

Demand Response

“The cleanest kilowatt-hour is the one never generated.”

Cooperatives believe that the cleanest kilowatt-hour is the one that is never generated. Holding to this principle, Pennsylvania and New Jersey electric cooperatives launched the Coordinated Load Management System in 1986. This demand response network, whose participants include more than 5,500 Valley Rural Electric Cooperative consumers, currently boasts the capability to reduce approximately 8 to 10 percent of the entire cooperative system's peak load. Since the program's inception, this has resulted in power cost savings of more than \$150 million statewide for cooperative members. Cooperatives are currently expanding this demand-side load reduction system to help further reduce the need for additional generation and assist members with the efficient use of energy.

What is peak demand, and why is reducing it important?

Electricity is produced for immediate use; it cannot be stored economically. Power plants must meet electricity requirements at all times. Peak demand refers to those periods when electric consumers collectively use the most electricity. Generally, prices are higher during demand peaks. The price you pay for electricity is partially based on how much power is used by all consumers during the peaks.

When are the peaks?

Peak demand can occur weekdays any time between 7 a.m. and 10 p.m. However, summertime peaks typically occur on those hot, humid weekdays when air conditioners are working the hardest to keep us comfortable.

How does demand response work?

First, an electric co-op consumer volunteers to have a demand response unit (DRU) installed on an electric water heater. Meanwhile, computers monitor electricity demand and weather data. When demand reaches an extremely high level, an operator sends a signal over electric lines and the DRUs temporarily switch off power to the equipment to which they are connected.

Who can participate in the program?

Cooperative members with heat-pump or storage-tank water heaters may be eligible. (Heat pump water heaters must be kept in hybrid mode.)

What does Valley offer to participants?

Valley is currently giving a \$100 bill credit to new program participants. Also, a \$2/gallon rebate (for tanks from 40 to 79 gallons) or a \$3/gallon rebate (for tanks that hold 80 gallons or more) is available to members who purchase a new electric water heater. The tank's energy factor must be 0.9 or higher, and the members must agree to participate in demand response.

How much will the system cost me?

Nothing. If you volunteer, the cooperative will pay the cost of the unit and the installation. Power cost savings resulting from the program offset any expense incurred by the co-op.

Will I have hot water when my water heater is switched off?

Ideally, you shouldn't even notice your DRU. It quietly does its job as you go about your daily routine. A DRU may not be for everyone, but everyone shares the benefit of more stable energy costs and a clean environment. Water heaters have traditionally been the focus of demand response because they provide efficient heat storage. Studies show an electric water heater can remain without power for several hours and not inconvenience consumers.

What precautions have been taken to ensure that I will have hot water?

Several precautions are built into the demand response system to ensure that you will not be inconvenienced. First, equipment is grouped according to storage capacity and household size. No group is turned off longer than the storage capacity and needs of the family allow. Second, the system has been designed so that, if any section fails, the demand response unit on your equipment should keep electricity flowing.

What if I am not satisfied with the demand response unit?

First, we'll work to adjust the settings and correct the problem. If you are still dissatisfied, you may discontinue your participation. We will promptly send a technician to your property to retrieve the equipment. Any monetary incentive received for participation may be charged to your bill on a prorated basis according to your years of participation. (A three-year minimum is required.)

Here's what our members are saying



“It's a no-brainer. Being in a co-op, you're a co-owner. You're helping yourself and other members through this program. And we've never run out of hot water.”

- Jeffrey

“I don't see any difference. It hasn't inconvenienced us.”

- Patty

*Jeffrey and Patty Cannin
Penn Township, Huntingdon County
DRU install date: July 23, 2015*



“We're definitely happy with the program. Our concern at first was that we would be doing something around the house and run out of hot water. That hasn't happened.”

*C. David Snare
Cass Township, Huntingdon County
DRU install date: April 11, 2013*

Call 800/432-0680 or email memberservices@valleyrec.com to see if you qualify.