

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)

OPENING COMMENTS OF THE CONSUMER FEDERATION OF CALIFORNIA ON THE ENERGY DIVISION STAFF INTERIM REPORT (PHASE 2) ON ENERGY STORAGE IN RULEMAKING R.10-12-007.

I. INTRODUCTION

The Consumer Federation of California (“CFC”) submits the following comments in response to the “CPUC Energy Storage Proceeding R.10-12-007 Energy Storage Phase 2 Interim Staff Report,” issued on January 4, 2013 (hereafter, Staff Report). CFC commends Energy Division Staff on its comprehensive and thoughtful report on electrical energy storage (EES).

The CFC agrees with most of the Staff Report in that it is essential for the State to promote energy efficiency and to develop energy storage policy. The CFC believes customers will benefit, in the long term, if the State is able to create a framework early but only if that framework is based on concrete data not only Use Cases.

CFC’s comments are summarized below:

II. SUMMARY OF POSITION

The CFC respectfully replies to the Commission’s request for comments, focusing on the issues summarized below:

- i. Use Cases: The Use Cases, as illustrative tools, are adequate to show the value, variety, and potential costs of EES application. They do have limits, however, as they are hypotheticals not based on real life data.
- ii. Preferred Resources: The CFC does not support the designation of EES as a Preferred Resource within the Loading Order, either through action of the Joint Agencies or through Commission policy statement. EES is already included within the definitions of the current loading order

preferred resources and to single it out would chill the advancement of other resources which provide the same benefits.

- iii. Cost-Effectiveness Methodologies: The methodologies used are sufficient as far as their application is concerned. It is the data used in these methodologies that may be insufficient.
- iv. Policy Options: CFC does not have suggested additions.
- v. Related Proceedings: In the interest of full disclosure and complete data, the Commission should consider not just Proceedings that would benefit or be impacted from this Proceeding but all those which have or will allocate funds to EES.

III. DISCUSSION

i. THE USE CASES AND THE RANGE OF VALUABLE ENERGY STORAGE APPLICATIONS THEY ILLUSTRATE ARE ADEQUATE.

The Use Cases, as illustrative tools, are adequate to show the value, variety, and potential costs of EES application. However, they reach a limit in that they are simply hypothetical, fictional cases illustrating what could happen, not necessarily what will happen. While this is useful information for preliminary decisions, it is not a sound foundation for permanent, widespread state mandates or Commission procurement goals.

ii. EES SHOULD NOT BE CONSIDERED A PREFERRED RESOURCE.

- ii.i. THE COMMISSION WILL NEED TO WORK WITH JOINT AGENCIES TO MODIFY THE LOADING ORDER, A COMMISSION POLICY STATEMENT WILL NOT BE ENOUGH.

As admitted in the Staff White paper, “the EAP is a joint agency document, the Commission cannot modify the Loading Order set forth in the EAP without collaboration with other agencies”¹ By definition, then, without working with the Joint Agencies, the Loading Order may not be changed to include EES as a preferred resource. However, the Commission, as noted, could choose to treat EES as a “preferred resource in utility procurements for energy & capacity, to the extent feasible under the law.”² However, as discussed below, the CFC feels that the Commission should not isolate EES in its policy as a preferred resource.

- ii.ii. EES SHOULD NOT BE CONSIDERED A PREFERRED RESOURCE BECAUSE IT IS ALREADY INCLUDED IN THE DEFINITION OF OTHER PREFERRED SOURCES.

The CFC does not support the designation of EES as a Preferred Resource within the Loading Order, either through action of the Joint Agencies or through Commission policy statement. The

¹ CPUC Energy Storage Proceeding R.10-12-007 Energy Storage Phase 2 Interim Staff Report. January 4, 2013. pp. 17-18

² CPUC Energy Storage Proceeding R.10-12-007 Energy Storage Phase 2 Interim Staff Report. January 4, 2013. pp. 17-18

implications of treating EES as a preferred resource are varied but, at a minimum, it would mean overlooking its inclusion in the definitions of the existing Loading Order and that use of EES technologies would be required above other resources with similar impacts.

EES is already included within the definition of many of the Preferred Resources within the Loading Order. For example, within the definition of energy efficiency is equipment used to decrease California's per capita electricity consumption, reducing the state's need for new power plants and the associated environmental impacts, reducing the state's dependence on fossil fuel, and increasing the reliability of the electricity system.

