

Chapter 3

**Existing
& Proposed
Resources**

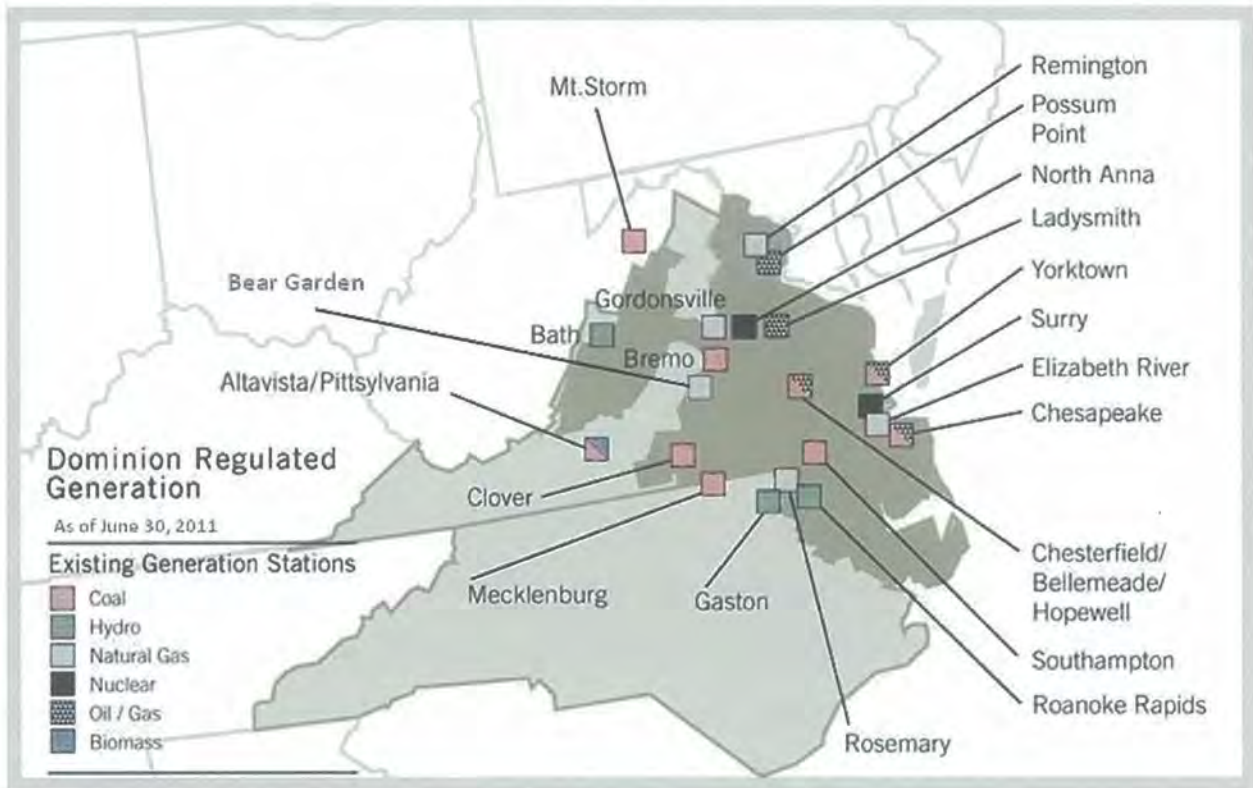
CHAPTER 3 – EXISTING & PROPOSED RESOURCES

3.1 SUPPLY-SIDE RESOURCES

3.1.1 EXISTING GENERATION

The Company's existing generating resources are located at multiple sites distributed throughout its service territory as shown in Figure 3.1.1.1. This diverse fleet of 100 generation units includes 4 nuclear, 22 coal, 1 biomass, 2 natural gas, 2 heavy oil, 8 CC, 41 combustion turbines, 6 pumped storage, and 14 hydro units with a summer capacity of approximately 16,987 MW.² The Company's operational goal is to manage this fleet in a manner that provides reliable, cost-effective service under varying load conditions.

Figure 3.1.1.1 EXISTING GENERATION RESOURCES



On May 23, 2011, Bear Garden CC Power Station, located in Buckingham County, Virginia, came into service. Construction first began on this 590 MW³ CC Unit in April 2009. Bear Garden will contribute significant incremental, intermediate capacity to the Company's service territory.

² All references to MW in Chapter 3 refer to summer capacity unless otherwise noted. Winter capacities for Company-owned generation units are listed in Appendix 3A.

³ Summer capacity of Bear Garden is 590 MW, which the Company used for modeling purposes in development of this 2011 Plan. Nominal capacity of unit is 580 MW.

The Company not only owns a variety of generation resources that operate using different fuel types, but it also has a wide age range of capacity. The largest proportion of the Company's generation resources has operated for 30 to 40 years, followed by a large number of units that have operated for 20 to 30 years. Figure 3.1.1.2 shows the demographics of the entire generation fleet.

Figure 3.1.1.2 GENERATION FLEET DEMOGRAPHICS

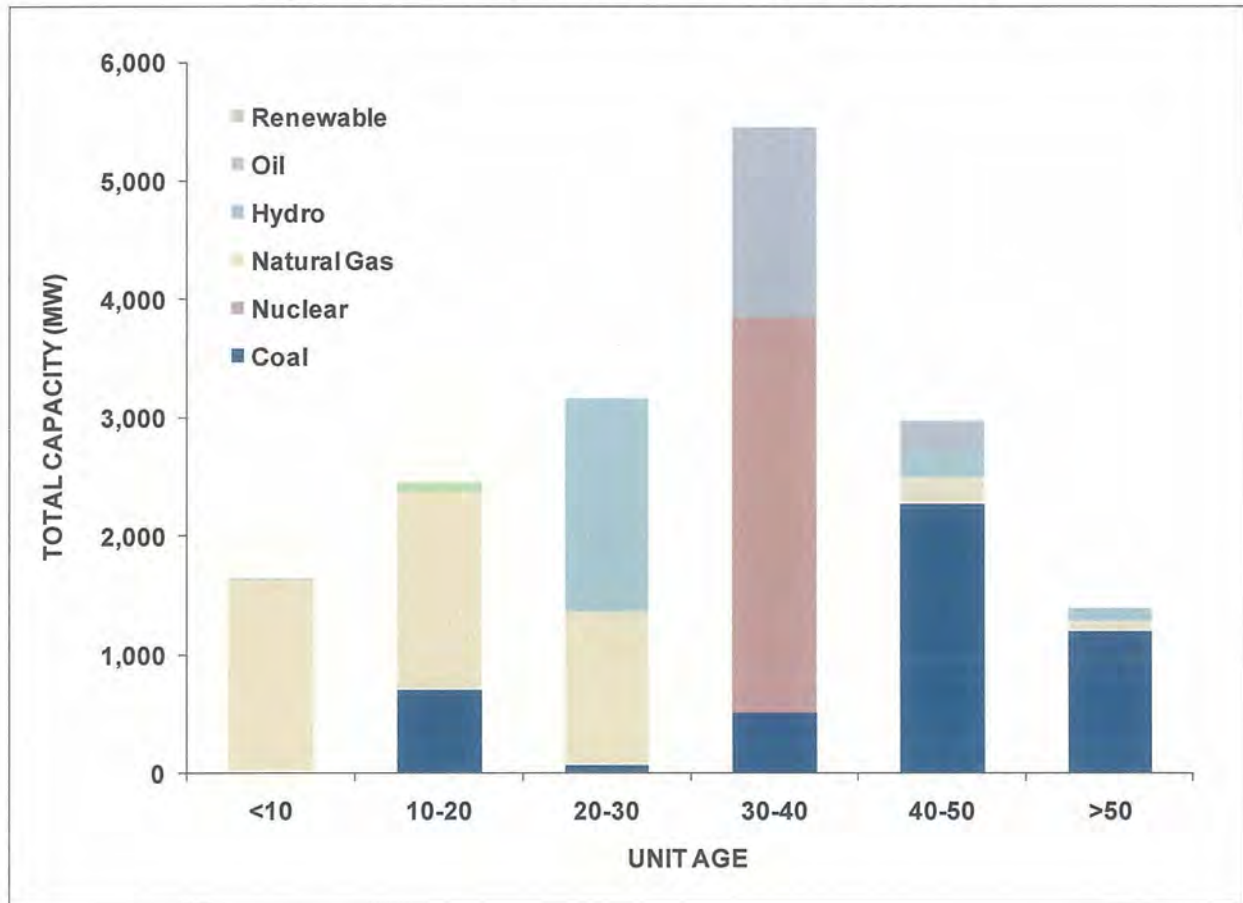


Figure 3.1.1.3 illustrates that the Company's existing generation fleet is comprised of a mix of approximately 16,987 MW of resources with varying operating characteristics and fueling requirements. The Company's mix of generation resources includes more than 400 MW of renewable generation and approximately 1,747 MW of NUGs, which provide firm capacity and associated energy to meet the Company's load requirements. An important aspect of the 2011 Plan is the Company's use of diverse capacity and energy resources to meet its customers' needs.

