

**DOCKETED**

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**LDES Demonstrations of Inertia and synthetic inertia**

*Additional submitted attachment is included below.*

**BEFORE THE CALIFORNIA ENERGY COMMISSION**

Staff Workshop on Grid Modernization  
Research

Docket 23-ERDD-01  
(Workshop on July 21, 2023)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON STAFF  
WORKSHOP ON GRID MODERNIZATION RESEARCH**

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August 25, 2022

**BEFORE THE CALIFORNIA ENERGY COMMISSION**

Staff Workshop on Grid Modernization  
Research

Docket 23-ERDD-01  
(Comments Filed on August 25, 2023)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON STAFF  
WORKSHOP ON GRID MODERNIZATION RESEARCH**

In accordance with the Rules of Practice and Procedure of the California Energy Commission (“Commission, CEC”), the California Energy Storage Alliance (“CESA”) hereby submits these comments on the Staff Workshop on Grid Modernization Research that occurred on July 21, 2023.

**I. INTRODUCTION**

Select CESA members and staff were able to attend the CEC workshop on Grid Modernization Research. The goal of the workshop was to solicit feedback regarding Research and Development (R&D) needs to satisfy EPIC Topics 10-12. CESA strongly supports CEC efforts in this area and advises the CEC to consider aspects of long-term market planning as it relates to valuing the wide variety of energy storage technologies that are both commercially available and emerging as viable alternatives.

**II. MAIN ARGUMENTS**

CESA comments can be summarized as follows:

- Grid modernization will require modeling of economic dispatch over multi-day dispatch periods. CESA recommends LDES demonstrations to benefit the process of designing such a market that uses grid-forming inverters.
- CESA supports technology roadmaps including the need for a variety of duration products beyond the current market signals of 4-hour duration. An inverter-based energy system will require short duration systems to satisfy synthetic inertia needs while longer duration will be required for transmission and distribution grid services.
- Other emerging energy storage technologies, such as pumped hydro, are also becoming a viable alternative to spinning and non-spinning traditional resources. CESA supports demonstrations of emerging concepts to replace carbon intensive transmission resources.
- Research needs for valuing energy storage are substantial, including resiliency services and synthetic inertia capabilities. There is currently a lack of LDES technology demonstration of substantial quantity in California, thus, market design is not being informed by actual performance.

### **III. CONCLUSION**

CESA appreciates the opportunity to submit these comments to the Workshop and looks forward to working with the Commission and stakeholders in this proceeding. To conclude we ask the CEC to support the following initiatives in the Grid Modernization R&D Program:

1. Grid-Forming LDES demonstrations of multi-day dispatch models.
2. Energy storage demonstrations of synthetic inertia or spinning/non-spinning services.

Respectfully submitted,

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Date: August 25, 2023