

September 16, 2013

**INFORMAL COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON THE CONCEPT OF
THE SOCIETAL COST TEST AND ON THE METHODOLOGIES PRESENTED AT THE ENERGY
DIVISION'S JUNE 13, 2013 WORKSHOP**

The California Energy Storage Alliance ("CESA") appreciates the opportunity to submit these comments pursuant to the July 30, 2013 e-mail message from Katie Wu, of the Commission's Energy Division. CESA hereby provides brief responses to each of the Energy Division's questions posed below regarding its Societal Cost Test ("SCT") proposal and workshop held on June 13, 2013.

Question Number One:

Do you believe the Commission should consider adopting a societal cost test, or are the existing cost-effectiveness tests sufficient to evaluate the cost effectiveness of the IOU demand-side programs?

- If you believe the existing tests are sufficient and that a societal cost test is NOT needed, then do you believe there are elements of the proposal that should be considered in existing cost-effectiveness tests? If so, please state which tests and provide the rational, analysis, and criteria to support this position.
- If you believe a societal cost test is needed, how do you see a societal cost test fitting into the Commission's existing demand-side resource cost-effectiveness framework? How should it be used in evaluating demand-side programs?
- Do you believe a societal cost test should be developed for all demand-side resources or only specific resources? If the latter, which one(s)?

CESA's Response:

The Commission should adopt an SCT as it leads towards a more comprehensive analysis of resources for procurement purposes. The adopted SCT should be used in evaluations of customer-sited distributed energy resources ("DER") and distributed energy programs, including all forms of energy storage. Existing cost-effectiveness tests do not fully analyze and value all benefits of DER; because of this, the Commission should assemble and utilize a comprehensive list of all benefits of energy storage for use in the SCT, in addition to those included in the presentation by Energy + Environmental Economics ("E3 Presentation").

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Green Charge Networks | Greensmith Energy Management Systems | Gridtential Energy | Halotechnics | Hecate Energy LLC | Hydrogenics | Ice Energy | Invenery
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The scope of work document provided by E3 outlines that its analysis focuses directly on ratepayer impacts; however, it explicitly excludes greater societal benefits. The Commission has, of course, taken steps toward including societal benefits in its analysis of customer-sited DER. For example, the Commission has directed that distributed generation cost-effectiveness evaluations consider the market transformation benefits of renewable distributed generation technologies.¹ Further, the Commission has explicitly directed that a comparable analysis should be used for permanent load shifting, a form of energy storage.² A similar analysis with expanded benefits, including those provided in the list of societal benefits of energy storage attached as Exhibit A to these comments, will provide a more comprehensive and therefore useful value of potential grid resources.

Question Number Two:

Should a societal cost test use the utility weighted average cost of capital, or should it use a social discount rate? If you believe that it would be appropriate to use a social discount rate in a societal cost test, what criteria should be used to determine the appropriate discount rate? Is the range of discount rates provided in the E3 presentation appropriate based on the criteria? Do you have a point estimate recommendation?

CESA's Response:

The Commission should consider use of the rate of return on long-dated U.S. Treasury bond rates with terms comparable to the life of the resource being analyzed, as discussed in E3's presentation.

Question Number Three:

Should the CPUC develop an avoided cost value of avoided carbon impacts beyond the current and projected ARB Cap and Trade program carbon price? If so, what criteria should be used to determine the appropriate value for the avoided cost? Is the avoided cost range provided in the presentation appropriate based on the criteria? Do you have a point estimate recommendation?

CESA's Response:

CSA agrees with the overall statement in the E3 Presentation that de-carbonization of the California electric grid is a reasonable starting point for identifying long-term costs for avoided carbon emissions. Accordingly, the Commission should develop an avoided cost value that approximates the long-term costs of de-carbonized in California like grid. Short-term values are accordingly inappropriate; because of this, the Commission should avoid using the current cap-and-trade market prices for GHG allowances, which are set in order to achieve 2020 GHG reduction goals. Long-term values should reflect

¹ See, D.09-08-026, issued August 20, 2009.

² See, D.12-04-045, issued April 19, 2012.

costs set to meet the state's 2050 GHG goal of 80% reduction below 1990 emissions, and should not be simply set to the prices of current GHG allowances given their inappropriate timeframe.

Question Number Four:

Is it appropriate to include the avoided environmental health costs associated with reductions in local pollutants in the societal cost test? If so, what criteria should be used to determine the value of the avoided costs? Is the avoided cost range provided in the presentation appropriate based on the criteria? Do you have a point estimate recommendation?

CESA's Response:

The Commission should include the avoided environmental health costs associated with reductions in local pollutants. DER, including energy storage, result in reduced fossil fuel generation in California, especially from less efficient peaker plants that result in more air pollution per kWh produced during times of peak demand. Avoiding the use of less efficient natural gas peaker plant generation, in turn, reduces air pollutants associated with those plants. The Commission should also consider incorporating all reasonably assessed avoided environment health costs associated with such peaker plants, including those associated with natural gas extraction and other impacts along the fuel supply chain.

CESA appreciates the opportunity to submit these brief comments, and looks forward to working with the Energy Division and stakeholders going forward on this important subject.

Respectfully submitted,

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