FIGURE 3.1.1.3 2011 CAPACITY RESOURCE MIX BY UNIT TYPE

Generation Resource Type	Net Summer Capacity (MW)	Percentage (%)
Coal	4,675	23.3%
Nuclear	3,325	16.5%
Natural Gas - Boiler	316	1.6%
Natural Gas - Combined Cycle	2,196	10.9%
Natural Gas - Turbine	2,411	12.0%
Pumped Storage - Hydro	1,802	9.0%
Light Fuel Oil - Turbine	257	1.3%
Heavy Fuel Oil - Boiler	1,604	8.0%
Renewable - Hydro	318	1.6%
Renewable - Biomass	83	0.4%
NUG - Coal	743	3.7%
NUG - Natural Gas Turbine	942	4.7%
NUG - Renewable	63	0.3%
Purchases	1,356	6.7%
Total - NUG Contracted	1,747	8.7%
Total - Owned	16,987	84.6%
Total - Owned and NUG Contracted	18,735	93.3%
Total	20,091	100.0%

Due to differences in the operating and fuel costs of various types of units and PJM system conditions, the Company's energy mix is not equivalent to its capacity mix. The Company's generation fleet is economically dispatched by PJM within its larger footprint, ensuring that customers in the Company's service area receive the benefit from all resources in the PJM power pool regardless of whether the source of electricity is Company-owned, contracted, or third-party units. PJM dispatches resources within the DOM Zone from the lowest bid units to the highest bid units, while maintaining its mandated reliability standards. Figures 3.1.1.4 and 3.1.1.5 provide the Company's 2011 capacity and energy mix (projected) with percentages.

Figure 3.1.1.4 2011 CAPACITY MIX

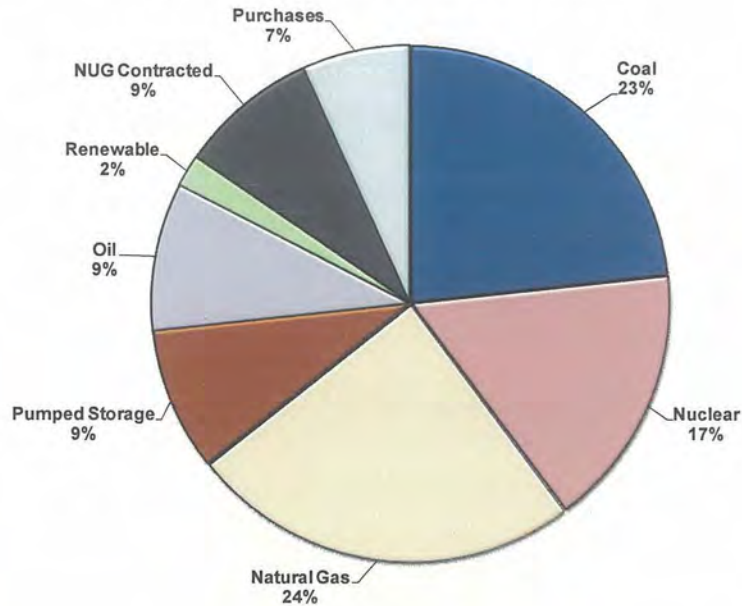
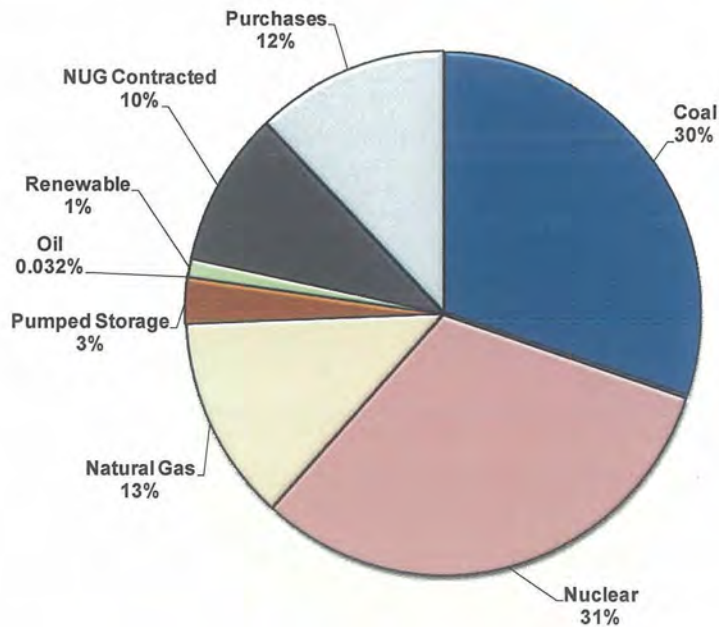


Figure 3.1.1.5 2011 ENERGY MIX (PROJECTED)



Appendices 3A, 3C, 3D, and Extraordinarily Sensitive 3E provide basic unit specifications and operating characteristics of the Company's supply-side resources, both owned and contracted. Additionally, Appendix 3F provides a summary of the existing capacity, including NUGs, by fuel class. Appendices 3G and 3H provide energy generation by type as well as the system output mix. Appendix 3B provides a listing of other generation units including units in cold storage, NUGs, behind-the-meter generation ("BTMG"), and customer-owned generation units.

3.1.2 EXISTING RENEWABLE RESOURCES

The Company currently owns and operates several renewable resources including its wood-burning Pittsylvania Power Station (83 MW), one of the largest biomass facilities in the United States. Additionally, the Company owns and operates four hydro facilities that includes Gaston Hydro Station (220 MW), Roanoke Rapids Hydro Station (95 MW), Cushaw Hydro Station (2 MW), and North Anna Hydro Station (1 MW). The Company has existing contracts for approximately 25 MW of BTMG renewable capacity, as well as one contracted renewable NUG facility at Ogden-Martin Fairfax that will provide approximately 63 MW in 2011.

3.1.3 PLANNED CHANGES TO EXISTING GENERATION

Efficiency, output, and environmental characteristics of plants are reviewed as part of the Company's normal course of business. Many of the uprates and derates discussed in this section occur during routine maintenance cycles or are associated with standard refurbishment. However, several plant ratings have been and will continue to be adjusted to conform with PJM market rules and environmental standards.

The Company continues to evaluate opportunities for existing unit uprates as a cost-effective means of increasing generating capacity and improving system reliability. Between 2009 and 2011 the Company's investment in its existing generation fleet has yielded net capacity uprates of 172 MW.

The EPA has proposed and finalized a significant number of new regulations that are expected to affect certain units in the Company's current fleet of generation resources. These regulations, as shown in Figure 3.1.3.1, are designed to regulate the air, water, and solid waste constituents.

