

Attachment A

DRA PROPOSED REDLINES TO FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDERING PARAGRAPHS

MODIFY FINDING OF FACT #3

3. A June 10, 2013 Assigned Commissioner's Ruling (ACR) presented a straw proposal for energy storage procurement targets and mechanisms with the goal of market transformation.

ADD FINDING OF FACT #20

20. Creative funding strategies, such as cash grants and in-kind contributions from vendors, can alleviate the burden on ratepayers.

ADD FINDING OF FACT #21

21. During the development of a common evaluation protocol for the least-cost best-fit evaluation, stakeholder participation is necessary to ensure transparency and that there is a forum to consider the interests of ratepayers who will likely pay for a large portion of the projects.

ADD FINDING OF FACT #22

22. It is important to coordinate with other proceedings and prevent over-procurement and procuring for the same end-uses.

ADD FINDING OF FACT #23

23. Applications give the Commission and stakeholders the opportunity for through review necessary to evaluate emerging storage technologies. An expedited process is available for smaller or non-controversial projects.

MODIFY CONCLUSION OF LAW #20

20. The utilities should be provided flexibility to shift procurement among all three ~~the~~ grid domains, subject to certain requirements.

MODIFY CONCLUSION OF LAW #31

31. The IOUs ~~should~~ shall utilize a consistent evaluation protocol for evaluating cost-effectiveness when submitting the final projects for Commission approval ~~assessing bids~~ to provide a consistent comparison across utilities, bids and use-cases.

MODIFY CONCLUSION OF LAW #32

32. ~~The IOUs should confer with~~ Energy Division shall confer with the IOUs and interested stakeholders in a working group to establish common evaluation protocols for determining cost-effectiveness of energy storage procurement projects. ~~bids.~~

MODIFY CONCLUSION OF LAW #35

35. The utilities ~~should~~ shall be required to provide a post-solicitation report within 12 months after the completion of a solicitation.

MODIFY CONCLUSION OF LAW #36

36. There ~~should~~ shall be a comprehensive evaluation of the Energy State Procurement Framework and Design Program, starting with the IOUs and Energy Division (and other interested stakeholders) developing a market transformation planning evaluation methodology within 30 days after the Commission adopts the decision, by with the first report due no later than January 1, 2016, and once every three years thereafter.

MODIFY CONCLUSION OF LAW #38

38. ~~This proceeding should be closed.~~ It is reasonable to open a new phase in this proceeding for the purpose of addressing cost-effectiveness, and to develop the common evaluation framework and market transformation evaluation methodology that will be adopted by the Commission. Energy Division will initiate working groups consisting of the IOUs and interested stakeholders within 30 days of the issuance of this decision to ensure transparency of the process.

ADD CONCLUSION OF LAW #39

It is reasonable that energy storage procured to meet authorized targets should also count towards the needs identified in non-storage proceedings to avoid over-procurement and procuring for the same end-uses.

ADD CONCLUSION OF LAW #40

It is reasonable that until the Commission gains experience with energy storage technologies, the IOUs must seek review of all energy storage projects through the application process to request Commission approval. Applications seeking contract approval by the Commission must include sufficient detail for a case-by-case analysis of the project's cost-effectiveness, including at least the value for applicable end-uses set forth in the ACR.

ADD CONCLUSION OF LAW #41

It is reasonable that energy storage projects should have an estimated benefit-to-cost ratio of at least more than one in order to be selected on a competitive basis through an RFO.

ADD CONCLUSION OF LAW #41

Upon contract approval by the Commission, the storage projects should count towards satisfying the targets.

MODIFY ORDERING PARAGRAPH #8

8. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall employ an independent evaluator to assess the competitiveness and integrity of its energy storage solicitation. The independent evaluator's report shall be submitted as part of the utility's ~~Tier 3 advice letter~~ application requesting approval of contracts resulting from the solicitations.

MODIFY ORDERING PARAGRAPH #9

9. Rulemaking 10-12-007 ~~is closed.~~ shall remain open for Phase 3 to finalize a common cost-effectiveness framework and to develop market transformation evaluation methodology.

**ENERGY STORAGE PROCUREMENT FRAMEWORK AND DESIGN PROGRAM
[DRA PROPOSED REDLINES]**

2) Energy Storage Procurement Targets

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c) Flexibility within Procurement Targets

The IOUs are allowed discretion in shifting MWs between transmission, ~~and~~ distribution, and customer-side storage grid domains as needed subject to the following limitations:

1. Up to 80% of MWs assigned to one ~~the transmission and distribution~~ grid domains could be shifted to the other two domains without a showing. Although no showing is required, the shifting is still subject to other restrictions described in Section 3, "Energy Storage Procurement Program Design", below.

