



Enabling DER Programs that Provide Distribution System Value: CCA Perspective

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Community Choice Aggregators Run a Diverse Set of DER Programs

- CCAs already run a number of solar, storage, demand response and other DER programs
- CCA DER programs generally optimize around wholesale market conditions by encouraging dispatch during / load shifting away from peak hours
- CCAs' relationship with their communities and local governments make them well-positioned to help DER programs meet both grid and community needs

Examples of CCA DER Programs



Ava Community Energy's **Resilient Home** program (in partnership with Sunrun) provides incentives to solar + storage customers and allows Ava to dispatch the batteries every weekday during peak evening hours.

With over 1,000 residential solar and storage systems under management, Ava delivers peak load management on a daily basis.



Sonoma Clean Power Authority's **GridSavvy Rewards** program automates load shifting away from peak times.

It offers customers discounts and incentives to purchase and connect smart devices, such as EV chargers, smart thermostats and water heaters.

SCP is also developing battery optimization programs for residential customers.



Silicon Valley Clean Energy's **GridShift** program leverages vehicle telematics to control and optimize residential customers' EV charging at home.

Customers receive bill savings by automatically shifting EV charging load to off-peak hours.

GridShift also aligns EV charging with low-carbon generation hours on the grid.



Peninsula Clean Energy's **Solar and Battery Backup** program (in partnership with Sunrun) provides incentives to solar + storage customers and allows PCE to dispatch batteries every weekday during peak hours.

PCE's **Managed Charging Program** aligns EV charging with high solar daytime hours and aims to shift load away from the 4pm-9pm peak window.



San Jose Clean Energy's **Peak Rewards** is a Behavioral Demand Response program that provides incentives to commercial customers for shifting load away from peak hours during days of the year when electricity is in short supply.

SJCE plans to provide a program that allows automated DR for both residential and commercial customers.



CCAs Lack Sufficient Information and Incentive to Optimize Programs Based on Distribution System Needs

- CCAs lack information on the “operational needs” of the grid, distribution system constraints, and the locations of their customers on the distribution grid
- While the Distribution Investment Deferral Framework aimed to surface those needs, CCAs continue to lack granular information on why DER projects are not picked up through the DIDF
- Shared understanding of standards for acceptable DER projects and corresponding economic signals are currently unknown or unavailable to CCAs and other DER providers



With Better Information, CCA Programs Can Provide Greater Value to the Distribution System

- CCAs' DER programs can provide better value to the distribution grid (and, at minimum, avoid *increasing* grid stress) if CCAs had more information on grid conditions/needs
- For example: better information on feeder capacity would help CCAs determine where best to install a bank of EV chargers; real-time signals on grid stress would help CCAs dispatch solar+storage programs (including outside of peak hours) or curtail customer usage through DR programs at appropriate locations



Key Takeaways

- CCAs already run a variety of DER programs that are generally optimized around wholesale market conditions
- CCAs lack sufficient information and incentive to optimize DER programs based on distribution system needs
- CCA DER programs can provide better value to all customers with better information on grid constraints and economic signals that incentivize solutions to those constraints



Questions?

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