Figure 3.1.3.1 EPA REGULATIONS

Constituent ¹		Key Regulation ²	Expected Rule ³
Air	Hg/HAPS	Utility HAPS (MACT) (HG/Air Toxics Rule)	11/2011
	SO ₂	CSAPR	FINAL
		SO ₂ NAAQS	FINAL
	NO _x	Ozone Standard Revision	8/2011
		CSAPR	FINAL
		CSAPR II	12/2012
	CO ₂	GHG Tailoring Rule	FINAL
		EGU NSPS	5/2012
		Federal Cap & Trade	NA
Solid Waste	Ash	CCB	12/2012
Water	316(b)	316(b) Impingement	7/2012
		316(b) Entrainment	
	Effluent	Effluent Discharges	1/2014

*Notes: 1) Constituent: Hg=Mercury; HAPS=Hazardous Air Pollutants; SO₂=Sulfur Dioxide; NO_x=Nitrogen Oxide; CO₂=Carbon Dioxide; GHG=Greenhouse Gas; Water 316(b)=Clean Water Act § 316(b) Cooling Water Intake Structures
 2) Key Regulation: MACT=Maximum Achievable Control Technology; CSAPR and CSAPR II=Cross-State Air Pollution Rule; SO₂ NAAQS=Sulfur Dioxide National Ambient Air Quality Standards; EGU NSPS=Electric Generating Units New Source Performance Standard; CCB=Coal Combustion Byproducts
 3) Expected Rule: NA=Not Available*

Compliance with existing and future environmental regulations is an important part of the Company's planning process and a key corporate focus. On May 7, 2008, the Company commissioned a new pollution control system which included a scrubber at Chesterfield Unit 6. An additional scrubber at Chesterfield Unit 5 was completed on June 30, 2011. It is anticipated by the end of 2011, Chesterfield Units 3 and 4 will also be connected to the Chesterfield Unit 5 scrubber. Both scrubbers are anticipated to provide a 95% reduction in sulfur dioxide ("SO₂") emissions and an 80% reduction in mercury ("Hg") emissions.

Based on the draft and final form of environmental regulations along with current market conditions, the 2011 Plan includes the following impacts to the existing generating resources in terms of retrofitting, repowering and retiring, which may be revised when the regulations are finalized:

Retrofit

Possum Point Unit 5 (779 MW) and Yorktown Unit 3 (804 MW) are in the Plan to be retrofitted with a SNCR unit by 2015.

Repower

Coal-fired Yorktown Unit 2 (156 MW) is in the Plan to be repowered by natural gas and oil by 2015.

On June 27, 2011, the Company filed an application with the SCC for approval to convert three of its Virginia coal-fired power stations, Altavista, Hopewell, and Southampton, to biomass fuel (Case No. PUE-2011-00073). The three power stations are all similar and went into operation in 1992. Conversion of these stations is expected to result in overall reductions of SO₂, nitrogen oxide ("NO_x"), Hg and particulate emissions. The proposed conversions are projected to increase the capacity factors of these units, provide economical baseload energy and provide environmental and energy benefits to the Commonwealth of Virginia over the next 25 years. If the proposed conversions are approved by the Virginia Department of Environmental Quality ("VDEQ") and the SCC, the power stations could begin burning biomass by the end of 2013.

Additional efforts to reduce emissions from the Company's existing generation fleet include plans to repower its coal-fired Bremono Power Station by natural gas subject to regulatory approval. The station is the Company's oldest coal-fired power station in Virginia. The two coal units currently in use at the station were put into service in 1950 and 1958. Bremono Units 3 and 4 with respective summer capacities of 71 MW and 156 MW are planned to repower in 2014. This conversion is expected to reduce the Company's emissions of SO₂, NO_x and carbon dioxide ("CO₂"), while maintaining the Bremono site and providing capacity.

Appendix 3I provides a listing of uprates and derates to the Company's existing generation.

3.1.4 POTENTIAL GENERATION RETIREMENTS

In order to comply with environmental regulations, a number of factors are driving the Company's decisions to either retrofit aging coal- and oil-fired generating units with newer technology or retire those particular units from service. Figure 3.1.3.1 summarizes these environmental regulations.

As part of the 2011 IRP process, the Company analyzed a number of options for several of the older coal- and oil-fired units that may not be compliant with impending environmental rules that begin to take effect in 2015, if they include requirements as detailed in their current draft forms. This analysis included a review of the costs to retrofit the units with new environmental control equipment, repower the units by natural gas or convert the units to burn biomass as a fuel source, or retire the units from service. The analysis incorporated assumptions regarding fuel prices, energy prices, costs associated with retrofits and repowering, pending environmental regulations, cost of existing equipment, fuel availability and operating costs. This analysis sought to balance these competing costs and environmental regulations with the goal of maintaining system reliability. It should be noted that this analysis is based on the Company's current assumptions for these drivers.

Based on requirements of draft and final form of environmental regulations along with current market conditions, the 2011 Plan includes the following potential retirement options for existing generating resources.

Chesapeake Energy Center Units 1 (111 MW) and 2 (111 MW) and Yorktown Unit 1 (159 MW) are in the Plan to be retired by 2015. Chesapeake Energy Center Units 3 (156 MW) and 4 (217 MW) are in the Plan to be retired by 2016. Yorktown Units 2 (156 MW) and 3 (804 MW) are in the Plan to be retired by 2022. Appendix 3J lists the retirements included in the Plan.

In addition to retirements in the Plan, the coal unit at North Branch Power Station, located in Bayard, West Virginia, is currently in cold reserve status. As a result of a mitigation agreement between the National Park Service and the Company, the terms of which are a condition to the Prevention of Significant Deterioration permit for the Warren County Power Station, the unit will be retired from service once the Warren County Power Station begins its commercial operation.

The Company is also evaluating future blackstart resources based on the generation retirements that are anticipated over the next several years. Potential retirements include some generation facilities that are currently designated as blackstart units. Blackstart generators are generating units that are able to start without an outside electrical supply or are able to remain operating at reduced levels when automatically disconnected from the grid. The North American Electric Reliability Corporation ("NERC") Reliability Standard EOP-005 requires the Transmission Operator ("TOP") to have a plan that allows for restoring its system following a complete shutdown (i.e., blackout). As the TOP, PJM assigns this analysis to the Company in its role as the Transmission Owner, but also performs an internal study to verify all requirements are met.

Currently, the Company's tentative plan is to request approximately 250 MW of additional blackstart generation in increments of at least 50 MW per year for five years between 2013 and the end of 2018. The Company will employ PJM's Black Start Replacement Process to solicit additional blackstart generation to ensure a resilient and robust ability to meet blackstart and restoration requirements. This replacement process is described in Section 10 of PJM Manual 14D – Generator Operational Requirements. In accordance with the PJM process, once the Company officially notifies PJM of the intent to retire blackstart capacity, PJM will work with the Company to determine future blackstart capacity needs and PJM will post a Request for Proposals ("RFP") for blackstart service. The initial RFP is expected to occur within the first quarter of 2012 and subsequent RFPs may be issued at a later date. PJM and the Company will work together to select the preferred replacement blackstart units.

3.1.5 PLANNED GENERATION UNDER CONSTRUCTION

The Company is committed to meeting its expected load growth in a cost-effective manner. To meet this load, the Company filed for a Certificate of Public Convenience and Necessity ("CPCN") with the SCC to construct and operate VCHEC, a 585 MW clean coal powered electric generation facility located in Wise County, Virginia. On March 31, 2008, the SCC granted the CPCN and shortly thereafter in June 2008 the Company began construction of the station. As of August 2011, the project was approximately 90% complete and proceeding on schedule. The station's targeted commercial operation date is summer 2012.

VCHEC is expected to be one of the cleanest coal-burning power stations in the United States. The plant will use circulating fluidized bed ("CFB") technology to burn a wide range of coals and waste coal from abandoned mines in the area. Additionally, the station's advanced design will allow the plant to consume up to 20% biomass fuel such as wood waste and wood byproducts, which are renewable fuel resources. The station's two CFB boilers will also consume limestone to aid in the reduction of SO₂ emissions. The technology available at VCHEC will foster the station's compliance with existing and proposed environmental regulations related to SO₂, NO_x, and Hg emissions.

This project is summarized in Figure 3.1.5.1. Appendix 3K provides VCHEC's in service date and summer and winter capacity.

