

BUSINESS DEMAND RESPONSE CASE STUDY



Beating the Heat: Using Demand Response to Meet Growing Energy Demand and Sustainability Goals

Over SRP's long history of delivering water and power to the Valley, we've faced many challenges and difficulties. We have a robust, multiyear planning process to meet peak energy loads and constantly monitor our ability to anticipate and meet the needs of our customers.

SRP faces potential capacity needs over the next few summers because of a number of factors, such as our customers' need for energy increasing, retirement of generation assets, the significant integration of renewable resources on the western grid – to which SRP is interconnected – and similar challenges across the western United States.

SRP witnessed the impacts this can cause both in summer 2020 in California when extreme heat, coupled with the threat of wildfires, led to rolling outages, and in Texas in winter 2021, when an extreme cold event led to extended outages for customers.

As a result, there is a need for more options to increase our energy capacity to better provide reliable power to our customers this summer and beyond. Meeting these challenges head on with innovative solutions is a key driver of our 2035 Sustainability Goals, our ambitious roadmap for delivering a sustainable future for the customers and communities we serve.

That's why SRP continues to explore new options and solutions to increase our energy capacity to better provide reliable power to our customers when they need it the most. One such solution is demand reduction through our innovative Demand Response Program.

Demand response, a load-shaving program that pays larger electricity customers to curtail energy use during times of peak demand (this typically occurs on very hot summer afternoons when strain on the grid is highest), figures prominently in our master sustainability and resource plan. From 2009–2015, we teamed with Enel X (then EnerNOC) on a successful program engaging our larger capacity business customers. The positive learnings and experience from that program, coupled with the sustained growth of energy resource needs, led us to relaunch the SRP Business Demand Response Program (BDR) in the summer of 2020 (May 15 to Oct. 15).

SRP's team of Strategic Energy Managers worked in conjunction with Enel X to enlist almost 300 demand response sites from 28 of our largest business customers – constituting 25 MW of available capacity – in just four short months. As the Valley of the Sun lived up to its name and the hottest summer on record ensued, the BDR program answered the call, exceeding expectations. BDR participants reliably met their curtailment commitments, delivering more capacity than the 25 MW contracted over eight events.

"We have gotten off to a fast, very successful start with Enel X on our Business Demand Response Program. This year placed unusual strain on our grid, with wildfires in California and Arizona creating resource constraints, COVID-19 making 'business as usual' anything but, and more consecutive days of extreme high heat, so it was critical that the promised capacity in our demand response program be available for dispatch when called upon. With Enel X, and the outstanding participation from our business customers, the program delivered as planned."

Dan Dreiling, Director of Customer Programs at SRP