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ANNUAL REPORT TO THE

GOVERNOR AND GENERAL ASSEMBLY

ENERGY CONSERVATION EFFORTS OF

VIRGINIA'S INVESTOR-OWNED PUBLIC UTILITIES

IN 2008

Submitted by the
Division of Energy
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ANNUAL REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY

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ANNUAL REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY

ENERGY CONSERVATION EFFORTS OF VIRGINIA'S INVESTOR-OWNED PUBLIC UTILITIES IN 2008

Introduction

As outlined in Section 67-202.1 of the Code of Virginia, each investor-owned public utility (IOU) that provides electric service in the Commonwealth is required to prepare an annual report delineating its efforts to conserve energy, including but not limited to its implementation of customer demand-side management programs and efforts by the utility to improve energy efficiency and conservation within its internal operations, pursuant to Section 56-235.1 of the Code. The annual reports are to be submitted by November 1 of each year to the Division of Energy of the Department of Mines, Minerals and Energy (DMME). The Division is charged with compiling the utilities' reports and submitting the compilation to the Governor and the General Assembly. This report is intended to fulfill that requirement.

For the year 2008, DMME's Division of Energy received reports from Dominion Virginia Power, Appalachian Power Company (APCo), the Potomac Edison Company (PEC) d/b/a Allegheny Power, and Kentucky Utilities Company d/b/a Old Dominion Power Company between October 31 and December 12, 2008. The following is a summary of energy conservation programs being implemented (or in some cases, being considered as noted) by these investor-owned utility companies during the past year. A copy of each utility's full report is appended to this summary.

DEMAND-SIDE MANAGEMENT (DSM) PROGRAMS
Demand Response

Programs offered by public utilities related to demand-side management include those emphasizing energy conservation and energy efficiency measures, and those that address demand response scenarios.

Dominion Virginia Power offers several DSM programs including DSM-related rate tariffs that provide incentive payments for dispatchable load reductions that can be instituted when capacity is needed. The Standby Generation Tariff transfers load to a customer's standby generator during a load reduction event, and the Curtailable Service Tariff allows customers to reduce their electric demand upon a 30-minute notice by the Company in return for a rate reduction credit.

Four demand response pilot projects were approved by the Virginia State Corporation Commission (SCC) on January 17, 2008 (Case No. PUE-2007-00089) in order to gather

data to help the Commonwealth determine methods to reach the Virginia Energy Plan goal to reduce energy consumption 10% by the year 2022. These pilot projects provide customers with specific equipment to help users save energy, as follows:

- Direct Load Control (DLC) Outdoor Air Conditioning Control Device Pilot – tests the operating cycles of whole-house air conditioning units using control device switches attached to outdoor units.
- Programmable Thermostat Indoor Air Conditioning Control Device Pilot – allows the Company to cycle customers' air conditioning systems on and off and change temperature settings up or down during peak load periods.
- Programmable Thermostat with AMI and CPP Pilot – programmable thermostats with Advanced Metering Infrastructure (AMI) and Critical Peak Pricing (CPP) allow the company to cycle customers' air conditioning systems on and off and change temperature settings up or down during peak periods using two-way communication with customers' homes. Through signals provided via a lighting system, customers can adjust their energy usage to reflect the energy prices they are willing to pay under the CPP rate schedule.
- Distributed Generation Pilot – customers agree to install backup generators to be used as replacement power at facilities that are curtailed at utility-specific times. Customers receive an incentive payment for both demand and energy to help defray equipment and fuel costs.

Several proposed DSM programs now pending approval in Dominion's North Carolina service area are planned to be implemented after they have been approved by the Virginia SCC. These include, but are not limited to, a commercial distributed generation program, a curtailment service program, PJM demand resource/interruptible load for reliability/ economic load response programs, a residential high efficiency heat pump program, a residential Energy Star new homes program, a residential compact fluorescent lamps (CFL) program, a commercial lighting program, a residential low-income energy audit and measure improvements program, a residential refrigerator turn-in program, and a conservation voltage reduction program. Details about these proposed programs can be found in Dominion's full report (attached).

Appalachian Power Company of Virginia also reported some demand side management/ demand response activities it has begun to initiate in its Virginia service area. Several time-of-day tariff options allow customers to shift usage to lower cost periods to save money and encourage efficiencies. Residential, commercial and industrial customers can participate in a load management water heating service where a company-approved water heating system is installed that consumes energy during off-peak hours and stores hot water for use during on-peak hours. Customers receive a reduced energy charge for a fixed block of monthly kWh. A time-of-day optional tariff is available for residential, commercial and industrial customers who want to consume electrical energy during designated off-peak hours to take advantage of on-peak and off-peak energy rate differentials.

Commercial and industrial customers can also use an off-peak excess demand provision that allows customers who operate primarily during off-peak periods to install time-of-day metering service and receive a reduced rate applied to off-peak demand in excess of on-peak demand created during the billing month. Advanced time-of-day services are available to customers who are willing to change energy consumption behavior based upon a day-ahead schedule of hourly prices, and who agree to reduce load upon the company's request.

The Potomac Edison Company (PEC), which is known as Allegheny Power in its Virginia service area, offers the Interruptible Load Response demand response program through PJM Interconnection, the mid-Atlantic regional electric power transmission organization. This program provides industrial and commercial customers options to help reduce electricity costs through operational flexibility while providing the PJM generation market with additional load resources. The PJM Economic Load Response Program is a voluntary peak load reduction plan that offers compensation to commercial and industrial customers who can reduce their power consumption during periods of high demand or high prices by using on-site generation or by reducing load. These programs are not currently available in the company's Virginia service areas, but are planned to be offered in the future.

PEC is also piloting several projects in its West Virginia and Maryland service areas that will be offered in its Virginia service territory once the technology has been proven in those other jurisdictions. These pilot projects embrace an Advanced Utility Infrastructure that creates an intelligent network for electricity delivery using two-way communications and control of utility devices (e.g., meters, sensors and other equipment) regardless of vendor or manufacturer. Details of these pilot projects are contained in PEC's full report (attached).

Kentucky Utilities Company, known as Old Dominion Power Company in its Virginia territory, did not report any specific programs geared toward demand response.

DEMAND-SIDE MANAGEMENT (DSM) PROGRAMS
Energy Conservation

Dominion Virginia Power identified several energy conservation programs as part of its portfolio of services to meet customer needs, support the Virginia Energy Plan's energy conservation target, and help improve the environment. Dominion has partnered with Honeywell and the Home Depot to provide instant discounts off $1.50 on single-packs and $3.00 on multi-packs of Energy Star qualified compact fluorescent lamps (CFLs) purchased at Home Depot stores in its Virginia service territory.

Consumer education programs are an important component of Dominion's work to encourage adoption of energy efficient technologies in residences and businesses. The Company offers energy educational tools on its website to raise customer awareness and influence consumer behavior toward energy consumption. The website features items such as an on-line energy calculator for customers to estimate energy usage, CFL

educational facts and a listing of participating Home Depot stores, news releases, an energy efficiency blog, and the "energy saving tip of the day". The Company also sends its Customer Connection newsletter to customers as an insert in monthly power bills; produces a 30-second television commercial called "Every Day" to address the importance of energy conservation and renewable energy; holds outreach seminars to Company employees and external audiences; and participates in trade shows, exhibits and speaking engagements to inform customers and communities about energy conservation.

Five energy conservation pilot programs were approved on January 17, 2008 by the Virginia SCC (Case No. PUE-2007-00089) to test specific energy conservation and consumer education programs, as follows:

- Residential Energy Audit Pilot – participating residential customers are provided with recommendations on measures they can take to improve the energy efficiency of their homes.
- Commercial Energy Audit Pilot – participating small commercial customers receive recommendations on measures to assist in energy efficient consumption in their businesses.
- Energy Star Qualified Homes Energy Audits Pilot – the Company and its agents work with home builders and developers to conduct in-home inspections to ensure their designs meet Energy Star requirements. Participating builders receive some reimbursement for obtaining a Home Energy Rating System (HERS) score that meets or exceeds the minimum requirements for Energy Star certification.
- Energy Conservation Welcome Kit Pilot – welcome kits containing several free items (e.g., pack of CFLs, low flow showerhead, weatherstripping, insulation for light switches and receptacles) have been distributed to residential customers to provide information on energy conservation measures.
- Power Cost Monitor Pilot – customers use an in-home device which shows the cost of energy consumed in their home on a real-time basis.

In addition to the pilots, Dominion announced its "Powering Virginia" strategy in June 2008 which includes the installation of "smart grid" technologies that will allow energy to be delivered more efficiently and result in significant energy savings. The plan is expected to save customers $1 billion over the next 15 years, cut carbon emissions by 12 million tons, and improve the reliability of the electric system.

Appalachian Power's gridSMART initiative began in 2007, and is a multi-year effort composed of customer programs and advanced technology initiatives geared toward promoting new energy delivery and customer service systems. The three main components of the gridSMART system are advanced meter infrastructure (AMI), distribution grid management, and home area networks (HAN). These components are coupled with the information technology systems needed to support and integrate each component.

The AMI system features "smart" meters, two-way communication networks, and the IT systems to support their interaction. When paired with tariff options and the HAN, AMI

allows customers to control their energy usage by providing real-time usage information to reduce costs and consumption. The distribution grid management system provides real-time control and monitoring of selected electrical components within the distribution system, and can help minimize outages by detecting and isolating certain system faults. The HAN is located within customers' homes, and allows customers to save energy and money by installing a programmable communicating thermostat to help control their energy usage. A load control switch can also be installed on a major electrical appliance to either turn the appliance on or off, or cycle the appliance on or off (as in the case of an air conditioning unit).

Appalachian Power has implemented a consumer education program named "Watt Why & How," which is targeted to educating community leaders and citizens on APCo activities to meet electricity demand, explain rate changes, and describe ways to save money on their electric bills. Bill inserts, advertising, community presentations and the APCo website are also used for consumer education purposes. The website also contains a home energy calculator, appliance calculator, and lighting calculator to enable customers to make informed energy usage decisions.

Through the National Energy Education Development (NEED) organization, Appalachian Power is launching the "Change-A-Light Energy Efficiency Education Program," which will provide training for K-12 educators on energy conservation and the Energy Star Change-a-Light education/pledge program in the 11 states where parent company American Electric Power operates. NEED staff will conduct the training sessions over a two-year period, and the APCo logo will appear on all training materials. About 200,000 15W CFL bulbs will be purchased and distributed to 4th grade students at participating schools in the 11 states, including Virginia.

Potomac Edison/Allegheny Power Company reported on two energy efficiency programs being implemented in their service areas. The Mercury Vapor Streetlight Replacement Program is replacing all mercury vapor streetlights and transitioning to more energy efficient light sources for retail and manufacturing group lighting customers and street/ area lighting applications. The transition, which began in 2008, will take place over a 5-year period, and lights will be replaced when the fixture requires replacement. Cumulative savings in the Virginia service territory are projected at over 132 MWhs, assuming an average reduction of 67 watts and 270 kWh/yr for each replaced light.

PEC's Transformer Replacement Program, to be implemented in 2009, will follow an approach proposed by the Edison Electric Institute to reach progressively stringent efficiency levels being set by the U.S. Department of Energy as required by the Energy Policy Act of 1992. Projected to year 2015, Potomac Edison expects a combined energy savings of 3,257 MWhs in their Virginia service territory once the purchase of the federally-mandated efficient distribution transformers is completed.

Potomac Edison has also invested in an Advanced Utility Infrastructure (AUI), which creates an intelligent network for two-way communications and control of utility devices for enhanced electricity delivery. They are pursuing four pilot projects in their West

Virginia and Maryland service territories that could become available in the Virginia service territory once the technology has been proven in these other jurisdictions. Details of those projects are contained in the attached PEC/Allegheny Power Company report.

Old Dominion Power Company identified its website as its primary consumer energy education mechanism. The Home Energy Calculator available on its website assists customers in determining where potential energy savings exist through helpful tips for using less energy; the site also contains a glossary of important terms and an energy reference library.

CONSERVATION/ENVIRONMENTAL INITIATIVES
Utility Internal Operations

Dominion's focus on conserving energy in its internal operations is multi-faceted. Employees are trained to follow established procedures regarding equipment usage and maintenance to minimize operational impacts on the environment. The Company has implemented several energy conservation projects to reduce generation and in-house consumption of energy.

Energy efficient systems that have been installed at company facilities include such items as solar film on windows; water-saving toilets; white ThermoPlastic Olefin membrane systems over foam used during roof repairs; variable speed drives on air handling units; light sensor activated switches and modified lamping; and energy management systems to control lighting and HVAC systems during after-hour operations. Ongoing renovations at its newly acquired 8th and Main building in Richmond have integrated several energy conservation and green initiatives into design plans. All employee-occupied buildings have completed the Green Lights Program, which retrofitted all fluorescent fixtures from electromagnetic ballasts and T-12 lamps to electronic ballast and T-8 lamps. Since the programs' inception in the early 1990's, approximately 2.2 million square feet have been retrofitted, resulting in a demand savings of 1,835 kW and an energy savings of 8,775 MWh per year. Dominion is also currently testing light-emitting diode (LED) lights for some of its corporate branding and interior directional signage within facilities.

The Company's information technology (IT) department is working toward a more energy- friendly computing environment by purchasing Energy Star-compliant desktop computers, laptops and printers, and redesigning data centers to increase power and cooling efficiencies. The total estimated annual Green IT savings for 2008 are almost 5.4 million kWh.

Dominion's web-based system, called Tridium, allows facilities personnel to remotely operate lighting and HVAC systems. Several steps have been taken at company facilities to reduce water consumption, such as tightening seals and installing flow meters and current detectors, which saves about 115 million gallons per year. Treated water from Chesterfield County's waste water treatment plant is used to supply the slurry water makeup for operation of its new Flue Gas Desulfurization system at its Chesterfield Power Station.

Beginning in 2007, Appalachian Power's parent company, American Electric Power, implemented some efficiency measures within its facilities, such as installing occupancy sensors, programmable thermostats, lighting upgrades, and HVAC/chiller replacements. By November 2008, energy usage within those facilities has been reduced nearly 5.6 million kWh, or 5.6% when compared to 2007 levels. About 640,000 kWh of this reduction comes from Appalachian Power facilities, and nearly 400,000 kWh of this total is attributable to energy efficient improvements made within Virginia facilities.

Old Dominion Power Company reports that it has taken steps to improve efficiency and conserve energy in its internal operations through lighting initiatives, recycling efforts, working toward achievement of Energy Star certification for all buildings, and purchasing hybrid vehicles to increase gas mileage.

Potomac Edison Company/Allegheny Power did not specifically outline any efforts undertaken by the utility to improve efficiency and conserve energy in its internal operations.