Figure 3.1.5.1 PLANNED GENERATION UNDER CONSTRUCTION

Forecasted COD ¹	Unit Name	Location	Unit Type	Primary Fuel	Capacity (Net MW)	
					Summer	Winter
2012	Virginia City Hybrid Energy Center	Wise County, VA	Baseload	Coal/Biomass	585	635

Note: 1) Commercial Operation Date

3.1.6 NON-UTILITY GENERATION

A portion of the Company's load and energy requirements are supplemented with contracted NUG units and market purchases. The Company has existing contracts with NUGs for capacity of 1,747 MW consisting of seven baseload units and two intermediate units. NUGs noted as firm capacity resources are included in this 2011 Plan. NUGs located at customer sites or that the Company does not have a contract to purchase capacity from on a firm basis are not included in this Plan.

Each of the NUG facilities listed as a capacity resource in Appendix 3B is under contract to supply capacity and energy to the Company. NUG units are obligated to provide firm capacity and energy at the contracted terms during the life of the contract. The firm capacity from NUGs was included as a resource in meeting the reserve requirements. However, the Company has been notified by three of its NUGs that those resources (totaling 316 MW) will be unavailable as a direct resource to the Company after the expiration of the current contracts. The remaining NUG contracts expire at different times during the Planning Period, with the last contract expiring in 2021. For planning purposes, the Company assumed that NUG capacity will no longer be modeled as a firm capacity resource at the expiration of each facility's existing contract. However, the Company leaves open the possibility that some of the NUG contracts may be renewed or extended at the expiration of their current contract terms as the relevant economics warrant. Also, these resources may continue to operate in the PJM market and will be available to the Company as a resource on a contract or spot basis along with other non-Company-owned resources.

Section 6.4 discusses the NUG Extension Plan (Plan B) that considers the extension of NUG contracts until the end of the planning period, exclusive of the three NUGs discussed above.

The purpose of Plan B is to show the change in the system costs with extended NUG contracts compared to the costs of other plans.

3.1.7 WHOLESALE & PURCHASED POWER

Purchased Power

Except for the NUG contracts discussed in Section 3.1.6, the Company does not have any bilateral contractual obligations with wholesale power suppliers or power marketers. As a member of PJM, the Company has the option to self-schedule or buy capacity through the Reliability Pricing Model ("RPM") auction process. The Company has procured its capacity obligation from the RPM market through May 31, 2015.

Wholesale Power Sales

The Company currently provides full requirements wholesale power sales to three entities, which are included in the Company's load obligation/forecast. Additionally, the Company has partial requirements contracts to supply the supplemental power needs of one electric cooperative. Appendix 3L provides a listing of wholesale power sales contracts that the Company has committed to or parties to which the Company expects to sell power during the Planning Period.

BTMG

BTMG occurs on the customer's side of the meter. The Company purchases all output from the customer and services all of the customer's capacity and energy requirements. Since the Company does not own or control these resources, they were not used to develop the 2011 Plan, however they do contribute to the Company's contracted renewable capacity. The unit descriptions are provided in Appendix 3B.

3.1.8 REQUEST FOR PROPOSAL

At this time, the Company does not have any RFPs outstanding to procure supply-side resources.

3.2 DEMAND-SIDE RESOURCES

The Company generally defines DSM as all activities or programs undertaken to influence the amount and timing of electricity use. Demand-side resources encourage the more efficient use of existing resources and delay or eliminate the need for new supply-side infrastructure. The Company's DSM tariffs provide customers with price signals to curtail load at times when system load or marginal cost are high. Additionally, the Company's DSM programs are designed as a way to provide customers the opportunity to manage their electricity usage. In this 2011 Plan, four types of DSM programs are discussed: i) those approved by the SCC, as well as programs most recently approved by the NCUC; ii) those proposed to the SCC on September 1, 2011; iii) those considered future programs which are neither approved or currently filed with either commission for approval, but are potential DSM resources; and iv) those programs rejected from current consideration. All DSM programs were designed and

evaluated using a system-level analysis. For reference purposes, Figure 3.2.1 provides a graphical representation of the approved, proposed, future, and rejected programs described in Chapters 3 and 5.

Figure 3.2.1 DSM TARIFFS & PROGRAMS

Tariff	VA Status	NC Status
Standby Generator Tariff	Approved	Approved
Curtailable Service Tariff		
Program	VA Status	NC Status
Air Conditioner Cycling Program	Approved	Approved
Commercial HVAC Upgrade Program		
Commercial Lighting Program		
Low Income Program		
Residential Lighting Program		
Commercial Distributed Generation Program	Proposed	Pending Review
Commercial Energy Audit Program		Future
Commercial Duct Testing & Sealing Program		
Commercial Refrigeration Program		
Residential Lighting Program (Phase II)		
Residential Bundle Program		
Voltage Conservation Program	Future	
Commercial Re-Commissioning Program		
Commercial Solar Window Film Program		
Commercial Data Center/Computer Room Program		
Commercial Custom Incentive Program		
Residential Cool Roof Program	Rejected	Rejected
Commercial HVAC Tune-Up Program		
Curtailment Service Program		
Energy Management System Program		
ENERGY STAR® New Homes Program		
Geo-Thermal Heat Pump Program		
Home Energy Comparison Program		
Home Performance with ENERGY STAR® Program		
In-Home Energy Display Program		
Premium Efficiency Motors Program		
Programmable Thermostat Program		
Residential Refrigerator Turn-In Program		
Residential Solar Water Heating Program		
Residential Water Heater Cycling Program		
Residential Comprehensive Energy Audit Program		
Residential Radiant Barrier Program		

3.2.1 DSM PROGRAM DEFINITIONS

For purposes of its DSM programs in Virginia, the Company applies the Virginia definitions set forth in Va. Code § 56-576 as provided below.

- Demand Response – Means measures aimed at shifting time of use of electricity from peak-use periods to times of lower demand by inducing retail customers to curtail electricity usage during periods of congestion and higher prices in the electrical grid.
- Energy Efficiency Program – Means a program that reduces the total amount of electricity that is required for the same process or activity implemented after the expiration of capped rates. Energy efficiency programs include equipment, physical, or program change designed to produce measured and verified reductions in the amount of electricity required to perform the same function and produce the same or a similar outcome. Energy efficiency programs may include, but are not limited to, i) programs that result in improvements in lighting design, heating, ventilation, and air conditioning systems, appliances, building envelopes, and industrial and commercial processes; and ii) measures, such as but not limited to the installation of advanced meters, implemented or installed by utilities, that reduce fuel use or losses of electricity and otherwise improve internal operating efficiency in generation, transmission, and distribution systems. Energy efficiency programs include demand response, combined heat and power and waste heat recovery, curtailment, or other programs that are designed to reduce electricity consumption so long as they reduce the total amount of electricity that is required for the same process or activity. Utilities shall be authorized to install and operate such advanced metering technology and equipment on a customer's premises; however, nothing in this chapter establishes a requirement that an energy efficiency program be implemented on a customer's premises and be connected to a customer's wiring on the customer's side of the inter-connection without the customer's expressed consent.
- Peak Shaving – Means measures aimed solely at shifting time of use of electricity from peak-use periods to times of lower demand by inducing retail customers to curtail electricity usage during periods of congestion and higher prices in the electrical grid.

For purposes of its DSM programs in North Carolina, the Company applies the definitions set forth in NCGS § 62-133.8 (a) (2) and (4) for DSM and energy efficiency measures as defined below.

- Demand-Side Management – Means activities, programs, or initiatives undertaken by an electric power supplier or its customers to shift the timing of electricity use from peak to nonpeak demand periods. DSM includes, but is not limited to, load management, electric system equipment and operating controls, direct load control, and interruptible load.
- Energy Efficiency Measure – Means an equipment, physical, or program change implemented after January 1, 2007, that results in less energy used to perform the same function. Energy efficiency measure includes, but is not limited to, energy produced from a combined heat and power system that uses nonrenewable energy resources. Energy efficiency measure does not include DSM.

