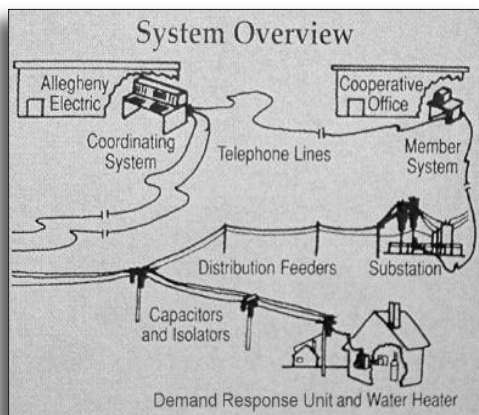


Demand Response

"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 nearly 25 percent of the cooperatives' residential 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 close to \$90 million statewide for cooperative members.

Cooperatives are currently expanding this demand-side load reduction and "smart" meter 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. Because of this, 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.

As a result of electric competition in Pennsylvania, the price you, as an electric cooperative consumer, must pay for electricity is partially based on how much power your co-op requires between 1 p.m. and 6 p.m. on the five hottest, most humid days each summer. Reducing the amount of power used on those days, as well as during other times throughout the year, can help stabilize electric costs.

How does demand response work?

First, an electric co-op consumer volunteers to have a demand response unit installed on an electric water heater or other heating/cooling equipment. Meanwhile, computers monitor electricity demand and weather data. When demand reaches an extremely high level, an operator sends a signal over electric lines which reaches various demand response units. The units then temporarily switch off power to the equipment they are connected to.

Who can participate in the demand response program?

Any full-time residential electric co-op member with an electric water heater (with a storage tank of 50 gallons or more) can participate.

What does Valley offer for those who participate?

Valley is currently giving a \$25 bill credit to those members who agree to have a demand response unit placed on their water heater or heating/cooling equipment.

In addition, a \$2/gallon rebate (for tanks from 50 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 member 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?

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 will work to adjust the settings and correct the problem. If you are still dissatisfied, you may discontinue your participation at no charge and we will promptly send a technician to your property to retrieve the equipment.

Clean power law recognizes co-op demand response program efforts

Because Pennsylvania's electric co-ops have promoted the benefits of energy conservation and clean power for years, they became natural partners in helping to shape the state's renewable portfolio standards (RPS) law. Under RPS, private power companies and competitive electric generation suppliers across the state must include increasing amounts of green energy in their generation mix. Electric cooperatives, on the other hand, meet current RPS requirements through demand response.

As not-for-profit, consumer-owned and governed utilities, electric cooperatives base decisions on economic, operational and community impact, with the goal of providing a reliable supply of power at the lowest possible cost.

Through demand response, electric co-ops shift the electric use of residential water heaters, electric thermal storage units, dual-fuel home heating systems and other special equipment to off-peak hours. This improves system efficiency, cuts costly demand charges that co-ops must pay for purchased power, and reduces the need for new generating capacity.