Also, EES is specifically included within Demand Response decisions like Decision 12-04-045 and other decisions, as discussed more fully below. Demand response refers to a wide range of programs and rate designs that provide incentives for customers to reduce their electricity loads when the demand for electricity is high and reducing load before the distribution system reaches its capacity limits enhances the reliability of California's electricity grid.³ There exists a wealth of both renewable and non-renewable distributed generation technologies, of which EES is only one. Benefits from distributed generation include improved reliability and power quality, reduced peak demand, system reliability, and efficiency gains. It can reduce line losses, defer the need for new transmission and distribution infrastructure, reduce utility resource acquisition costs, and provide ancillary services such as voltage control.⁴ Even though the focus of the definition in the CEC Staff Report on the implementation of the California loading order focuses on "combined heat and power" generating plants, during the January 14, 2013 Workshop on EES, EES was defined in almost the same way, with the same benefits.

Storage, if strictly storage, is an adjunct to the loading order not necessarily a necessity to be singled out within it. Should EES be singled out, added to the loading order as a stand-alone resource, at best, it would potentially limit and stifle the use of other resources which serve the same purpose. At worst, adding energy storage to the loading order may lead to double counting since energy storage is also included in other programs such as demand response. We don't want the ratepayer paying twice for the same equipment/project. While EES use may prove to be potentially invaluable, it may not be the only option to achieve the same goals. More certainty as to definition, benefits, and costs is key to proper decision-making.

ii.iii. IMPLICATIONS OF DESIGNATING EES AS A PREFERRED RESOURCE IN THIS PROCEEDING FOR OTHER PROCUREMENT PROCEEDINGS.

³ Staff Report Implementing California's Loading Order for Electricity Resources. CEC. July 2005. CEC-400-2005-043. p.56

⁴ Staff Report Implementing California's Loading Order for Electricity Resources. CEC. July 2005. CEC-400-2005-043. E-2 through E-3, citing 2003 Energy Action Plan prepared by the energy agencies and the Energy Commission's 2003 Integrated Energy Policy Report (2003 Energy Report)

If a current proceeding is already considering the use of EES or EES as a preferred resource, there is not likely to be a large impact. However, if there are proceedings which are not currently addressing EES in either capacity, and the adoption of a mandate will require them to, it may cause delay and confusion. In fact, it was belabored throughout the Staff Report that EES technologies themselves, their impact, usefulness, deploy-ability, and costs are mostly unknown and unquantifiable at this time; all being elements decision makers would need to know with reasonable certainty before reaching a decision. To make EES a preferred resource, effectively requiring the inclusion of EES into proceedings already begun, would create uncertainty and complicate issues.

iii. WHAT COST-EFFECTIVE METHODOLOGIES SHOULD BE USED AND WHICH SHOULD BE PURSUED.

iii.i. THE MODELS AND APPROACH THAT SHOULD BE USED TO MEET THE COMMISSIONS NEEDS.

Since the costs of EES projects and EES application are so nebulous, the CFC recommends the Commission run as many models as possible. It would be impractical to move forward and make decisions on cost allocation and feasibility of the various types of EES, their applications, and their reasonably certain value without having as complete a picture as possible. However, the CFC does not feel this is possible while relying solely on hypothetical information supplied by Use Cases or the use case analyses of EPRI/E3, DNV KEMA and Navigant. Any ultimate analysis, however, is only as good as the information on which it is based. If the EPRI/E3, DNV KEMA and Navigant analyses are based on hypothetical use cases, they can only supply results within that universe. They are limited and the CFC agrees with Commission Staff in that there is a “lack of accuracy of key cost and benefit inputs” which would lead to inaccurate assumptions potentially resulting in negative impacts on the ratepayer.⁵ No matter how it is viewed today,

...determining a global cost-effectiveness methodology for storage... is very challenging because of the wide variety of storage technologies, applications and location specific, operational specific, factors that impact measurement of costs and benefit streams.

More concrete data is required to make properly informed decisions.

iii.ii. IF ALL THE USE CASES CANNOT BE ANALYZED, THE MOST PROBABLE AND POTENTIALLY COSTLY TO THE RATEPAYERS SHOULD BE ADDRESSED FIRST.

Granted, to analyze the Use Cases and finding real life data within a timely manner is a challenge. The CFC prefers that such important and determinative analyses should not be truncated or rushed but, if an order of priority must be decided, the Use Cases should be

⁵ CPUC Energy Storage Proceeding R.10-12-007 Energy Storage Phase 2 Interim Staff Report (January 4, 2013) 20.

analyzed in the order of most likely storage to occur soonest with the biggest cost to the more remote technology with the least cost. The most likely to occur soonest, according to the January 14, 2013 workshop analyses, are the Permanent Load Shifting, Distributed Storage Site at Utility Substation, and the Transmission Connected Energy Storage uses.

iii.iii. IN ORDER TO INCREASE TRANSPARENCY AND PRODUCE A COMPLETE REGULATORY FRAMEWORK, ANY ANALYSIS SHOULD INCLUDE PROCEEDINGS THAT ARE ALREADY ALLOCATING RATEPAYER MONEY TOWARD ENERGY STORAGE PROJECTS.