3.2.2 CURRENT DSM TARIFFS

The Company modeled existing DSM pricing tariffs over its 25-year Study Period based on historical data from the Company's Customer Information System. These projections were modeled with diminishing returns assuming new DSM programs will offer more cost-effective choices in the future. No active DSM resources were discontinued since the Company's 2010 Plan.

Standby Generator & Curtailable Service Tariffs

Program Type:	Energy Efficiency - Demand Response
Target Class:	Commercial & Industrial
Participants:	14 customers on Standby Generator in Virginia 1 customer on Curtailable Service in Virginia
Capacity Available:	See Figure 3.2.2.1

In Virginia, the Company currently offers two DSM pricing tariffs including Standby Generator ("SG") rate schedules and a Curtailable Service ("CS") rate schedule. These tariffs provide incentive payments for dispatchable load reductions that can be called on by the Company when capacity is needed.

The SG rate schedules provide 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 a contracted capacity level or average capacity generated during a billing month when SG is requested. The CS rate schedule requires the participating customer to reduce its electric demand to a contracted firm demand level when requested by the Company in return for a rate reduction credit. Failure to comply with the Company's request to reduce demand to the firm level results in a penalty, based on a demand charge that is approximately four times the per kilowatt ("kW") credit, on the customer's bill. To receive the rate credit, customers commit to participate in the curtailment upon at least two hours' notice. The tariff is primarily aimed at customers with the operational flexibility to store inventory or to curtail or reschedule production.

During a load reduction event, a customer receiving service under the SG rate schedule is required to transfer a contracted level of load to its dedicated on-site backup generator while the customer receiving service under the CS rate schedule is required to reduce load to a contracted firm demand level. At the Company's request, the customer may be asked to reduce load on the Company's system 19 times during the summer (May 16 – September 30) and 13 times during the winter (December 1 – March 31). Additional jurisdictional rate schedule information is available on the Company's website at www.dom.com.

Figure 3.2.2.1 ESTIMATED LOAD RESPONSE DATA

Tariff	Summer 2010		Winter 2010	
	Number of Events	Estimated MW Reduction	Number of Events	Estimated MW Reduction
Standby Generator	16	7	7	5
Curtable Service	4	2	3	2

3.2.3 CURRENT & COMPLETED DSM PILOTS & DEMONSTRATIONS

Pilots

On September 18, 2007, the Company filed with the SCC for approval of nine conservation, energy efficiency, education, demand response, and load management Pilots. The SCC issued a Final Order on January 17, 2008, approving the Pilots finding that they were necessary to gather information to help the Commonwealth determine methods to achieve the legislative goal affirmed by the Virginia Energy Plan of reducing energy demand by 10% (using 2006 as the base year) by 2022. The Pilots were designed not only to reduce megawatt hour (“MWh”) sales and peak demand, but to gain valuable operational information and data on customer usage and customer acceptance of DSM programs.

In March 2009, the Company filed its Final Quarterly Report on the status of the Pilots (Case No. PUE-2007-00089). The Company reported information on the implementation and closure status of each Pilot, an analysis of the seven completed Pilots including a description of the EM&V analyses, and an update on the two uncompleted Pilots. The Pilots have provided valuable information for future programs and numerous learning opportunities for the Company. The Company found that Pilots offering incentives were the most popular among customers. Additionally, the Company experienced greater success with Pilots that did not require in-home customer appointments for installation. The Final Report also noted that customers wanted information at the beginning of their enrollment as to how much savings to anticipate, what to expect on their first bill, and how to determine if they were reducing energy usage. For demand response programs, customers wanted more information on the frequency and duration of demand response events. All of this information is valuable to the Company in developing, marketing, and implementing future DSM programs. The seven completed Pilots discussed in the Final Report included:

1. Direct Load Control – Outdoor Air-Conditioning Control Device Pilot
2. Programmable Thermostats – Indoor Air-Conditioning Control Device Pilot
3. Standard Residential In-Home Energy Audits Pilot
4. ENERGY STAR® Qualified Homes Energy Audits Pilot
5. Energy Efficiency Welcome Kits Pilot
6. PowerCost™ Monitor Pilot
7. Small Commercial On-Site Energy Audits Pilot

Since the final report filed in March of 2009, the Company has filed four follow-up or quarterly reports regarding the status of its Pilots. In its second follow-up report on October 1, 2009, the Company provided an update to two continuing pilots: the Programmable Thermostats with

Advanced Metering Infrastructure (“AMI”) and Critical Peak Pricing (“CPP”) Pilot and the Distributed Generation (“DG”)/Load Curtailment Pilot for Large Non-Residential Customers (“DG Pilot”). The October 2009 Report also provided further information on the PowerCost™ Monitor Pilot and compact fluorescent light (“CFL”) price reduction program. On March 1, 2010 the Company filed another follow-up report in which the Company discussed the conclusion of its AMI-CPP Pilot in November 2009 and end of the CFL price reduction program on December 27, 2009. The DG Pilot is the only Pilot from Case No. PUE-2007-00089 that has active participants.

On April 6, 2010, the SCC issued an Order granting the Company’s Motion to continue reporting on its DG Pilot on October 31 of each year instead of quarterly reports. The First Annual Report on the DG Pilot was filed on October 29, 2010. Within 90 days of the conclusion of the DG Pilot, the Company must file a final detailed and comprehensive report regarding its future plans for the Pilot.

In addition to the on-going DG Pilot, the Company recently received SCC approval for implementation of other pilots. Descriptions of the Company’s other pilots are provided below:

DG Pilot

State: Virginia
Target Class: Non-Residential
Pilot Type: Demand Response
Pilot Duration: Enrollment closed on December 31, 2009
Incentive payments end on December 31, 2014

Pilot Description:

The Company has formed agreements with customers for backup generators to be installed at participants’ facilities to be used as replacement power when requested by the Company during periods of high electric demand. A minimum of a 30-minute notice is provided to participants for start and end times of load curtailment events, which the Company may call for up to 200 hours per year. The Company hired an outside contractor, PowerSecure™, to provide backup generation services to participating customers at a discount and dispatch the enrolled generators when requested by the Company in exchange for an incentive payment. The payment is based upon the amount of load curtailment capacity enrolled and the number of hours dispatched.

Current Pilot Status:

At the close of the enrollment period, firm commitments were made by customers to supply approximately 24 MW of backup generator capacity for load curtailment. Of the 24 MW commitment, over 15 MW of capacity is currently operational while the remainder is expected to become available in late 2011. Over 50 load curtailment events have been called during 2009 and 2010. Generally, the events were called during unseasonably warm or cold weather. The

Company continues to use the load curtailment capacity derived from the Pilot to reduce load when called upon during peak load times.

Dynamic Pricing Tariffs Pilot

State: Virginia
Target Class: Residential and Non-Residential
Pilot Type: Peak-Shaving
Pilot Duration: Enrollment closes December 1, 2012
Pilot concludes November 30, 2013

Pilot Description:

On September 30, 2010, the Company filed an application with the SCC (Case No. PUE-2010-00135) proposing to offer three experimental and voluntary dynamic pricing tariffs to prepare for a potential system-wide offering in the future. The filing was in response to the SCC's July 30, 2010 Order Establishing Pilot Programs issued in Case No. PUE-2009-00084, which, among other things, directed the Company to establish a pilot program under which eligible customers/renewable generators volunteering to participate would be provided the ability to purchase and sell electricity to the Company at dynamic rates.

A dynamic pricing schedule allows the Company to apply different prices as system production costs change. The basic premise is that if customers are willing to modify behavior and use less electricity during high price periods, they will have the opportunity to save money, and the Company in turn will be able to reduce the amount of energy it would otherwise have to generate or purchase during peak periods.

Specifically, the Company proposed a pilot program of 2,000 participants consisting of 1,000 residential customers taking service under experimental dynamic pricing tariff DP-R and 1,000 commercial/general customers taking service under dynamic pricing tariffs DP-1 and DP-2. Participation in the pilot requires either an Advanced Metering Infrastructure ("AMI") meter or an existing interval data recorder ("IDR") meter at the customer location.

