

# ANNUAL REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY



## ENERGY CONSERVATION EFFORTS OF VIRGINIA'S INVESTOR-OWNED PUBLIC UTILITIES IN 2014



Submitted by the Department of Mines, Minerals and  
Energy

November 25, 2014

## **Introduction**

§ 67-202.1 of the Code of Virginia requires each investor-owned public utility (IOU) that provides electricity service in the Commonwealth to prepare an annual report to the Department of Mines, Minerals and Energy (DMME) delineating its efforts to conserve energy. In the report, each IOU is required to disclose its implementation of customer demand-side management (DSM) programs and its efforts to improve energy efficiency and conservation within its internal operations. The annual reports are to be submitted by November 1 of each year to the Division of Energy of DMME. The Division is charged with compiling the utilities' reports and submitting the compilation to the Governor and the General Assembly.

For the year 2014, reports were received from Dominion Virginia Power (Dominion), Appalachian Power Company (APCo), and Kentucky Utilities Company d/b/a Old Dominion Power Company (ODP). The following is a summary of their energy conservation efforts during the past year. A copy of each utility's full report is available from DMME.

### **Dominion Virginia Power (Dominion)**

Dominion continues to report that it has invested significant resources in conservation and efficiency programs that provide customers the information and supporting technology needed to manage and reduce energy consumption. Dominion also offers two DSM tariffs; Standby Generation (SG) and Curtailable Service (CS). The SG service tariff provides a direct means of implementing load reduction during peak periods by transferring load normally served by the company to a participant's standby generator. The CS tariff requires participants to reduce their electric demand upon request by Dominion in return for a rate reduction credit. Participants commit to curtailment upon at least two hours' notice in order to receive the rate credit and are required to reduce load to a firm service level.

Dominion offers a number of programs to residential customers, including a residential bundling program, the residential heat pump upgrade program, the residential air conditioner cycling program, and the residential low income program. The cycling program, recently extended through April 2016, involves the installation of cycling switches on residential air conditioning units that allows the units to be remotely cycled off for brief intervals during periods of peak load demand. The low income program, recently extended through April 2015, provides an energy audit at no charge for qualifying residential customers. A separate energy audit program is also available to qualifying non-residential customers.

Additional programs available to non-residential customers include the distributed generation program and the duct testing and sealing program. The distributed generation program allows participating customers to receive reduced-cost backup generation service in exchange for reducing electrical load on Dominion's system. The duct testing and sealing program provides cash incentives for qualifying customers to have ducts tested and sealed according to program-approved methods in order to increase efficiency.

On April 29, 2014, Dominion received approval from the SCC for three new DSM programs for its non-residential customers. They are the lighting systems and controls program, the heating

and cooling efficiency program and the solar window film program. All three programs offer incentives for customers to install more energy efficient equipment.

Dominion reports it is also administering several ongoing DSM pilot programs. These include dynamic pricing tariffs, an electric vehicle pilot, and an advanced metering infrastructure demonstration. Approved by the SCC on August 26, 2013, a dynamic pricing schedule allows Dominion to charge different prices as the costs of electricity production change in response to demand. This means that electricity usage during periods of higher usage will be charged more per kWh than usage during periods of lower electricity usage. Currently, the pilot is limited to 3,000 voluntary participants, 2,000 of whom are residential customers. The electric vehicle pilot offers customers two alternatives to electricity pricing with the intent to encourage customers to charge their electric vehicles during times of low usage. Both of these pilots are scheduled to end in 2016.

On August 29, 2014, Dominion requested approval from the SCC for three additional DSM programs for residential and non-residential customers. They are the income and age qualifying home improvement program, the residential appliance recycling program and the qualifying small business improvement program. The first two programs provide eligible customers with support and incentives to purchase appliances to reduce demand. The qualifying small business improvement program provides low-cost energy assessments and other incentives for small businesses meeting certain size- and need-based requirements.

In order to quantify the level of energy and demand savings, Dominion has implemented evaluation, measurement and verification plans to quantify the level of savings for the approved DSM programs. The most recent report was filed with the SCC on April 1, 2014.

Dominion has numerous consumer education initiatives that include providing demand and energy usage information, opportunities to meet with Dominion representatives, and online customer support options to assist customers in managing their energy consumption. The Company's website has a section dedicated to energy conservation. Through consumer education, the company is working to encourage the adoption of energy-efficient technologies in residences and businesses. Dominion's education programs include a customer connection newsletter, an energy conservation blog, online energy calculators, community outreach events, and utilization of social media.

Dominion reports it has also taken steps to conserve energy in its internal operations. Some examples are maintaining and improving the energy efficiency of Dominion's facilities, retrofitting new lighting to replace old florescent fixtures with electromagnetic ballasts, enhancing the irrigation system at its Richmond office to save water, green information technology incorporating ENERGY STAR compliant or certified components in the IT department, the NightWatchman program that shuts down inactive desktops at night, and an investment recovery program that disposes of surplus assets in a way that both maximizes return on investment and minimizes the environmental impact.

Dominion's report provides a snapshot of the current plans and programs available to the company's internal and external stakeholders. Dominion states it supports the Commonwealth's

goals regarding energy conservation and renewables and will continuously evaluate energy savings and environmental programs for itself and its customers in support of the overall goals in the Virginia Energy Plan.

