

**Commonwealth of Virginia**  
**State Corporation Commission**

**Report to the Commission on Electric Utility Regulation  
of the Virginia General Assembly  
and the Governor of the Commonwealth of Virginia**



**Status Report: Implementation of the Virginia  
Electric Utility Regulation Act**

**Pursuant to § 56-596 B of the Code of Virginia**

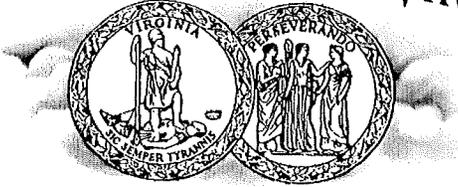
**September 1, 2015**

MARK C. CHRISTIE  
COMMISSIONER

JAMES C. DIMITRI  
COMMISSIONER

JUDITH WILLIAMS JAGDMANN  
COMMISSIONER

# COMMONWEALTH OF VIRGINIA



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## STATE CORPORATION COMMISSION

September 1, 2015

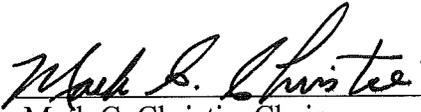
TO: The Honorable Terence R. McAuliffe  
Governor, Commonwealth of Virginia

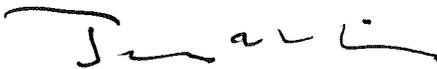
The Honorable Thomas K. Norment, Jr.  
Member, Senate of Virginia  
Chairman, Commission on Electric Utility Regulation

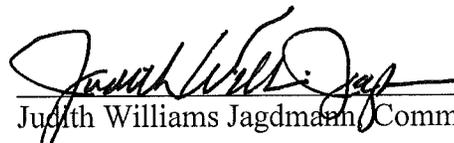
Members of the Commission on Electric Utility Regulation

The State Corporation Commission is pleased to transmit its report on the status of the implementation of the Virginia Electric Utility Regulation Act, Chapter 23 of Title 56 of the Code of Virginia ("Code"), as required by § 56-596 B of the Code. Please let us know if you need additional information or assistance.

Respectfully submitted,

  
Mark C. Christie, Chair

  
James C. Dimitri, Commissioner

  
Judith Williams Jagdmann, Commissioner

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## GLOSSARY OF TERMS

|                         |   |
|-------------------------|---|
| 2015 Amendments         | Chapter 6, 2015 Amendments of Assembly  |
| A6 RAC                  | New generating facilities and undergrounding of distribution lines                |
| AEP                     | American Electric Power   |
| APCo                    | Appalachian Power Company   |
| Biomass Conversions     | Convert coal-fueled to biomass-fueled generating facilities                       |
| COL                     | Combined Operating License  |
| CPCN                    | Certificate of Public Convenience and Necessity                                   |
| CSP                     | Competitive Service Provider  |
| Chapter 933             | Chapter 933 of the 2007 Acts of Assembly  |
| Code                    | Code of Virginia  |
| Commission              | State Corporation Commission  |
| DG                      | Distributed Generation  |
| DG Pilot                | Distributed Generation/Load Curtailment for Large Non-residential Customers Pilot |
| DOE                     | U.S. Department of Energy   |
| DR Riders               | Demand Response Riders  |
| DSM                     | Demand Side Management  |
| DVP                     | Virginia Electric and Power Company d/b/a Dominion Virginia Power                 |
| Dominion                | Virginia Electric and Power Company d/b/a Dominion Virginia Power                 |
| Dominion Virginia Power | Virginia Electric and Power Company d/b/a Dominion Virginia Power                 |
| EE                      | Energy Efficiency   |
| EEl                     | Edison Electric Institute   |
| EIPC                    | Eastern Interconnection Planning Collaborative                                    |
| EISPC                   | Eastern Interconnection States Planning Council                                   |
| EPA                     | U.S. Environmental Protection Agency  |
| EV                      | Electric Vehicle  |
| FERC                    | Federal Energy Regulatory Commission  |
| FRR                     | Fixed Resource Requirement  |
| FRR Alternative         | Fixed Resource Requirement Alternative  |
| GATS                    | Generation Attributes Tracking System   |
| General Assembly        | Virginia General Assembly   |
| IOU                     | Investor-owned Public Utility   |
| IRP                     | Integrated Resource Plan  |
| KU/ODP                  | Kentucky Utilities Company d/b/a Old Dominion Power Company                       |
| kV                      | Kilovolt  |
| kW                      | Kilowatt  |
| kWh                     | Kilowatt-hour   |
| LG&E                    | Louisville Gas and Electric Company   |
| LMP                     | Locational Marginal Prices  |
| MW                      | Megawatt  |
| NRC                     | U.S. Nuclear Regulatory Commission  |
| ODEC                    | Old Dominion Electric Cooperative   |
| Order No. 1000          | FERC final rule reforming its transmission planning and cost allocation policy    |
| PJM                     | PJM Interconnection, LLC  |
| PJM-EIS                 | PJM Environmental Information Services  |
| PPA                     | Purchased Power Agreement   |
| PSDR                    | Peak Shaving Demand Response  |
| PSEDR                   | Peak Shaving and Emergency Demand Response  |
| Phase III               | DVP's New Non-residential Demand-side Management Bundle Program                   |
| RAC                     | Rate Adjustment Clause  |
| REC                     | Renewable Energy Certificates   |
| RG Pilot Program        | DVP's Renewable Generation Pilot Program  |
| RGP Program             | APCo's Renewable Generation Purchase Program                                      |
| ROE                     | Return on Equity  |
| RPM                     | Reliability Pricing Model   |

|                         |  |
|-------------------------|--|
| RPS                     | Renewable Energy Portfolio Standard                          |
| RTE                     | Regional Transmission Entity                                 |
| Regulation Act<br>Staff | Virginia Electric Utility Regulation Act<br>Commission Staff |
| T-RAC                   | Transmission Rate Adjustment Clause                          |
| VCHEC                   | Virginia City Hybrid Energy Center                           |
| VEP                     | Virginia Energy Plan   |
| VES                     | Virginia Energy Sense  |

## EXECUTIVE SUMMARY

Section 56-596 B of the Code of Virginia ("Code") directs the State Corporation Commission ("Commission") to provide an annual update on the status of the implementation of the Virginia Electric Utility Regulation Act, §§ 56-576 through 56-596 of the Code ("Regulation Act") and to offer recommendations for any actions by the Virginia General Assembly ("General Assembly") or others that the Commission considers to be in the public interest. This report is responsive to that directive. Since the Commission's last report, presented on September 1, 2014, the following activities occurred:

- The *Virginia Energy Sense* ("VES") program, which is designed to fulfill the requirements of §§ 56-592 and 56-592.1 of the Code, continued to enhance features to the program designed to stress the value of energy conservation and efficiency. Key efforts in the past year have included a targeted radio advertising campaign in major regions of the state, community outreach, new middle school educational activities, digital and social media outreach, public relations and updated market research. The Commission also completed a solicitation in early 2015 to establish a new contract for communications support to extend the VES program for an additional three-and-one-half years, maintaining the current scope and approach to the campaign.
- The Commission is considering Virginia Electric and Power Company's d/b/a Dominion Virginia Power ("DVP," "Dominion," or "Dominion Virginia Power") applications to construct and operate a 20 megawatt ("MW") Remington Solar Facility in Fauquier County and a nominal 1,600 MW natural gas-fired combined-cycle facility in Greensville County. With respect to generation additions approved prior to this year:
  - Dominion's 1,300 MW natural gas combined-cycle facility in Warren County was completed and entered into commercial operation on December 10, 2014;
  - Dominion's 1,358 MW natural gas combined-cycle facility in Brunswick County is under construction and expected to begin commercial operation in the summer of 2016;
  - Natural gas conversion of Appalachian Power Company's ("APCo") Clinch River Units 1 and 2 is underway and is expected to be completed in early 2016 and mid-2016, respectively; and
  - Green Energy Partners/Stonewall LLC's 778 MW natural gas-fired, combined-cycle merchant generator in Loudoun County is under construction and expected to be in operation during the fall of 2017.
- The 2015 Session of the Virginia General Assembly enacted legislation amending the integrated resource plan ("IRP") statutes that were signed into law by the Governor and became effective on July 1, 2015. The 2015 Amendments now require each electric utility to file IRPs annually, by July 1, 2015, and thereafter by May 1. The

2015 Amendments also require the IRPs to evaluate the effect of current and pending environmental regulations on the continued operation of existing electric generation facilities or options for construction of new electric generation facilities and the most cost-effective means of complying with current and pending environmental regulations. Additionally, the 2015 Amendments require that IRPs address options for maintaining and enhancing rate stability, energy independence, and economic development including retention and expansion of energy-intensive industries and service reliability.