Energy usage is recorded every 30 minutes, which enables the Company to offer pricing that varies based on the time of day. In addition, the pricing varies based on the season, the classification for the day, and the customer's demand. Therefore, the AMI or IDR meter coupled with the dynamic pricing schedules allows customers to manage their energy costs based on the time of day.

Additional information regarding the pilot is available at <http://www.dom.com/smartprice>.

Current Pilot Status:

The filing was approved by the SCC's Order Establishing Pilot Program issued on April 8, 2011. The Company launched this pilot program on July 1, 2011.

Electric Vehicle (“EV”) Pilot

State: Virginia
Target Class: Residential
Pilot Type: Peak-Shaving
Pilot Duration: Enrollment begins October 3, 2011
Pilot concludes November 30, 2014

Pilot Description:

On January 31, 2011, the Company filed an application with the SCC (Case No. PUE-2011-00014) proposing a pilot program to offer experimental and voluntary EV rate options to encourage residential customers who purchase or lease EVs to charge them during off-peak periods. The pilot program provides two rate options. One rate option, a “whole house” rate, will allow customers to apply the time-of-use rate to their entire service, including their premise and vehicle. The other rate option, an “EV only” rate, will allow customers to remain on their existing standard rate for their premise and subscribe to the time-of-use rate only for their vehicle. The program will be open to up to 1,500 residential customers, with up to 750 in each of the two experimental rates. Additional information regarding the Company’s EV Pilot Program is available in the Company’s application and in the SCC’s Order Granting Approval.

Current Pilot Status:

The SCC approved the pilot on July 11, 2011. The Company plans to begin pilot enrollment October 3, 2011 and conclude the pilot November 30, 2014. If supported by the results of the pilot program, the Company plans to request approval of a Virginia service territory EV peak-shaving program in the future.

Demonstrations

The Company is also continuing its demonstration efforts for AMI, herein referred to as the “AMI Demonstration.” The AMI Demonstration is an on-going project that will help the Company further evaluate the technology and verify the potential impacts to its system.

AMI Demonstration

State: Virginia
Target Class: All-classes
Type: Energy Efficiency
Duration: On-going

Demonstration Description:

The Company indicated in its supplemental testimony on February 12, 2010 (Case No. PUE-2009-00081) that it wanted to obtain further information regarding AMI to ensure that the technology, costs and benefits of implementing the technology, and technology’s potential for energy reduction were better understood. In 2010, the Company extended its AMI demonstration by installing approximately 32,000 AMI meters in parts of City of Alexandria,

Arlington County, Fairfax County, and City of Falls Church, Virginia. The Company's efforts to demonstrate meter technology continue with additional meter exchanges in 2011. The Company plans to install approximately 8,000 meters to evaluate additional technology in Blue Ridge, downtown Richmond, and Williamsburg by the end of 2011.

3.2.4 CURRENT CONSUMER EDUCATION PROGRAMS

The Company's consumer education initiatives include providing demand and energy usage information, educational opportunities, and online customer support options to assist customers in managing their energy consumption. The Company's website has a section dedicated to energy conservation. This section contains helpful information for both residential and non-residential customers, including information about the Company's DSM programs. Through consumer education, the Company is working to encourage the adoption of energy-efficient technologies in residences and businesses in Virginia and North Carolina. Examples of how the Company increases customer awareness include:

Customer Connection Newsletter

State: Virginia and North Carolina

The Customer Connection newsletter is sent to customers as an insert to their monthly power bill six times per year. It contains news on topics such as DSM programs, how to save money or manage electric bills, helping the environment, service issues, and safety recommendations, in addition to many other relevant subjects. For those who receive their electric bills by e-mail, the newsletter is available online. Articles from the most recent Virginia Customer Connection Newsletter are located on the Company's website at <http://www.dom.com/dominion-virginia-power/customer-service/your-bill/customer-connection.jsp>. Articles from the most recent North Carolina Customer Connection Newsletter are located on the Company's website at: <http://www.dom.com/dominion-north-carolina-power/customer-service/your-bill/customer-connection.jsp>.

Energy Conservation Blog

State: Virginia and North Carolina

The Company has an "Energy Conservation Blog," which is an online forum for Company experts to answer customer questions on energy-related topics and provide specific examples of measures to take that will help reduce energy consumption. It is also a means to provide information about the Company's DSM programs. The blog is online at: <http://e-conserve.blogspot.com/>.

Twitter ®

State: Virginia and North Carolina

The Company uses the social media channel Twitter® to provide real-time updates on energy-related topics, promote company messages and provide two-way communication with customers. The Twitter® account is available online at: www.twitter.com/DomVAPower.

“Every Day”

State: Virginia

The Company advertises the “Every Day” campaign, which is a series of commercial and print ads that address various energy issues. These advertisements, along with the Company’s other advertisements, are available at:

<http://www.dom.com/about/advertising/index.jsp>.

News Releases

State: Virginia and North Carolina

The Company prepares news releases and reports on the latest developments regarding its DSM 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 at: <http://www.dom.com/news/index.jsp>.

Online Energy Calculators

State: Virginia and North Carolina

Home and business energy calculators are provided on the Company’s website to estimate electrical usage for homes and business facilities. The calculators can help customers understand specific energy use by location and discover new means to reduce usage and save money. An appliance energy usage calculator and holiday lighting calculator are also available to customers. The energy calculators are available at:

<http://www.dom.com/about/conservation/energy-calculators-help-find-energy-savings.jsp>.

Community Outreach - Trade Shows, Exhibits and Speaking Engagements

State: Virginia and North Carolina

The Company conducts outreach seminars and speaking engagements in order to share relevant energy conservation information to both internal and external audiences. The Company also participates in various trade shows and exhibits at energy-related events to inform customers and communities about the importance of implementing energy-saving measures in homes and businesses. Additionally, Company representatives positively impact the communities served through presentations to elementary, middle, and high school students about using energy wisely and environmental stewardship.

The Company also provides helpful materials for students to share with their families. “Project Plant It!” is an innovative program available to elementary school students in Virginia, North Carolina, Massachusetts, Connecticut, Rhode Island, Maryland, and Wisconsin that teaches students about the importance of trees and how to protect the environment. This program includes interactive classroom lessons and provides students with tree seedlings to plant at home or at school. The Company has provided this program free of charge to thousands of elementary school students throughout the Company’s service territory and recently distributed the 100,000th seedling through the program.

As part of the Residential Lighting Program, this year the Company held energy efficient lighting outreach events at Lowe's throughout the Virginia service territory with educational activities for kids and information for adults. In April, the Company held a Lighting Program school contest with Culpeper, Virginia elementary schools. The school that accrued the most vouchers and receipts attributed to compact florescent light CFL bulb sales received a \$5,000 math and science scholarship to support its math and science initiatives. The Company is planning similar educational contests in October 2011 for communities in Virginia and North Carolina.

Home Energy Reports

State: Virginia

Beginning in May of 2010, the Company partnered with OPOWER® to provide Home Energy Reports to 25,000 customers in the Charlottesville, Virginia area on a bi-monthly basis for one year. The reports are designed to help customers understand their home's energy usage and find ways to make their home more efficient, including references to the Company's energy conservation programs. The Company recently completed this initiative.

Discontinued Consumer Education Programs

The Company has removed its carbon calculator formally available on www.dom.com due to fewer web visitors than anticipated; however, other energy calculators are available for customer use.

3.2.5 DSM TARGETS CASE

On April 30, 2009, the SCC initiated a proceeding to determine achievable, cost-effective energy conservation and demand response targets that could realistically be achieved by each electric utility in the Commonwealth of Virginia. The SCC received input from the three generating electric utilities in the Commonwealth: the Company, Appalachian Power, and Kentucky Utilities. In the filings, the utilities discussed a realistically achievable level of savings, with the Company's testimony stating that a 10% goal using the 2006 base year was an aggressive, but realistic target. Eight interveners filed testimony, with the SCC Staff filing its testimony prior to the evidentiary hearing. During the hearing, the parties generally agreed that this goal was achievable.

