

Case Study:

# Sunrun's California Distributed Power Plant

## Delivering Utility-Scale Power through Residential Solar + Storage

"VPPs deliver for the grid! This test embodies California's innovation economy by applying digital tools to access and aggregate untapped electric resources - supporting grid reliability and helping manage electricity costs,"

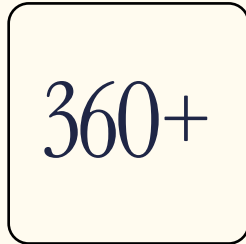
- CEC Commissioner Andrew McAllister

### At a glance:



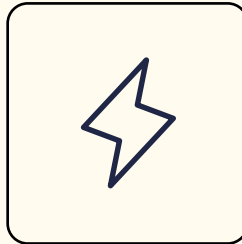
#### Location

California  
PG&E, SCE, SDG&E



#### Scale

360 plus MW



#### Impact

Sunrun's Calready is the largest single-company DPP in the world.

### Overview

In the summer of 2025, California's grid is being supported by over **56,000 Sunrun customers** who are leveraging their solar and battery systems to provide **360 MW of power on a routine basis**. This decentralized energy resource exceeds the size of many traditional gas peaker plants, providing reliable power when it's needed most.

## Sunrun CalReady: The Largest Single-Company Residential Battery DPP Fleet in the World

Sunrun installs solar and smart batteries in homes across California. During extreme grid events or periods of high demand, these batteries discharge energy back to homes and to the grid, operating as a single, orchestrated DPP. Under the current Sunrun CalReady program, Sunrun dispatches during evening hours for the following day based on the program's pre-determined triggers tied to wholesale energy prices and emergency grid conditions. Both the grid and Sunrun customers benefit:

- **Grid-scale dispatchable capacity:** Replaces or reduces reliance on traditional gas peaker plants.
- **Customer compensation:** Participating customers are paid for making their stored energy available.
- **No risk to homeowners:** Sunrun covers the cost and management of system performance and customers still have backup power available.

Sunrun has already deployed capacity under CalReady that rivals traditional power plants. Over the next four years, DSGS Option 3 could deliver up to \$206 million in net savings to all California ratepayers. The net cost savings will benefit all California customers, and participants in the program will be compensated for the services that they provide to the power system, according to a Brattle Study conducted on DSGS.

Year	# of Customers	# of Batteries	Nameplate Capacity
2023	200	-	-
2024	15,000	17,525	83.6 MW
2025	66,000	90,000	360 MW

# Fast Relief When the Grid Needs It Most

CalReady was designed specifically to help California respond to **emergency grid events** such as:



**HEATWAVES AND PEAK LOAD EVENTS**



**RESOURCE ADEQUACY SHORTFALLS**



**WILDFIRES AND PUBLIC SAFETY POWER SHUTOFFS**

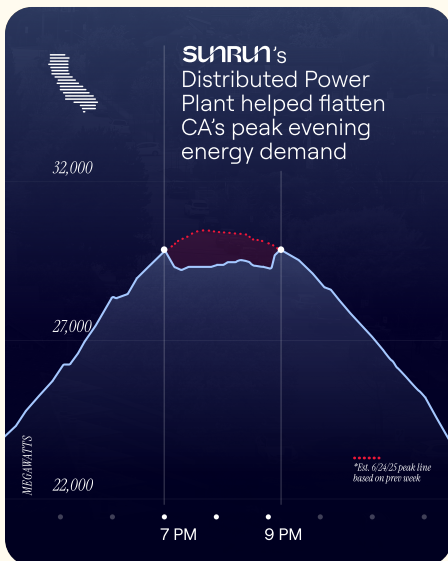
## A Scalable Model for the Future

Sunrun's California DPP portfolio, including CalReady, is more than a power source. It's a **template for grid modernization**:

- **Reliable Capacity:** energy when and where it's needed
- **Resilience:** Backup power for homes
- **Customer Empowerment:** Turning homes into active grid assets that earn rewards

## Building a Cleaner, Smarter Grid

Sunrun's CalReady is proving that **DPPs are real, scalable, and cost-effective**. With continued policy support, regulatory certainty, and investment, Sunrun can help California, and other states, replace peaker plants, lower costs, and build a grid that's **resilient, and people-powered**.



[Link](#)