OTHER ENERGY SAVING PROGRAMS

Dominion initiated a pilot program in 2007 to use B20 biodiesel fuel for district operations diesel vehicles and equipment, and in 2008, they expanded the program to utilize biodiesel across all 36 Company sites in Virginia and North Carolina. Estimated annual volumes used could reach 2 million gallons. The company is also considering the purchase of hybrid aerial lift trucks for its service fleet, and has already purchased two 2009 Toyota Prius vehicles to convert to Plug-in Hybrid Electric Vehicles. They started acquiring Flex Fuel vehicles in 2007 that run on E85 gasoline and/or standard gasoline, and for model year 2008 and beyond, the Company will be specifying only Flex Fuel engines for its GM vehicle purchases.

Dominion has several other environmental stewardship programs in place, such as solid and hazardous waste recycling of scrap metals, scrap papers/wood, batteries, lights, mercury from equipment, used oil sent for reclamation/reuse or burned for energy recovery, coal combustion byproducts, and computer equipment. The company has installed Carbon Burn-out systems at its Chesapeake Energy Center to process fly ash to use as partial replacement for Portland cement in concrete and blended cements. In April 2003, they finalized an agreement with EPA and five states to significantly reduce air emissions across their coal-fired generating fleet by installing sulfur dioxide scrubbers and catalytic reduction technology for nitrogen oxides on its largest coal-fired units, and upgrading current scrubbers and particulate matter controls. Over the 12-year agreement commitment period, they expect to spend $1.2 billion for these air quality improvements.

Other projects being undertaken to voluntarily reduce greenhouse gas emissions, conserve environmental elements like birds, plants and rivers, provide grants to schools and institutions under its Dominion Foundation, and volunteer efforts by employees in

various environmental protection and conservation projects are described in its full report.

Appalachian Power's parent company has pioneered the deployment of large-scale energy storage in the U.S. using Sodium-Sulfur battery (NaS) technology. Three batteries were installed in 2008; two of these will demonstrate the "islanding" concept of supplying customers with electricity during a power outage, and the other will be integrated with wind generation to demonstrate the ability to store energy from wind, to be used when customers need it.

On December 3, 2008, APCo received approval from the State Corporation Commission to implement a Renewable Power Rider, where customers will be able to purchase renewable energy certificates (RECs) from sources such as wind, solar, biomass, geothermal power, energy from waste, etc. for some or all of their electricity needs. The Company will purchase RECs procured from "green" power sources equal to the amount of renewable energy purchased through customer contributions. They also received SCC approval for their Renewable Portfolio Standard, which they plan to meet by using hydroelectric energy, new wind energy purchases, and credits obtained from exceeding target threshold amounts.

Conclusions

The four investor-owned public utilities that submitted reports to DMME demonstrate strong efforts to offer demand-side management programs to their residential and business customers which emphasize energy conservation and energy efficiency measures. These programs vary in breadth and scope, with the largest utility companies offering programs that are well established and have delivered proven energy savings, as well as experimental pilot programs that in some cases test the latest technological advancements in energy efficiency to gauge their effectiveness in real-world utilization.

Three of the four IOUs also reported efforts to improve efficiency and conserve energy within their internal operations pursuant to Section 56-235.1 of the Code of Virginia. Again, the larger utility companies have invested more resources into these efforts, and activities are more multi-faceted. Larger utilities have also initiated other energy savings programs involving the use of alternative fuels, recycling, air quality improvements, energy storage deployment, and renewable energy certificates.

Copies of the full reports submitted to DMME by Dominion Virginia Power, Appalachian Power Company, Potomac Edison/Allegheny Power, and Kentucky Utilities/Old Dominion Power which provide details about their current and proposed energy efficiency and conservation programs are appended to this summary report.

Virginia Electric and Power Company

Annual Report to the Division of Energy of the Department of Mines, Minerals and Energy

As Required by § 67-202.1 of the Code of Virginia Annual Reporting by Investor-Owned Public Utilities

October 31, 2008

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INTRODUCTION

During the 2008 session of the Virginia General Assembly, Chapter 651 of the Virginia Acts of Assembly amended and reenacted §§ 56-585.2 and 67-202 of the Code of Virginia, relating to renewable energy, energy conservation, and energy efficiency (the Act). Section 67-202.1, *Annual reporting by investor-owned public utilities,* provides that:

> Each investor-owned public utility providing electric service in the Commonwealth shall prepare an annual report disclosing its efforts to conserve energy, including but not limited to (i) its implementation of customer demand-side management programs and (ii) efforts by the utility to improve efficiency and conserve energy in its internal operations pursuant to § 56-235.1. The utility shall submit each annual report to the Division of Energy of the Department of Mines, Minerals and Energy by November 1 of each year, and the Division shall compile the reports of the utilities and submit the compilation to the Governor and the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

Pursuant to § 67-202.1, Virginia Electric and Power Company (the Company) submits this first Annual Report of Conservation Efforts (Report) to the Division of Energy of the Department of Mines, Minerals and Energy.

The Company appreciates the opportunity to report on its conservation efforts including renewable energy and energy conservation, among others. The Company recognizes that environmental quality is inherently long-term. Sound environmental stewardship demands more than instinct and expediency. It must have the commitment of consistent corporate emphasis. Additionally, it must have the conviction of people and organizations who know the importance of environmental stewardship for the world today, and tomorrow.

Safety, ethics, excellence, and teamwork are the cornerstones of the Company's corporate culture. Each of these support and strengthen its commitment to environmental protection. The Company will continue to use its dedicated workforce and a spirit of innovation not only to remain environmentally responsible in changing times, but to aggressively seek new ways to provide its customers the services they need with a minimal impact on the environment.

Moreover, the Company is focused on meeting its customers' energy needs in an environmentally responsible manner because today's operations affect tomorrow's environment. As a major energy supplier in uniquely beautiful and natural regions, protecting and enhancing the economic and environmental quality of life for its customers and employees has always been a core focus. The Company's decisions and actions are grounded in the belief that energy, the economy, and the environment are highly interdependent, not irreconcilably opposed. A healthy

economy provides the resources needed to address ecological concerns. Any business that doesn't work for a healthy environment is undermining the basis for its long-term success. The Company continues to:

- Make environmental concerns an integral part of planning and decision-making and commit sufficient resources to implement effective environmental programs;
- Practice sound environmental stewardship of all company-owned facilities and properties and all natural resources under the Company's management;
- Educate employees to be accountable for environmental stewardship and encourage them to seek innovative ways to improve the environmental safety of the Company's operations;
- Minimize, mitigate, or restore any adverse environmental impacts caused by the Company's operations;
- Participate with government agencies in framing responsible laws, regulations, and standards affecting the community, the workplace, and the environment;
- Promote the efficient use of energy resources through cost-effective conservation and energy management programs;
- Ensure the proper handling and disposal of all wastes, and minimize their creation while pursuing opportunities to recycle and reuse waste materials;
- Support research and development of programs and technologies aimed at minimizing the environmental impacts of Company operations; and
- Evaluate the Company's environmental performance through periodic reviews and audits to ensure that conduct is consistent with these principles.
- Continually improve the Company's environmental programs.
- Maintain open channels of communication with employees, government agencies, public officials, the media and the public to meet their information needs in regard to energy and environmental issues.

The Company is fully committed to meeting its customers' energy needs in a manner consistent with a clean environment. The Company continues to conduct business in an environmentally responsible manner that protects the public, its employees, and the earth.

RENEWABLE ENERGY PORTFOLIO STANDARD PROGRAM

Renewable Energy Portfolio Standard (RPS) Program Goals

In accordance with Chapter 933 of the 2007 Virginia Acts of Assembly, the Company plans to participate in the Renewable Energy Portfolio Standard Program (RPS Program) in Virginia, of which the annual goals are shown in Table 1. Pursuant to § 56-585.2 of the Code of Virginia, renewable energy for purposes of a RPS Program is energy that is:

1. Generated or purchased in the Commonwealth or in the interconnection region of the regional transmission entity of which the participating utility is a member;
2. Generated by a public utility providing electric service in the Commonwealth from a facility in which the public utility owns at least a 49% interest and that is located in a control area adjacent to such interconnection region; or
3. Represented by certificates issues by an affiliate of such regional transmission entity, or any successor to such affiliate, and held or acquired by such utility, which validate the generation of renewable energy by eligible sources in such region.

The annual goals are calculated by multiplying the total electric energy sold in the base year by the RPS goals for the years 2010 through 2022. The Company's RPS goals for each individual year as represented in MWh (or average MWh for a group of years) are as follows:

Table 1 RPS Program Goals

Year	2010	2011- 2015	2016	2017-2021	2022
Percent	4%	Average of 4%	7%	Average of 7%	12%
Goal	1,732,746	1,732,746	3,032,305	3,032,305	5,198,238

Note: Total electric energy sold to VA jurisdictional retail customers by a participating utility in the 2007 calendar year, excluding an amount equivalent to the average of annual percentages of the electric energy that was supplied to such customers from nuclear generating plants for the calendar years 2004 – 2006

Additionally, a utility may apply renewable energy sales achieved or renewable energy certificates (RECs) acquired during the periods covered by any such RPS goal that are in excess of the sales requirement for that RPS goal to the sales requirements for any future RPS goal. In meeting the RPS goals, the Company must first apply any renewable energy from existing renewable energy sources owned by it or purchased as allowed by contract at no additional cost to customers to the extent feasible. The Company must fulfill any remaining deficit from new renewable energy supplies at reasonable cost and in a prudent manner, which is determined by the State Corporation Commission at the time of approving the Company's application for an RPS Program. The Company may use, toward meeting the RPS goals, its proportional annual share of 1.5 million tons of green wood chips, bark, sawdust, and a tree or any portion of a tree that can be used for lumber or pulp manufacturing by facilities located in Virginia (excluding such fuel used at electric generating facilities using wood as fuel prior to January 1, 2007).

Additionally, the Company may use the following sustainable biomass and biomass based waste without limitation:

Table 2 Biomass Approved Categories

Mill residue (except wood chops, sawdust, & bark)	Landscape or right-of-way tree trimmings
Pre-commercial soft wood thinning	Non-merchantable waste paper
Slash	Agricultural and vineyard materials
Logging and construction debris	Grain
Brush	Legumes
Yard waste	Sugar
Shipping crates	Gas produced from the anaerobic decomposition of animal waste
Dunnage	

Efforts to Meet RPS Goals

The Company plans to use a three-pronged strategy to attain the RPS goals. The Company plans to first use existing renewable energy sources owned and operated by the Company. Second, the Company plans to develop new sources of renewable energy and use this energy to apply towards the RPS goals as the facilities become operational. Third, the Company plans to purchase RECs on the open market as necessary.

Generation of Renewable Energy

To satisfy the first prong of its strategy, the Company has extensive experience with owning and operating renewable generating facilities as it currently owns and operates several facilities in Virginia and North Carolina that utilize renewable fuels. These facilities include the Gaston Hydro Station in Thelma, North Carolina and the Roanoke Rapids Hydro Station located near Roanoke Rapids, North Carolina. In Virginia, the Company owns and operates the biomass-fired Pittsylvania Power Station in Hurt, Virginia and two small hydro stations, Cushaw and North Anna. Also, the Company's Altavista Power Station in Altavista, Virginia uses biomass co-fired with coal. The Company's existing renewable energy facilities combined have a capacity of 416 MW of renewable energy.

Table 3 Existing Renewable Energy Facilities

Existing Renewable Energy Facility			
Facility	**State**	**Capacity**	**Fuel**
Gaston	NC	225 MW	Hydroelectric
Roanoke Rapids	NC	99 MW	Hydroelectric
Cushaw	VA	2 MW	Hydroelectric
North Anna	VA	1 MW	Hydroelectric
Pittsylvania	VA	83 MW	Biomass
Altavista	VA	6 MW	Biomass co-fired with coal
Total		**416 MW**	

To satisfy the second prong of its strategy, in November 2007, the Company issued a Request for Proposals (RFP) for projects in development or early construction that will generate electricity using wind, sunlight, falling water, sustainable biomass, waste, wave motion, tides, or geothermal energy. The RFP required the projects to be located in Virginia, North Carolina, or elsewhere in PJM, which would allow the electricity to be transported to Virginia and North Carolina. The RFP period concluded in March 2008, and the Company received numerous requests for information. The requests led to dozens of proposals, including ones involving wind, biomass, hydro, and solar. As a result of the RFP and other efforts, the Company is developing new renewable generation including wind and biomass projects. The Company is continuing its process of evaluating other RFP proposals to determine their potential to be added to this effort for cost-effective renewable generation. The Company is also in the process of developing up to 117 MW of renewable energy at its Virginia City Hybrid Energy Center using biomass co-fired with coal for availability in 2011.

In the event that existing and new renewable energy generation is insufficient to meet the RPS goals, the Company may initiate the third prong of its strategy by purchasing RECs from the market.

Renewable Generation Technology

The Company strives to remain up-to-date on the developments of viable commercial and utility-scale emerging generation technologies. The Company keeps track of the latest developments in both conventional and alternative power generation technologies. This knowledge base has been developed from a variety of sources, both public and private sources, including the RFP process noted above. The following are two types of alternative resources that were considered and utilized as generation technologies within the Company's 2008 North Carolina Integrated Resource Plan (IRP) filed with the North Carolina Utilities Commission (NCUC) (Docket No. E-100, Sub 118).

Wind

The Company has considered wind resources as a means of meeting the RPS goals in Virginia and REPS requirements in North Carolina. The suitability of this resource is highly dependent on locating and controlling an operating site that can achieve an acceptable capacity factor in the vicinity of transmission lines. The Company believes there are sufficient wind resources available in Virginia and other regions within PJM to build utility-scale wind energy facilities. In April of 2008, the Company announced it had entered into an agreement with BP Alternative Energy (BPAE) to jointly develop, build, and operate wind energy facilities in Virginia. The Company and BPAE are currently prospecting for sites in Virginia for the purpose

of building new wind energy facilities. These facilities, if completed, will be utilized by the Company to meet the RPS goals of Virginia and the REPS requirements in North Carolina.

Biomass

The Company currently owns and operates an 83 MW biomass fuel plant at its Pittsylvania facility in Hurt, VA. Additionally, the Company is currently developing a 585 MW Virginia City Hybrid Energy Center facility, which will be able to consume up to 20% of its fuel (117 MW) with biomass co-fired with coal. Moreover, other resources currently in service may be available to be retrofitted to use biomass for a portion of the facility's fuel requirements. The Company will consider converting these assets to co-fired biomass facilities on a case-by-case basis as opportunities for such become available.