On November 15, 2009, the SCC submitted a report to the Virginia Governor and the General Assembly, as required by law, finding that a 10% reduction in electric energy consumption through DSM, demand response, and energy efficiency programs was a realistic and achievable goal. The SCC did find that due to current economic conditions, rate impact implications, and the limited amount of time in which to complete the proceeding and issue the report, it was not recommending mandates to the utilities regarding particular targets to be achieved, required programs, or specific technologies to be used. Instead, the SCC stated that it would evaluate proposals on a case-by-case basis.

3.2.6 APPROVED DSM PROGRAMS

In Virginia, the Company filed for SCC approval of 12 DSM programs ("DSM Programs") on July 28, 2009 (Case No. PUE-2009-00081). On February 12, 2010, the Company filed supplemental testimony in order to withdraw its proposed Voltage Conservation Program and further evaluate the potential impacts of AMI through the on-going AMI Demonstration discussed in Section 3.2.3. On March 24, 2010, the SCC issued its Final Order approving five of the 11 proposed Programs including the: i) Air Conditioner Cycling Program, ii) Commercial Heating, Ventilating, and Air Conditioning ("HVAC") Upgrade Program, iii) Commercial Lighting Program, iv) Low Income Program, and v) Residential Lighting Program.

On March 11, 2010, the NCUC issued an Order requiring the Company to file for approval of demand response programs on or before September 1, 2010 (Docket No. E-22, Sub 418). In response to this Order, the Company filed for approval of six DSM Programs in North Carolina on September 1, 2010, in Docket No. E-22, Subs 465 (Air Conditioner Cycling Program), 466 (Commercial Distributed Generation Program), 467 (Commercial HVAC Upgrade Program), 468 (Residential Lighting Program), 469 (Commercial Lighting Program), and 463 (Low Income Program). These six proposed Programs are similar to the Programs approved in Virginia, with the exception of the Commercial Distributed Generation ("CDG") Program, which was not approved in its initial form by the SCC in Case No. PUE-2009-00081. The CDG Program has since been redesigned to address concerns of both the Virginia and North Carolina Commissions, SCC Staff and North Carolina Public Staff.

On February 22, 2011, the NCUC issued Final Orders approving five Programs including the: i) Air Conditioner Cycling Program, ii) Commercial HVAC Upgrade Program, iii) Commercial Lighting Program, iv) Low Income Program, and v) Residential Lighting Program.

On March 3, 2011, the NCUC issued an Order Scheduling Oral Argument for the Company's CDG Program, which was heard on April 13, 2011. Currently, the NCUC's proceeding regarding the CDG Program review is pending.

Appendices 3M, 3N, 3O, and 3P provide the system-level non-coincidental peak savings, coincidental peak savings, energy savings, and penetrations for each approved Program. A brief description of each approved Program is available below. Included in the descriptions are the branded names used for customer communications and marketing plans that the Company is employing and plans to achieve each Program's penetration goals.

Air Conditioner Cycling Program

Branded Name: Smart Cooling Rewards
State: Virginia & North Carolina
Target Class: Residential
VA Program Type: Peak Shaving
VA Duration: Ongoing
NC Duration: 2011 – 2036

Program Description:

This Program provides participants with an external radio frequency cycling switch that operates on central air conditioners and heat pump systems. Participants allow the Company to cycle their central air conditioning and heat pump systems during peak load periods. The cycling switch is installed by a contractor and located on or near the outdoor air conditioning unit(s). The Company remotely signals the unit when peak load periods are expected, and the air conditioning or heat pump system is cycled off and on for short intervals.

Program Marketing:

Direct mail is currently the most frequently used marketing approach for this type of Program. The Company uses various enrollment methods including business reply cards, online enrollment, and call centers.

Commercial HVAC Upgrade Program

Branded Name: HVAC Rewards
State: Virginia & North Carolina
Target Class: Commercial and Industrial
VA Program Type: Energy Efficiency
VA Duration: Ongoing
NC Duration: 2011 – 2036

Program Description:

The Program provides incentives for HVAC system efficiency upgrades for the commercial sector including chillers, roof-top units, and packaged terminal air conditioners. Participants who enroll in the Program receive a one-time incentive payment for replacing or upgrading inefficient heating and cooling systems. This upgrade helps assure commercial customers that their HVAC systems are running at maximum efficiency while minimizing energy consumption.

Program Marketing:

The Company markets this Program using a Contractor Network. The Program implementation vendor works with and provides content to a contractor base, which performs the actual upgrades and administers the company rebates for customers. As part of this effort, a website was developed, www.DomEnergyConservationPortal.com, where contractors can enroll in the network and submit rebate applications.

Commercial Lighting Program

Branded Name: Lighting Rewards
State: Virginia & North Carolina
Target Class: Commercial and Industrial
VA Program Type: Energy Efficiency
VA Duration: Ongoing
NC Duration: 2011 – 2036

Program Description:

This Program provides commercial and industrial customers with an incentive to upgrade inefficient lighting systems to more cost-effective, energy-efficient lighting systems. Participants will receive a one-time average incentive based on the lighting upgrades selected.

Program Marketing:

The Company markets this Program using a Contractor Network. The Program implementation vendor works with and provides content to a contractor base, which performs the actual upgrades and administers the company rebates for customers. As part of this effort, a website was developed, www.DomEnergyConservationPortal.com, where contractors can enroll in the network and submit rebate applications.

Low Income Program

Branded Name: Home Energy Improvement
State: Virginia & North Carolina
Target Class: Residential
VA Program Type: Energy Efficiency
VA Duration: Ongoing
NC Duration: 2011 – 2036

Program Description:

The Low Income Program provides an energy audit for residential customers who meet the low income criteria defined by state social service agencies. A certified technician performs an audit of participating residences to determine potential energy efficiency improvements. Specific energy efficiency measures applied may include, but are not limited to: envelope sealing, water heater temperature set point reduction, installation of insulation wrap around the water heater and pipes, installation of low flow shower head(s), replacement of incandescent lighting with efficient lighting, duct sealing, attic pressure testing, attic insulation, and air filter replacement.

Program Marketing:

The Company markets this Program using a neighborhood canvassing approach in prescreened areas targeting income qualifying customers. To ensure neighborhood security and program legitimacy, community posters, truck decals, yard signs, and authorization forms have been produced and are displayed in areas where the Program has current activity.

Residential Lighting Program

Branded Name: Lighting Program
State: Virginia & North Carolina
Target Class: Residential
VA Program Type: Energy Efficiency
VA Duration: Ongoing
NC Duration: 2011 – 2036

Program Description:

This Program is an extension of the Company's previous CFL price reduction program, which ran from October 2007 to December 2009. As part of this Program, the Company partners with manufacturers and retailers to provide participants with an instant rebate for high-efficiency lighting purchases. CFLs, when compared to incandescent bulbs, give the same amount of visible light, use approximately 75% less energy, and have an approximately 10 times longer rated life. This Program ceases to allow new participants on December 31, 2011.

Program Marketing:

The Program's automatic price discount ensures easy customer participation. The Company uses point-of-purchase marketing material in select retail locations next to the discounted bulbs to inform customers that the Company is providing a price discount.

CDG Program

Branded Name: Distributed Generation
State: North Carolina
Target Class: Commercial and Industrial
NC Program Type: Demand-Side Management
NC Duration: 2011 – 2036

Program Description:

As part of this Program, a third party contractor will dispatch, monitor, maintain and operate customer-owned generation when called upon by the Company during peak demand periods for up to 120 hours per year, throughout all months. The Company will supervise and implement the CDG Program through the third party implementation contractor. Participating customers will essentially receive reduced cost backup generation service in exchange for their agreement to reduce electrical load on the Company's system. The reduction in cost of the backup generation service is facilitated through a fee paid by the Company to the third party contractor, based upon the amount of load curtailment delivered during control events. At least 80% of the program participation incentive is required to be passed through to the customer, with 100% of fuel and operations and maintenance compensation passed along to the customer. When not being dispatched by the Company, the generators may be used at the participants' discretion or to supply power during an outage, consistent with applicable environmental restrictions. Currently, the NCUC's proceeding regarding the CDG Program review is pending.

