

Lower Cape Fear Water & Sewer Authority



THE CUSTOMER

Lower Cape Fear Water & Sewer Authority joined Demand Response Automation (DRA) in November 2010 and is one of several water processing facilities on the program.

PROJECT SPECIFICS

Lower Cape Fear Water & Sewer Authority takes advantage of two existing 1,350-kW generators that fully back up their facilities. In addition to the ongoing incentives, they also received a \$57,800 one-time participation incentive, which is designed to help participants offset any costs associated with optimizing operations for DRA participation. They used the one-time credit to purchase and install oil cooling units and other modifications in their generator building. This upgrade will help ensure reliable emergency power going forward during extended runtime hours.

DEMAND RESPONSE AUTOMATION

Demand Response (DR) balances electric supplies through the management of demand-side resources. Traditional DR programs incent participants to reduce their demand during peak periods to help manage the grid and maintain system reliability. This helps utilities reduce and shift system peak demand, thereby delaying the need for new, expensive peaking power plants.

The Demand Response Automation program from Duke Energy Progress is specially designed for our large commercial, industrial and governmental (CIG) customers. Like our existing Large Load Curtailable programs, DRA is an important part of our overall demand-side management strategy. The DRA program features an innovative incentive structure, state-of-the-art technology and outstanding customer flexibility.

For more information on how your facility can benefit from participation in DRA, visit duke-energy.com/DRA or contact your Account Executive.

WATER PROCESSING FACILITIES AND DEMAND RESPONSE

Water processing facilities are an excellent example of the type of customer that can benefit from participation in DRA. They can agree to reduce demand during curtailment events by turning off pumps and other equipment or by transferring to an emergency generator as a power source. For facilities only staffed for a single shift, the direct control option provides the flexibility of having Duke Energy Progress install a switch to remotely control equipment. Regardless of the method chosen, the customer will always have the ability to switch back to the electric grid should they experience an equipment failure during a curtailment event.

LOWER CAPE FEAR WATER & SEWER AUTHORITY

Contracted Demand: 900 kW

Curtailment Method: Backup Generator

Program Incentives:

1. **Monthly Availability Credits** of \$3.25/kW for the contracted amount of curtailable demand
 $900 \text{ kW} \times \$3.25/\text{kW}/\text{mo} \times 12 \text{ mos} = \mathbf{\$35,100}$
2. **Event Performance Credits** of \$6/kW for demand reduced during each curtailment event
 $900 \text{ kW} \times \$6/\text{kW}/\text{event} \times \text{minimum } 3 \text{ events} = \mathbf{\$16,200}$
Typical Annual Incentives = \$51,300
3. One-time **Participation Incentive** of \$50/kW for demonstrated demand reduction during the first two summer curtailment events
 $1,156 \text{ kW} \times \$50/\text{kW} = \mathbf{\$57,800}$

“Participation in the DRA program provided real incentives to reduce energy costs and assisted the Authority in stabilizing its raw water rate structure in 2011–2012.”

— Don Betz
Executive Director, LCFWASA

