Finding the best customers to deliver program performance

Data science case study
April 16, 2021

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Key takeaways

With the E Source Audience of One solution, our client:

- Redesigned its peak-time rebate (PTR) program to focus on the best customers—two cohorts, representing 14% of customers and about 60% of the program market potential
- Reduced customer acquisition costs with a 4x improvement in personalized customer engagement over using predefined, static segments
- Increased program performance by 51%

The challenge

As part of its clean energy plan, a utility in the Pacific Northwest added a PTR program to its demand response portfolio. But enrolling high-impact customers proved to be challenging.

To acquire customers, the utility was recruiting from customer lists in predefined, one-size-fits-all segments. While the effort delivered names, it didn't deliver results. Customers enrolled, but they didn't show up when the utility needed them to curtail energy use.

Find the right customers for the right program at the right time

Contact our team to learn more about our expertise and how we can help.

Not only did program results suffer, but the utility also wasted marketing dollars on under- and nonperforming customers. The utility needed to identify the ideal customers for the program—those with the most load to shed who would respond when called upon.

The solution

The utility turned to E Source to create an Audience of One—a digital replica of every customer derived from data, including each customer's demographic profile, energy-usage patterns, payment history, contact records, and engagement with utility program offers.

In this case, the data fused 650 attributes on every household with utility customer and smart meter data to create a rich, AI-ready data set. The platform applies AI models to develop detailed weather-normalized load baselines for each customer and trains machine-learning algorithms to model the best customers for the PTR program. The models then evaluated all 1 million of the utility's customers and dynamically formed cohorts based on their likelihood of being a high-impact participant. Two of the cohorts represented the best customers for the PTR program.

Treat customers as an Audience of One

The E Source Audience of One solution facilitates the development of customer programs required for an evolving grid. Using the power of data science and machine learning, it helps utilities build and match the right programs with the right participants for optimal outcomes.

The results

The two best customer cohorts represented 14% of the utility's customers and about 60% of the PTR load-reduction potential, a 4x improvement in just a year of learning over the static, predefined segments originally used.

Once E Source helped the utility identify the best cohorts, the profiles helped create micropersonas of the customers, which the utility used to personalize its messaging and reduce acquisition costs. By recruiting the best customers for the program, the amount of load shifting improved by 51%, with a reliability factor of ±10%, making it a reliable resource for managing load. The combination of reduced acquisition costs and dramatic improvements in performance and reliability meant optimal cost-effectiveness for the program.

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