- APCo and Dominion have met their 2014 renewable energy portfolio standard ("RPS") goals pursuant to § 56-585.2 of the Code.
- APCo and Dominion continue to develop and expand approved renewable generation programs and pilot programs.
- The Commission approved two new residential demand-side management ("DSM") programs for Dominion Virginia Power and seven new residential DSM programs for APCo.
- The Commission found, among other things, that a 10.9% return on equity ("ROE") was reasonable for APCo's 2012-13 biennial review period, resulting in \$5.8 million in refunds being credited to customers' bills. The Commission is currently performing its biennial review of Dominion Virginia Power for the 2013-14 time period.
- APCo's and DVP's 2014-15 electricity rates appear to be competitive with their peer utilities that meet the criteria of § 56-585.1 A 2 of the Code, although pending rate requests could impact the competitiveness of electricity rates in the future.
- The Commission continues to participate in and monitor several proceedings at the Federal Energy Regulatory Commission ("FERC") involving PJM Interconnection, LLC ("PJM").

## I. INTRODUCTION

On April 4, 2007, the General Assembly of Virginia enacted Chapter 933 of the 2007 Acts of Assembly ("Chapter 933")<sup>1</sup> that, among other provisions, established a new model of electric utility regulation. Several key features of the Regulation Act are worth mentioning.

The Regulation Act provided for biennial reviews of base-rate earnings for DVP and APCo. Should a utility over earn above a certain level, rate credits may be applied to customer bills. Rates also may be decreased if a utility over earns for two consecutive biennial periods. If a utility under earns below a certain level, base rates may be increased.

The Regulation Act also created a new set of rate adjustment clauses ("RACs") through which customers pay (separately from base rates) for certain new utility generation or transmission facilities or utility programs. RACs permit a right to recover costs plus an applicable return on equity (ROE plus "adders" of 100 to 200 basis points for certain facilities or programs), and such RACs usually are adjusted annually.

Generally, RACs may be used for cost recovery of: (i) transmission ("A4 RACs"), (ii) DSM programs such as peak shaving and energy efficiency programs, environmental compliance costs and incremental costs of participating in the voluntary Virginia RPS program, and vegetation management ("A5 RACs"), and (iii) new generating facilities and undergrounding of distribution lines ("A6 RACs").

The 2007 Regulation Act further directed the Commission to file a report by September 1 of each year to the Commission on Electric Utility Regulation and the Governor on the status of

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<sup>1</sup> Chapter 933 (SB 1416) amends and reenacts §§ 56-233.1, 56-234.2, 56-235.2, 56-235.6, 56-249.6, 56-576 through 56-581, 56-582, 56-584, 56-585, 56-587, 56-589, 56-590, and 56-594 of the Code; amends the Code by adding sections numbered 56-585.1, 56-585.2, and 56-585.3; and repeals §§ 56-581.1 and 56-583 of the Code relating to the regulation of electric utility service.

the implementation of Chapter 23 of Title 56 of the Code, including recommendations for actions that may be in the public interest.<sup>2</sup> This report is provided pursuant to that requirement.

The Regulation Act continues to evolve through regular legislative action amending its provisions. During its 2015 regular session, the General Assembly passed, and the Governor signed into law, legislation (Chapter 6, 2015 Amendments of Assembly) that made changes to the regulatory model embodied in the 2007 Regulation Act. This legislation ("2015 Amendments") made the following changes:

Base rates may not be adjusted for APCo and DVP until the years 2020 and 2022, respectively. This interval (during which base rates may not be changed) is described in the 2015 Amendments as the "Transition Rate Period."

DVP and APCo may, however, continue to seek recovery of eligible transmission costs, DSM costs, environmental costs, RPS costs, vegetation management costs, generating facility costs, and undergrounding of distribution costs through RACs during and throughout the Transition Rate Period. Virginia's electric utilities currently recover the entire costs of new generating plants approved by the Commission since 2007, almost exclusively through the A6 RAC mechanisms authorized by the 2007 Regulation Act—not through base rates. These generation facilities (whose costs are currently being recovered through A6 RACS) include DVP's Bear Garden, Warren County and Brunswick County natural gas-fired generating facilities; DVP's natural gas conversion at Bremo Power Station; DVP's biomass conversions at Altavista, Hopewell and Southampton as well as APCo's Dresden natural gas-fired generating facility (located in Ohio but jurisdictional to APCo); and APCo's natural gas conversion at Clinch River Power Station.

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<sup>2</sup> The Commission makes no legislative recommendations in this report.

The 2015 Amendments also schedule proceedings for DVP and APCo in which the Commission will determine ROEs to be used in these utilities' A6 RAC and other RACs. The 2015 Amendments schedule APCo's ROE proceedings in 2016 and 2018. DVP's ROE proceedings are scheduled by this legislation in 2017 and 2019.

Pursuant to the 2015 Amendments, DVP's prior period fuel deferral amounts were reduced by approximately \$85 million, and that reduction was reflected in the recent fuel factor charge established for the period effective April 1, 2015 through June 30, 2016. This reduction and lower projected fuel expense resulted in total savings to DVP residential customers using 1000 kilowatt-hours ("kWh") per month of \$6.12, or approximately 5.3%.

Although APCo's and DVP's 2014-15 electricity rates appear to be competitive with their peer utilities as discussed later in this report, pending rate requests could lessen the competitiveness of electricity rates in the future. As the Commission noted in a recent order:<sup>3</sup>

[W]e are cognizant of the overall rate context currently facing Dominion's customers and in which this decision is made. For example, these customers – residential, commercial, and industrial – face the continuing pressure of higher rates in the future for increases in RACs that cover the cost of generation facilities, transmission-related cost increases approved at the federal level, and environmental compliance costs. There is also uncertainty at this point as to whether specific cost increases to comply with federal carbon-control regulations will be borne through frozen base rates or paid through customer bill increases in RACs.

Since the last Status Report was filed, the Commission has continued to perform its implementation responsibilities as directed by the Regulation Act and other legislation. Specifically, the Commission reviewed or is currently reviewing applications and petitions from electric utilities for rate adjustment clauses, base and fuel rate changes, IRPs, generation and transmission additions and modifications, and demand-side management ("DSM") programs.

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<sup>3</sup> *Application of Virginia Electric and Power Company, For approval of a rate adjustment clause: Rider U, new underground distribution facilities, for the rate year commencing September 1, 2015*, Case No. PUE-2014-00089, Doc. Con. Ctr. No. 150750144, pp. 8-9, Final Order (July 30, 2015).

The Commission also has expanded the scope of the VES program, aimed at educating consumers about energy saving opportunities. Additionally, the Commission, both independently and as a member of the Organization of PJM States, Inc., continues to participate in various proceedings before FERC.

## **II. IMPLEMENTATION OF THE REGULATION ACT**

### **A. Consumer Education**

The Regulation Act, in § 56-592 of the Code, directs the Commission to establish, implement, and maintain a consumer education program to provide retail customers with information regarding energy conservation and efficiency, DSM, demand response, and renewable energy.

The VES consumer education program is in its sixth year of building awareness of the value of energy efficiency. The program's focus is to deepen consumer efforts to reduce electricity consumption and increase consumer awareness of Virginia's reduction target as set forth by the Virginia Energy Plan ("VEP"). In the past year, key efforts have included a targeted radio advertising campaign in major regions of the state, community outreach, new middle school educational activities, digital and social media outreach, public relations, and updated market research. The Commission also completed a solicitation in early 2015 to establish a new contract for communications support to extend the VES program for an additional three-and-one-half-years while maintaining the current scope and approach to the campaign.

