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New Report Finds Distributed Energy Resources Could Avoid up to \$13.7 Billion in California Grid Costs

A GridLab–Kevala study demonstrates that strategic implementation of California's Load Management Standard can help improve energy affordability for Californians

Berkeley – Smarter deployment of home batteries, electric vehicle chargers, and smart thermostats can help avoid costly grid upgrades up to \$13.7 billion in savings for California, [according to a new report from GridLab, a nonprofit specializing in grid expertise, and Kevala, a grid intelligence company](#). The study identified that strategically harnessing distributed energy resources to meet the state's goal of 3.5 GW of load shift by 2030 can avoid significant distribution system upgrade costs.

[READ the report.](#)

"Thoughtfully harnessing distributed energy resources is one of the sharpest tools California has to lower energy costs," said Ric O'Connell, Executive Director at GridLab. "This study reveals an attainable north star for smarter deployment of these resources in order to avoid costly grid upgrades."

The study modeled three approaches to meet California's Load Management Standard goal of reducing peak demand by 3.5 GW. The most effective scenario targeted the least overloaded circuits first and yielded nearly four times the avoided costs than if the 3.5 GW goal was achieved evenly across all circuits or if circuits with the highest overloads were targeted first, suggesting a "sweet spot" for load reduction efforts.

"This work builds on our prior analysis of grid impacts for the state of California and the Department of Energy," said Aram Shumavon, Kevala's CEO. "With the increase in demand for electricity we are seeing across the country it is now apparent that targeting specific locations for additional capacity and programs can deliver an outsized return. Conversely, failure to target capital and program deployment in high value areas runs the risk of locking in lower returns and/or not maximizing program benefits, exacerbating bill impacts across all customers."



GridLab contracted with Kevala to develop an estimate of the potential avoided cost benefits of achieving the California Energy Commission's Load Management Standard (LMS) goal under different load shift scenarios using a similar analytical approach as Kevala used for the [Department of Energy's Transportation Electrification Impact Study](#).

The report and more information [can be downloaded here](#).

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GridLab is a 501 (c)(3) public interest organization. GridLab delivers pro bono expert capacity to solve technical challenges and answer reliability questions. Learn more about GridLab at gridlab.org.

Kevala develops and delivers software solutions that empower energy market participants to predict and plan for a more robust, environmentally sustainable, effective, and safe grid. Learn more at kevala.com.