

ANNUAL REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY



ENERGY CONSERVATION EFFORTS OF VIRGINIA'S INVESTOR-OWNED PUBLIC UTILITIES IN 2013



Submitted by the Department of Mines, Minerals and
Energy

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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 2013, 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 reports 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.

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.

On August 30, 2013, Dominion requested 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 also requested revisions to the previously approved non-residential energy audit program. Dominion expects a decision from the SCC by May 1, 2014.

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, 2013.

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), established a self-imposed goal of reducing its demand by 1,000 megawatts (MW) and reducing energy consumption by 2,250 gigawatt hours (GWh) annually by the end of 2013. Through the second quarter of 2013, AEP reports total reductions of 1,011 MW and 3,016 GWh have been achieved. APCo has been an

active participant in meeting this goal; however it reports that its level of participation has been reduced due to increased costs paid by customers from required environmental investments.

Recognizing the prospects of higher costs, APCo reports AEP has begun several initiatives to improve grid efficiency and install advanced metering. Examples are: “passive” demand reductions via customer-focused energy efficiency, unique utility infrastructure efficiency initiatives such as Integrated Voltage/VAR Control, as well as “active” demand response (“peak shaving”-type) program opportunities. In addition to these and the activities listed below, APCo reports it is currently meeting with stakeholders to finalize a portfolio of energy efficiency and demand response programs to be filed with the SCC for approval. If approved, APCo believes these new programs will provide opportunities for residential, commercial and industrial customers.

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.

As part of its effort to manage its peak load, its overall load shape and its generation resource costs, APCo has established two voluntary demand response riders for its non-residential retail customers. APCo reports six customers have signed up for the riders, resulting in a reduction in winter peak demand of nearly 50 megawatts. APCo will continue to actively market these programs to its non-residential retail customers.

In accordance with an order from the SCC, APCo developed pilot programs that offer dynamic pricing on an hourly and monthly basis to non-residential rate customers that have properly certificated renewable generation facilities. The program offers both buy/sell tariffs on a real-time basis for renewable generators. APCo reports no customers signed up for the pilot program and it is now closed.

APCo participates in the voluntary renewable portfolio standard program and it has met the goals in each of the last three 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 275 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 2013, 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 2013, APCo advised it continued to look for opportunities to improve internal efficiencies. The company has tested newly 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 37%.

In addition to the above, APCo expects to make a filing with the SCC in 2014 that will offer expanded energy efficiency opportunities for residential and commercial customers. APCo indicates the filing should reflect programs currently offered in West Virginia such as expanded energy audits, expanded low income weatherization, and incentive programs designed to generate energy savings from the installation of compact fluorescent light bulbs and light emitting diode bulbs.

Old Dominion Power Company (ODP)

ODP advises it 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 2013, 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 the most recent additions to these programs are expected to achieve 500 megawatts of demand reduction by 2018.

ODP advises its billing options such as paperless billing and auto pay 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.