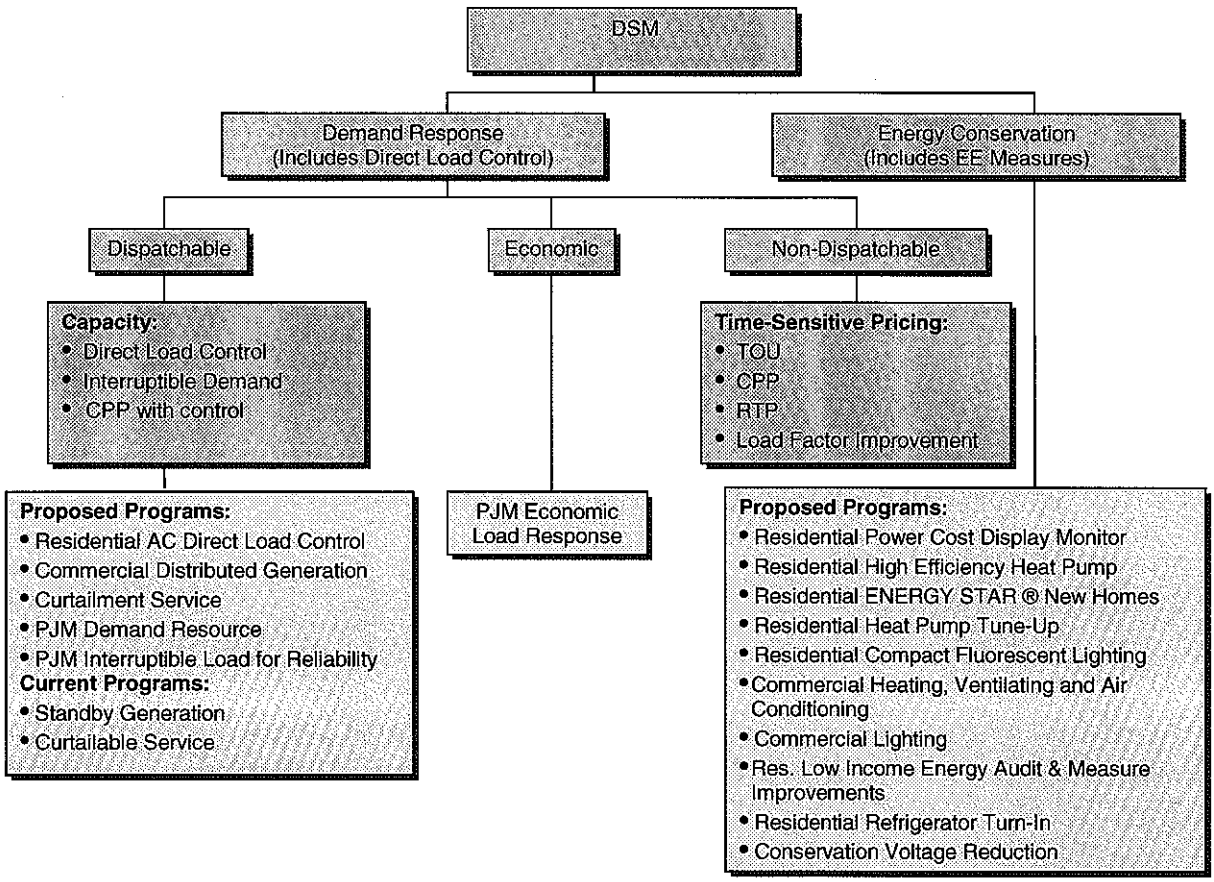
At this time, the Company is actively developing wind and biomass generation projects. The Company has a number of additional renewable energy generation projects that it will continue to evaluate and will proceed with the new technology as it becomes economically viable on a utility scale.

UTILITY CUSTOMER – ENERGY CONSERVATION PROGRAMS

Introduction

The Company is committed to offering energy conservation programs as part of its portfolio of services to meet customers' needs, support the Virginia Energy Plan and its energy conservation target, and help to improve the environment. The Company includes energy conservation in its offerings of demand-side management (DSM) programs, set forth in Table 4 below. The Company's analysis of DSM programs concentrates on the cost-effectiveness of programs, ratepayer impacts, potential for achieving a high level of acceptance by customers, and potential for energy and demand reductions.

Table 4 Types of DSM Programs



The Company believes that a key component of achieving energy conservation goals is educating customers, and the Company is now offering energy savings tips on its website including an on-line energy savings calculator and other related information through public forums. These increased educational efforts focus on raising customer awareness about energy conservation and influencing consumer behavior towards energy consumption.

The last major component of DSM options is providing dynamic pricing and other time-based or innovative tariffs. The imposition of capped rates as part of the 1999 Virginia Electric Utility Regulation Act has limited the Company's ability to propose new rate designs that would send customers more appropriate pricing signals. Additionally, the rate moratorium contained in the stipulation approved by the NCUC in Docket No. E-22, Sub 412 will end in early April of 2010. At that time, the Company plans to request approval for changes in its rates in order to send more appropriate pricing signals to its retail customers. This allows the Company to re-evaluate and/or offer additional DSM programs that complement the tariffs and provide customers with the ability to make more informed decisions about how to reduce their consumption and best manage their energy needs.

Current DSM Programs

The Company currently offers several DSM programs including DSM related rate tariffs and a rebate program for Compact Fluorescent Lights (CFLs) as discussed below.

Standby Generation (SG) Tariff

The Company currently offers DSM related rate tariffs that provide incentive payments for dispatchable load reductions that can be called on by the Company when capacity is needed. 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 customer's standby generator. The customer receives a bill credit based on contracted capacity level and average capacity generated during a billing month when SG is requested. During a load reduction event, customers taking service under the SG tariff are required to transfer load to their on-site backup generator.

Curtailable Service (CS) Tariff

The CS tariff requires participating customers to reduce their electric demand when requested by the Company in return for a rate reduction credit. Customers commit to curtailment upon a 30-minute notice in order to receive the rate credit. Customers participating in the CS tariff rate are required to reduce load to a firm service level.

CFL Price Reduction Program

In partnership with Honeywell and the Home Depot, the Company provides an instant discount of $1.50 on single-packs and $3.00 on multi-packs of ENERGY STAR® qualified CFLs purchased at select Home Depot stores in the Company's Virginia service territory. The discount is provided automatically at the register; no coupons are needed.

Current Pilot Programs

On September 18, 2007, the Company filed with the Virginia State Corporation Commission (Virginia SCC or Virginia Commission) an application requesting expedited approval of a plan to implement nine new Pilots in the Company's Virginia service territory. The Virginia Pilots are designed to test aspects of energy conservation, consumer education, demand response (DR), and load management.

Five energy conservation and four demand response pilots were approved by the Virginia SCC by Final Order on January 17, 2008 in Case No. PUE-2007-00089. The Virginia Commission found that these Pilots were necessary in order to gather information to help the Commonwealth determine methods to achieve the Virginia Energy Plan goal of reducing energy consumption 10% by the year 2022. General Pilot descriptions follow; a detailed description of each program is also available at:
http://dnet.dominionnet.com/dvp/energy_conservation/index.jsp

Residential Energy Audit Pilot

Through a detailed on-site evaluation, residential customers participating in the Pilot are provided with recommendations on energy conservation measures that, if performed, will assist the customers in the efficient consumption of energy in their homes.

Commercial Energy Audit Pilot

Through a detailed on-site evaluation, small commercial customers participating in the Pilot are provided with recommendations on energy conservation measures that, if performed, will assist the customers in the efficient consumption of energy in their businesses.

ENERGY STAR® Qualified Homes Energy Audits Pilot

The ENERGY STAR® Qualified Homes Energy Audits Pilot allows the Company and its agents to work with home builders and developers to conduct in-home inspections to ensure their designs meet ENERGY STAR® requirements. Participating builders receive reimbursement for reasonable expenses, up to $750, for obtaining a Home Energy Rating System (HERS) score that meets or exceeds the minimum requirements for ENERGY STAR® certification. During the inspection, a professional auditor uses a variety of techniques and equipment to determine the HERS rating of the customer's home. Among other things, goals for this Pilot include achieving an understanding of the level of interest in the marketplace for ENERGY STAR® homes and customers' willingness to pay more for homes that meet energy efficiency standards.

Energy Conservation Welcome Kit Pilot

Energy Conservation Welcome Kits were distributed to residential customers in order to provide introductory information on how to achieve a higher level of energy conservation. The kits provide information on the energy conservation and DR Pilots currently offered to customers. Also included in the kit are several free items: a multi-pack of CFLs, a low flow showerhead, a light switch and receptacle insulating gaskets, and weather-stripping that can be installed by the customer.

Power Cost Monitor (PCM) Pilot

The PCM Pilot involves the use of an in-home device from which customers will gain awareness of the cost of energy consumed in the home on a real-time basis. The PCM shows the amount of electricity being consumed and the real-time cost of that consumption in an easy-to-read format. The display also shows the current time, outside temperature, and rise and fall of energy costs.

Direct Load Control (DLC) Outdoor Air-Conditioning Control Device Pilot

The Company's DLC Outdoor Air-Conditioning Control Device Pilot is designed to test the operating cycles of customers' whole-house air-conditioning units using control device switches attached to the outdoor units. The Company uses the switch to cycle the central air-conditioning system on and off for a variety of control strategies during peak load periods.

Programmable Thermostat Indoor Air-Conditioning Control Device Pilot

The Programmable Thermostats Indoor Air-Conditioning Control Device Pilot allows the Company to cycle customers' central air-conditioning systems on and off and shift the temperature settings in customer homes up or down during peak load periods.

Programmable Thermostat with AMI and CPP Pilot

The Programmable Thermostats with Advanced Metering Infrastructure (AMI) and Critical Peak Pricing (CPP) Pilot allows the Company to cycle customers' central air-conditioning systems on and off and shift temperature settings up or down during peak periods. The technology and equipment used in this Pilot allow for two-way communication with customers' homes. Customers are provided signals on their thermostats via a lighting system: the thermostats display a green light during non-event periods, a yellow light starting at midnight on the day of an event, and a red light during the actual critical peak event. This system allows customers to adjust their energy usage according to the prices for energy they are willing to pay under the CPP rate schedule. The Company hopes to determine whether customers are willing and able to change their energy usage patterns during critical peak times when energy costs are greater.

Distributed Generation Pilot

The Company has developed agreements with customers for backup generators to be installed at participants' facilities to be used as replacement power for facilities that are curtailed at utility-specified times. By participating in the Pilot, customers receive an incentive payment from the Company for both demand and energy to help defray the cost of equipment and fuel. A minimum of a 30-minute notice is provided to the customer for start and end times. Unlike other Pilots, the Distributed Generation Pilot requires a lead time of a number of months between enrollment and installation due to the time required for delivery of equipment and installation of the appropriate switchgear at customer convenience.

In addition to the Pilots, on June 19, 2008, the Company announced an energy conservation plan that is part of its "Powering Virginia" strategy to meet the future energy needs of its customers. A key component of the plan is the installation of "smart grid" technologies that will enhance the electric distribution system to meet the increasing needs and expectations of customers. This technology will allow energy to be delivered more efficiently and will result in significant energy savings by allowing more precise control of energy flow. This energy conservation plan is expected to achieve several positive results, including customer savings of $1 billion over the next 15 years, carbon emission reductions of 12 million tons, and improved electric system reliability.

Proposed DSM Programs

The Company filed a comprehensive list of 16 DSM programs as part of its 2008 North Carolina IRP. The proposed listing of programs demonstrates how the Company plans to meet the growing demands of energy consumption through the implementation of energy conservation and DR programs. The proposed programs described in this section are intended to be implemented after they have been approved by the NCUC and Virginia SCC.

Residential Air Conditioner Direct Load Control Program

Similar to the DLC Outdoor Air-Conditioning Control Device Pilot, this full-scale program provides an external one-way radio frequency cycling switch operating on central air conditioners and heat pump systems. Customers who enroll in this program will allow the Company to cycle their central air-conditioning systems during peak load periods. An annual incentive, such as a credit on the electric bill, will be provided to participating customers.

Commercial Distributed Generation (DG) Program

Like the Distributed Generation Pilot, this program will utilize a third party to install, maintain, and dispatch on-site generators at customer sites when called upon by the Company

during times when the electrical grid system is at or near its peak. Program participants will receive incentive payments for demand and energy to help defray the cost of equipment and fuel.

Curtailment Service Program

This program as structured will allow a contractor to directly control energy consuming assets at commercial customers' end-use facilities in order to reduce peak demand and conserve energy. Customers with existing standby generators and/or potential curtailable load are eligible to participate. Customers must have a minimum of 20 kW of curtailable load and will be provided an annual incentive per kW of curtailable load.

PJM Demand Resource Program

This program allows customers who register through a Curtailment Service Provider (CSP) to reduce demand when requested by PJM. Payment to the customer for reducing load during a curtailment event is based on the reliability pricing model (RPM) auction results and paid on per kW increments. All Virginia customers in the Dominion Zone (DOM Zone) with an aggregated load of greater than 100 kW are eligible to participate. Participant payments will be made through the CSP.

PJM Interruptible Load for Reliability Program

This program allows customers who register through a CSP to reduce demand when requested by PJM. Payment to customers for reducing load during a curtailment event is based on the RPM auction results and paid on per kW increments. This program is similar to the PJM Demand Resource Program except that capacity for this program can be bid into the PJM market four months before the delivery year. All Virginia customers in the Dominion Zone or DOM Zone are eligible to participate, with payments made through the CSP.

PJM Economic Load Response Program

This program allows eligible customers to participate in load reduction in exchange for payments from PJM. Customers who have an on-site generator or the ability to reduce a measurable amount of load are eligible to participate and must respond to real-time or day-ahead locational marginal prices (LMPs) to make purchase decisions. Customers will be compensated for load reductions based on the difference in their consumption when compared to baseline usage, based on the LMP for the DOM Zone. All Virginia customers in the DOM Zone are eligible to participate, with payments made through the CSP.

Residential Power Cost Display Monitor (PCDM) Program

Similar to the PCM Pilot, participants in this program will receive a PCDM that will be pre-programmed with Company utility rates and the capability to monitor real-time energy consumption and cost. A one-time incentive rebate toward the PCDM unit cost will be provided.

Residential High Efficiency Heat Pump Program

This program will give customers an incentive to upgrade their heating and cooling systems to more efficient units. Customers will replace their existing heat pumps with similar units of greater than nationally mandated Seasonal Energy Efficiency Ratio (SEER) and Heating Seasonal Performance Factor (HSPF) ratings. Participants will be given a one-time incentive, based upon the efficiency upgrade and the installation configuration.

Residential ENERGY STAR® New Homes Program

Like the ENERGY STAR® Qualified Home Energy Audits Pilot, this program provides an opportunity for the Company, a proud partner of ENERGY STAR®, to work with home builders and developers to conduct in-home inspections to ensure homes meet ENERGY STAR® standards. ENERGY STAR® is a joint program of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). This program will be available to all residential new home builders, with a one-time incentive paid toward the construction of single- or multi-family homes.

Residential Heat Pump Tune-Up Program

This program enables customers to tune-up their existing heat pumps and achieve maximum operational performance. Single- and multi-family homes with electric Heating, Ventilating, and Air Conditioning (HVAC) systems consisting of a heat pump with electric backup are eligible. The program provides customers with a one-time incentive per unit.

Residential CFL Program

This program will extend the Company's residential CFL program that began in 2007. It will continue and expand the CFL program to partner with manufacturers and retailers to provide customers with an instant rebate for high-efficiency lighting purchases. Single- and multi-packs of CFLs will continue to be discounted at the register when purchased at participating retail stores.

Commercial Heating, Ventilating and Air-Conditioning Program

This program will encourage commercial customers to upgrade their HVAC systems to ensure maximum efficiency and lower energy consumption. Participants will receive incentives that will buy down their upfront efficiency improvement premiums.