Following a successful digital advertising campaign in 2013, VES switched to radio advertising in 2014 to reach audiences in five regional media markets during prime commuting hours. The content of the 15- and 30-second advertisements includes year-round and season-specific energy saving tips and facts and encouraged listeners to visit the VES website ([www.virginiaenergysense.org](http://www.virginiaenergysense.org)) for additional information. During 2014 a total of 2,640

advertisements ran on 72 radio stations gaining about 9.1 million audience impressions (the total number of potential listeners receiving the messages).

VES continue an active outreach program with consumers at community events and festivals around the state. In the fall of 2014, VES participated in eight community events attended by approximately 15,000 people. The 2015 community outreach effort started in early April with a presentation at the Environment Virginia Symposium at the Virginia Military Institute in Lexington. VES continued with displays at three Earth Day festivals and five other events around the state during the spring and early summer of 2015 attended by approximately 50,000 people. These direct, face-to-face interactions allowed VES to address common questions and concerns regarding energy use, to provide specific suggestions on how to conserve electricity at home, to encourage consumers to commit to practice conservation, and to share a broad range of useful informational materials. The materials distributed at community events included: VES's own Do-It-Yourself Guide; the U.S. Department of Energy's "Energy Savers" booklets; Value Your Power education materials and posters for elementary and middle school students, and a variety of information sheets.

In September 2014 VES expanded its school materials portfolio to offer a curriculum supplement for students in grades six through eight. The "Kids Know What Makes Energy Sense" program was developed in cooperation with the Virginia Department of Education and is aligned with the state's science, math, and language arts curriculum standards. Using the foundation from educational materials developed by VES in 2012 for students in grades three through five, the new curriculum helps students discover energy savings in and around their classrooms and get acquainted with tools that can help reduce energy consumption at home. Materials were distributed to 4,100 teachers statewide, reaching approximately 434,600 students. In a teacher feedback survey, 98% of the educators rated the program's educational effectiveness

as "good" or "excellent." Ninety-six percent of the teachers rated the program's appeal to students as "good" or "excellent." Eighty-eight percent of the teachers had or planned to share the materials with other educators.

The VES website serves as the hub of energy efficiency and conservation information for consumers. Over the last year, there were major additions to the content of the site as well as continued efforts to modify site usability with improvements to the navigation functionality and organization of resources. One of the new features of the website is the My ENERGY STAR<sup>®</sup> tool for Virginia Energy Sense. My ENERGY STAR helps consumers identify areas in their homes where energy efficiency can be improved, provides them with the tools and tips they can use, and lists the links to resources for additional information. With the My ENERGY STAR tool, consumers can browse different tabs to find the right improvements for their homes and budgets. They can develop to-do lists of conservation projects, mark projects off as they are completed, and track progress toward energy savings. VES website traffic through the first six months of 2015 has increased by more than 11% over the same period in 2014. As website traffic has increased, VES recognized that approximately one third of the people viewing the site were using mobile devices. As a result, VES updated the website in the spring of 2015 to improve its look and performance when accessed on mobile phones and tablets.

VES social media presence has continued to grow as well. There was a focus over the past year to develop regular posts that included energy saving tips and "Did You Know" content, along with seasonal, holiday and weather-related messages. In June 2015 VES launched a social media campaign to increase engagement with low-cost advertisements. Within a few weeks, weekly VES Facebook impressions increased from less than 5,000 to over 20,000. VES also has a strong presence on Twitter with 1,265 followers. By expanding the energy efficiency

conversation across several social media platforms, VES has increased the program visibility in the form of new likes, shares, retweets and comments.

News media coverage of VES continued all year starting with back-to-school energy saving tips in September 2014. In October, as part of the media outreach around Energy Action Month, VES was featured in a blog hosted by the *Roanoke Times*. Heading into the winter holiday season, VES was the source of information for feature stories in the Norfolk *Virginian-Pilot* and the *Richmond Times-Dispatch*. In broadcast media, energy efficiency stories were aired during the winter on WWBT-TV in Richmond as well as four radio stations around the state. In the spring of 2015, VES teamed with program partners in Roanoke and Hampton Roads to submit energy efficiency articles for the opinion pages of the *Roanoke Times* and the Norfolk *Virginian-Pilot*. In addition, six radio interviews were aired discussing energy savings tips during hot weather.

In spring of 2015, VES commissioned an external online quantitative survey of a representative sample of 1,000 Virginians in six geographic regions. The purpose of the survey was to gauge any changes in perceptions on energy matters or adoption of efficiency measures. The survey also identified potential areas to improve communication and tested new ideas for messages and tactics. The survey revealed that saving money is the most important reason Virginians cite for saving energy, with many consumers indicating they already were taking low-cost steps to reduce consumption and planning to do more in the next few months. Based on survey results, compared to previous years, Virginians appear more willing to spend money on energy efficient home improvements. Many consumers, however, continue to indicate that they lack the knowledge needed to make smart energy choices for their homes. Virginians seem most receptive to messages that tell them how to be in control of their energy savings through home energy assessments and do-it-yourself home projects.

The Commission will continue to monitor the VES program and make adjustments where necessary to the VES program that will assist Virginians in achieving the energy efficiency goals of the Virginia Energy Plan, prepared by the Virginia Department of Mines, Minerals and Energy pursuant to Chapters 1 and 2 of Title 67 (§§ 67-100 through -203) of the Code.

**B. Retail Access to Competitive Services**

Since the expiration of capped rates on December 31, 2008, the ability of most consumers to purchase electric generation service from competing suppliers has been limited. The Regulation Act permits large customers (those exceeding 5 MW of electricity demand) to shop among licensed competitive service providers ("CSP"), and nonresidential customers may apply with the Commission to aggregate load up to the 5 MW threshold to receive services from a CSP. Residential retail consumers currently have the statutory right under the Regulation Act to purchase electric generation service from CSPs selling electric energy "provided 100% from renewable energy"<sup>4</sup> and only if the incumbent electric utility serving these consumers does not offer an approved tariff for electric energy provided 100% from renewable energy resources. Under §§ 56-587 and 56-588 of the Code, the Commission licenses retail electric energy suppliers and aggregators interested in participating in the retail access programs in Virginia. Currently, 64 electric and natural gas CSPs and aggregators are licensed as retail access providers. A current list of licensed suppliers can be found on the Commission's website at <http://www.scc.virginia.gov/power/compsup.aspx>.

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<sup>4</sup> Va. Code § 56-577 A 5.

### C. Renewable Tariffs

The Commission approved tariffs that allow customers of DVP and APCo to support renewable energy.<sup>5</sup> Under both tariffs, customers have the opportunity to purchase RECs representing the production of electricity from renewable sources such as wind, solar, falling water, biomass, energy from waste, landfill gas, municipal solid waste, wave motion, tides, and geothermal power to offset some or all of the electricity such customers consume from non-renewable sources.

DVP and APCo purchase RECs procured from renewable power sources equivalent to the amount of renewable energy purchased through customer contributions. Each participating customer's bill provides a separate line item reflecting the additional costs for program participation.

The Commission has determined that neither DVP's nor APCo's renewable energy option satisfies Virginia's statutory definition for "electric energy provided 100% from renewable energy."<sup>6</sup> Consequently, customers in these utilities' service territories currently may purchase 100% renewable electricity supply service from CSPs licensed by the Commission. To the Commission's knowledge, only one CSP is offering to provide competitive supply service from 100% renewable resources to a small number of commercial accounts in APCo's service territory.

Pursuant to § 56-577 A 6 of the Code, nine electric cooperatives received Commission approval on December 17, 2010, to offer tariffs for electric energy provided 100% from renewable energy to their residential member-consumers through RECs. In further compliance with § 56-577 A 6 of the Code, these same electric cooperatives filed petitions with the

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<sup>5</sup> *Id.* Application of Virginia Electric and Power Company d/b/a Dominion Virginia Power, For approval of its Renewable Energy Tariff, Case No. PUE-2008-00044, 2008 S.C.C. Ann. Rept. 539, Order Approving Tariff (Dec. 3, 2008); and Application of Appalachian Power Company, For approval of its Renewable Power Rider, Case No. PUE-2008-00057, 2008 S.C.C. Ann. Rept. 557, Order Approving Tariff (Dec. 3, 2008).

<sup>6</sup> *Id.*

Commission for approval to amend such tariffs by extending the provisions of the approved renewable energy tariff to their nonresidential customers after July 1, 2012, as provided for in the statute. The Commission's approval of these tariffs<sup>7</sup> thus precludes competitive offerings of electric energy provided 100% from renewable energy within the respective service territories of the electric cooperatives.

