

August 31, 2015

E-mail: docket@energy.ca.gov

Original copy to

Lead Commissioner: Andrew McAllister
California Energy Commission
Dockets Office, MS-4
Re: Docket 15-IEPR-07
1516 Ninth Street
Sacramento, California 95814-5512

**Re: Comments of the California Energy Storage Alliance on Request for Public
Comments on 2015 Integrated Energy Policy Report
(Docket No. 15-IEPR-07)**

Dear Commissioner McAllister:

CESA recognizes the importance of the CEC's Staff Report, *Assessing Local Reliability in Southern California Using A Local Capacity Annual Assessment Tool* (Staff Report) for projecting local reliability needs for Southern California. CESA commends the CEC Staff's careful approach and agrees with CEC recommendation that the CPUC explicitly focus on Local Capacity Requirements (LCR) in its 2016 Long-term Procurement Plan (LTPP) rulemaking.

While CESA agrees with the Staff Report's conclusion that there will be local reliability shortfalls, CESA respectfully disagrees with the alternative solutions proposed by the CEC to address the local reliability shortfall and with statements that energy storage is somehow unable to fulfill the roles and needs of affected local capacity areas. In fact, Energy Storage solutions are already being deployed and exist across the grid. Energy Storage solutions should clearly be considered and CESA remains unclear on why only two narrow technology-specific options were detailed. Moreover, given the Governor's greenhouse gas (GHG) emission reduction goals, CESA believes that the proposals to continue existing or to prepare new fossil fuel plants to mitigate local reliability issues in the LA Basin are likely to be counter-productive. Instead, the CEC and the CPUC should consider energy storage technologies that are already available and can be quickly deployed as cleaner, cost-effective, and flexible solutions. Therefore, in these comments, CESA:

- 1) Recommend that the CEC consider energy storage and other preferred energy solutions in addition to or instead of either or both of the two proposed options; and
- 2) Acknowledge and emphasize that energy storage projects can be quickly deployed and deliver reliable performance, contrary to assumptions in the Staff Report.

Energy Storage: A Cleaner & More Cost-effective Alternative

The CEC projects major capacity deficits as early as 2021 but proposes solutions to the local reliability shortfall that contravene the loading order, water policy, and emissions reductions goals of the state. Specifically, the Staff Report's first proposed solution of delaying the retirement of OTC-based

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plants is contrary to the Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, which the State Water Board adopted in May 2010 and stakeholders have worked diligently to comply with. The Staff Report's second proposed solution of preparing "shovel-ready" natural gas projects also does not acknowledge the myriad of other solutions that stakeholders have worked diligently to develop. Energy storage also uses significantly less water, which is an acute issue in drought-stricken California.

In addition to the environmental benefits, energy storage is a cost-effective alternative to the due its advantages in efficiency, ramping rate, and response rate. These high-performance characteristics of energy storage have led it be a more cost-effective resource. Studies have found that the locational flexibility of distributed energy storage makes it more competitive than high-cost simple cycle gas-fired plants in providing peaking capacity.¹ It is well recognized that energy storage has the potential to deliver more than peaker substitution value, such as daily energy shifting, T&D investment deferral, reserve capacity, and frequency regulation, all of which are services that it is expected to provide once market structures are put in place by the CAISO and CPUC.

CESA believes that the CEC's Staff should reconsider its proposed solutions to the local reliability issues identified in the Staff Report because energy storage technologies represent a cleaner and more cost-effective alternative to the local reliability issues identified in its report.

Energy Storage: Reliable & Ready for Deployment

CESA believes that the CEC's Staff unfairly assumes that the projected increase in "preferred resources," such as energy efficiency, demand response, and energy storage, would fail to deliver their promised energy savings.² This assumption drives many of the CEC's concerns about future reliability, as failed delivery in savings would lead to insufficient resources and a capacity deficit. Specifically for energy storage, the CEC's Staff questions whether SCE contracts for energy storage resulting from its Local Capacity Requirements (LCR) RFO would be developed on schedule and whether the procured storage resources would deliver the promised summer peak load reductions.

There is no basis to assume that providers of preferred resources such as storage will not deliver the forecasted savings and benefits committed to in their contracts. Energy storage has demonstrated its ability to perform at a high level, such as in the PJM Interconnection frequency regulation market dominated by fast-responding and accurate energy storage systems. With continued improvements, the CEC should assume energy storage solutions will adequately deliver services, expand their capabilities, and see decreasing costs.

In terms of on-time deliverability, it is unreasonable to assume that energy storage projects, such as those contracted with SCE, will not be delivered as scheduled. Storage contracts with SCE are expected to be delivered and operational starting in 2017. CESA expects contracting periods for energy

¹ See, e.g., Lyons, Chet. "Guide to Procurement of Flexible Peaking Capacity: Energy Storage or Combustion Turbines?" Energy Strategies Group. October 2014. pp.13-15

² California Energy Commission Staff Report. "Assessing Local Reliability in Southern California Using a Local Capacity Annual Assessment Tool." August 2015. pp. 21-22.

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storage procurement may actually be expedited as SCE builds off the LCR RFO experience and replicates contracts across future procurement cycles to meet its AB 2514 targets. The Distributed Energy Resources (DER) and Integrated Demand-Side Resources (IDSR) proceedings at the CPUC are also working toward creating a “plug-and-play” infrastructure that should accelerate distributed energy storage resource deployment, complementing the resource- and time-intensive traditional utility resource procurement process.

Compared to the CEC’s second alternative to prepare shovel-ready natural gas-fired power plants, energy storage rates favorably in terms of being able to deliver capacity by 2021 to address local reliability issues. American Electric Power, a large utility based in Ohio, estimates that the construction lead time for simple-cycle gas plants is 18 to 30 months while combined-cycle plants take 36 months on average to commence production.³ Assuming that the CEC begins the permitting process now, these shovel-ready natural gas projects would not be able to provide capacity to the LA Basin until 2017 or 2018 at the earliest.

CESA believes the Staff Report, and its findings, should be revised to reflect the known and expected viability, timeliness, cost-effectiveness, and usefulness of energy storage solutions. Statements to the contrary should be removed or revised. Without these corrections, the IEPR and its related reports and findings may inadvertently promote sub-optimal solutions to forecasted reliability issues in 2021 that are contrary to a myriad of California air, water, and energy policies. CESA recommends that the CEC use its computer model tools to consider baseline assumptions of preferred resources, including energy storage, that deliver as promised and on time.

CESA looks forward to continuing to work with the CEC and stakeholders in this important proceeding and thanks the CEC for its consideration of these comments.

Very truly yours,



Janice Lin, Executive Director
California Energy Storage Alliance

cc: Stephane.Bailey@energy.ca.gov
Commissioner Robert B. Weisemiller (Catherine.Cross@energy.ca.gov)
Commissioner Karen Douglas (Ollie.Awolowo@energy.ca.gov)
Commissioner David Hoch Child (Kathleen.McDonnell@energy.ca.gov)
Commissioner Jana A. Scott (Michele.Lorton@energy.ca.gov)

³ American Electric Power. *Natural Gas Technology*.
<https://www.aep.com/about/IssuesAndPositions/Generation/Technologies/NaturalGas.aspx>