Commercial Lighting Program

This program will enable commercial customers to install more efficient lighting systems. The program promotes energy efficient lighting solutions that cost less to operate, and it provides an incentive toward the purchase and installation of lighting upgrades.

Residential Low Income Energy Audit & Measure Improvements Program

This program will provide low income homeowners with an on-site energy audit to identify and correct areas within residences to help reduce monthly energy bills. Energy auditors will implement energy-saving measures while in the home. Participants will receive a one-time incentive that will pay for the audit and the improvements. These measures include sealing the thermal envelope, adjusting domestic hot water heater temperatures to 120°F, installing an R-4 insulation wrap on the water heater, changing the showerhead from 2.2 GPM to low flow 1.8 GPM, and installing incandescent lighting changed to CFLs.

Residential Refrigerator Turn-In Program

This program will provide customers with a one-time cash incentive for disposing of a second 20+ year old inefficient refrigerator still drawing power. The Company will pick up and properly dispose of the refrigerator at no cost and in an environmentally friendly way.

Conservation Voltage Reduction Program

This program involves lowering the voltage across the Company's distribution circuits within the allowable delivery range (114 to 126 volts) during off-peak hours. The program is dependent on the future deployment of automated metering (AMI or Smart Grid) infrastructure to provide hourly voltage and energy monitoring. The objective of this program is to conserve energy by reducing voltage for as many residential and commercial customers as possible served by normal 120-volt service. All customer classes will benefit from reduced energy consumption.

Consumer Education Programs

The Company's educational initiatives include providing demand and energy usage information, education, and on-line customer support options to assist customers in managing energy consumption. Through consumer education, the Company is working to encourage the adoption of energy efficient technologies in residences and businesses.

Conservation communication efforts, such as customer newsletters, and on-line tools and tips are used to help customers control and reduce their energy use, lower electric bills and help the environment. Additionally, the Company has partnered with the U.S. EPA / DOE ENERGY STAR® program to help educate customers about using energy-efficient appliances and making energy-efficiency improvements at home.

The Company's website has a page entitled, "Energy Conservation and the Environment," with helpful information for residential and non-residential customers. Examples of how the Company increases customer awareness include:

Every Day

The Company's.Corporate Communications department is credited with "Every Day," a 30-second television commercial and print ad that addresses the importance of energy conservation and renewable energy. This ad can be viewed through the Company website.

Customer Connection Newsletter

The Customer Connection newsletter is sent to customers as an insert to their monthly power bills. It contains news on topics such as conservation programs, how to save money or manage electric bills, helping the environment, and safety recommendations. The most recent newsletter is on-line at: http://www.dom.com/customer/vares_past_connection.jsp

News Releases

The Company prepares news releases and reports on the latest developments on Company conservation initiatives and provides updates on Company offerings and recommendations for saving energy as new information becomes available. Current and archived news releases can be viewed on the Company's website at: http://www.dom.com/news/index.jsp

Outreach Seminars

The Company's employees conduct outreach seminars, during which they share energy conservation information to both internal and external audiences. Company employees give presentations and helpful materials about wide use of energy and environmental stewardship to elementary, middle, and high school students. The seminars also provide helpful materials for students to share with their families.

On-Line Energy Calculator

Home and business energy calculators are provided on the Company website to estimate electrical usage for residences and business facilities. These help customers understand specific energy use by household or location, compare and analyze bills from month to month, and discover new means to reduce usage and save money. The energy calculator is available on-line at: http://www.dom.com/customer/efficiency/energy_audit.jsp.

CFL Education

The Company's website includes helpful facts about how to use CFLs, a list of participating Home Depot stores, information about which CFLs are eligible for the discount program, and frequently asked questions about the use of CFLs. It also provides information on increasing the environmental benefits of CFLs by recycling old ones. Information is available on the Company's website at: http://www.dom.com/customer/efficiency/res/cfl_program.jsp

Energy Efficiency Blog

The Company has an "Energy Efficiency Blog," which is an on-line forum for Company experts to answer customer questions on energy-related topics and provide specific examples of measures to take that will help customers reduce energy consumption. The blog is located at: http://e-conserve.blogspot.com/

Energy Saving Tip of the Day

The "Energy-Saving Tip of the Day" gives a specific suggestion on how to save energy in customers' homes and businesses. It also directs customers to organizations and agencies which relay helpful information on a variety of energy conservation related topics. The entire list of tips is located at: http://www.dom.com/customer/efficiency/res/tips_index.jsp

Trade Shows, Exhibits, and Speaking Engagements

Through trade shows, exhibits, executive speaking engagements, and the like, the Company strives to emphasize and inform customers and communities about the importance of implementing energy-saving measures in homes and businesses.

Future promotion of DSM programs will be communicated through mass marketing and advertising. The messages will communicate the monetary savings, environmental benefits, and the technology used with the Company's DSM programs. Through consumer education programs, the Company aims to help customers understand their energy-usage patterns, the cost of their choices, and what it will take to achieve sustainable energy savings.

OPERATIONS – CONSERVATION/ENVIRONMENTAL INITATIVES

Introduction

The following discusses the Company's overall efforts related to its focus on environmental stewardship which includes initiatives to conserve energy in its internal operations pursuant to § 56-235.1 of the Code of Virginia. The Company's environmental commitment is multi-faceted. It includes charitable giving, volunteer community service, partnerships with environmental groups and government agencies, and capital spending to protect air and water, conserve resources, and reduce waste from its operations, among other actions.

In supporting the very basics of maintaining compliance to demonstrating environmental stewardship in all areas where the Company operates requires employees who are dedicated and trained for the task. The Company, therefore, ensures that employees are trained to follow established procedures to inspect, monitor, and maintain equipment to minimize the impact of the Company's operations on the environment.

The Company does not view environmental responsibility as only about controlling emissions but also about conserving resources, such as energy and water, as an important component of a company-wide response. The Company also works to conserve energy in its generation and in-house consumption and has implemented several energy conservation projects. Examples of these projects and other environmentally focused projects are described in the following sections.

Facilities

Facility operations have the "first-line" of environmental compliance responsibility. One or more environmental professionals at each major facility support the Company's operations in maintaining and improving environmental efficiency. The Company has undertaken steps to improve efficiency and conserve energy in its internal operations by installing the following:

- White ThermoPlastic Olefin (TPO) membrane systems over 2" - 3" polyiso foam used during roof repairs and replacements;
- Variable speed drives on large air handling units allow fan speed control as needed, which reduces the starting load of the motor;
- Solar film on windows to decrease heat infiltration and to increase the efficiency of air-conditioning operations;
- Water-saving toilet fixtures;
- Modifying existing lamps (relamping);

- Light sensor activated switches in conference rooms; and
- Energy Management Systems to control lighting and HVAC systems during after hour operations.

The Company's Preventative Maintenance Programs have been designed to maintain equipment in peak operating condition, which enhances the life of the equipment and delays replacements. Additionally, facilities personnel verify that facility blinds are closed on high peaking days.

Moreover, the Company is currently renovating the Company occupied floors of its newly acquired 8th and Main building in Richmond, VA. The designs for the renovation include energy conservation and Green initiatives such as:

- New air handler HVAC unit installation on occupied floors;
- Variable Air Volume (VAV) distribution to the floors;
- Building Management System installation to better control overall energy usage;
- Occupancy sensor controlled light fixtures installations in restrooms and conference rooms;
- The recycling of demolition material;
- The use of recycled materials in new office furniture systems;
- The use of motion sensors in restroom faucets to conserve water and energy;
- The use of an efficient, staged outside Air Handling Unit designed to pre-condition outside air prior to building supply; and
- An open floor plan to maximize the natural light in building interiors, reducing the number and wattage of lighting fixtures needed.

New Lighting/Light Quality

Each of the Company's employee-occupied buildings in the electric service territory has completed the Green Lights Program. The Green Lights Program is a project implemented by the EPA and adopted by the Company in the early 1990s. The program began the initiative of retrofitting all fluorescent fixtures from electromagnetic ballasts and T-12 lamps to the more efficient electronic ballast and T-8 lamps. All removal and disposal of lamps and ballasts was done in compliance with all environmental guidelines and regulations. Approximately 2,200,000 square feet were retrofitted, providing a demand savings of 1,835 kW with an energy savings of 8,775 MWh per year. Additionally, occupancy sensors were liberally installed to turn lights on and off based on occupancy.

Moreover, office and non-emergency lighting systems have been installed at One James River Plaza (OJRP), the Company's Tredegar and Innsbrook offices, and the Company-occupied floors of 8th and Main. These lighting systems have been programmed to cycle to half lighting at

a prescribed time and completely off at another specified time. Other company locations have Building Management Systems to control lights, motors, air handling equipment, and other electrical devices from remote locations and/or through the use of timers.

Additionally, the Company is currently testing Light-Emitting Diode (LED) lights for some of the corporate branding signage and interior directional signage. Lighting replacement projects are also being implemented to replace incandescent lighting with high efficiency T-8, T-5, and CFLs in employee-occupied buildings, garages, and warehouses.

Water Conservation

The Company has addressed water use reduction projects such as the reduction of city water use, the reduction of water used in plant systems, and the reduction of river water used in the clarified water system at Company facilities. These programs have allowed the Company to reduce city water consumption at various facilities by approximately 115 million gallons per year by tightening seals, valving out redundant equipment, and installing flow meters and current detectors.

In another project, the Company has saved 31 million gallons of water per year by replacing pumps with updated designs that eliminated the need for city water, installing recycle tanks to recycle water, and installing overflow detectors, which reduced flow of water into systems. At another site, the use of river water was reduced by 157 million gallons per year through improved preventative maintenance in the clarified water system and installation of a three-way valve, which allowed water to be recycled.

Additionally, the Company is utilizing treated water from Chesterfield County's waste water treatment plant to supply the slurry water makeup for the operation of its new Flue Gas Desulfurization (FGD) at its Chesterfield Power Station. The Company currently has a contract in place with Chesterfield's Proctors Creek Wastewater Treatment Plant allowing it to receive recycled water and use it to generate electricity and reduce pollution.

Heating, Ventilating, and Air Conditioning

All corporate buildings and many field sites have a web-based, open protocol system called Tridium that allows facilities personnel to remotely operate lighting and HVAC systems. Also, energy efficient HVAC units are installed when existing units are replaced.

Biodiesel

In October of 2007, the Company initiated a pilot program to begin utilizing B20 biodiesel to fuel district operations diesel vehicles and equipment. By utilizing biodiesel as a fuel

source, the Company will reduce its vehicle fleet's green-house gas emissions footprint and support the development of improved renewable energy sources. Additionally, as a result of the value chain involved in the production of biofuels, it is projected that 90% of the cost to produce the biodiesel stays in the fuel's state of origin.

The intent of the pilot was not only to test the performance of the fuel itself, but also to assess the logistics, storage, and economics of biodiesel as a fuel source. Biodiesel has different cold weather performance characteristics than standard diesel fuel, so it was important to gather fuel performance data during the winter months.

The Company's M & S Center Central Warehouse (on Castlewood Road in Richmond) was chosen as the first pilot location. The East Richmond District office on Charles City Road was the second pilot site. These sites were selected based on their consistent fuel/vehicle usage and their proximity to viable biodiesel manufacturers, one of which is located in Richmond, Virginia.

Since the pilot program proved successful, in March of 2008 the Company initiated a program to implement biodiesel across all Company sites (36 total locations in Virginia and North Carolina). Estimated annual volumes across the Company could reach two million gallons of biodiesel. Through the collaboration of Supply Chain, Fleet Maintenance and the local District operations, as of October 13, 2008, the Company has 13 sites receiving biodiesel fuel with approximately 264,000 gallons consumed to date. The remaining Company fueling locations are currently being prepared and are projected to start receiving biodiesel by the end of calendar year 2008.

Alternative Fuel Vehicles

Hybrid Bucket Trucks

As hybrid vehicle technology has begun to evolve, expanding its presence into the utility truck arena, the Company has begun to explore the purchase of hybrid aerial lift trucks to incorporate into its service fleet. As a current customer of International Truck, the Company has focused its attention on the International/Eaton Hybrid "Bucket" Truck solution. The result has been the purchase of two 2009 International Model 4300 Hybrid 42-foot aerial lift trucks, which are to be delivered at the end of 2008. These hybrid vehicles run off of an Eaton hybrid drive system containing multiple 340-volt, 50 kW Li-Ion batteries to power the vehicles in electric mode. Duty cycle tests on early production hybrid utility trucks have produced up to 60% in fuel reductions under certain operating conditions. Tests have also produced up to an 87% reduction in idle-time, including both on-road and job-site idling. Fuel use reductions lead to direct emissions improvements, resulting in reductions in the Company's total carbon footprint.

In addition to the environmental benefits, this hybrid technology has the potential to reduce maintenance costs due to less wear on the engine and braking components as well as the reduction in job-site noise, which is enabled by being able to shut off the vehicle engine while still being able to run vehicle systems (e.g., the aerial lift) off of the electric battery.

Toyota Plug-In Conversions

The Company also purchased two 2009 Toyota Prius vehicles, which will be converted to Plug-In Hybrid Electric Vehicles (PHEV) by the end of 2008. Once converted, these vehicles will be able to run off a battery system which has an approximate 40-mile range. Once the battery is depleted, the vehicle will operate in standard fuel mode. The battery can be charged through connection to a standard 110-volt outlet. Actual fuel reductions achieved will depend on operation of the vehicle. Projections depict savings of approximately $915 per vehicle (as compared to the Company's standard compact sedan) per year, including the cost of electricity. The vehicles will be used primarily in metropolitan areas (i.e., city driving) which should maximize the value proposition of the PHEV system.

Flex Fuel Vehicles

The Company began to acquire Flex Fuel Vehicles in 2007. Flex Fuel vehicles have the capability to run on E85 gasoline (85% ethanol) and/or standard gasoline. For model year 2008 and beyond, the Company will only be specifying Flex Fuel engines for its GM vehicle acquisitions. The current retail availability of E85 fuel is sparse in most all of the Company's operating territories. In order to utilize E85 fuel, fleet end-users essentially have to establish dedicated infrastructures to service their fueling needs. As Flex Fuel vehicles become the most prevalent part of the Company's fleet, establishing dedicated Company E85 fuel locations will be an opportunity it may explore.

EPAct

As an electric utility, the Company is considered an Alternate Fuel Provider as it pertains to vehicle fuel sources. As such, the Company is required to comply with the Energy Policy Act of 1992 (EPAct). Through this legislation, the Company is required to ensure that a calculated portion of its annual fleet vehicle acquisitions are vehicles powered by alternative fuels. If the Company exceeds the calculated acquisition requirement, credits can be awarded for every vehicle it acquires beyond its requirements. As the Company has continued to exceed its annual requirements, it has accrued a credit balance to date. These credits can be utilized to satisfy future requirements in years where the Company may have a deficiency.