Program Marketing:

Marketing will be handled by the Company's implementation vendor.

3.2.7 PROPOSED DSM PROGRAMS

In Virginia, the Company filed for SCC approval of six DSM Programs on September 1, 2011 (Case No. PUE-2011-00093). The six proposed Programs include i) Commercial Energy Audit Program, ii) Commercial Duct Testing & Sealing Program, iii) Commercial Refrigeration Program, iv) CDG Program, v) Residential Lighting (Phase II) Program and vi) Residential Bundle Program.

The Company seeks approval of the Residential Bundle Program as one Program that will be offered to customers as a combined bundle of services. The Residential Bundle Program consists of: i) Residential Home Energy Check-Up Program, ii) Residential Duct Testing & Sealing Program, iii) Residential Heat Pump Tune-Up Program, and iv) Residential Heat Pump Upgrade Program. This Program has also been studied for cost-effectiveness as one Program.

These proposed DSM Programs provide a diversified mix of programs that the Company believes are cost-effective and should be approved as being in the public interest. Provided in this section are the high-level descriptions of these programs. Appendices 3Q, 3R, 3S, and 3T present data for their system-level non-coincidental peak savings, coincidental peak savings, energy savings, and penetrations.

Commercial Energy Audit Program

Target Class:	Non-residential
VA Program Type:	Energy Efficiency
NC Program Type:	Energy Efficiency
VA Duration:	2012 – 2036
NC Duration:	2014 – 2036

Program Description:

As part of this Program, an energy auditor will perform an on-site energy audit of a non-residential customer's facility. The customer will receive a report showing the projected energy and cost savings that could be anticipated from the implementation of options identified during the audit. Once a qualifying customer provides documentation that some of the recommended energy efficiency improvements have been made at the customer's expense, a portion of the audit price will be refunded, up to the full price of the audit.

Commercial Duct Testing & Sealing Program

Target Class: Non-residential
VA Program Type: Energy Efficiency
NC Program Type: Energy Efficiency
VA Duration: 2012 – 2036
NC Duration: 2014 – 2036

Program Description:

This Program will promote testing and general repair of poorly performing duct and air distribution systems in non-residential facilities. The Program provides incentives to qualifying customers to have a contractor seal ducts in existing buildings using program-approved methods, including: aerosol sealant, mastic, or foil tape with an acrylic adhesive. Such systems include air handlers, air intake, return and supply plenums, and any connecting duct work.

Commercial Refrigeration Program

Target Class: Non-residential
VA Program Type: Energy Efficiency
NC Program Type: Energy Efficiency
VA Duration: 2012 – 2036
NC Duration: 2014 – 2036

Program Description:

This Program provides calculated incentives to qualifying non-residential customers for the installation of program-approved refrigeration measures.

CDG Program

Target Class: Non-residential
VA Program Type: Demand Response / Energy Efficiency
NC Program Type: Demand-Side Management
VA Duration: 2012 – 2036
NC Duration: 2011 – 2036

Program Description:

This Program provides qualifying customers with an incentive to curtail load by operating customer-owned backup generation when called upon to do so up to 120 hours per year. The Program is implemented by a contractor who is responsible for installing equipment to enable remote operation and monitoring of the customer's backup generation equipment and for dispatching load curtailment events under the direction of the Company. Additional Program details are provided in Section 3.2.6.

Residential Lighting Program (Phase II)

Target Class: Residential
VA Program Type: Energy Efficiency
NC Program Type: Energy Efficiency
VA Duration: 2012 – 2036
NC Duration: 2014 – 2036

Program Description:

This Program promotes the installation of CFL and light-emitting diode based bulbs in lieu of conventional incandescent bulbs.

Residential Bundle Program

Target Class: Residential
VA Program Type: Energy Efficiency
NC Program Type: Energy Efficiency
VA Duration: 2012 – 2036
NC Duration: 2014 – 2036

The Residential Bundle Program includes the four following DSM Programs described below.

Residential Home Energy Check-Up Program

Program Description:

The purpose of this Program is to provide owners and occupants of single family homes an easy and low cost home energy audit. It will include a walk through audit of customer homes, direct install measures, and recommendations for additional home energy improvements.

Residential Duct Testing & Sealing Program

Program Description:

This Program is designed to promote the testing and repair of poorly performing duct and air distribution systems. Qualifying customers will be provided an incentive to have a contractor test and seal ducts in their homes using methods approved for the Program, such as mastic material or foil tape with an acrylic adhesive to seal all joints and connections. The repairs are expected to reduce the average air leakage of a home's conditioned floor area to industry standards.

Residential Heat Pump Tune-Up Program

Program Description:

This Program provides qualifying customers with an incentive to have a contractor tune-up their existing heat pumps once every five years in order to achieve maximum operational performance. A properly tuned system should increase efficiency, reduce operating costs, and prevent premature equipment failures.

Residential Heat Pump Upgrade Program

Program Description:

This Program provides incentives for residential heat pump (e.g., air and geothermal) upgrades. Qualifying equipment must have better Seasonal Energy Efficiency Ratio and Heating Seasonal Performance Factor ratings than the current nationally mandated efficiency standards.

3.2.8 EVALUATION, MEASUREMENT & VERIFICATION

The Company has implemented EM&V plans to quantify the level of energy and demand savings for approved Programs in Virginia and North Carolina. As required by the SCC and NCUC, the Company will provide periodic EM&V reports that include: i) the actual EM&V data; ii) the cumulative results for each Program in comparison to forecasted annual projections; and iii) any recommendations or observations following the analysis of the EM&V data. The Company signed a contract with a third-party vendor, KEMA, Inc., to be responsible for developing, executing, and reporting the EM&V results for the Company's currently approved DSM Programs.

3.3 TRANSMISSION RESOURCES

3.3.1 EXISTING TRANSMISSION RESOURCES

The Company has over 6,100 miles of transmission lines in Virginia, North Carolina, and West Virginia at voltages ranging from 69 kV to 500 kV. These facilities are integrated into PJM.

In Virginia, the Company added two 230 kV lines: i) Chickahominy – Old Church line (March 2011) and ii) Suffolk – Thrasher line (June 2011) and two 500 kV lines: i) Meadowbrook – Loudoun line (April 2011) and ii) Carson – Suffolk line (May 2011). In addition, 230 kV Iron Bridge – Southwest line (May 2011) and 230 kV Pleasant View – Dickerson line (June 2011) were updated, and 230 kV Brambleton to Pleasant View line was reconducted.

The Company has the following transmission ties with other systems to facilitate economic and emergency transfer of power with neighboring utilities:

- One 500 kV and one 230 kV interconnection with PJM / Potomac Electric Power Company to north of the DOM Zone.
- One 500 kV, four 230 kV, and two 115 kV interconnections with Progress Energy-Carolinas to south of the DOM Zone.
- Seven 500 kV, one 138 kV, and one 115-138 kV transformer interconnections with Allegheny Power to northwest of the DOM Zone.
- One 500 kV, four 138 kV, and two 115-69 kV transformers interconnections with American Electric Power to the west of the DOM Zone.

These ties also serve as a source of mutual support between the Company and other utilities to help ensure reliable service to customers.

3.3.2 EXISTING TRANSMISSION & DISTRIBUTION LINES

North Carolina Plan Addendum 2 contains the list of Company's existing transmission and distribution lines listed in pages 422, 423, 424, 425, 426 and 427, respectively, of the Company's most recently filed Federal Energy Regulatory Commission ("FERC") Form 1.

3.3.3 TRANSMISSION PROJECTS UNDER CONSTRUCTION

The Company currently does not have any transmission interconnection projects under construction (Appendix 3U). A list of the Company's transmission lines and associated facilities that are under construction may be found in Appendix 3V.