

Increasing demand-response program performance

Case study



Key highlights

Using E Source OneInform, our client:

- Identified the best customers to focus on to optimize the performance and cost-effectiveness of the utility's five demand-response (DR) programs as well as the overall portfolio
- Increased operational DR performance by 30%
- Saved valuable staff time—the tool enables on-demand or automated event scheduling, proactively identifies data-quality issues, and generates reports with the push of a button

Solution

The utility had developed an in-house forecasting tool that based predictions of load-shedding performance on historical averages. The tool was useful, but didn't provide the necessary accuracy. The utility needed a more granular, dynamic approach.

The key to more-accurate forecasts? Modeling individual consumer behavior rather than depending on annual program averages. OneInform, our AI-powered suite of solutions, combined historical customer data, smart meter data, and the utility's proprietary cache of third-party consumer data to develop a granular, individual forecast for every customer enrolled in DR. We then aggregated those microforecasts to provide program-level predictions.

Challenges

A major West Coast utility needed a better way to predict event-level reductions across its DR portfolio. It needed to balance intermittent production from solar resources, meet regulatory obligations, and fulfill its goal of using DR as a virtual power plant.

Outcomes

OneInform boosted the performance of the utility's DR programs by 30% and provided the precise data the utility needed to apply DR more locally on the grid. The program runs daily during DR season to optimize the utility's portfolio of DR resources, comprising 350,000 customers.