

ABOUT UNITED ENERGY

UE is an electricity distributor that owns, operates and maintains the distribution network in its service area.

Headquarters | Mt Waverly, Victoria, Australia

Employees | 350

Customers | 640,000

CUSTOMER CHALLENGE



UNITED ENERGY

United Energy (UE) is a leading Australian utility company that owns, operates, and maintains a distribution network supplying energy to more than 640,000 customers in its service territory. During the summer months, UE strives to reduce peak loads amongst its residential customers, and identifying cost-effective, scalable Demand Response methods to manage these peak-load shifting events has proven to be a challenge.

UE sought an automated residential Demand Response solution that would provide the required peak-load shifting to avoid costly energy spikes, but be scalable and cost-effective to implement.

BIDGELY'S SOLUTION

After evaluating a number of options, in 2015 UE selected Bidgely's Behavioral Demand Response solution for long-term summer load shift program. The initial summer program was delivered through the Bidgely mobile app, which communicated all DR event messages via mobile push and email notifications, and delivered key capabilities that leverage Bidgely's mobile engagement platform:

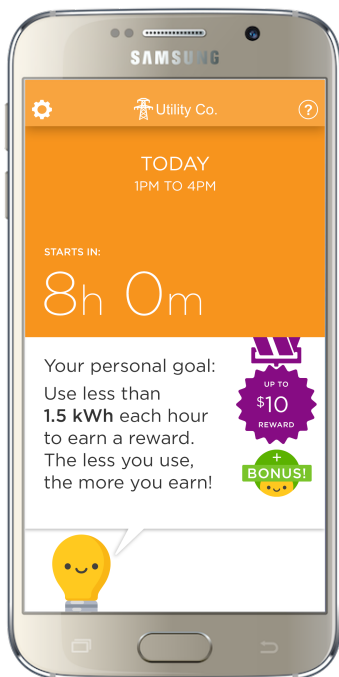
Gamification | Based on historic home efficiency data, each home was provided with an individualized goal, based on its efficiency and overall energy use

Real-Time Feedback | For homes equipped with high-resolution HAN devices, Bidgely provided real-time updates on how well the customer was meeting their energy use goal

Performance-Based Incentives | User rewards varied based on hourly performance during each 3-hour event, with pre-determined utility incentive thresholds for the user meeting their personalized goal for 1, 2, or 3 hours

The most recent summer program to the learnings from the previous summer and optimized the solution:

Energy Data Frequency | For the 2nd summer, UE changed both the granularity and the sampling frequency of each smart meter. Instead of using 30-minute data sent once per day, UE was able to gather 5-minute data sent every 15 minutes during the peak events. As a result, users were given more frequent event performance updates, driving higher engagement



Personalized goal received on the morning of the peak event.



Improved Incentive Structure | UE also altered the rewards structure to be volumetric and not binary. Whereas before, as long as a user consumed less than their target amount, they were rewarded. In the revised structure, by *how much* the user beat their target amount was the determining factor in their reward. Simply put, the bigger the shift, the bigger the reward

DR PROGRAM RESULTS

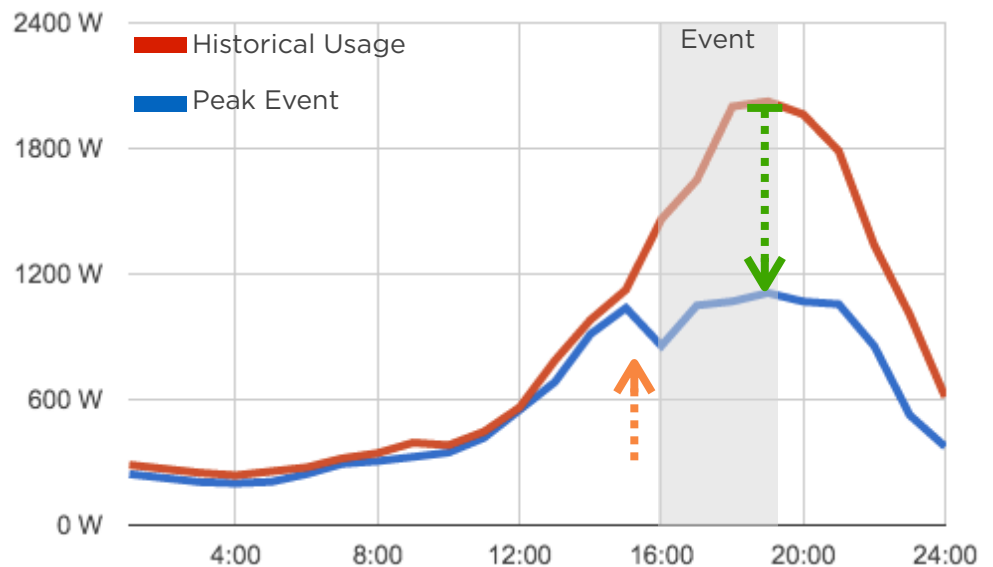
UE has held numerous events across the two summer seasons so far, with exceptional results: in the first summer, the average peak load shift was **>30% per user per event**, and the second summer, which was optimized based on prior learnings, showed a **40% peak load shift** per user per event.

What Does an ActionDR Peak Shift Look Like?

EXAMPLE PEAK SHIFT

As shown in the chart on the right, the **green arrow** outlines the usage shift a peak event (a reduction of about 35%).

Further, the **orange arrow** points out how effective the Bidgely DR product is at communicating with end users: note the clear break from historical trend just at the point of the event - all because the pre-event messaging resonated with the users.



CONCLUSION

United Energy is an example of a forward-thinking utility that wasn't satisfied with the traditional Demand Response methods they had tried. Recognizing the opportunity for improvement, UE decided to supplement their existing DR programs with a new approach, and chose Bidgely as their partner. By utilizing Bidgely's Behavioral Demand Response solution, UE was able to leverage gamification, timely notifications, and dynamic incentive structures to engage their customers around reducing energy on peak days, and in the process realize exceptional load shift results.

KEY BIDGELY DR BENEFITS

- Timely engagement
- Low customer investment
- High scalability
- Direct communications channel