



Save Energy. Get Paid.

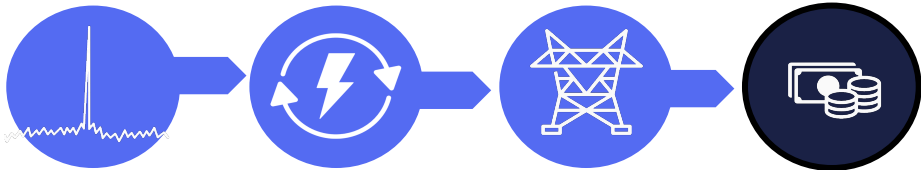
CA One GW Challenge

Subcommittee on Clean Energy Future
August 9, 2022 Hearing



OhmConnect California Operations

OhmConnect submits >10,000+ bids to CAISO daily



Price of
wholesale
electricity
spikes

Homes with
OhmConnect
reduce energy
use

Energy market
pays
OhmConnect

OhmConnect
pays its
network of
families

OhmConnect pioneered a new customer-centric approach to residential demand response that not only dispatches during grid emergencies, but also on a daily basis to support grid operations. Megawatts can be reduced within minutes of dispatch.

- Founded in 2014
- Received development support from the CEC
- Corporate office in Oakland, CA
- Operating in California, Texas, New York, and Australia

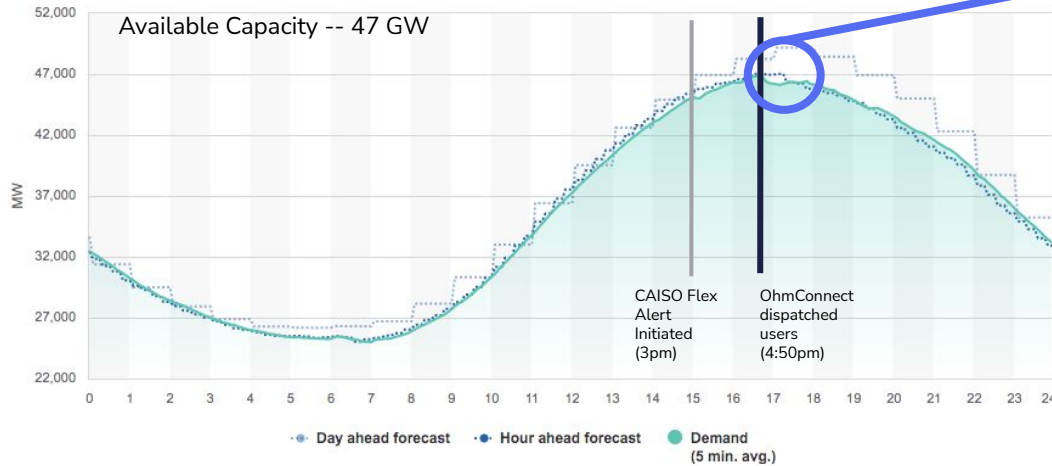
OhmConnect by the numbers:

- 200,000+ utility connected customers (the largest residential demand response program in CA)
- 250,000+ devices under control (smart thermostats, smart plugs, EV chargers, battery storage, etc.)
- \$17M+ paid to customers to date
- Over 50 million discrete customer dispatches
- 29 Million emails and SMS sent to customers in 2021
- Approximately 40% of OhmConnect members are LMI
- Over 50,000 customers in multi-family buildings

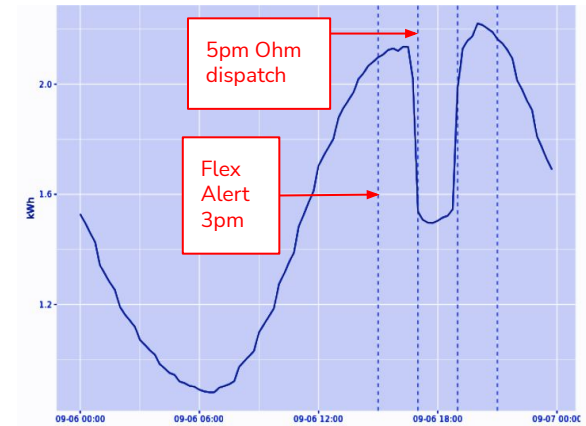
OhmConnect's Customers Helped Avoid Blackouts

Learning from the August 14th, 2020 rolling blackouts, the CAISO dispatched OhmConnect and others to avoid blackouts on September 6th, 2020, which had similar grid conditions. Customers paid well over \$1M during these events.

California ISO Load, September 6th, 2020



~100k OhmConnect customers reduced an average of 30% of their electricity use from 5-7pm on Sept. 6, 2020 in response to the grid emergency.



Average OhmConnect customer home electricity consumption over 24 hours on Sept. 6, 2020

3 Goals for Demand Response/Flexibility in CA

1. Emergency Demand Reduction Capacity (~20 hours/year)
 - a. Prevent blackouts during Flex Alerts
 - b. Responsive to a grid emergency; dispatch 3-5 times per year
 - c. Significant rewards to customers for measured reductions

2. Prevent Emergency Situations (~100 hours/year)
 - a. Operates 7am to 10pm (but primarily dispatched during peak hours)
 - b. Market integrated and dispatched by CAISO
 - c. Replace peaker plants and reduce/eliminate need for Flex Alerts
 - d. Reward customers for measured reductions

3. Overall Load Shift out of Peak (~1,000 hours/year)
 - a. Address duck curve by shifting load away from evening peak on a daily basis
 - b. Reduce customer bills by shifting load to less expensive times

Proposed Solution: California's One Gigawatt Challenge

Incorporate existing CPUC programs and integrate new DSGS program in time for Summer 2023

→ Provide one gigawatt of residential emergency load reductions 5-10 times per year

→ 1 million customers with an average emergency 1 kW peak reduction

→ Average energy bill reduction of \$20+/month

- **Emergency Response:** A statewide program available to every single residential electricity customer (IOU, POU, CCA, etc) that provides a financial incentive for dispatchable devices that can be used to prevent blackouts
- **Support Grid Operations:** Customers encouraged to enroll in a full market-integrated demand response program that would provide additional financial and other benefits for regular dispatches
- **Reduce Customer Bills:** Program should include integrated energy management tools and incentives to help customers shift load away from peak. The goal is a 15% reduction in average participant's peak load
- What's Needed?
 - A single entity to coordinate registration, dispatch, and M&V
 - Rules supporting the inclusion of third parties like OhmConnect
 - Robust utility meter data access
 - Long term support and regulatory stability

Thank you

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