**D. Net Energy Metering**

The Commission's Regulations Governing Net Energy Metering, 20 VAC 5-315-10 *et seq.*, were adopted by the Commission pursuant to § 56-594 of the Code. Such rules establish the requirements for participation by an eligible customer-generator in net energy metering in Virginia. The rules include conditions for interconnection and metering, billing, and contract requirements between net metering customers, electric distribution utilities, and energy service providers.

The Commission implemented a proceeding in June 2015 to consider revisions to the rules necessitated by amendments to § 56-594 of the Code enacted by Chapters 431 and 432 of the 2015 Acts of Assembly. Such revisions implement these amendments to § 56-594 by

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<sup>7</sup> As of August 1, 2012, these cases are: *Application of Mecklenburg Electric Cooperative, For amendment of Electric Service Backed 100% by Renewable Energy Certificates Tariff*, Case No. PUE-2012-00087, 2012 S.C.C. Ann. Rept. 493, Order Amending Tariff (July 31, 2012); *Application of BARC Electric Cooperative, For amendment of 100% Renewable Energy Attributes Electric Service Tariff*, Case No. PUE-2012-00079, 2012 S.C.C. Ann. Rept. 482, Order Amending Tariff (July 31, 2012); *Application of Shenandoah Valley Electric Cooperative, For amendment of 100% Renewable Energy Attributes Electric Service Tariff*, Case No. PUE-2012-00080, 2012 S.C.C. Ann. Rept. 483, Order Amending Tariff (July 31, 2012); *Application of Prince George Electric Cooperative, For amendment of Electric Service Backed 100% by Renewable Energy Certificates Tariff*, Case No. PUE-2012-00083, 2012 S.C.C. Ann. Rept. 486, Order Amending Tariff (July 31, 2012); *Application of Southside Electric Cooperative, For amendment of Electric Service Backed 100% by Renewable Energy Certificates Tariff*, Case No. PUE-2012-00082, 2012 S.C.C. Ann. Rept. 485, Order Amending Tariff (July 31, 2012); *Application of Northern Virginia Electric Cooperative, For amendment of Electric Service Backed 100% by Renewable Energy Certificates Tariff*, Case No. PUE-2012-00081, 2012 S.C.C. Ann. Rept. 484, Order Amending Tariff (July 31, 2012); *Application of Central Virginia Electric Cooperative, For amendment of Electric Service Backed 100% by Renewable Energy Certificates Tariff*, Case No. PUE-2012-00092, 2012 S.C.C. Ann. Rept. 497, Order Amending Tariff (Aug. 10, 2012); *Application of Northern Neck Electric Cooperative, For amendment of 100% Renewable Energy Attributes Electric Service Rider Tariff*, Case No. PUE-2012-00093, 2012 S.C.C. Ann. Rept. 498, Order Amending Tariff (Aug. 10, 2012); and *Application of A&N Electric Cooperative, For amendment of Electric Service Backed 100% by Renewable Energy Certificates Tariff*, Case No. PUE-2012-00090, 2012 S.C.C. Ann. Rept. 496, Order Amending Tariff (July 31, 2012).

(1) increasing the capacity limit for participation by nonresidential customers in the net energy metering program from 500 kilowatts ("kW") to 1 MW; (2) requiring that new net metering facilities do not exceed the customer's expected annual energy consumption based on twelve months of billing history; (3) requiring any eligible customer-generator seeking to participate in net energy metering to notify its supplier and receive approval to interconnect prior to installation of an electrical generating facility; and (4) clarifying requirements regarding the customer-generator's obligation to bear the costs of equipment required for the interconnection to the supplier's electric distribution system. This proceeding is pending before the Commission.<sup>8</sup>

**E. Sources of Virginia's Electricity**

Virginia's electric utilities supply their customers with power from their own facilities, which are located both inside and outside of Virginia, and from energy purchases from other entities. Generally, approximately 85%-90% of the total supply of energy to Virginia's investor-owned public utility ("IOU") customers is produced from facilities under the Commission's rate setting jurisdiction even though some of those facilities are located outside the boundaries of the Commonwealth. Power from jurisdictional plants that may be physically located in another state is not considered "imported" in any relevant definition because, from legal and regulatory standpoints, Virginia consumers have the same claim on such power as they do on power from jurisdictional plants physically located in Virginia.

For example, DVP's Mt. Storm facility, while physically located in West Virginia, is dispatched as part of DVP's fleet; is part of DVP's rate base; and its costs are included in rates regulated by the Commission. The same is true of APCo's facilities, some of which are physically located in West Virginia and Ohio. Despite these facilities' locations, the Virginia

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<sup>8</sup> *Commonwealth of Virginia, ex rel., State Corporation Commission, Ex Parte: In the matter of amending regulations governing net energy metering*, Case No. PUE-2015-00057, Doc. Con. Ctr. No. 150620010, Order Establishing Proceeding (June 5, 2015).

jurisdictional share of these generation assets is included in APCo's Virginia rate base. These facilities also are dispatched as part of APCo's fleet and are subject to Commission regulation.

Virginia's IOUs also procure energy through purchases from other utilities. For example, DVP frequently purchases energy from the PJM market. Such purchases often are made because it is cheaper for DVP to purchase the energy than to produce it at company-owned facilities. Under this scenario, DVP's ratepayers benefit from these purchases by paying lower prices for energy. Since the termination of the AEP East Pool Interconnection Agreement on January 1, 2014, APCo also purchases energy from the PJM market when it is more economical than to produce it at its own facilities.

**F. Recent Generation and Transmission Activities**

The Commission has considered several applications for generation additions, acquisitions, or major unit modifications during the past year. Specifically, pending before the Commission are DVP's applications to construct and operate a 20 MW Remington Solar Facility in Fauquier County<sup>9</sup> and a nominal 1,600 MW natural gas-fired combined-cycle facility in Greensville County.<sup>10</sup>

Additionally, certain generation additions previously approved by the Commission are now in various stages of construction. Green Energy Partners/Stonewall LLC's 778 MW natural

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<sup>9</sup> *Application of Virginia Electric and Power Company, For approval and certification for the proposed Remington Solar Facility pursuant to §§ 56-46.1 and 56-580 D of the Code of Virginia, and for approval of a rate adjustment clause pursuant to § 56-585.1 A 6 of the Code of Virginia*, Case No. PUE-2015-00006, Doc. Con. Ctr. No. 150220170, Order for Notice and Hearing (Feb. 20, 2015).

<sup>10</sup> *Application of Virginia Electric and Power Company, For approval and certification of the proposed Greensville County Power Station electric generation and related transmission facilities under §§ 56-580 D, 56-265.2, and 56-46.1 of the Code of Virginia, and for approval of a rate adjustment clause, designated Rider GV, under § 56-585.1 A 6 of the Code of Virginia*, Case No. PUE-2015-00075, Doc. Con. Ctr. No. 150710050, Application (July 1, 2015).

gas-fired, combined-cycle merchant generator in Loudoun County<sup>11</sup> is under construction and expected to be in operation during the fall of 2017.

DVP's 1,300 MW combined-cycle facility in Warren County<sup>12</sup> was completed and entered into commercial operation on December 10, 2014. DVP's 1,358 MW combined-cycle facility in Brunswick County<sup>13</sup> is presently under construction and expected to be operational in the summer of 2016. The natural gas conversions of APCo's Clinch River Units 1 and 2 are also underway with completion and operation expected by early 2016 and mid-2016, respectively.<sup>14</sup> The 39 MW Highland New Wind turbine facility remains under development.<sup>15</sup>

DVP and APCo also have formally announced the planned retirement of certain aging coal generation facilities during the 2015/2016 time frame due in part to current and anticipated environmental regulations. DVP retired 578 MW of coal capacity at its Chesapeake Energy Center on December 23, 2014, and plans to retire 323 MW of coal capacity at its Yorktown Power Station in 2016. An additional 399 MW of coal capacity and 790 MW oil capacity are scheduled to be retired by DVP in 2020. APCo officially retired 1,245 MW of coal capacity at its Glen Lynn, Clinch River, Kanawha River and Sporn Power Stations on June 1, 2015.