The Company is currently exploring the possibility of transitioning to an Alternate Compliance Plan as early as 2010, which presents new opportunities to satisfy the requirements

of EPAct. With this Alternate Compliance Plan, opportunities have arisen to implement new petroleum fuel reduction strategies such as the use of Hybrid vehicles, specific idling reduction programs, or reducing fleet vehicle miles traveled.

Solid and Hazardous Waste

The Company strives to minimize the amount of hazardous waste generated and protect the environment through full compliance with all applicable waste regulations.

Recycling

Recycling is a valuable tool for minimizing the Company's environmental footprint. The Company is making a concentrated effort to energize its current recycling programs and launch new ones. These programs vary based on the location and type of facility but include scrap metals, scrap papers, and wood, among others as seen in Table 5.

Table 5 Recycling

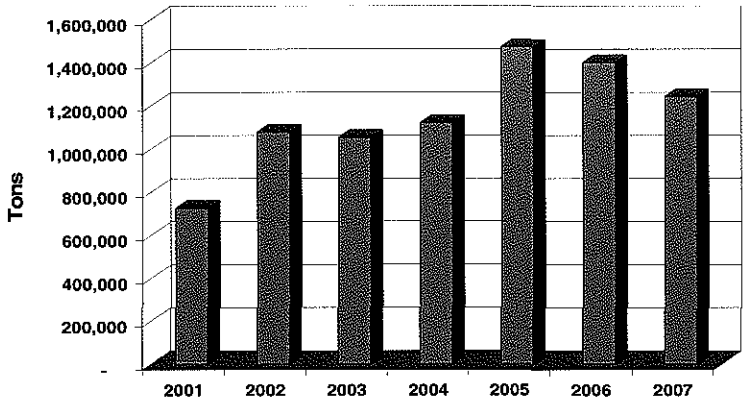
Waste Type	Amount (in Pounds)
Coal combustion byproducts	2,718,132,580
Used oil sent for reclamation/reuse	21,573,729
Scrap metals – mixed	9,735,019
Scrap metals – steel	3,800,232
Used oil burned for energy recovery	3,171,577
Scrap metals – aluminum	2,117,883
Wood/Paper – mixed paper	1,171,202
Scrap metals – transformers	1,676,000
Scrap metals – substation breakers	1,595,365
Other – anti-freeze, glycols	716,194
Wood/Paper – wood pallets	636,405
Wood/Paper – cardboard	274,880
Batteries – lead-acid	134,109
Scrap metals – empty metal drums	78,600
Other – computer equipment	42,024
Other – electric meters for refurbish and reuse	30,344
Fluorescent lighting, high-intensity discharge lamps	21,917
Batteries – NiCd, Lithium	1,224
Mercury from equipment	450

Note: Since the Company's partnership/data tracking for WasteWise is Dominion-wide, these numbers reflect recycling efforts for all business units within Dominion.

Coal Combustion Byproducts

Coal Combustion Byproducts (CCBs), primarily fly ash and scrubber wastes, are generated at the Company's coal-fired power plants. CCBs have been used in numerous construction-related applications for many years, including fill for construction projects and in mine reclamation. The Company has actively sought out beneficial uses for its CCBs that are technically feasible and economically viable in order to avoid using up landfill capacity for ash and scrubber wastes disposal. CCB reuse between 2001 and 2007 has increased significantly, with more than 1.2 million tons reused in 2007. Table 6 shows the amount of CCB that has been reused since 2001.

Table 6 CCB Reuse



Ash Management

The Company has installed Carbon Burn-out™ systems at its Chesapeake Energy Center in Virginia. As part of the ash management program, systems recover the energy from the carbon-rich fly ash generated at coal burning facilities and produce an ash product suitable for beneficial reuse. Additionally, energy, which would otherwise be lost by landfilling, will be recovered, improving power plant efficiency.

The systems will reduce the carbon content and the ammonia content in the fly ash the Company generates during the production of electricity. Moreover, the recovered energy will be used for electricity production, reducing the need to burn more raw coal.

In 2008, the Chesapeake Energy Center in Chesapeake, Virginia was recognized for its Carbon Burn-Out process proprietary technology in which fly ash is processed and reused as a partial replacement for Portland cement in concrete and blended cements. The awards recognize the significant contributions of environmental and conservation leaders in three categories: environmental projects, environmental programs, and land conservation.

Air Quality

Air Emissions

The Company has reduced emissions of key air pollutants, while its electric generation output has remained relatively constant since 2000.

In April of 2003, the Company finalized a landmark agreement with the EPA and five states, committing to a 12-year, $1.2 billion program to significantly reduce air emissions across its coal-fired generating fleet in Virginia and West Virginia. Under the program, the Company agreed to install sulfur dioxide scrubbers and Selective Catalytic Reduction (SCR) technology for nitrogen oxides on its largest coal-fired units and upgrade the removal efficiency of current scrubbers and particulate matter controls.

The Company has started implementing elements of this agreement, including the completed installation and operation of two new wet limestone scrubbers with 95% removal efficiency at its Mount Storm Power Station in West Virginia. These scrubbers collectively remove 100,000 tons of sulfur dioxide emissions per year.

The two new scrubbers, along with the existing Unit 3 scrubber which has been operational since 1995, are positively benefiting the air quality in environmentally sensitive areas such as Shenandoah National Park in Virginia and the Dolly Sods and Otter Creek Wilderness areas in West Virginia.

CO_2 Emissions

The Company continues to take steps to voluntarily reduce greenhouse gas emissions by using a variety of less carbon-intensive generating technologies and improving the overall efficiency of its generation mix. In 2003, the Company retired two oil-fired units at its Possum Point Power Station in Northern Virginia replacing them with 550 MW of new state-of-the-art combined cycle technology. The Company also converted two coal-fired units (322 MW) at Possum Point to natural gas firing. Since 2000, the Company's CO_2 emission intensity (measured in tons of CO_2 emitted per net MWh generated) has decreased by more than 3%.

Additionally, the Company has undertaken a number of initiatives to reduce or avoid greenhouse gas emissions, including projects to sequester carbon, reduce gas transmission pipeline emissions, improve efficiency in electric generation operations, and reduce emissions of sulfur hexafluoride (SF_6) in electric distribution operations. The Company is actively participating in several voluntary programs including DOE's Power Partners Program and Voluntary Reporting of Greenhouse Gas Emissions and Reductions Program.

Table 7 GHG Emission Reductions

Commodity	Amount of Waste Prevented and Recycled (pounds)	GHG Reductions (MTCE)
Metals	19,084,493	16,972.41
Other	2,795,149,202	164,167.82
Paper	1,450,055	594.1
Plastics	1,133	0.24
Total	**2,815,684,883**	**181,734.58**

Note: Since the Company's partnership/data tracking for WasteWise is Dominion-wide, these numbers reflect recycling efforts for all business units within Dominion.

NO_x Emissions

Nitrogen oxide (NO_x) controls, called SCR systems, have been installed on several of the Company's largest coal-fired units. Recent and planned construction of new generation facilities in Virginia will include state-of-the-art controls to minimize emissions of nitrogen oxides and volatile organic compounds.

SO_2 Emissions

In 2002, the Company put into service two new scrubbers at Mount Storm Power Station, which allowed for further reduction of sulfur dioxide (SO_2) emissions beyond the existing scrubber on Unit 3. Additionally, the completion of the repowering of the Possum Point Power Station in early 2003 contributed to a further reduction in SO_2 emissions. A scrubber for the largest unit at Chesterfield Power Station became operational in 2008 and plans for scrubbers on the other three units at Chesterfield are expected to be in operation in 2010. When the scrubbers are fully operational, Chesterfield will achieve more than a 95% reduction in SO_2.

Outdoor Environment

The Company has been involved in a wide range of projects and programs to conserve important elements of the environment. These projects have resulted in more than 1,000 acres protected in conservation easements, 46,000 acres of reservoirs and lakes created and protected, and 600 acres of wetlands created or restored. Additionally, 2,000 acres of land are managed for wildlife habitat enhancement.

Birds

The Company is an industry leader in protecting migratory birds, such as eagles, hawks, and owls from the potentially harmful effects of power lines. Additionally, the Company is an original member of the Avian Powerline Interaction Committee, a public/private partnership whose members include the U.S. Fish and Wildlife Service and the National Audubon Society.

Plants

The Company collaborated with the Virginia Department of Conservation and Recreation's Natural Heritage Department to identify and protect colonies of rare plants on the Company's various rights-of-way. To date approximately 129 sites all containing extremely rare plants have been noted and specific management plans have been adopted to protect those sites.

Land

The Company has been a member of the River Star Program of the Elizabeth River Project since 2000. The overall goal of the program is water quality improvement and habitat enhancement of the Elizabeth River. The Company entered into a land conservation agreement including about 52 acres of wetlands located at the southwest of the power station. The Elizabeth River Project has been recognized as an achievement level "River Star" for its efforts with this project.

The Elizabeth River Project recognized the Chesapeake Energy Center as a facility that led the community in environmental stewardship through exceptional results in pollution prevention and wildlife habitat and mentoring others. Over its nine years of participation in the Elizabeth River Project, the facility has installed equipment to allow its fly ash to be used as a cement additive instead of being sent to a landfill, upgraded stormwater systems, improved fugitive dust controls, reduced nitrogen oxide emissions by 74% and placed 24% of the property into a Land Conservation Understanding.

The Company also donated 477 acres of extraordinary ecological habitat called Bear Rocks, to The Nature Conservancy of West Virginia. The land, located adjacent to the Dolly Sods Wilderness Area, will be used in perpetuity for conservation purposes. Lastly, the Company has made contributions in land and services to help establish the 800-acre conservation area known as Dutch Gap, which is adjacent to the Chesterfield Power Station.

Green Efforts

Green IT

The Company's Information Technology (IT) department is also working toward a more environmentally friendly computing environment. IT continually strives to gain efficiencies and cost savings while reducing environmental impacts. Since 2006, all new desktops, laptops, and printers ordered within the Company's fleet are ENERGY STAR® compliant or certified. Additionally, the Company's primary data centers underwent significant redesigns in 2007. These changes eliminated areas above ambient temperatures created in the Company's larger data centers and increased the data centers' power and cooling efficiencies. The estimated annual energy savings from this project alone is 52,560 kWh. The total estimated annual Green IT

savings for 2008 are 5,395,773 kWh. IT recently initiated a program that will add to green savings by automatically turning off up to 15,500 company computers each night. Moreover, the Company's IT disposal vendor has a "no landfill" policy, resells almost all of the Company's disposed assets for continued use, and recycles all others in an environmentally responsible manner. Furthermore, the Company's IT department is currently partnering with the Federal Reserve Bank of Richmond to help reduce the environmental impacts of the bank's data center.

Green Fleet

The Company's intranet site gives tips to employees regarding gas savings tips including advice on using vehicle air-conditioning, tips on the optimal speed to drive, tire pressure, tune ups, and many more.

Nuclear Green Team

In July of 2008, the Company formed a group of employees called the "Nuclear Green Team." This group of environmentally aware nuclear employees identifies, assesses, and recommends actions to make the Company more environmentally responsible and verify that the Company is wisely using its natural resources.

Employee Education

The Company believes education and awareness of energy conservation begins with its employees. In October of 2008, the Company had a weeklong celebration of energy conservation in which employees learned ways to conserve energy and heard about the programs the Company offers to educate its customers. The internal awareness week included an energy conservation theme in its internal newsmagazine, weatherization projects, a drawing for home energy conservation kits, conservation tips of the day, and much more. In late October of 2008, approximately 100 volunteers will participate with ElderHomes in a week-long volunteer project to weatherize 20 houses in the Richmond area.

Environmental Stewardship

Sound environmental stewardship must have the commitment of consistent, corporate emphasis as shown through the Dominion Foundation and its employee's volunteer efforts.

Dominion Foundation

Along with other affiliates of Dominion, the Company has shown environmental stewardship through the Dominion Foundation which awards grants to schools in order to support energy conservation and recycling initiatives as well as in support of on-going research into alternative energy sources, energy conservation, and cleaner ways to use traditional

resources. This foundation supports a wide range of environmental, educational, cultural, community development, and health and human services efforts. The Dominion Foundation awards nearly $320,000 in educational grants to 60 schools and institutions in eight states through its annual Educational Grants Partnership Program. To date, the foundation has awarded more than $2.2 million in educational grants since the program began in 1996. In 2008, Dominion will award partnership grants in a 10-state area with individual awards ranging from a few hundred dollars to $10,000.

Volunteerism

The Company's annual "Putting Our Energy to Work for the Environment" project day allows Company employees to clear trails, refurbish nature centers, and plant trees at local parks and natural areas every fall. This award-winning program is one of many ways Company employees demonstrate in a very tangible and personal way their commitment to environmental protection.

In addition to managing operations in an environmentally responsible way and engaging with other stakeholders on public policy issues, the Company contributes to a healthy environment through its participation in numerous programs and projects focused on environmental protection and conservation. By working cooperatively in a variety of settings, the Company and its employees demonstrate a visible commitment to a healthy environment and strong communities.

Conclusion

This report provides a snapshot of the current plans and programs available to the Company's customers and its internal operations. Additionally, the Company is evaluating other energy conservation and demand reduction initiatives, including new rate designs to provide better pricing signals to customers and new technologies that may be able to leverage any "smart grid" investments such as those that allow customers to better understand and manage the energy costs of individual appliances and support "on-site" or distributed customer generation and future plug-in hybrid electric vehicles. The Company is committed to supporting Virginia's goals in regard to energy conservation and renewables and will be continuously evaluating and considering these and other environmental programs for our customers use within its own facilities and operations to further activities that support the overall goals of the Governor's Virginia Energy Plan.

Appalachian Power Company
2008 Report to VDMME on Energy Efficiency and Demand-side Management

American Electric Power (AEP) and Appalachian Power Company (APCO) both sometimes referred to individually and collectively as the "Company" in this report, are committed to energy efficiency, both within our own internal operations, and externally by helping our customers use electricity in a wise and efficient manner. Both AEP and APCO believe cost-effective demand side management (DSM) customer programs, which could include energy efficiency (EE) and demand response (DR) initiatives, are a key component of our strategy to address the challenge of climate change. These efforts are envisioned to be a resource to keep energy costs affordable and as a way to potentially delay the need for new supply-side infrastructure investments.

American Electric Power has established a self-imposed goal (across all of its subsidiaries, including APCO) of a 1,000 MW reduction in demand by the end of 2012, to be achieved through EE/DSM programs offered to its customers and from internal energy efficiency initiatives. In addition, as part of AEP's *gridSMART*^{SM} initiative, we have an internal goal of installing smart meters in all its jurisdictions by the end of 2015. Further explanation of this initiative is detailed later in this report.