~~2. No shifting of procurement target MWs is allowed into or out of the customer side domain.~~

~~3.2. No portion of the procurement targets can be traded among the IOUs.~~

d) Adjustments to Procurement Targets

Any storage projects listed in the decision, subject to the requirements described there, or procured pursuant to Commission authorization in other proceedings may be counted towards each utility's procurement targets upon Commission approval of the contracts starting one year after the project is operational. Subsequent revisions of the MWs in compliance with the targets will occur according to the solicitation applications in 2016, 2018 and 2020, and program evaluations.

3) Energy Storage Procurement Program Design

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d) Solicitation Application

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- A proposed methodology for a least-cost, best-fit analysis of bids submitted in a solicitation that draws on:
 - The full range of benefits and costs identified in the use case framework developed and the EPRI and DNV KEMA reports submitted in this proceeding; and
 - A consistent evaluation protocol that includes 1) utilization of a common storage dispatch model across all IOUs for co-optimizing benefits for use cases as applicable and 2) a consistent set of assumptions for valuing storage benefits, such as market services and avoided costs, and estimating project costs to provide a consistent basis for comparison across utilities, bids, and use cases. The common dispatch model and the consistent set of assumptions shall be established by the IOUs through joint consultation between

the IOUs and the Commission Staff, with stakeholder participation through working groups, prior to the filing of the application and referenced in that application;

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- Request for cost-recovery authorization as appropriate.

...

f) Independent Evaluator

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The IOU shall submit the IE's report as part of its ~~Tier 3 Advice Letter Application~~ requesting approval of contracts resulting from the solicitation as discussed in Section 3.h. below.

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h) Commission Approval of Procurement Contracts

Following each solicitation, the IOUs shall negotiate signed contracts within one year of the solicitation, contingent on Commission approval. Each IOU shall file an Application ~~Tier 3 Advice Letter~~ setting out the contracts for the winning energy storage bids for Commission approval. The IOUs shall submit the IE's report as part of the ~~Advice Letter~~ Application.

~~The Advice Letter filing shall be limited to only those contracts that are consistent with the terms of the decision approving the solicitation application. Approval for non-conforming contracts shall be sought by IOUs via submission of applications.~~

The ~~Advice letter~~ Application shall be filed no later than one year from the date of the solicitation. ~~Approved storage projects must be operational within four years of the solicitation date.~~

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4) Energy Storage Procurement Program Evaluation

Energy Division shall conduct a comprehensive evaluation of the program no later than 2016 and at least once every three years thereafter through 2022.

Based on the findings of the evaluation, the Commission may make adjustments to the program if needed.

The program evaluation shall assess the following:

- a. Whether the energy storage resources procured by IOUs meets the stated purpose of optimizing the grid, integrating renewable, and / or reducing greenhouse gas emissions;
- b. Progress toward market transformation;
- c. Learning from collection, analysis, and reporting of energy storage operational data; and
- d. Learning from collection, analysis, and reporting of the cost-effectiveness of the energy storage systems procured, with attention to data confidentiality.
- e. Best practices for the safe operation of energy storage technologies.

a) Measuring Market Transformation

Within 30 days of the issuance of this decision, Energy Division Staff shall initiate workshops or working groups to measure energy storage market transformation. The market transformation planning methodology and the data collection and reporting requirements shall be developed joint consultation between the IOUs and the Commission Staff, with stakeholder participation, and submitted to the Commission for approval through a Tier 3 Advice Letter no later than July 1, 2014. The market transformation planning methodology should include the following steps:

- Define the market in a delimited manner by a set of actual or potential customers, for a given set of products or services, who have a common set of needs or wants, and who reference each other when making a buying decision.¹
- Understand the structure and dynamics of that market to identify obstacles and leverage points;
- Identify and understand the market and institutional barriers;
- Determine which market and institutional barriers will be targeted for removal or mitigation;
- Define the intervention (new product, service, business model, business process);
- Define the desired “difference” the intervention should cause;
- Ensure that the intervention (storage targets program) is closely linked to market (product, service) requirements;
- Develop a coherent program logic model that ensures there will be a solid cause and effect relationship between the storage targets program, will result in the successful removal or mitigation of the targeted barriers, and will achieve the desired “difference” or outcome sought;
- Develop a baseline from which to measure the desired “difference” outcomes;
- Determine the market transformation indicators and short-term, intermediate, an long-term progress indicators;
- Define the data set needed and the data collection strategy to measure progress while the intervention is in place;
- Define the data set needed and the data collection strategy to measure the sustainability of the effects caused by the storage targets program after it concludes; and
- Determine the targets for each market transformation indicator and short-term, intermediate, and long-term progress indicators, along with

¹ Geoffrey A. Moore, *Crossing the Chasm, First Collins Business Edition 2006, p. 28-30.*

tolerance thresholds that can be used to trigger reassessment of program elements or the entire program.

b) Annual Budget

The utilities shall 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 expectation is for Commission staff to be able to commence evaluation efforts by late 2014 or early 2015. The costs of the \$500,000 budget shall be shared by the IOUs according to their proportional share of peak load, and collectable from ratepayers starting in 2015 (such that the maximum budget available for evaluation is \$500,000 per year for 6 years, or \$3 million, unless modified).