

BENEFITS OF DEMAND RESPONSE

According to a recent report from the American Council for an Energy Efficient Economy (ACEEE), demand-response programs can reduce utilities' peak demand an average of 10 percent, complementing savings from energy efficiency programs. Both programs, of course, help utility customers reduce their energy costs.

"Demand-response and energy efficiency programs are complementary," said the report. "Energy efficiency reduces both energy use and peak demand, while demand-response provides additional peak demand reductions."

In 2015 (the year for which the most recent data was available), ACEEE estimated that these programs combined saved about 200 billion kWh, more than five percent of retail electric sales in the U.S. In some states, the savings from these programs exceeded 10 percent of retail electric sales and could reach more than 20 percent by 2020.

ACEEE recently reviewed data from the U.S. Energy Information Administration (EIA) on energy and peak demand savings for 25 large utilities. "We found that for each one percent reduction in electric sales for a utility, on a median basis, peak demand reductions from efficiency programs are 0.66% of peak demand for that utility," said the report. "If these trends hold for additional utilities and future years, it would mean that,

for a utility that reduces retail sales by 15 percent, the peak demand savings will be around 10 percent."

In terms of demand-response in specific, the report notes that it can involve a number of strategies, including interruptible rates, air conditioning and water heater cycling programs, and pricing programs (such as peak time rebates).

ACEEE looked at all utilities that reported potential demand-response savings of 200 MW or more - a total of 28 utilities, which represent 64 percent of the potential demand-response savings reported to EIA, and 58 percent of the actual reductions reported to EIA.

ACEEE found that potential demand-response savings ranged from two percent to 27 percent of the utility's peak demand, with 10 percent peak demand savings being the average.

Since utilities charge more for peak demand energy, it obviously behooves large customers (commercial, industrial, governmental, etc.) to introduce demand-response programs as a way to reduce their utility costs. And, of course, the best way to make sure peak needs decrease is to install equipment, systems, and other technologies that will keep these facilities operating efficiently, without the need for costly peak demand.



ABOUT THE AUTHOR

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