

ANNUAL REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY



ENERGY CONSERVATION EFFORTS OF VIRGINIA'S INVESTOR-OWNED PUBLIC UTILITIES IN 2012



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 2012, 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 a 30-minute notice in order to receive the rate credit and are required to reduce load to a firm service level.

Dominion reports it is also administering several ongoing DSM pilot programs. These include distributed generation/load curtailment for large non-residential customers, dynamic pricing tariffs, an electric vehicle pilot, and an advanced metering infrastructure demonstration.

On April 30, 2012, Dominion received SCC approval for six new DSM programs. These programs include a commercial energy audit program, a commercial duct testing and sealing program, a commercial refrigeration program, commercial distributed generation, residential lighting program and residential bundle program. Dominion believes the proposed programs provide a diversified mix of services that are cost-effective and in the public interest.

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 2, 2012. Dominion indicates nearly all programs are on track to meet or exceed energy and demand savings goals established through 2012.

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, equipping its new Northern Virginia office with sustainable fixtures, furnishings and energy efficient lighting, 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), has 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 2012. Through the second quarter of 2012, AEP reports total reductions of 811 MW and 2,372 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.

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. These riders were approved by the SCC on September 12, 2011. APCo reports several customers have signed up for the riders, resulting in about 50 megawatts of demand response. APCo will continue to actively market these programs to its non-residential retail customers.

In 2008, APCo implemented a consumer education program on energy conservation entitled “Watt Why & How” which has continued through 2012, 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 266,500 customers in Virginia.

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 they have received inquiries from customers regarding the pilot program, but none has signed up at this time.

In March of 2010, APCo re-emphasized a program that offers residential energy audits to customers in Virginia, in order to assist them with conserving energy. In addition, the company identified specific high end energy users in the Lynchburg, Fieldale and Galax areas and sent out letters to these users offering the residential energy audit service. To date, APCo has conducted 155 residential energy audits.

APCo reports it has developed an energy efficiency program for its public authority customers. The program, which was mutually agreed upon, is a prescriptive high efficiency lighting incentive program. The program was launched on January 15, 2011. APCo states it has completed 38 installations in public buildings that received incentives totaling more than \$200,000.

In October 2010, APCo received approval of a grant through the AEP Foundation to provide low income weatherization services in its service territory. The total grant was \$1.1 million, with \$500,000 to be used in Virginia. The grant will be used for weatherization, electric furnace/central air replacement with heat pumps, replacement of standard electric water heaters with high efficiency water heaters and training for weatherization technicians. In Virginia, the monies are being administered through Community Housing Partners to provide services to low income customers in the APCo Virginia territory. APCo reports work started in 2011 was completed in 2012 with more than 177 homes receiving weatherization services.

During 2012, 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 33%.

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 2012, 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.