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<sup>11</sup> *Application of Green Energy Partners/Stonewall LLC, For a certificate of public convenience and necessity for a 750 MW electric generating facility in Loudoun County*, Case No. PUE-2013-00104, Doc. Con. Ctr. No. 140520190, Final Order (May 13, 2014).

<sup>12</sup> *Application of Virginia Electric and Power Company, For approval and certification of the proposed Warren County Power Station electric generation and related transmission facilities under §§ 56-580 D, 56-265.2, and 56-46.1 of the Code of Virginia and for approval of a rate adjustment clause, designated as Rider W, under § 56-585.1 A 6 of Code of Virginia*, Case No. PUE-2011-00042, 2012 S.C.C. Ann. Rept. 263, Final Order (Feb. 2, 2012).

<sup>13</sup> *Application of Virginia Electric and Power Company, For approval and certification of the proposed Brunswick County Power Station and related transmission facilities pursuant to §§ 56-580 D, 56-265.2, and 56-46.1 of the Code of Virginia, and for approval of a rate adjustment clause, designated Rider BW, pursuant to § 56-585.1 A 6 of the Code of Virginia*, Case No. PUE-2012-00128, 2013 S.C.C. Ann. Rept. 302, Final Order (Aug. 2, 2013).

<sup>14</sup> *Application of Appalachian Power Company, For certificates of public convenience and necessity to convert Units 1 and 2 of the Clinch River Plant to use natural gas rather than coal as fuel*, Case No. PUE-2013-00057, 2013 S.C.C. Ann. Rept. 415, Final Order (Dec. 20, 2013).

<sup>15</sup> *Application of Highland New Wind Development, LLC, For Approval to Construct, Own and Operate an Electric Generation Facility in Highland County, Virginia pursuant to §§ 56-46.1 and 56-580 D of the Code of Virginia*, Case No. PUE-2005-00101, 2007 S.C.C. Ann. Rept. 295, Final Order (Dec. 20, 2007).

Concerning nuclear facilities, and by way of background, DVP filed an application with the U.S. Nuclear Regulatory Commission ("NRC") on November 27, 2007, for a Combined Operating License ("COL") to build and operate a new nuclear reactor at its North Anna Power Station in Central Virginia. The NRC docketed the application on January 29, 2008, and began its environmental and safety analyses, which are expected to continue into 2016.

In April 2013, DVP announced a decision to return to its original plan to use GE Hitachi's Economic Simplified Boiling Water Reactor for the new nuclear reactor at the North Anna Power Station. DVP's application is currently undergoing the NRC certification process for the potential third unit. Dominion Virginia Power has not yet finalized a decision to construct a new nuclear unit at North Anna but continues related development activities necessary to maintain that option. Before DVP builds the new unit, it must first receive a COL from the NRC as well as the approval of this Commission.

Additionally, DVP plans to notify the NRC later this year of its intent to potentially submit a second license renewal application for Surry Power Station Units 1 and 2.

Virginia's electric utilities also continue to expand their transmission facilities. Ten transmission projects were approved and issued certificates of public convenience and necessity by the Commission during the past year, ten transmission projects are under construction, and seven transmission certificate applications are currently pending before the Commission. Although the Surry-Skiffes Creek-Wheaton project is under review by the U.S. Army Corps of Engineers and James City County, it continues to be developed with a target completion date of first quarter 2017.

A chart summarizing recent transmission line construction activity follows.

**Summary of Transmission Line Case and Construction Activity in Virginia  
as of August 1, 2015**

| <b>Company/Facility</b>                                      | <b>Size</b>                        | <b>Location</b>                                   | <b>Docket</b>                    | <b>C.O.D.*</b>   | <b>Status</b>                                |
|--|------------------------------------|---|----------------------------------|------------------|--|
| DVP Brambleton-Waxpool-Beco                                  | 230 kV – 13 mi                     | Loudoun   |                                  | 7/2015           | certificate issued                           |
| DVP Surry-Skiffes Creek-Wheaton                              | 500 kV – 7 mi<br>230 kV – 20 mi    | Surry, James City, York,<br>Newport News, Hampton | PUE-2012-00029                   | 1Q/2017          | certificate issued; other<br>reviews pending |
| DVP Cloverhill-Liberty- Bristers-Gainesville Loop            | 230 kV – 7.6 mi<br>230 kV – 2 mi   | Prince William,<br>Manassas                       |                                  | 11/2015          | certificate issued                           |
| DVP Dooms-Lexington  | 500/230 kV – 39.1 mi               | Rockbridge, Augusta                               |                                  | 12/2015          | certificate issued                           |
| DVP Loudoun-Pleasant View                                    | 500/230 kV – 13 mi                 | Loudoun   |                                  | 6/2016           | certificate issued                           |
| DVP Remington CT- Warrenton<br>Gainesville-Wheeler-Vint Hill | 230 kV – 12 mi<br>230 kV – 6 mi    | Fauquier<br>Prince William                        | PUE-2014-00025                   | 6/2018<br>6/2017 | pending                                      |
| DVP Cunningham-Elmont  | 500 kV – 51 mi                     | Fluvanna, Goochland,<br>Hanover, Henrico, Louisa  |                                  | 6/2018           | certificate issued                           |
| DVP Brambleton-Mosby   | 500 kV - 5.2 mi<br>230 kV - 5.2 mi | Loudoun<br>Loudoun                                | PUE-2014-00086<br>PUE-2014-00086 | 6/2018<br>6/2018 | pending<br>pending                           |
| DVP Pacific  | 230 kV – 1.8 mi                    | Loudoun   | PUE-2014-00115                   | 6/2016           | pending                                      |
| DVP Poland Road  | 230 kV – 4.0 mi                    | Loudoun   | PUE-2015-00053                   | 6/2018           | pending                                      |
| DVP Yardley Ridge  | 230 kV – 0.4 mi                    | Loudoun   | PUE-2015-00054                   | 6/2018           | pending                                      |
|  |                                    |   |                                  |                  |  |
| APCo Falling Branch-Merrimac                                 | 138 kV – 7.5 mi                    | Montgomery County                                 |                                  | 12/2015          | certificate issued                           |
| APCo Wythe Area Improvements                                 | 138 kV - 17.6 mi                   | Wythe County                                      |                                  | 1/2016           | certificate issued                           |
| APCo Cloverdale Substation Expansion                         | 138-765 kV - 3.3 mi                | Botetourt County                                  |                                  | 1/2017           | certificate issued                           |
| APCo South Lynchburg Improvements                            | 138 kV – 9.3 mi                    | Campbell County                                   |                                  | 6/2017           | certificate issued                           |
| APCo Richlands-Whitewood                                     | 138 kV – 8.4 mi                    | Buchanan, Tazewell                                |                                  | 6/2017           | certificate issued                           |
| APCo Tazewell-Bearwallow                                     | 138 kV – 7.8 mi                    | Tazewell County                                   | PUE-2015-00021                   | 6/2017           | pending                                      |

\*Estimated commercial operation date

**G. Integrated Resource Planning**

Section 56-597 *et seq.* of the Code mandates the regular filing of IRPs by IOUs that provide retail electric service in Virginia. Specifically, as originally enacted, each IOU was required to file an IRP with the Commission by September 1 on a biennial basis. Additionally, by September 1 of each year in which an IRP was not required to be filed, each IOU was required to file a narrative summary describing any significant event necessitating a major revision to their most recently filed IRP. The Commission determines whether or not an IRP is reasonable and in the public interest.

The 2015 Session of the General Assembly enacted legislation that, *inter alia*, amended the IRP statutes, and those amendments were signed into law by the Governor on February 24, 2015, as part of Chapter 6 of the 2015 Amendments that became effective on July 1, 2015. The 2015 Amendments now require each electric utility to file IRPs annually, by July 1, 2015, and thereafter by May 1. The 2015 Amendments also require utilities to evaluate and report on the effect of current and pending environmental regulations on the continued operation of the existing electric generation facilities or options for construction of new electric generation facilities and the most cost-effective means of complying with current and pending environmental regulations. Additionally, the 2015 Amendments require that IRPs address options for maintaining and enhancing rate stability, energy independence and economic development including retention and expansion of energy-intensive industries and service reliability.

