Reducing Demand Charges to Fight Hunger:
Food Bank's Savings Equal 150,000 More Meals

The Roadrunner Food Bank in Albuquerque, New Mexico, is a nonprofit feeding about 70,000 people a week. The food bank was paying an average of $180,000 per year in utility bills, with an estimated 30 percent going toward demand charges. With a load profile typical of a warehouse facility, several of their commercial-grade appliances would trigger expensive demand spikes, driving up the non-profit's utility bill.

To help Roadrunner, local installer Affordable Solar donated a 5.7 kW solar array for the facility. The food bank then received a grant and donations to expand the array to cover the entire roof. They also paired the new solar system with a 60 kW/81 kWh NantEnergy SmartStorage® system, thus reducing demand charges and allowing Roadrunner to serve more of its community. While solar PV alone reduces energy charges, it was the SmartStorage system that offset the site's demand peak usage.

SmartStorage Offsets Peak Demand

For Roadrunner, any money saved can be redirected to solving hunger, with every dollar equating to five meals.

In the first ten months of operations, the system reduced Roadrunner's peak demand usage an average of 34.3 percent, and generated a combined gross energy savings of 950.64 kW. The system saves the non-profit an estimated $30,000 per year in utility bills, which can be used to provide 150,000 additional meals to the surrounding community. The project was New Mexico's first solar-plus-storage installation, and won Solar Builder Magazine's "Project of the Year" award.

> "Between the expanded array and the storage, we're putting 150 units of demand aside every month. It's saving us a bunch of money, and every dollar we save equals five meals," says Teresa Johansen, COO of Roadrunner. "That efficiency allows us to actually feed more of New Mexico."

Customer Category: Commercial and Industrial.

Partner: Affordable Solar Installation, Albuquerque, NM

System Size: 366kW solar PV; two 30 kW/40.5 kWh SmartStorage energy storage systems

Battery Type: Lithium-ion