### **Appalachian Power Company (APCo)**

APCo's parent company, American Electric Power (AEP) continues to express a commitment to energy efficiency and demand side management measures. However, as of November 1, 2014, APCo has not updated its self-imposed goal of reducing its demand and reducing energy consumption by the end of 2014. APCo also reports that beginning in January 2014, the AEP Interconnection Agreement ceased to exist, and as a result, APCo is now solely responsible for supplying electricity to its customers within the PJM RTO.

APCo has recently filed with the SCC a request to expand energy efficiency opportunities for residential and commercial customers. If approved, residential customers meeting low-income thresholds will be eligible for assistance to install energy-saving measures. In addition, residential customers participating in APCo's direct load control program will be offered a monetary incentive to allow APCo to control the central air conditioning unit of the home. APCo has also filed with the SCC a petition for approval of a portfolio of energy efficiency programs as well as a rate adjustment clause to recover costs. These programs would be designed to improve energy consumption in residential structures by offering online and in-person energy checkups, removing and recycling used appliances, recruiting manufacturers to design and build Energy Star qualified homes, and offer instant rebates for energy efficient appliances and lighting equipment. For commercial and industrial customers, APCo proposed programs that offer financial incentives for various energy saving projects.

APCo reports it offers various time-of-day tariff options which are geared toward allowing customers to shift usage to lower cost periods. Based on a change of lifestyle or, in the case of a non-residential customer, a change or shift in mode of operation, these tariff schedules provide the customer with an opportunity to shift or reduce peak demand on the Company's system, save money and encourage additional efficiencies. The tariff options for residential customers include load management water heating and time-of-day. Tariff options for commercial and industrial include Small General Service load management water heating, Medium General Service and Large General Service Off-peak excess demand provisions, General Service and Large General Service time-of-day and Advanced time-of-day tariffs. A voluntary wind service tariff and an economic development rider are also offered. APCo's 2014 Biennial filing contained a request to modify its tariffs and schedules to improve the price signals sent to various customers.

Due to the termination of AEP's Interconnection Agreement, APCo closed the voluntary demand response rider programs to new customers effective April 1, 2014. APCo reports that the six customers already enrolled in the program will be allowed to continue to participate until June 1, 2017. Eligible retain customers can still enroll in PJM's emergency demand response program through a curtailment service provider.

APCo participates in the voluntary renewable portfolio standard program and it has met the goals in each of the last four years. The company also offers a net metering tariff for qualifying

customers. APCo advises an increasing number of customers are interested in this program and 400 have signed up to date. APCo also offers a renewable power rider to its residential, commercial and industrial customers. This option allows customers to support the value of renewable energy certificates which are acquired from hydroelectric sources. Customers can purchase an amount up to the total amount of electricity used monthly. APCo reports that only a limited number of customers have signed up for this option.

In 2008, APCo implemented a consumer education program on energy conservation entitled “Watt Why & How” which has continued through 2014, and will be ongoing in the future. The program is geared toward educating community leaders and citizens on what APCo is doing to meet the growing demand for electricity, changes in electric rates, and how people can save money on their electric bills. In addition, APCo mails a monthly e-newsletter containing energy saving tips to more than 280,000 customers in Virginia.

During 2014, APCo advised it continued to look for opportunities to improve internal efficiencies. The company is continuing to explore emerging cost effective LED lighting technologies both inside and outside of their facilities. The company has also completed lighting retrofit projects, the installation of ENERGY STAR rated white roofs, and has replaced various HVAC equipment. APCo reports that since the baseline year of 2007, energy use in its Virginia facilities has decreased approximately 38.2%.

### **Old Dominion Power Company (ODP)**

ODP does not report any major changes to its energy conservation efforts. ODP continues to encourage customers to conserve energy by providing energy efficiency and conservation tips in the Power Source newsletters that are included in the monthly bills. During 2014, each issue contained practical and proactive ways in which customers can implement energy and conservation measures. Energy efficiency/smart saver tips are made available to customers at various public gatherings and community festivals as well as the company’s website.

ODP reports its website also contains tools which allow its customers to identify potential areas for energy savings. ODP offers Smart Saver ideas which offer low cost and no cost ways to save on lighting, heating and cooling, appliances and electronics, insulation and water usage. Additionally, a Watt Finder Guide is available which educates customers on how appliance choices and usage impacts energy consumption.

Although ODP does not currently deploy demand-side management portfolios, it reports Kentucky Utilities Company (KU) and Louisville Gas and Electric Company (LG&E) have had significant demand-side management and energy efficiency programs in place in Kentucky for a number of years in which ODP customers have benefited from indirectly through avoided cost capacity savings. KU/LG&E estimates these programs along with additional programs, pending approval of KU and LG&E’s proposed 2015-2018 DSM/EE plan, are expected to achieve 500 megawatts of demand reduction and a cumulative energy savings of 1.6 million MWh by 2018.

ODP advises its billing options such as paperless billing and auto pay continue to enable customers to view and pay bills on-line instead of receiving a paper copy through regular mail. Lastly, ODP, KU, and LG&E have initiated the “Environmental Champions Program” which encourages employees to conserve energy and recycle waste at work.