

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

**COMMENTS OF
THE DIVISION OF RATEPAYER ADVOCATES
ON ORDER INSTITUTING RULEMAKING**

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January 21, 2011

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I. INTRODUCTION

In response to the Order Instituting Rulemaking (OIR) dated December 21, 2010, in Rulemaking 10-12-007, the Division of Ratepayer Advocates (DRA) submits the following preliminary list of topics it believes the Commission should address. We understand the next step is a workshop to flesh out the parties' suggestions – a process DRA supports. We may have other topics to suggest after reviewing the other parties' submissions.

In summary, DRA believes the key issues in this proceeding are 1) who pays for storage, 2) how the Commission and other agencies should plan to integrate storage into the state's energy mix, and 3) the cost-effectiveness of storage. DRA also believes the application of dynamic pricing to residential and small business customers should be outside the scope of this proceeding.

II. TOPICS FOR CONSIDERATION IN THIS PROCEEDING

DRA believes the following topics –raising mostly issues of fact, with one exception (A.2. below) – should be within the scope of this proceeding.

A. Who Pays?

1. If energy storage options are on the customer side of the meter, should ratepayers, utility shareholders or third parties who develop the storage options fund them? Likewise, who should bear the cost of pilot or feasibility studies for different energy storage technologies?
2. These questions may raise the legal issue of Commission jurisdiction over energy storage developers.

B. Planning and Feasibility

1. California should plan storage at the statewide level. This Commission therefore should work with other state and quasi-governmental agencies such as the California Independent System Operator (CAISO) and the California Energy Commission to develop energy storage policy and avoid redundancy.
2. Can the CPUC encourage the CAISO to change its ancillary services market rules to allow energy storage to bid in to market?
3. Which energy storage options are most effective operationally? Which storage options work best in various parts of the grid, and what purposes do they serve?
4. Should there be there be a list of priorities to achieve through energy storage so that certain storage goals (*e.g.*, renewables integration) are prioritized, and storage relevant to top goals receives the greatest amount of funding?¹
5. If so, what goals are of highest priority? (Other priorities besides renewables integration might include improved power quality, reliable and cleaner backup power, reduced need for peak generation capacity, more efficient use of renewable and other off-peak generation, reduced need for transmission and distribution capacity upgrades, transmission support and congestion relief, increased and improved availability of ancillary services, lower greenhouse gas and other emissions.)

¹ This question differs from Question B.7 below in that the latter focuses on how storage fits into the state's *overall* energy picture, while this question asks about priorities *within* the energy storage option.

6. Can the CPUC and other state agencies integrate storage into their transmission planning processes?
7. Does it make sense to list energy storage within the state's existing Energy Action Plan loading order? If so, where does energy storage fall in the loading order's list of priorities, and how should the loading order be implemented if energy storage is added?

C. Cost Effectiveness and Containment

1. Which energy storage options are most cost effective?
2. How should the Commission assess cost-effectiveness of storage technologies when weighed against each other or against other means of achieving the state's energy goals?
3. What type of market analyses based on historical electricity market data for energy, ancillary services, and capacity markets of energy storage technologies should be conducted?
4. Are there other Commission proceedings in which the Commission has developed cost-effectiveness tests that it may apply to energy storage?
5. What rate design features would best enhance the cost-effective use of customer-owned storage?
6. Are other options besides storage more cost-effective than energy storage to achieve the state's priority goals? For example, could efficient micro gas turbines with low emissions serve as more cost-effective backup than energy storage? As another example, does greater penetration of distributed generation in the longer term, especially photovoltaic technology, change the state's energy storage needs?
7. How, if at all, can the state best utilize customer-owned storage (*e.g.*, grid-connected EV batteries) along with utility-scale storage? Should the future availability of plug-in electric vehicles as "vehicle to grid" capacity be considered in the quantity of storage needs?
8. What type of cost containment mechanism (cost control) should be developed for energy storage?

9. Finally, DRA opposes any minimum requirement akin to an RPS-type goal for storage. Storage should be used where needed and cost-effective, but should not be mandated.

III. TOPIC OUTSIDE THE SCOPE OF THIS PROCEEDING

DRA believes the following topic is outside the scope of this proceeding.

Whether the Commission should apply dynamic pricing to residential and small business ratepayers.

While the Division of Policy and Planning White Paper, at page 9, alludes to this topic, it would be inappropriate to apply dynamic pricing – *i.e.*, energy pricing that varies every hour based on demand and other factors – to residential and small business ratepayers.

First, this topic is largely irrelevant to the grid scale energy storage issues the OIR raises because it does not appear that the Commission is considering having such customers operate their own storage facilities. Nor it is clear whether it would be economic for customers to do so. To alter rate design simply to promote customer-owned storage, as the White Paper appears to suggest, would be unwarranted, at least without a careful examination of possible adverse effects on residential and small-business customers. Such issues are best left to other Commission proceedings.²

Moreover, retail rate design is largely irrelevant to the economics of utility-scale grid-connected storage. If such storage is shown to be cost-effective, then it could be provided by utilities or by third-party storage owners as a peak generation resource or possibly as an ancillary service. There is no need to alter retail rate design to accomplish this objective.

Finally, dynamic pricing is being considered in several other proceedings; to address the issue in this OIR would be duplicative and would pose the risk of inconsistent results.

² For example, Application (A.) 10-02-028, A.10-08-005 and A.10-09-002 all examine dynamic pricing issues. A joint prehearing conference in these proceedings is scheduled for February 8, 2011.

IV. CONCLUSION

DRA believes an integrated planning approach to storage, with involvement of other agencies, is the best course. The Commission should pay careful attention to cost-effectiveness and to how to pay for storage. Finally, the Commission should not consider application of dynamic pricing to residential or small business customers in this proceeding.

Respectfully submitted,

/s/ SARAH THOMAS

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January 21, 2011

CERTIFICATE OF SERVICE

I hereby certify that I have this day *served* a copy of “**COMMENTS OF THE DIVISION OF RATEPAYER ADVOCATES ON ORDER INSTITUTING RULEMAKING**” in **R.10-12-007** by using the following service:

E-Mail Service: sending the entire document as an attachment to all known parties of record who provided electronic mail addresses.

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Executed on **January 21, 2011** at San Francisco, California.

/s/ HALINA MARCINKOWSKI

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R.10-12-007

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