In reviewing prior IRPs, the Commission has emphasized that the IRP, as a planning document, does not control future resource-specific decisions by the Commission and does not "preclude the Commission from approving or rejecting a particular supply-side or demand-side

resource in the future, nor does the Commission's determination . . . create any presumption in favor, or not in favor, of a particular resource."<sup>16</sup>

DVP filed its most recent IRP on July 1, 2015, and a hearing is scheduled to begin on October 20, 2015.<sup>17</sup> APCo submitted its latest IRP on July 1, 2015, and a hearing is scheduled to commence on December 12, 2015.<sup>18</sup> Kentucky Utilities Company d/b/a Old Dominion Power Company ("KU/ODP") filed its latest IRP on July 1, 2015,<sup>19</sup> and a Commission Staff ("Staff") report is to be submitted by October 30, 2015.

## **H. Voluntary Renewable Portfolio Standard Programs**

### **1. Appalachian Power Company**

In 2008, the Commission approved APCo's application under § 56-585.2 of the Code for participation in a voluntary RPS program and for approval of two purchased power agreements ("PPA") for wind resources, the Camp Grove and Fowler Ridge projects, with capacities of 75 MW and 100 MW, respectively.<sup>20</sup> APCo has not sought approval for additional renewable resources during the past year.

Pursuant to § 56-585.2 H of the Code, each IOU is required to report to the Commission by November 1 of each year information relative to: (i) efforts, if any, to meet the RPS goals, (ii) overall generation of renewable energy, and (iii) advances in renewable generation technology that affect activities described in clauses (i) and (ii). On October 31, 2014, APCo

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<sup>16</sup> *Commonwealth of Virginia, ex rel., State Corporation Commission, In re: Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq.*, Case No. PUE-2009-00096, 2010 S.C.C. Ann. Rept. 385, Final Order (Aug. 6, 2010).

<sup>17</sup> *Commonwealth of Virginia, ex rel., State Corporation Commission, In re: Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq.*, Case No. PUE-2015-00035, Doc. Con. Ctr. No. 150720196, Order for Notice and Hearing (July 7, 2015).

<sup>18</sup> *Commonwealth of Virginia, ex rel., State Corporation Commission, In re: Appalachian Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq.*, Case No. PUE-2015-00036, Doc. Con. Ctr. No. 150720198, Order for Notice and Hearing (July 7, 2015).

<sup>19</sup> *Commonwealth of Virginia, ex rel., State Corporation Commission, In re: Kentucky Utilities Company d/b/a Old Dominion Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq.*, Case No. PUE-2015-00037, Doc. Con. Ctr. No. 150730012, Order for Notice and Comment (July 13, 2015).

<sup>20</sup> *Application of Appalachian Power Company, For approval to participate in the Virginia Renewable Energy Portfolio Standard Program*, Case No. PUE-2008-00003, 2008 S.C.C. Ann. Rept. 466, Final Order (Aug. 11, 2008).

reported to the Commission that APCo has met RPS Goal II<sup>21</sup> for 2013 through a combination of purchased power wind sources and company-owned hydro generation and fully expects to meet the voluntary goals for 2014 and each year thereafter.

## **2. Dominion Virginia Power**

On May 18, 2010, the Commission approved DVP's application to participate in a voluntary RPS program under § 56-585.2 of the Code, finding that DVP met the statutory requirements to participate in such a program.<sup>22</sup>

On October 31, 2014, pursuant to § 56-585.2 H of the Code, DVP reported to the Commission that it had met the 2013 RPS Goal II through a combination of company-owned hydro and biomass facilities, renewable output from non-utility generators under long-term contract with DVP, and the optimization of renewable energy certificates ("REC") purchases and sales. DVP also stated that it would meet its RPS Goal II for 2014, which will include 73,590 RECs deemed issued by the Commission for qualified investments in accordance with § 56-585.2 J of the Code. The RPS reports for both APCo and DVP are available at <http://www.scc.virginia.gov/pue/renew.aspx>.

## **I. Other Renewable Energy Activities**

### **1. DVP Activity**

Several DVP facilities in Virginia are now operating as biomass-fueled projects: Pittsylvania, Altavista, Hopewell, and Southampton Power Stations as well as the Virginia City Hybrid Energy Center ("VCHC"), a coal-fired generating plant located in Wise County, with co-firing capability to utilize up to 20% biomass fuel, primarily wood waste.

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<sup>21</sup> Va. Code § 56-585.2 D. For purposes of meeting RPS goals, the total electric energy sold to Virginia jurisdictional customers in calendar year 2007 is exclusive of an amount equal to the average of the annual percentages of electric energy supplied to such customers from nuclear generating plants from 2004 through 2006. Va. Code § 56-585.2 A.

<sup>22</sup> *Application of Virginia Electric and Power Company, For approval to participate in a Renewable Energy Portfolio Standard Program Pursuant to Va. Code § 56-585.2*, Case No. PUE-2009-00082, 2010 S.C.C. Ann. Rept. 367, Final Order (May 18, 2010).

On October 31, 2011, DVP filed an application for approval to construct and operate up to a combined total of 30 MW of company-owned solar distributed generation ("DG") facilities consisting of multiple installations at select commercial, industrial, and community locations dispersed throughout its Virginia service territory. On November 28, 2012, the Commission issued an Order that approved the solar DG partnership program subject to a total cost cap of \$80 million.<sup>23</sup>

As part of DVP's solar partnership program, rooftop solar facilities have been installed at Old Dominion University, Canon Industrial Resource Technologies, Virginia Union University, and Prologis Concorde Distribution Center. Additionally, ground-mounted solar panels have been installed at Capital One and are currently being installed at the Philip Morris Park 500 facility. These facilities and others under construction represent just under 5 MW of solar generating capacity.

Additionally, on May 17, 2012, DVP filed an application for approval of a special tariff to facilitate consumer-owned solar DG installations for up to 3 MW of customer-owned capacity. On March 22, 2013, the Commission issued an Order that approved the special tariff.<sup>24</sup> DVP is scheduled to submit to the Commission an annual status report of its solar partnership and solar purchase programs later this year.

On December 16, 2013, the Commission approved DVP's application to establish a Renewable Generation Pilot Program ("RG Pilot Program"), including a new experimental and voluntary tariff, Rate Schedule RG - Renewable Energy Supply Service pursuant to § 56-234 of the Code. DVP states that it created the proposed RG Pilot Program: (1) in response to requests

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<sup>23</sup> *Application of Virginia Electric and Power Company, For approval of a Community Solar Power Program and for certification of proposed distributed solar generation facilities pursuant to Chapter 771 of the 2011 Virginia Acts of Assembly, and §§ 56-46.1 and 56-580 D of the Code of Virginia, Case No. PUE-2011-00117, 2012 S.C.C. Ann. Rept. 328, Order (Nov. 28, 2012).*

<sup>24</sup> *Petition of Virginia Electric and Power Company, For approval of a special tariff to facilitate customer-owned distributed solar generation pursuant to Chapter 771 of the 2011 Virginia Acts of Assembly, Case No. PUE-2012-00064, 2013 S.C.C. Ann. Rept. 269, Order (Mar. 22, 2013).*

by customers to purchase a larger portion of their energy requirements from renewable energy resources than they currently receive from DVP's existing generation mix; and (2) to further promote the development of renewable energy in the Commonwealth.

The RG Pilot Program is available to non-residential customers served under Rate Schedule GS-3 or GS-4 with (1) demands greater than 500 kW; and (2) individual account planned purchases of renewable energy between 1,000,000 kWh and 24,000,000 kWh annually (as determined by the customer). The RG Pilot Program has a three-year enrollment period, subject to a limitation of planned deliveries of 240,000,000 kWh annually, in aggregate, or 100 customers, whichever limit may be reached first. Qualifying renewable energy resources may be located outside of DVP's service territory but must be within the geographic scope of the PJM wholesale market and interconnected with PJM.

On May 15, 2015, DVP filed with the Commission its annual report summarizing enrollment and other activities associated with the RG Pilot Program. This annual report is required by the Commission's Order approving the pilot program.<sup>25</sup> The report provided an overview of DVP's efforts to market the pilot. However, the report also stated that while several DVP customers have shown interest in the pilot, there were no pilot customers as of the date of the report.