The Proposed Decision properly identifies barriers to energy storage deployment and addresses the need to coordinate with different policy proceedings in order to achieve a more cohesive regulatory framework. One of the barriers that the Staff Report identifies is a lack of a cohesive regulatory framework. The Staff Proposal correctly explains that “the California markets are currently operated under the premise that energy cannot be stored in a practical cost-effective manner”⁶ and that in order to help remedy this situation “coordination is therefore especially needed both across policy proceedings at the CPUC, as well as between regulatory agencies.”⁷ CFC agrees with this position. However, in order to accurately analyze energy storage needs as well as develop an effective regulatory framework that promotes transparency, there should be increased coordination across proceedings that are currently funding or proposing to fund energy storage investments.

There are a number of decisions and proceedings that not only address energy storage but also allocate funds to its procurement and use. As the Staff Report notes, there are several current proceedings that touch on the use of EES including, Long-Term Procurement (R.12-03-014), Resource Adequacy (R.11-10-023)⁸ There is also, as noted in CFC’s previously submitted comments,⁹ Decision 12-04-045 in consolidated Applications of PG&E, SCE, and SDG&E for Approval of Demand Response Programs, Pilots and Budgets for 2012-2014 (A. 11-03-001, A.11-03-002, A.11-03-003) which has allocated approximately \$32 million ratepayer dollars to fund energy storage projects; The Smart Grid Deployment Plans (A. 11-06-029, A. 11-06-006, A. 11-07-001) which includes energy storage investments as part of IOU Smart Grid Investments and authorizes cost recovery, energy storage investments included in the Smart Grid Deployment Plans with the intention of these investments to be recovered in IOU General Rate Cases.¹⁰ Southern California Edison has also invested in energy storage projects as part of their Smart Grid Deployment plan to be recovered in their 2012 GRC Phase 1 Application (A. 10-11-015)

⁶ CPUC Energy Storage Proceeding R.10-12-007 Energy Storage Framework Staff Proposal (April 3, 2012) 6.

⁷ CPUC Energy Storage Proceeding R.10-12-007 Energy Storage Phase 2 Interim Staff Report (January 4, 2013) 20.

⁸ CPUC Energy Storage Proceeding R.10-12-007 Energy Storage Phase 2 Interim Staff Report (January 4, 2013) 22-26

⁹ Opening Comments of the Consumer Federation of California on the Decision Adopting Proposed Framework for Analyzing Energy Storage Needs. 3-4

¹⁰ A.11-07-001, *Application of Southern California Edison Company For Approval of Its Smart Grid Deployment Plan* at 5.

and PG&E has invested in energy storage as part of their Smart Grid Baseline Investments.¹¹ In each proceeding, however, the definition and valuation of electrical energy storage is still in contention.

CFC feels that incorporating these and other proceedings, which disclose the level of current energy storage funding, is part and parcel of developing a cohesive regulatory framework because it increases transparency, coordination, and accurate accounting, all of which are necessary in adequately analyzing energy storage needs and cost allocation.

iv. WHETHER THE POLICY OPTIONS ARE ACCURATELY REPRESENTED.

Ultimately, the use cases and priority lists discussed in the Staff Report are sufficiently broad, the CFC does not have suggested additions.

V. RELATED PROCEEDINGS

v.i. WHETHER THE LIST OF ISSUES IN OTHER PROCEEDINGS IS ACCURATE.

The Staff Interim Report and Use Cases adequately summarizes the different barriers to Energy Storage deployment, and identifies current proceedings that have implications for energy storage. However, the Staff Report fails to include in its regulatory framework all existing proceedings that are currently allocating ratepayer money toward energy storage projects. In particular, the cases as listed above. CFC feels that including proceedings that are already funding energy storage projects is essential to analyzing energy storage needs and developing a complete regulatory framework. It increases transparency and coordination and reduces the potential for multiple cost-recoveries and double counting.

Dated February 4, 2013 Respectfully Submitted,

_____/s/_____,

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¹¹ See A.11-07-001, *Application of Southern California Edison Company For Approval of Its Smart Grid Deployment Plan* at 111, 113; See A. 11-06-029, *Pacific Gas & Electric Smart Grid Deployment Plan* at 66,75, and 77.