from all ratepayers, to be reimbursed to the Commission through the regular budget process, to allow Commission staff to oversee evaluation and analysis of the program and hire consultants for this purpose. The Commission would then submit a budget for evaluation, measurement, and verification as part of its overall budget beginning in July 2014, to make funds available for this purpose by 2015.

f. Energy Storage and the Loading Order

At present, I do not believe it is necessary to formally revise the California Loading Order identified as part of the Energy Action Plan to include energy storage. This proposal prioritizes energy storage that optimizes grid operations and acts to reduce greenhouse gas emissions, and in providing such services, energy storage fits within the spirit of the Loading Order. The purpose of this proposal is to make storage a priority by virtue of setting targets. This will allow all entities, including the Commission, the IOUs, and the storage industry, to learn about the opportunities that storage could provide to the grid and our environmental goals.

g. Coordination with Other Commission Proceedings

The Commission's RA and interconnection proceedings are continuing to address issues relevant to energy storage. Commission Staff should continue coordination among proceedings in order to further reduce market barriers.

5. Comments on Proposal, Schedule, and Notice of All-Party Meeting

Parties are requested to comment on the proposal outlined in Section 3 above. In particular, parties' comments should address the following:

- a. Please comment on this proposal overall, with emphasis on the proposed procurement targets and design.
- b. Comment on whether any of the projects proposed to count toward the procurement targets be excluded, or any additional projects included, and on what basis.
- c. Comment on how actual operational deployment should be defined for PIER- and EPIC-funded projects potentially eligible to count toward a utility's procurement target.
- d. Comment on how any utility's procurement that exceeds a target in one year should be addressed and considered for future procurement targets.
- e. Comment on whether and to what extent utilities should be permitted flexibility in procuring among the use-case "buckets" (transmission, distribution, and customer-sited) of energy storage within one auction, and whether a minimum amount in each "bucket" must be targeted.
- f. Comment on the appropriate "off ramps" for relief from procuring up to each target and what metrics should be used to evaluate the appropriateness of the off ramps.
- g. Comment on how this proposal may be coordinated with Renewable Portfolio Standard procurement plans, as set out in Public Utilities Code section 2837.
- h. Comment on the options presented for ESPs and CCAs to either a) be required to procure an equivalent amount of storage projects commensurate with the load they serve or b) have their customers assessed the costs of the IOU procurement of energy storage projects through a cost allocation mechanism.
- i. Comment on how the preliminary results of the cost-effectiveness models should be applied to the question of setting procurement targets.
- j. Based on the preliminary results, should the utilities set a cost cap for offers to be submitted in the 2014 auction? If yes, what should the cap be and how should the auction be structured to incorporate the cap?

Opening comments shall be due on July 3, 2013. Reply comments shall be due on July 19, 2013.

Additionally, I will be holding an all-party meeting to discuss this proposal on June 25, 2013. Any party wishing to speak at the all-party meeting should contact Melicia Charles at Melicia.Charles@cpuc.ca.gov by no later than 5:00 p.m. on June 19, 2013.

It is anticipated that a proposed decision will be issued in September 2013, with a final decision issued in October 2013.

The following schedule summarizes actions that would occur through the second energy storage auction if a proposal similar to the one set out in this ACR is adopted.

October 3, 2013	Commission consideration of Proposed Decision to comply with AB 2514
By December 31, 2013	Commission consideration of proposal for continuation of this proceeding or opening of subsequent energy storage rulemaking
January 1, 2014	Utilities submit Tier 3 advice letter with proposed first energy storage auction protocol
Q2 2014	Commission consideration of auction protocol application
June 30, 2014	Utilities hold first energy storage auction
Q3-Q4 2014	Utilities present results of first energy storage auction to the Procurement Review Group, and file Tier 2 advice letter requesting approval of winning contracts
Q4 2014	Commission staff workshop evaluating data from first energy storage auction

Q3 2015	Utilities file Tier 3 advice letter proposing second energy storage auction protocol
Q1 2016	Commission consideration of second auction protocol advice letter
June 30, 2016	Utilities hold second energy storage auction

IT IS RULED that:

1. Parties wishing to comment on the proposal discussed in Section 3 of this Assigned Commissioner's Ruling shall file and serve comments by July 3, 2013. Reply comments shall be due on July 19, 2013.

2. NOTICE IS HEREBY GIVEN THAT an all-party meeting is scheduled for June 25, 2013 in the Commission Courtroom, State Office Building, 505 Van Ness Avenue, San Francisco, CA 94102 at 10:00 a.m. Any interested party is invited to join. Parties should RSVP to Commissioner Peterman's Advisor Melicia Charles at Melicia.Charles@cpuc.ca.gov by no later than 5:00 p.m. on June 19, 2013 if they wish to speak at the all-party meeting.

Dated June 10, 2013, at San Francisco, California.

/s/ CARLA J. PETERMAN

Carla J. Peterman
Assigned Commissioner