



LONG DURATION STORAGE

Joint Procurement with Eight Community Choice Aggregators

In fall 2020, eight California Community Choice Aggregators (Joint CCAs) issued a Request for Offers for 500 MW of long-duration storage (LDS). The Joint CCAs collectively serve 2,324,250 customer accounts across 15 counties, with a peak load of 5,395 MW and an annual energy use of 24,748 GWh. This is the largest known single procurement effort for this amount of LDS. 51 developers submitted offers with over 300 unique pricing options and 18 different LDS technologies.

What is Long-Duration Storage?

LDS is an energy storage technology that can store and discharge energy for long periods of time. Typical storage technologies that many CCAs and other utilities have been procuring are utility-scale, lithium-ion batteries backed by solar resources which can store and discharge 4 hours of energy. LDS can be a variety of technology solutions that can go beyond 4 hours and does not have to be paired with a renewable resource such as solar but can be charged by the transmission grid. In this Request For Offers, the CCAs are seeking an LDS that has the ability to charge and discharge at a minimum of 8 hours. LDS is currently undefined by the California Public Utilities Commission (CPUC).

Example LDS Technologies

- Lithium-Ion
- Chemical Flow
- Compressed Air
- Pumped Storage Hydro
- Thermal Storage
- Gravity-Based
- Hydrogen Production
- Other Concepts

Why Long-Duration Storage?

LDS is one solution in maintaining grid reliability and resiliency as California transitions to a cleaner grid. As California pursues its 2045 carbon-free energy goal, and the CPUC's target to install LDS by 2026, as well as the clean energy goals for the nearly three million customers in the communities served by the joint CCAs, LDS provides the flexibility needed due to the intermittency of renewables.

For most of the year and particularly during the middle of the day, California produces an excess amount of renewable energy leading to the curtailment of clean power. When renewable energy is plentiful, LDS will take the excess energy and discharge power for longer periods of time when supply is low. LDS will be able to supply energy for longer stretches of time and give grid operators the flexibility of a full day's (8+ hours) worth of discharging capacity.

How does Long-Duration Storage help meet state goals?

LDS is just one component of energy storage that is pivotal in providing reliability to the power grid. The CCAs believe there will be a suite of solutions, in addition to all forms of storage, necessary for this transition to a clean grid.

The Joint CCA's interest in procuring LDS would aid with meeting California's greenhouse gas reduction targets by 2030 as outlined in the CPUC's 2021-2030 Integrated Resource Plan (IRP). The IRP identified LDS as a resource necessary to meet required GHG reductions by 2026. Additionally, because these are capital intensive projects that may take years to develop, the Joint CCAs wanted to get ahead of future procurement requirements with enough time.

Media

- [California Community Choice Aggregators Issue Request for Long-Duration Storage, Joint Announcement](#)
- [The First Major Long-Duration Storage Procurement Has Arrived, Greentech Media](#)
- [California Community Choice groups seek up to 500MW of long-duration energy storage, Energy Storage News](#)
- [California community choice aggregators issue RFO for long-duration storage, American Public Power Association](#)

Learn More: www.svcleanenergy.org/joint-lds-rfo

About Community Choice Aggregators

Community Choice Aggregators, or CCAs, are not-for-profit, public agencies providing competitively priced, clean energy choices to their communities while reinvesting revenues into local and statewide projects and programs, supporting sustainability, and enhancing their local economies. There are 23 CCAs in California serving more than 10 million customers.

Nine CCAs are forming California Community Power, a Joint Powers Authority, to maximize economies of scale, manage costs and minimize risk. Eight of these CCAs are participating in the LDS RFO and currently evaluating all offers for cost effectiveness and viability and will shortlist LDS offers in Q1 2021 with California Community Power negotiating and executing a final agreement by Q2/Q3 2021.

Through CCA, communities can join together to pool (or aggregate) their electricity load in order to purchase clean energy and develop local projects and programs on behalf of their residents and businesses. CCAs work in partnership with the region's existing Investor-Owned Utility, which continues to deliver power and maintain the grid.

To date, CCAs have contracted for more than 6,000 megawatts of new clean generation capacity through long-term power purchase agreements with terms of 10 years or more. Learn more: cal-cca.org/cca-impact.