On January 20, 2015, DVP, pursuant to § 56-234 B of the Code and in accordance with the blanket certificate of public convenience and necessity for its solar partnership program, filed with the Commission an application for approval of the Dominion Community Solar Pilot and experimental rate, designated "Rider DCS - Dominion Community Solar (Experimental)" ("Rider DCS"), to enable voluntary customer purchases of electric energy output from a

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<sup>25</sup> *Application of Virginia Electric and Power Company for approval to establish a renewable generation pilot program pursuant to § 56-234 of the Code of Virginia*, Case No. PUE-2012-00142, Order Granting Approval, 2013 S.C.C. Ann. Rept. 436-38 (December 16, 2013).

company-owned, 2 MW direct current distributed solar generation facility sited in Virginia. On August 7, 2015, the Commission approved Experimental Rider DCS.<sup>26</sup>

## **2. APCo Activity**

On April 17, 2015, APCo filed with the Commission an application for approval of an Experimental Rider R.G.P., which would be part of APCo's Renewable Generation Purchase Program ("RGP Program").<sup>27</sup> The application states that the voluntary RGP Program would allow certain non-residential customers in APCo's service territory to purchase non-dispatchable energy generated by certain renewable facilities through an option not currently available to its customers.

In its application, APCo states that the RGP Program would be available to all of APCo's non-residential customers with an aggregated load between 250 kW and 2,000 kW. As proposed, a renewable generating facility eligible to participate in the RGP Program must be located on or adjacent to a participating customer's property; be owned and operated by a party other than APCo or the participating customer; have a nameplate capacity between 250 kW and 2,000 kW; and be of a size no greater than the participating customer's load, as measured during the previous 12 months. For purposes of determining the allowable size for such facilities, APCo proposes that only non-profit, higher education customers could aggregate load from multiple meters.

Under the RGP Program, participating customers would continue to purchase from APCo all of their energy and capacity requirements pursuant to their standard rate schedules. However, participating customers also would receive additional charges and credits associated with their participation in the RGP Program. As proposed, charges for the RGP Program would be based

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<sup>26</sup> *Application of Virginia Electric and Power Company, For approval of a pilot and experimental rate, designated Rider DCS, to enable customer purchases of distributed solar generation pursuant to § 56-234 B of the Code of Virginia, Case No. PUE-2015-00005, Doc. Con. Ctr. No. 150820013, Final Order (Aug. 7, 2015).*

<sup>27</sup> *Application of Appalachian Power Company, for approval of an experimental rider for the purchase of non-dispatchable renewable energy, Case No. PUE-2015-00040, Doc. Con. Ctr. No. 150520031, Order for Notice and Hearing (May 6, 2015).*

on a negotiated PPA, which would establish the rates that APCo pays the renewable facility's developer and the customer pays APCo for the facility's renewable output. APCo states that it will buy the energy and capacity from a participating renewable facility and then charge the same amount it pays for such energy and capacity to a participating customer. The price for the renewable output, which would be memorialized in the PPA, would be negotiated and determined by the developer and the customer. APCo indicates that the terms of the PPA must be agreeable to APCo, but it would not unreasonably withhold its approval. Participating customers also would pay APCo a monthly program charge of \$30, which APCo states would provide an offset to its billing, administrative, and communication costs related to the implementation and administration of the Experimental Rider R.G.P. This case is currently pending before the Commission.

### **3. General Assembly Activity**

On March 14, 2013, the General Assembly approved Chapter 382 of the Virginia Acts of Assembly, requiring the Commission to conduct a renewable energy pilot program for third party PPAs in DVP's service territory and to establish certain guidelines regarding its implementation. On November 14, 2013, the Commission issued an Order Establishing Guidelines<sup>28</sup> for this pilot program. To date, the Commission has received a notice of intent for nine schools to enter into a third-party PPA under the pilot program, totaling 1,967.4 kW of solar generating capacity.

During the 2014 regular session of the General Assembly, Senator John Edwards introduced Senate Bill 580, which would require the Commission to establish a system of registering and tracking RECs. On March 13, 2014, the Clerk of the Senate sent a letter referring Senator Edwards' proposed SB580 to the Commission for study. In response, the Staff worked with PJM Environmental Informational Services ("PJM-EIS") to develop an administrative

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<sup>28</sup> *Commonwealth of Virginia, ex rel., State Corporation Commission, Concerning the establishment of a renewable energy pilot program for third party power purchase agreements*, Case No. PUE-2013-00045, 2013 S.C.C. Ann. Rept. 404, Order Establishing Guidelines (Nov. 14, 2013).

process to enable small generators in the Commonwealth to participate in the REC market within PJM via PJM's Generation Attribute Tracking System ("GATS"). The Staff and PJM-EIS developed the criteria and parameters to define and provide guidance for eligible generators and qualifying RECs. The Staff distributed such parameters to over two dozen interested parties, received comments from three parties in early August 2014, reviewed the comments and suggestions and filed its report on proposed SB580 to the Commission in September 2014.

Effective December 15, 2014, PJM-EIS announced the new enhancement in GATS for Virginia RPS, stating: (1) GATS has created and applied a Virginia certification number to all generators in GATS that meet Virginia requirements for certification and to any REC associated to those generators with a vintage year of 2014 or later; (2) for RECs that reside in the Virginia utility accounts, the certification number was also applied to RECs with a vintage year between 2010 and 2013; and (3) going forward, newly registered generators that are eligible in Virginia will have a unique Virginia certification number applied to the generator and to any RECs created for the compliance year in which the generator is approved.

## **J. Energy Efficiency Goal**

Discussions regarding energy efficiency's contribution to lessening carbon emissions by reducing electricity energy consumption have received significant attention in recent national and local media, sparking the interest of many, including the President of the United States, the Governor of Virginia<sup>29</sup>, the Virginia Energy Council, and the General Assembly. As this discussion is not new, it may be helpful to highlight past efforts undertaken by the Commission regarding the subject of energy efficiency.

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<sup>29</sup> On May 11, 2015, the Governor announced the formation of the Governor's Executive Committee on Energy Efficiency comprised of stakeholders from the public and private sector. The Committee is tasked to develop strategies and recommendations to achieve the goal of a 10% reduction in retail electricity consumption in Virginia by 2020.

On April 4, 2007, the General Assembly enacted the Regulation Act that, in its Third Enactment Clause ("Third Enactment" or "Enactment Clause"), declared as follows:<sup>30</sup>

That it is in the public interest, and is consistent with the energy policy goals in § 67-102 of the Code of Virginia, to promote cost-effective conservation of energy through fair and effective demand side management, conservation, energy efficiency, and load management programs, including consumer education. These programs may include activities by electric utilities, public or private organizations, or both electric utilities and public or private organizations. The Commonwealth shall have a stated goal of reducing the consumption of electric energy by retail customers through the implementation of such programs by the year 2022 by an amount equal to ten percent of the amount of electric energy consumed by retail customers in 2006 . . . .

The Third Enactment also directed the Commission to "conduct a proceeding" and "submit its findings and recommendations to the Governor and General Assembly" on or before December 15, 2007 concerning its provisions. The Enactment Clause also directed the Commission to "include recommendations for any additional legislation necessary to implement the plan to meet the energy consumption reduction goal."

The Commission convened a proceeding that enabled and encouraged extensive stakeholder participation to assist the Commission to (i) determine whether the 10% electric energy consumption reduction goal can be achieved cost effectively through the operation of such programs and if not, determine the appropriate goal for the year 2022 relative to base year 2006; (ii) identify the mix of programs that should be implemented in the Commonwealth to cost effectively achieve the defined electric energy consumption reduction goal by 2022, including but not limited to DSM, conservation, energy efficiency, load management, real-time pricing, and consumer education; (iii) develop a plan for the development and implementation of recommended programs, with incentives and alternative means of compliance to achieve such goals; (iv) determine the entity or entities that could most efficiently deploy and administer

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<sup>30</sup> Third Enactment Clause of SB 1416.

various elements of the plan; and (v) estimate the cost of attaining the energy consumption reduction goal.<sup>31</sup>

On November 16, 2007, the Staff filed a report<sup>32</sup> pursuant to the directives set forth in the Enactment Clause, which stated as follows:

