NOVA | Northern Virginia Community College
Facilities Management

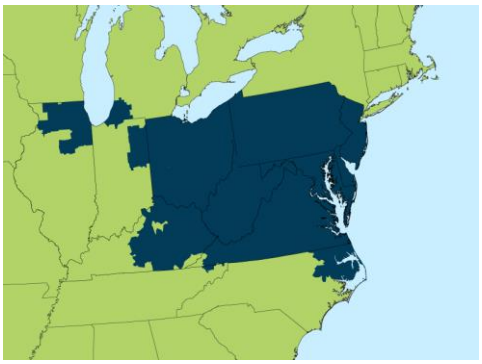
Electricity usage & demand peaks during summer months

DEMAND RESPONSE, ENERGY EFFICIENCY, AND NOVA

PJM Demand-Response Program

On the extremely hot days of summer, there is an increase in electricity demand to power air conditioners. Because the electric utilities have a maximum amount of electricity they can supply to customers, a demand-response event, where electricity demand is curtailed, can ensure that the electric grid does not fail.

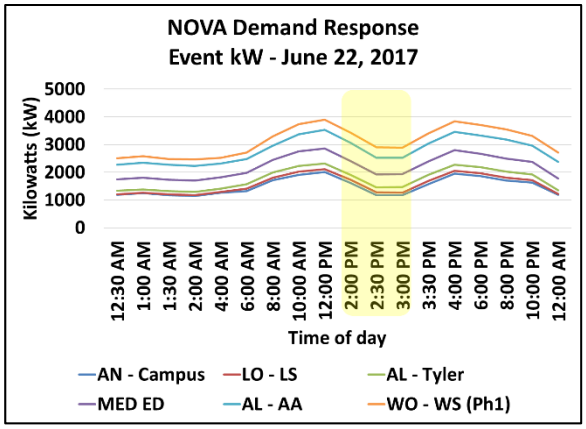
Through Dominion Energy and Northern Virginia Electric Cooperative (NOVEC), NOVA's campuses are part of the Pennsylvania-New Jersey-Maryland (PJM) electric grid (see graphic). Earlier this year, NOVA participated in Virginia's demand-response program for the first time. Demand-response is an energy conservation program designed to reduce the demand for electricity during peak usage times between June 1st and September 30th.


The Pennsylvania-New Jersey-Maryland (PJM) electric grid region
(Source: PJM Interconnection - http://www.pjm.com/about-pjm/who-we-are/territory-served.aspx)

NOVA Participation

NOVA's participation means that our peak electric usage was determined for 6 electric accounts with Dominion Energy; a reduction target was established; and, when notified of an event, NOVA agreed to reduce our electric load to that target or below. Typically, there is at least 1 test event per year to determine an organization's ability to meet their targets and ensure that we are realistically able to reduce our demand during a real, emergency event.

NOVA receives financial compensation as a program participant and additional money if we meet or exceed our targets, i.e., reduce our demand below the targeted amount. Depending on the weather, a real event may not be necessary for a given year, and NOVA gets paid for the test event results.



24 hours of electrical usage for NOVA's Demand Response accounts – June 22, 2017

NOVA's 2017 Event Results

This year's test event, the first for the College, was on June 22, from 2-3 pm. With fantastic support by the campuses and Provost Offices to alert the College that the event was coming up, NOVA was well prepared to respond to the test event notification.

By turning off unnecessary electrical items and moderately adjusting temperature settings in buildings across five campuses (those in Dominion Energy territory), NOVA successfully achieved a 93% curtailment based on our overall targets (see usage graphic). It was also a great educational opportunity to explain more about NOVA's energy program to the College.

NOVA's Energy Efficiency Program

NOVA's participation in this program is only one part of NOVA's overall energy efficiency and conservation plan. At the end of this year, NOVA will review these results and other reduction strategies to determine buildings that should be included in this program next year.

Summary:	A program to reduce electricity consumption upon notification by PJM of a test or emergency event
Contract Cost:	$0
NOVA Compensation:	Approximately $35,000
Duration:	June 1 – September 30
Point of Contact:	Rob Johnson
More information:	www.nvcc.edu\sustainability

October 4, 2017