Mindful that the funding to design, implement, and evaluate EE/DSM programs is ultimately borne by all our customers; the Company believes it has a social responsibility to ensure that these efforts make good business sense. In order to fulfill this responsibility, it is the Company's desire to engage in active dialog with our customers, legislators and regulators, community leaders, and other interested parties to explore opportunities, implement solutions, and evaluate results for programs aimed at reducing demand and/or energy. In doing so, these policy principles will be relied upon to guide our decisions as well as our actions:

- *The Company encourages the achievement of demand and energy reductions through a variety of methods.*
- *The Company believes that the cost-effectiveness of EE/DSM activities is crucial to their ultimate long-term success.*
- *The Company considers cost-effective EE/DSM as an important component of its Integrated Resource Plan.*
- *The Company believes that EE/DSM will play crucial roles in meeting AEP's environmental and sustainability goals.*
- *The Company considers regulatory recovery of investments to be a threshold requirement to the implementation of energy efficiency and demand side management programs (both demand and energy related).*
- *The Company believes that the primary responsibility for determining appropriate utility-sponsored programs rests with the individual utility and state government officials and their staffs, taking into consideration the interests of our customers, the Company, and other stakeholders.*

While the Company believes these policy principles to be well-founded, it also understands the need for flexibility in adapting them to specific situations within individual jurisdictions. AEP and APCo has a successful history of working collaboratively with our customers, legislators and regulators, community leaders, and other interested parties to support sound Energy Efficiency/Demand Side Management policy with fiscal responsibility.

AEP's gridSMART[sm] Initiative

APCo, as an operating unit of American Electric Power, has participated in the development of the corporation's ***gridSMART[SM]*** initiative. Begun in 2007, ***gridSMART[SM]*** is a multi-year initiative by AEP and its operating companies that includes a suite of customer programs and advanced technology initiatives that will move AEP into a new era of energy delivery and customer service. Several converging factors make the timing right for these types of advances. These include the following:

- Equipment maintenance needs, the high cost of new facilities to serve growing load, more stringent environmental requirements and increasing fuel and other costs of production are causing electricity prices to increase at an unprecedented rate. The various options provided through ***gridSMART[SM]*** will enable customers to become more energy efficient, reduce demand and manage costs.
- Advanced communications and control technologies are becoming more affordable and more accessible, and easier to use. In addition, a new generation of customers is becoming increasingly comfortable with new technology. The types of systems included in the ***gridSMART[SM]*** effort can provide customers greater control with pricing information to facilitate usage decisions for energy efficiency options. Advanced communications to and from the consumer in near real-time can enable new options for the more efficient management of power generation and use. This two-way communication permits the utility to more efficiently manage generation and distribution of power. It also empowers the consumer by providing them the information and options to proactively manage their power requirements.
- Customers' expectations concerning reliability are changing. Adoption of sensitive electronics through all levels of society has increased the need and expectation for a reliable supply of high quality electric power. New technologies associated with ***gridSMART[SM]*** will help improve service reliability to better match customer expectations.
- Customers also are interested in having greater control over their energy usage. The ***gridSMART[SM]*** capabilities provide more accurate information to facilitate usage decisions, as well as programs and pricing options focused on energy efficiency and demand reduction.
- Consumers are becoming increasingly aware of greenhouse gas emissions and are concerned about sustainable action to address global climate change. Energy efficiency and conservation options are initiatives included in the ***gridSMART[SM]*** effort.
- Demand response initiatives will be needed in order to meet increasing load growth requirements while deferring the need for new base load generation. Advanced Meter Infrastructure (AMI) and Home Area Network (HAN) will enable customers to reduce demand by turning off or cycling appliances.

These factors alone and in any combination are helping drive AEP and APCo's response to what is a dramatically changing landscape of electricity distribution. As another significant benefit of, ***gridSMART[SM]*** these initiatives will help minimize employees' exposure to injuries from work-related accidents.

The process for evaluating ***gridSMART[SM]*** investments includes an evaluation of the current state of the utility assets, energy costs, and infrastructure expansion and replacement plans. The pace of deployment of ***gridSMART[SM]*** technologies will depend on appropriate regulatory models and access to capital.

There are three main components of AEP's gridSMART initiative. These include advanced meter infrastructure (AMI), distribution grid management, and home area networks (HAN), along with the information technology systems that support and integrate each component.

Advanced Meter Infrastructure (AMI)

Three features comprise the AMI system: "smart" meters, two-way communications networks, and the information technology systems to support their interaction. AMI uses internal communications systems to convey real-time energy use and load information to both AEP and to the customer. AMI provides capability to monitor equipment and can quickly convey information about certain malfunctions and operating conditions. It also facilitates customers' ability to achieve benefits related to certain future customer-owned advanced technologies and appliances.

AMI, when paired with tariff options and the HAN, can empower customers to control their energy usage by providing real-time information and usage data, allowing them to better understand their energy consumption and potentially reduce their electricity bill. In addition, AMI can help speed service restoration through better information about the facilities involved. Customers also can receive faster response to service requests, including meter reading and service connection, due to remote execution of those activities.

Because AMI allows for remote connect or disconnect, AEP is able to improve service response and worker safety. Power quality monitoring can improve customer satisfaction while tamper detection capability deters energy theft. Less personal interaction with energized equipment also improves employee and public safety.

Distribution Grid Management

Distribution grid management is an integral part of the ***gridSMART***^{SM} initiative due to the reliability benefits it provides to every customer through the use of advanced technology.

Distribution grid management provides real-time control and monitoring of selected electrical components within the distribution system. The electrical components to be controlled and monitored include capacitor banks, voltage regulators, reclosers, and automated line switches. These electrical components will be connected via a two-way wireless communication system to AEP's dispatch operations center. The capacitor banks, voltage regulators, and reclosers will be equipped with sensors, which provide information on operational status and analog data such as voltage or current. When an interruption occurs, automated switches isolate a circuit by automatically opening (de-energizing) or closing (re-energizing), depending on its location. Customers not directly affected by the fault are immediately transferred to another source, if available, thereby restoring their service sooner. The communication system used may also allow for a pathway for the customers' meters to communicate real-time information.

Distribution grid management can help minimize sustained outages experienced by customers and reduce durations of those outages that do occur through advanced detection and isolation of certain system faults. In addition, it can improve power quality through remote monitoring and control of power regulating equipment.

Distribution grid management capabilities allow AEP to monitor equipment status, detect faults in the distribution system, notify controllers about a fault location and optimize service restoration activities. The technology used provides faster identification of outage locations and equipment involved, automates switching to reroute the flow of power when the normal route has been interrupted, monitors with voltage fluctuation alerts, improves system efficiency

through automated load management and supply and demand matching, and enhances employee and public safety due to less exposure to energized equipment. Distribution grid management enables distributed energy resources to be integrated into the grid and be used to respond to local needs and conditions for greater reliability.

Home Area Network (HAN)

The HAN, located within customers' homes, allows customers to conserve energy and save money through increased information and control of their electric usage. Customers can receive a programmable communicating thermostat (PCT) in their homes or businesses. PCTs have the ability to receive electrical energy consumption data from the meter, store the data, and provide the customer with real-time and historical energy usage. The PCT can receive price signals from electric meters and be programmed to regulate temperature accordingly, allowing the customer to regulate their indoor temperature in response to daily or seasonal electric price fluctuations while maintaining an acceptable level of comfort. Advanced PCTs available today also have the capability to cycle air conditioning on and off upon receiving a critical peak signal from the electric meter.

Another HAN enabled component is a Load Control Switch (LCS). An LCS is a device installed ahead of a major electrical appliance that can either turn the appliance on or off, or cycle the appliance on and off as in the case of an air conditioning unit. For customers that choose a direct load control or interruptible tariff, the LCS would receive commands from the electric meter, respond accordingly, and send a signal back to the meter to confirm action has been taken.

Today, customers can only determine energy usage after the fact through their monthly bill. The HAN can provide real-time and historical electrical usage, providing the customer with the knowledge and opportunity to control usage, conserve energy and save money. In addition, HAN enables AEP to provide the customer pricing options including time-differentiated rates. Data collected by the HAN can help AEP shape future pricing programs to suit customers' needs. In addition, as customers save money by shifting load to off-peak hours, it helps AEP reduce demand and potentially defers the need for new generation.

APCo anticipates implementing home area network technologies in conjunction with its AMI roll out. This strategy allows for using the same AMI communications infrastructure for the HAN.

Information Technology Systems

Other information technology systems that are integral to the ***gridSMART***^{SM} initiative are meter data management (MDM), outage management system (OMS) and geographical information system (GIS). These systems allow for data to be obtained, stored, shared and analyzed across business applications within AEP. A well conceived system architecture and integration will transform data into valuable information that is readily available and used to improve operations and service to customers.

The AMI and HAN portions of ***gridSMART***^{SM} are closely linked if it is desired to use a common communication system for AMI and the HAN. HAN communications can be established by other means, i.e., paging, broadband and cellular networks. The considerations to be reviewed are the timing of the investments planned and the technology deployed. Distribution grid management can be undertaken on a stand alone basis. The key is to build the communications network to maximize initial benefits, while planning for future ***gridSMART***^{SM} deployments such as AMI.

Energy Storage

AEP has pioneered the deployment of large-scale energy storage in the U.S., using Sodium-Sulfur battery (NaS) technology. Our first installation was a 1MW battery in a substation near Charleston, WVA. The system continues to operate as planned; supplying the area's peak demands with energy stored the previous night. We are completing 3 additional battery installations in 2008. Each of these projects is focused on demonstrating a unique aspect of energy storage. Two of the installations will demonstrate the concept of "islanding"; supplying customers with electricity during a power outage. Another installation will be integrated with wind generation to demonstrate the ability to store energy from wind, and then use the stored energy when customers need it.

APCo-Virginia EE/DSM Activities

Appalachian Power supports cost-effective energy efficiency as a resource. APCo believes that in order to fully embrace DSM initiatives, utilities need to be indifferent to investing in either the supply side or demand side resources. A level playing field between new supply and EE/DR programs is achieved through full cost recovery for EE/DR, including:

- *Program costs*
- *Net lost revenues, a term used to describe the fixed costs that aren't recovered from customers in between rate cases due to lower usage resulting from DSM programs*
- *Amortization of all operating expenses over a several year period with a return being earned on the unamortized balance*
- *Shared savings or alternate form of a return on EE/DR investment similar to investment in new generation*
- *Contemporaneous recovery through an annual rider mechanism with true-ups*

Below are some EE/DSM activities Appalachian Power has started to initiate in its Virginia service area:

Tariff Options

APCo provides various time-of-day options to allow 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 following provides additional information on these current offerings.

Schedule/Rider	**Description of Service/Provision**
Residential	
Schedule RS	Load management water heating
Schedule RS-TOD	Time-of-day
Commercial & Industrial	
Schedule SGS	Load management time-of-day
Schedule MGS	Off-peak excess demand provision
Schedule GS-TOD	Time-of-day
Schedule LGS	Off-peak excess demand provision
Schedule LPS-TOD	Off-peak excess demand provision
Schedule ATOD	Advanced time-of-day

Load management water heating - Available to customers who install a Company approved water heating system which consumes electrical energy during off-peak hours and stores hot water for use during on-peak hours. Customer receives reduced energy charge for fixed block of monthly kWh.

Time-of-day - Optional tariff for customers that are capable and willing to consume electrical energy primarily during the Company's designated off-peak period to take advantage of the price differential between on-peak and off-peak energy rates.

Off-peak excess demand provision - Available to customers who operate primarily during the off-peak period and request installation of time-of-day metering in order to take service under this provision. A reduced rate is applied to off-peak demand in excess of on-peak demand created during the billing month.

Advanced time-of-day - Available to customers who can change behavior based upon a day-ahead schedule of hourly prices and who are also willing to reduce load (i.e., interrupt) upon request of the Company.

Consumer Education Program on Energy Conservation

Appalachian Power Company implemented a consumer education program on energy conservation titled "Watt Why & How". 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. APCO promotes the program in bill inserts, advertisements, community presentations, and on the www.appalachianpower.com website. In addition, the website includes a Home Energy Calculator, Appliance Calculator, and Lighting Calculator, all designed to enable the customer to make informed energy usage decisions.

Low Income Task Force

By September 1, 2009, APCO is required to fill an initial integrated resources plan (IRP) with the State Corporation Commission. As a part of the IRP, APCO is required to assess governmental, nonprofit, and utility programs in its service territory to assist low income residential customers with energy cost and examine options for making any needed changes to such programs. APCO is working on the completion of this report.

AEP Change-A-Light Schools Program

AEP and APCo, through the National Energy Education Development (NEED), are launching the "Change-A-Light Energy Efficiency Education Program". The AEP Foundation is underwriting the $355,000 cost of the program. This program will include:

- *Training for K-12 educators on energy conservation and the ENERGY STAR Change-a-Light (CAL) education/pledge program in the 11 states where AEP operates. NEED staff will conduct training workshops on the CAL program and energy conservation open to all K-12 educators in the AEP System. AEP anticipates this program will reach the 2.5 million K-12 students in its service territory. NEED would phase these workshops over two years to reach all schools.* ***Training materials will be branded with the APCo logo.***
- *Purchasing and distributing approximately 200,000 15W compact fluorescent light (CFL) bulbs to students in grade 4 at participating schools in the AEP service territory.* ***This effort will provide over 36,000 CFLs to children in over 600 schools throughout APCo's service territory. Presently, approximately 12,000 CFLs have been distributed through the NEED program in Virginia.***

Market Potential Study for Virginia

Some time ago, APCO identified the need to conduct a thorough, specific, and careful analysis of EE/DSM potential in service territories. APCO has engaged a third-party EE/DSM economic analysis firms to perform a DSM Market Assessment and Program Implementation Plan for each of the four jurisdictions in Appalachian Power (APCO VA, APCO WV, Wheeling Power and Kingsport Power).

The DSM Market Assessment currently underway will be a detailed and thorough analysis specific to APCO. Among other purposes, it will utilize billing data by market sector (residential, commercial, and industrial), aggregate energy use, billing demands, forecasts for energy, peak demand, number of customers by sector, customer survey information, and other data specific to APCO for each jurisdiction and in total.

In general, the purpose of the study is to assess the technical, economic, and achievable potential of new and existing programs in Appalachian Power Company's service territory. Also, the plan will develop, for example, potential program budgets, implementation and evaluation strategies, objectively conduct DSM benefit-cost analysis tests and ultimately develop a portfolio of cost-effective DSM/EE programs. APCO will utilize the result of this study as a roadmap to identify and assess future potential energy efficiency and demand response customer programs, those that are deemed to be cost-effective and in the Company's and public's best interest, in APCo Virginia. APCO anticipates completion of this in-depth study during the first quarter of 2009.

Improved Efficiencies in Internal Operations

The Company has been successful in the efficient operation of its resources and continues to be a low cost provider of electricity to the consumers of Virginia. Beginning in 2007, AEP implemented some efficiency measures to further reducing energy consumption within its own facilities. These efforts include, but are not limited to, installing occupancy sensors, programmable thermostats, lighting upgrades, HVAC / chiller replacements and other energy efficiency measures. Year-to-date November 2008, energy usage within AEP's facilities has been reduced nearly 5.6 million kWh's as a result of these efforts, or 5.6%, when compared to 2007 levels. **Approximately 640,000 kWh's of this reduction comes from APCo, or about a 6.3% reduction. Nearly 400,000 kWh's of this total can be attributed to improvements within our facilities in Virginia.**

On the generation, transmission and distribution side of our business, we will continue to evaluate cost-effective opportunities, such as the purchase and installation of more efficient transformers, larger conductor sizes to reduce system losses, and other measures, to further improve overall system efficiencies.

Renewable Energy

APCO recognizes that there is a growing interest in the development of renewable energy resources. On December 3, 2008, APCO received approved from the State Corporation Commission to implement a Renewable Power Rider. The Renewable Power Rider is a voluntary program which APCO's customers could choose either (i) to support the use of renewable energy through the purchase of a specific number of fixed blocks of 100 (kWh) each month or (ii) to source their entire monthly usage through the purchase of an amount equivalent to their monthly energy (kWh) consumption.

APCO has received approval from the State Corporation Commission for its Renewable Portfolio Standard. APCO proposes meeting Virginia's renewable energy portfolio goals with a combination of run-of-river hydroelectric energy from existing facilities, new purchases of wind energy, and any carry forward credits APCO obtains for exceeding target threshold amounts. The planned wind additions consist of a 100 MW power purchase agreement (PPA) with Fowler Ridge Wind Farm (FRWF), a 75 MW PPA with Camp Grove Wind Farm LLC, and APCO's affiliate Indiana Michigan Power's 100 MW PPA with FRWF. APCO is ahead of schedule to meet the 2010 4 % goal and well on the way to meeting the 12% goal by 2022.

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December 8, 2008

BY HAND

Barbara Simcoe, Acting Director
Division of Energy
Department of Mines, Minerals and Energy
202 North Ninth Street, 8th Floor
Richmond, Virginia 23219

Re: Report of The Potomac Edison Company d/b/a Allegheny Power required by Va. Code § 67-202.1

Dear Ms. Simcoe:

Virginia Code requires that each investor-owned incumbent electric utility in the Commonwealth provide to the Department of Mines, Minerals and Energy annually by November 1 a "report disclosing its efforts to conserve energy, including but not limited to (i) its implementation of customer demand-side management programs and (ii) efforts by the utility to improve efficiency and conserve energy in its internal operations pursuant to § 56-235.1." Va. Code § 67-202.1.

The Potomac Edison Company d/b/a Allegheny Power submits the enclosed Virginia Energy Efficiency Report in accordance with this provision, and respectfully requests that the Department accept its late submission.

Sincerely yours,

Noelle J. Coates

NJC/slf
Enclosure

The Potomac Edison Company's
2008 Virginia Energy Efficiency Report

Mercury Vapor Streetlight Replacement Program

The Potomac Edison Company ("Potomac Edison" or "Company") is proactively replacing all group Mercury Vapor streetlights, to maximize the energy efficiency and conservation achieved by transitioning these lights to more energy efficient light sources while continuing to provide lighting service to our customers.

Mercury Vapor is one type of high-intensity discharge ("HID") lighting that is commonly used where high lighting levels are required, such as for retail, manufacturing and street and area lighting applications. Mercury Vapor is the type of gas within the bulb that produces the light. Other common HID lighting types include High-Pressure Sodium ("HPS") and Metal Halide ("MH").

The Energy Policy Act of 2005 mandates that Mercury Vapor lamp ballasts shall not be manufactured or imported after January 1, 2008. Additional regulations regarding the manufacturing of Mercury Vapor lamps are in development that will also eliminate their availability by 2011.

Newer types of HID lighting are more energy efficient. For example, a 100W High-Pressure Sodium light provides 16% more light and uses 43% less energy than its Mercury Vapor counterpart.

Potomac Edison's analysis of the results of replacing the Mercury Vapor lights in its Virginia service territory indicates cumulative savings of over 132 mWhs. The program assumes an average reduction of 67 watts and 270 kWh/yr for each luminary replaced. The transition of group lighting customers to new lights is planned to be completed over five years, to correlate with the Company's 5-year maintenance schedule. Lights for individual customers will be transitioned when the fixture requires replacement. The retrofit cost per luminary is estimated to be $270. The program was implemented in 2008.

Transformer Replacement Program

The Potomac Edison Higher Efficiency Distribution Transformer Purchase Program follows an aggressive approach to transformer efficiency proposed by the Edison Electric Institute ("EEI"). Under the EEI plan, the TSL2 efficiency level is implemented in 2009 and the efficiency level would then step up to the TSL4 level in 2013. Projected to year 2015, Potomac Edison expects a combined energy savings due to the purchase of federally-mandated efficient distribution transformers of 3,257 mWhs in the Company's Virginia service territory.

The Energy Policy Act of 1992 required the United States Department of Energy ("DOE") to study the feasibility of setting efficiency standards for distribution transformers. Six efficiency levels, TSL1 through TSL6, were evaluated in the study. TSL1 represents the voluntary industry standard and TSL6 is the highest technologically feasible efficiency level, regardless of cost.

DOE is scheduled to conduct a rulemaking establishing a minimum standard efficiency level for all distribution transformers.

There were two competing plans under consideration by DOE. The current DOE proposal is to implement the TSL2 efficiency requirement in 2010. The EEI has proposed a more aggressive approach; as noted above, under the EEI plan, the TSL2 efficiency requirement would be implemented as early as 2009 and then increment to the TSL4 level in 2013. PE analyzed the anticipated implementation of the EEI proposal, which is TSL2 efficiency in 2009 and TSL4 efficiency in 2013. Per the EEI proposal, the Company's program will be implemented in 2009. As detailed cost information is not available at this time, cost estimates have not been included in this Report.

Interruptible Load Response (ILR) Program

Potomac Edison offers the Interruptible Load Response ("ILR") demand response program through PJM. The purpose of this program is to provide customers options to aid in reducing their electricity costs through flexibility in their operations while benefiting the PJM generation market with additional load resources.

PJM has developed access to the capacity and energy markets for customers that enroll in the ILR programs, which became effective June 2007. All Potomac Edison industrial and commercial customers are eligible to participate, either by enrolling with Potomac Edison or any other Curtailment Service Provider ("CSP"). These customers must have the ability to reduce metered load when an emergency event is called by PJM. ILR customers receive capacity and energy payments as part of the Reliability Pricing Model ("RPM") capacity market.

Potomac Edison and its affiliated utilities, West Penn Power and Monongahela Power, started participating in the Interruptible Load Response program in other jurisdictions February 2008. This program is currently not available in Virginia but is planned to be offered in the near future. The program pays customers to be ready to reduce load if called by PJM during system emergencies. The customer must be available for up to 10 reductions per year and have the ability to reduce a minimum of 100 kW per hour.

To date, the ILR programs have not been called in the Allegheny Power zone. Therefore, no impact has been seen from this program in PE's Virginia load. For the present time, Potomac Edison has determined that because the load reductions from this PJM program has not yet been material or predictable, it is not possible to estimate any load and energy reduction based on the program.

Emergency Load Response Program (ELRP)

Potomac Edison offers the Economic Load Response Program ("ELRP"), which is a demand response program through PJM. The purpose of this program is to provide commercial and industrial customers options to aid in reducing their electricity costs through flexibility in their operations while benefiting the PJM generation market with additional load resources.

The PJM Economic Load Response Program (ELRP) is a voluntary peak load reduction plan that offers financial compensation to customers who can reduce their power consumption during periods of high demand or prices. This can be achieved either by using on-site generation or

reducing load. The customer, in return for agreeing to reduce energy consumption, receives a percentage of the wholesale cost of power, which lowers the customer's overall energy costs. Enrolled customers may choose to not participate during each event, making participation, and the impact on the load forecast, unpredictable.

Potomac Edison and its affiliated utilities, West Penn Power and Monongahela Power, started participating in the Emergency Load Response Program in April 2008. This program is currently not available in Virginia but is planned to be offered in the near future. The program offers financial rewards to customers who can reduce their power consumption during periods of high demand or prices. In return for reducing load, the customer is paid a percentage of the wholesale market price for their reductions.

Due to the voluntary nature of the program, PJM does not include any load reductions from the ELRP program in its load forecast. Similarly, for the present time, Potomac Edison has determined that because the load reductions from this program are voluntary, it should not assume any load and energy reduction at this time based on the ELRP program.

Advanced Utility Pilot Programs

Potomac Edison continues to explore new programs for our customers that will help drive energy efficiency and conservation to new levels. It is imperative that utilities invest in new technologies and new approaches that can ensure efficient, reliable and secure electricity service to customers, while also effectively managing peaks in demand and energy usage. Potomac Edison has embraced this opportunity by working to evolve its transmission and distribution system into an intelligent network for electricity delivery through an Advanced Utility Infrastructure ("AUI"). Use of AUI technology in Potomac Edison's Virginia service territory will be possible once the technology has been proven in other jurisdictions, per projects currently underway as described below.

An AUI creates an intelligent network for two-way communications and control of utility devices, including meters, sensors, residential devices and other equipment, regardless of vendor or manufacturer. By strategically mixing legacy systems with new technology deployments in a manner that optimizes the capabilities of the system, an AUI lays the groundwork for a unified system that can address current concerns while also providing an open, scalable network to which future components and capabilities can be added. Through an AUI, Potomac Edison can demonstrate the benefits that a truly smart grid can offer to our customers by providing a secure, reliable and cost-effective source of supply. PE is currently pursuing several such programs, as follows:

- The **Research Ridge AUI Pilot Project** will research and develop the communications network required to allow the operation of an AUI system in the Collins Ferry area of Morgantown, West Virginia. This project will determine the interfaces required for point-to-point wireless communication, advanced metering infrastructure ("AMI") meter communication, direct control of customer appliances through the gateway provided by the AMI meters, and discrete circuit monitoring through the same wireless network. It will also provide both a permanently located learning facility at Research Ridge and a mobile kiosk for presentations about the technology, terminology, and applications of demand-side management.

- The **Morgantown Developmental Field Test ("DFT") (or Modern Grid Phase I)**, is a collaborative project partially funded by DOE, will deploy a Dynamic Feeder Reconfiguration System with selected circuits in the Morgantown, West Virginia area and to implement a reliable, secure communications system infrastructure that can be leveraged for successive phases, including additional installation of sensors and intelligent autonomous algorithms for self-healing of distribution circuits..

To assist in the Morgantown DFT (Phase I) activities, PE has retained Augusta Systems to support the collaborative and deploy an advanced communications system infrastructure, in the form of an intelligent wireless communications network infrastructure, for the initial Morgantown DFT.

- The **WV Super Circuit (Modern Grid Phase II)**, is a collaborative, five-year project partially funded by the DOE that will include the installation of approximately 2,000 AMI meters to provide insight into the benefits of demand side management. Opportunities offered by AMI meters through demand side management activities will be studied including peak-shaving, peak-shifting, kWh reduction, two-way data flow potentials with our customers, dynamic islanding, improvement of reliability via a reduced capacity restoration program, and energy conservation available through increased customer involvement and information.

- The **MD AUI Pilot** project that includes similar technology for customers within Maryland is under development. A proposal has been filed at the Maryland Public Service Commission for deployment of the pilot and for surcharge recovery of the costs associated with this pilot. The proposal is awaiting further action from the Maryland Commission.

The communications and control network, built upon technologies from Augusta Systems, will not only communicate with the AMI meters, but will also have the capability to communicate with existing monitoring and control equipment in place on AP's distribution network.

This project will be guided by a number of objectives, including:

- Support multi-vendor AMI meters, monitoring devices and control devices.
- Furnish timely load/time-of-day usage details to customers and operations and communicate interval usage updates to multiple data systems.
- Monitor circuits to better assess loading and system health (implementing preventative maintenance accordingly) and evaluate load impacts under various conditions.
- Connect with the customer's end-use devices and provide demand response control signals to various types of demand equipment with varying control parameters, testing equipment and cycling strategies.
- Incorporate PJM price signals (simulated response) and emergency event notification into demand response strategies in order to evaluate performance.

- Educate customers respective to demand management and obtain timely and valuable customer feedback that will allow Allegheny to assess customers' receptiveness to various load control operations.
- Train employees on new technologies and gain valuable operating experience.
- Provide an open communication test platform to readily test new smart grid technologies and appliances as they are made available to the market.
- Quantify the impacts of an integrated AUI system (in contrast to standard AMI metering-only deployments) and assess resource requirements, costs and benefits for broader AUI implementation.

The Project will also shadow load response in PJM and pilot the various demand response programs PJM offers. The Project scope includes sending PJM hourly energy market price signals to the participants, providing the ability to directly react to changes in wholesale energy prices.

The Project will shadow participation in the energy market as an economic load response resource, where energy reductions are voluntary and initiated in response to price signals received by consumers. Moreover, the project will shadow participation in capacity markets as an Interruptible Load for Reliability (ILR) resource as well as participation in the synchronous reserve and regulation ancillary services markets in PJM. Potomac Edison will initiate demand response events at PJM's call. For example, in response to an "all call" signal from PJM for a synchronous reserve or emergency event or a base-point signal for regulation, a demand response event will be initiated to the Project load control devices as if participants are registered as a demand response resource in PJM. Customer reaction and demand response will be measured as simulated through the PJM programs to determine the effectiveness of the participation.

Potomac Edison and PJM are particularly interested in using demand resources for regulation. Currently PJM is the only RTO that allows demand resources to provide regulation service (frequency control), yet there has not been a single demand resource that has provided regulation for PJM. The MD AUI Project would provide a proof-of-concept and demonstrate the value demand resources could provide to enhancing reliability through frequency control.

an e·on company

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December 4, 2008

RE: Annual reporting requirement of 67-202.1

Dear Ms. Simcoe:

Pursuant to section 67-202.1 of the Code of Virginia, Kentucky Utilities Company, d/b/a Old Dominion Power Company ("KU/ODP or "the Company") hereby submits the 2008 Annual Report that discloses its efforts to conserve energy.

The Company continues to encourage customers to conserve energy by providing energy efficiency tips in the Power Source newsletters (attached are November 2008 and October 2008 issues) that are included in the monthly bills. The customers can also access energy efficiency/smart saver tips at the Company's website. A tool available to customers on the website is The Home Energy Calculator. It is designed to help you determine where potential energy savings exist.

KU/ODP has taken steps to improve efficiency and conserve energy in its internal operations. The employees continue to reduce energy use through lighting initiatives along with recycling efforts. The Company continues the effort of having all buildings achieve the Energy Star certification. Certain fleet vehicles have been replaced with hybrid vehicles to increase the gas mileage, thus reducing the amount of fuel used.

Should you have any questions about this report, please contact me at your convenience.

Sincerely,

Rick E. Lovekamp

November 2008

ODP POWERSOURCE

Customers first. Energy that lasts.

Have you given a HUG lately?

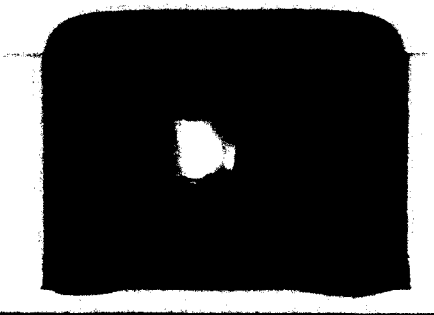
Due to tremendous interest and customer demand, we offer Home Utility Gift (HUG) certificates throughout the year. HUGs are extremely popular, especially during the holiday season. A HUG is a gift certificate that credits the utility account of any ODP customer. HUGs are ideal for individuals on fixed incomes, families in need, senior citizens, and young people just starting out on their own. Many customers also have purchased HUGs for nonprofit and social service organizations.

The purchaser receives a gift certificate to present to the recipient indicating the amount of the purchase. The HUG is a credit placed directly on a customer's account and is automatically subtracted from the customer's next bill. HUGs are available during normal business hours at any customer service walk-in center and can be purchased by cash or check in any denomination over $25. Be prepared to provide the name and address of the HUG recipient when making your HUG purchase.

Don't have money to burn?

Before you put another log on the fire, read these tips for making a fireplace more affordable and convenient.

- Traditional fireplaces can draw your home's heated air right out of the room...and up the chimney. Adding a fireplace insert helps improve your fireplace's efficiency. Inserts burn gas, wood or wood pellets and some require retrofits to your chimney, while vent-free models are also an option.
- Glass doors installed in front of the hearth will help keep your centrally heated air from escaping up the chimney. For the same reason, the damper should be closed on a wood-burning fireplace when it is not in use.
- If you want to burn a fire in your conventional fireplace, turn off the central heating while you're enjoying the fire. Building smaller fires produces less smoke and more heat.
- If you don't own a fireplace but wish you could sit in front of a crackling fire this evening, consider an electric version you can simply plug into an outlet. These have traditional-looking hearths that surround a high-definition recording of a real burning fire, often with a 3-D log set and audio for authenticity. Variable heat controls let you warm your toes in front of electric heat.
- Install a decorative, cast-iron fireback against the back wall of your fireplace to reflect and radiate the fire's heat out into your home.



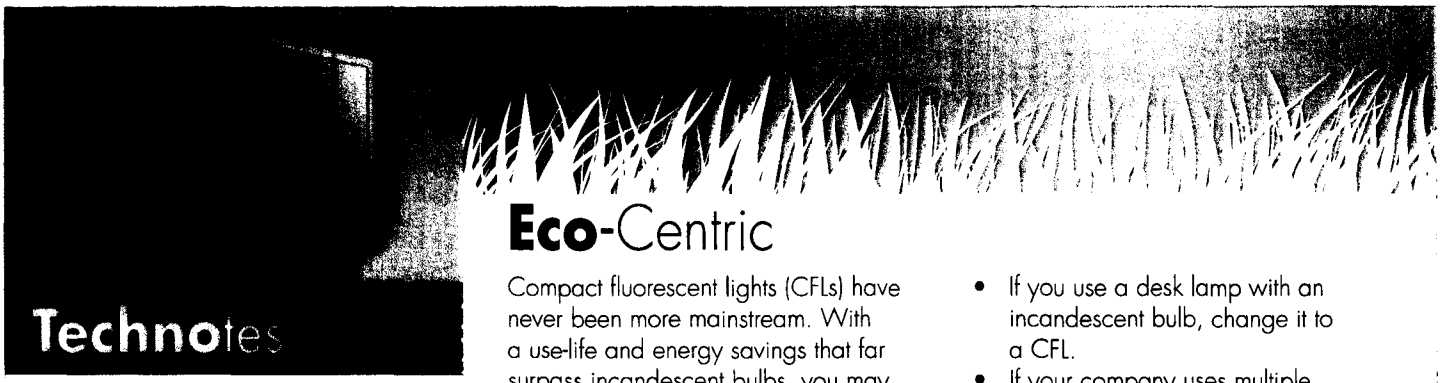
Lighten Up

Use LEDs to light up your home this holiday season

The LED, a type of semiconductor, generates light when an electric current is passed through positive and negative materials. As there is no filament to heat, LEDs are **12 to 100 times more efficient** than incandescents and generate less heat.* Benefits include:

- **Energy savings** – LEDs use a tiny fraction of kilowatt-hours (kwh) of energy compared to incandescents. During a 90-day holiday season using a 300-bulb string for six hours a day with an energy rate of 6.4¢ per kwh, you'll pay **$0.53 for a string of LED lights** (0.05 kwh per bulb) **versus $73.58 for a string of incandescents** (7 kwh per bulb). LEDs cost more than incandescents; however, energy savings will allow costs to be recouped in the first season or two (be careful to review packages carefully as LEDs tend to be sold in shorter strings).
- **Safety** – LEDs run much cooler than incandescents, reducing fire hazards. Because they run much cooler, LEDs can be constructed with plastic bulbs instead of glass, reducing their likelihood to break. Make sure lights you purchase have a holographic "UL Listed" tag.
- **Environment** – LEDs do not use mercury and last at least twice as long as incandescent lights, reducing waste we create when throwing out old lights.
- **Brightness** – Mini-LEDs tend to be brighter than incandescents. Regular LEDs are a bit dimmer than incandescents, but the difference is moderate.

Source: consumerreports.org



Technotes

What's on the big screen?
According to the Department of Energy, 4% of your total home energy use originates from your TV. Though newer flat screen TVs are more energy efficient than old models, the larger screen sizes use a lot more energy. Use these tips to lower your energy costs:

- If you're not watching it, turn it off – **80%** of its energy is used when on.
- **20%** of your TV's energy is being burned while off. To avoid this consumption, plug your TV into a powerstrip and turn off the strip each night and while you're at work.
- In the market for a new TV? Pay close attention to the kwh used. Some TVs made this year use less than half of what they did even three years ago. ENERGY STAR® certification ensures **30% less energy usage** but only in stand-by mode.

Eco-Centric

Compact fluorescent lights (CFLs) have never been more mainstream. With a use-life and energy savings that far surpass incandescent bulbs, you may have already made the upgrade with all your home fixtures. But, have you considered where else you might help make an impact? Consider the following:

- Energy use in commercial buildings and manufacturing plants accounts for nearly half of U.S. greenhouse gas emissions and nearly 50 percent of energy consumption nationwide.
- A person who works an average of 40 hours a week spends 23.8% of their week at the office.
- A child who attends school five hours a day spends 14.9% of their week at school – their teachers even longer.

You can have a large impact on carbon emissions and energy use by getting your employer and school on board with energy savings. Some at work tips:

- If you use a desk lamp with an incandescent bulb, change it to a CFL.
- If your company uses multiple incandescent lights, ask them about having all the bulbs changed.
- Remember to turn off the lights and equipment at the end of the day.
- Create a Green Team with your coworkers; help reduce office waste and set a goal to earn the ENERGY STAR® rating for your building.

Your child's school may also use incandescent bulbs, but may not have the budget to make changes to their bulbs. Consider donating CFL versions of the bulbs they use, or ask them to take the initiative, planning it in their budget. An ODP HUG (see article on reverse side) can help them allocate budget dollars for this goal. Get the PTA involved to make an even bigger impact on what the school can do.

Portable electric heaters: Are they safe and effective?

Space heater sales are growing as millions of homeowners buy into the promise of lower-cost heating that provides savings on utility bills. But to realize the full benefit of a space heater to save money, adjust your thermostat down several degrees and use the space heater in one room. Allow the rest of the house to remain cool.

According to *Consumer Reports*, the latest electric space heaters provide more consistent heat than older models and are safer. However, space heaters still account for 40 percent of the deaths and 30 percent of the injuries in heating-related incidents each year per the U.S. Fire Administration.

Newer space heaters provide a sensor that turns off the unit when the grille is touched, helping to prevent accidental burns or fires. Other models provide a tip-over switch that shuts off when the heater is knocked over. Regardless, space heaters should never be moved while they are on or still hot from recent use.

Remember to keep children, pets, all paper and flammable liquids away from a space heater. Also, be sure to place the heater on a stable surface at least three feet away from other furniture and window treatments and do not leave the heater unattended. Space heaters should not be left on while you sleep; instead use more blankets. Be sure to check your smoke alarm to ensure it has good batteries and is operating properly before using any type of heating appliance this winter. These tips will ensure the safety of your family and home.

Monday – Friday
7 a.m. – 6 p.m. (EST)
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ENERGY STAR PARTNER

October 2008

POWERSOURCE

Customers first. Energy that lasts.

Eco-Centric

Over the last century, we have worked hard to establish one of the finest environmental records in the utility industry and invested hundreds of millions of dollars to reduce emissions, while increasing generation to meet growing energy needs.

Today, we continue to make tremendous progress in finding innovative ways to meet one of our greatest challenges – that of protecting and preserving the environmental resources we all share. Below are some of the ways we promote our business as responsible stewards of the environment:

- Last year, we became the first U.S. utility company to include customers' **monthly carbon dioxide output** – the leading component of greenhouse gases – on bills.
- An expanded **Energy Efficiency Plan** was approved by the Kentucky Public Service Commission earlier this year to help us guide our efforts through 2014. New and expanded programs will help you achieve energy and cost savings.
- **Hybrid vehicles** are utilized as part of our service fleet. We recently purchased a Smart Car and plan to make additional investments in more fuel efficient vehicles for the remainder of our fleet.

- **Green Energy.** For each $5 investment in our Green Energy Program, we ensure that 300 kWh of pure renewable energy is delivered onto the Kentucky transmission grid.

Capitalize on energy services for your business

Our Business Service Center prides itself on award-winning customer service to facilitate your energy needs. **Commercial businesses** can take advantage of time- and cost-saving services such as:

- Online energy calculator, a tool to help determine potential energy savings
- Demand Conservation program
- Payment options (online, Automatic Bank Club, ODP BillMail®, Budget Payment Plan)
- Stop/start electric and gas service
- Summary billing with customers who have multiple meters and facilities
- Power quality questions (e.g. harmonics issues, power factor correction, transfer switches, uninterruptible power supply, optimizing power supplies to equipment, departments, offices, etc.)

Contractors and subcontractors can contact us for coordination of cost-efficient utility connections for constructions and renovations. **Landlords** can use our downloadable lessor agreement form to keep their utilities running and bills organized.

Visit **www.eon-us.com/bsc/** or call (859) 367-1200 or (800) 383-5582 Monday – Friday, 7 a.m. – 6 p.m. EST for more information.

It really does not take much time or energy to find out how to save energy. And with our new Smart Saver tips, we're making it even easier. Our tips below are especially helpful as we head into the winter heating season. Take advantage of these tips and start saving energy – and money – right away.

Smart Saver Tips

- Save up to **$75 each year** on your energy bill by using a programmable thermostat. To find out how you can receive a programmable thermostat (we will even install and program it for you), call 1-866-857-2665 or visit **www.eon-us.com**.
- Save up to **$27 a year** by changing your five most-used light bulbs to energy-efficient compact fluorescent light (CFL) bulbs. The more bulbs you change, the more you'll save.
- Want to keep more warm air inside your house and more money in your pocket this winter? Caulk and weather strip doors and windows. Also add more insulation now before the weather turns cold.
- Save up to **$45 a year** simply by pressing a button. Adjust your thermostat – down two degrees in the winter, up two degrees in the summer.
- Each year, your HVAC system could be wasting as much as **$50 in energy**. Get it tuned up in the spring and fall and stop throwing away your hard-earned cash.

Keep in mind that actual energy and dollar savings will vary depending on actual usage. Visit **www.eon-us.com** for more Smart Saver tips.

Power On

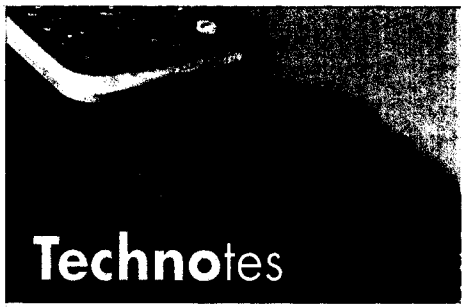
Did you know that Kentucky is one of the top three coal producers in the United States and has been for the last 50 years? Coal provides for 49 percent of the electricity in the U.S. and for more than 92 percent of the electricity in our area. Coal-fired generation is a large reason why our electricity costs have been among the lowest in the nation. However, some analysts believe these low costs have contributed to the higher than average energy use seen in this area – **residential energy usage here is 26 percent above the national average.**

Coal is a fossil fuel. Fossil fuels are found in the top layer of the earth's crust and include methane, liquid petroleum and coal. When burned, fossil fuels produce carbon emissions that are considered to be a major contributor to global warming. Because of that, many efforts to address the issue of global warming are aimed at reducing utilities' reliance on coal.

Currently, there is no technical solution to capture carbon emissions in a cost-effective manner. And, we are concerned with proposals or suggestions that would restrict the use of coal or impose sizeable taxes on coal. As you can imagine, any such initiatives would have a major impact on Kentucky, the energy industry and, ultimately, our customers. While Congress still has much to debate, it is very real and almost certain that the price you pay for electricity could increase by double digits if proposed federal carbon legislation is approved.

We, at ODP, endorse a multi-faceted approach to help reduce carbon emissions, focusing mainly on clean-coal research and educating our customers about wise energy use. As we've mentioned previously, E.ON U.S. is a member of the FutureGen Alliance, a group of thirteen energy companies that plan to develop the world's first zero emissions, coal-fired generation plant. We also are working with the University of Kentucky's Center for Applied Energy Research for clean coal research, and we helped form the Western Kentucky Geological Foundation to study the possibility of storing carbon deep beneath the earth's surface. In addition, we are tripling the amount of energy efficiency programs to offer our customers the tools and tips they need to reduce their overall energy consumption.

But what action can you take? We encourage you to learn as much as you can about what your local and federal government officials are considering. You can also do your part by becoming a "Smart Saver" and finding ways to use energy wisely. Rest assured, we will continue to work hard to keep energy costs affordable while providing you with the safe, reliable electricity you deserve. This is an issue that will require us to partner together to ensure a brighter future for everyone.



Technotes

Cell phones, laptops, PDAs, MP3 players all rely on charging devices to keep them going. Typically, you'll leave the charging AC adapter plugged into your wall and connect your device when it needs a charge. What you may not realize is that **energy is being used in your charging device even when the device is not connected**.

According to Alan Meier of Berkeley Lab, the estimated standby power usage in the U.S. is approximately **5%**. Apply this percentage to your bill, and you begin to understand your potential savings. Plus, consider the aggregate of these little devices across the nation; it adds up to a huge amount of CO_2 emissions and wasted power.

Find it inconvenient or a problem to remember to unplug? Put your chargers on a powerstrip, which can be turned off with a button, and plug your power-strip into a timer. If you find a powerstrip unsightly, look for a charging station that organizes your gadgets neatly and hides the power strip from sight.

Calculate your savings with the Home Energy Calculator

Try the online Home Energy Calculator at **www.eon-us.com/rsc/hec.asp**. It is designed to serve as a tool to help you determine where potential energy savings exist just in time for coming winter.

Be as accurate as possible as you make all of your online selections because doing so will provide you with a more accurate estimate of your home's current energy costs. Tips for each home description selection appear in the upper right corner of the page. After you've entered all your information, calculate the energy usage and then review your energy recommendations.

Our **Home Energy Calculator also comes with helpful tips for using less energy,** a glossary **of important terms and an** energy **reference library.**

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