- i. Based on the findings set forth in the Virginia Energy Plan, experience of other states, reports of the work-group and the relatively low retail electric rates persisting in many parts of the Commonwealth for many years, the Staff believes that the 10 percent electricity consumption reduction goal set forth by the General Assembly is achievable by 2022.
- ii. A mix of programs that may be implemented in the Commonwealth to achieve the defined electric energy consumption reduction goal by 2022 is suggested in the Virginia Energy Plan ("VEP") and merits further exploration, including tests for cost-effectiveness. Additional programs are also identified by the stakeholder work-group convened pursuant to the Commission's proceeding related to this matter and merit further consideration.
- iii. Due to the longstanding complexity and controversial nature of the issues at hand, in this report the Staff presents issues and provides options for the development and implementation of potential energy efficiency programs including the advisability of incentives and alternative means of compliance to achieve such goals.
- iv. Again, due to the longstanding complexity and controversial nature of the issues at hand, the Staff presents issues and provides options regarding the entity or entities that could most efficiently deploy and administer various elements of the plan. Although a specific recommendation regarding whom or how to administer such a mix of programs is not evident, it appears that the SCC, the Department of Mines, Minerals, and Energy, or another third party could be established as the administrator.
- v. Finally, estimates of the cost of attaining the energy consumption reduction goal depend on how the Commonwealth

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<sup>31</sup> *Commonwealth of Virginia, ex rel., State Corporation Commission, Ex Parte: In the matter of determining a recommended mix of programs, including demand side management (DSM), conservation, energy efficiency, load management, real-time pricing, and consumer education, to be implemented in the Commonwealth to cost-effectively achieve the energy policy goals set in § 67-102 of the Code of Virginia to reduce electric energy consumption*, Case No. PUE-2007-00049, Doc. Con. Cen. No. 070610273, Order Establishing Proceeding (June 8, 2007).

<sup>32</sup> The entire report is posted to the Commission's website at <http://www.scc.virginia.gov/pue/conserves.aspx>.

goes about implementing any chosen set of programs and measures. The Virginia Energy Plan estimates that achieving the goal could cost around \$300 million per year between 2008 and 2022, yet the Plan also finds that conservation costs considerably less than the cost of new electric supply.<sup>33</sup> If conservation is truly inexpensive, its deployment will not impose net costs on the Commonwealth. Rather, such cost effective programs will produce resource savings versus alternative means of serving the Commonwealth's electricity needs. Moreover, if conservation costs less than new electrical supply, it can be deployed without increasing electric rates for non-participant ratepayers.

## **K. Conservation, Energy Efficiency and Demand Response**

### **1. Activity by Dominion Virginia Power**

#### *Demand-Side Management Pilot*

DVP continues to file annual reports with the Commission on one ongoing pilot program, the Distributed Generation/Load Curtailment for Large Non-residential Customers Pilot ("DG Pilot"), approved by the Commission in Case No. PUE-2007-00089.<sup>34</sup> This pilot program closed in December 2014, and on March 31, 2015, DVP filed a final report on that pilot. The report indicated that DVP considered the DG Pilot program to have been a success in providing a reliable load reduction resource along with a valuable opportunity to study and test elements of demand response program design. DVP also noted that the DG Pilot program allowed the company to refine its event dispatch strategy and the way in which DVP uses load curtailment resources in the PJM market.

#### *Long-term DSM Programs*

On March 24, 2010, the Commission approved five DSM programs for customers of Dominion Virginia Power.<sup>35</sup> The five programs are as follows:

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<sup>33</sup> Virginia Department of Mines, Minerals and Energy, *Virginia Energy Plan*, 2007, pp. 61-62, 146.

<sup>34</sup> *Application of Virginia Electric and Power Company, For expedited approval of conservation, energy efficiency, education, demand response and load management pilots*, Case No. PUE-2007-00089, 2008 S.C.C. Ann. Rept. 425, Final Order (Jan. 17, 2008).

<sup>35</sup> *Application of Virginia Electric and Power Company, For approval to implement new demand-side management programs and for approval of two rate adjustment clauses pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUE-2009-00081, 2010 S.C.C. Ann. Rept. 362, Order Approving Demand-Side Management Programs

- The Residential Lighting Program, which provides instant rebates on energy efficient lighting for residential customers;
- The Low Income Program, which provides energy audits and improvements for low-income residential customers;
- The Commercial Heating/Air Conditioning Upgrade Program, which provides HVAC system upgrades to more efficient systems for the commercial sector in exchange for a financial incentive;
- The Commercial Lighting Program, which provides commercial participants with the opportunity to retrofit existing inefficient lighting with more energy efficient lighting in exchange for a financial incentive; and
- The Air Conditioner Cycling Program, which allows DVP to control the central air conditioner, or heat pumps of participating customers. Under this program, DVP can cycle the unit off and on for short periods of time during peak periods in return for incentive payments.

The DSM programs were approved for a period of three years, and DVP was directed to provide the Commission with annual detailed reports during this period. The reports help the Commission monitor program costs and to determine whether certain programs warrant continuation. DVP issued its latest progress report on April 1, 2015. The initial Residential Lighting Program ended in December 2011, and the Commercial Lighting and Heating/Air Conditioning Upgrade Programs were discontinued in May 2012.

On April 30, 2012, the Commission approved seven additional DSM programs for customers of DVP, and the Residential Bundle Program, which is a combination of the four residential energy efficiency programs.<sup>36</sup> The seven programs are as follows:

- The Residential Home Energy Check-Up Program, which provides low-cost energy audits to owners and occupants of single-family homes;
- The Residential Duct Testing and Sealing Program, which provides financial incentives to residential customers to employ a contractor to test and seal air ducts in their homes;
- The Residential Heat Pump Tune-up Program, which provides financial incentives for residential customers to employ a contractor to tune-up their existing heat pumps once every five years; and

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(Mar. 24, 2010).

<sup>36</sup> *Application of Virginia Electric and Power Company, For approval to implement new demand-side management programs and for approval of two updated rate adjustment clauses pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUE-2011-00093, 2012 S.C.C. Ann. Rept. 298, Order (Apr. 30, 2012).

- The Residential Heat Pump Upgrade Program, which provides financial incentives for residential customers to install high-efficiency heat pumps that exceed federally-mandated standards.
- The Commercial Energy Audit Program provides on-site energy audits of customers' facilities. Customers are eligible for rebates up to the full cost of the audit if they implement any of the efficiency measures identified in the audit.
- The Commercial Duct Testing and Sealing Program provides financial incentives to qualifying customers to employ a contractor to seal ducts in existing buildings using program-approved methods.
- The Commercial Distributed Generation Program entitles qualifying customers to receive a financial incentive to curtail load by utilizing customer-owned backup generation up to 120 hours per year when called upon to do so by DVP.

The programs were approved for a five-year period with cost caps. DVP was directed to provide the Commission with detailed annual reports including updated cost-benefit tests along with evaluation, measurement, and verification plans.

On August 31, 2012, DVP filed an application for approval to extend two DSM programs. On April 19, 2013, the Commission issued an Order wherein, among other things, it approved a two-year extension of the Low Income Program and a three-year extension of the Air Conditioner Cycling Program.<sup>37</sup>

On August 30, 2013, DVP filed an application for approval to enhance its non-residential energy audit program and to implement a new non-residential bundle program ("Phase III"). On April 29, 2014, the Commission issued an Order wherein, among other things, it approved the proposed Phase III DSM programs.<sup>38</sup>

On August 29, 2014, DVP filed an application for approval of three new DSM programs, two regarding residential customers, (1) Income and Age Qualifying Home Improvement Program; and (2) Residential Appliance Recycling Program, and a Qualifying Small Business

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<sup>37</sup> *Petition of Virginia Electric and Power Company, For approval to extend two demand-side management programs and for approval of two updated rate adjustment clauses pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUE-2012-00100, 2013 S.C.C. Ann. Rept. 285, Order (Apr. 19, 2013).

<sup>38</sup> *Petition of Virginia Electric and Power Company, For approval to implement new demand-side management programs and for approval of two updated rate adjustment clauses pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUE-2013-00072, 2014 S.C.C. Ann. Rept. 289, Final Order (Apr. 29, 2014).

Improvement Program. On April 24, 2015, the Commission issued an Order<sup>39</sup> in which it approved the two residential programs for three years subject to cost caps, but did not approve the small business program.

### *Electric Vehicle Pilot Program*

Although not filed under the Regulation Act, on July 11, 2011, the Commission approved DVP's application to establish an electric vehicle ("EV") pilot program.<sup>40</sup> At that time, DVP anticipated that as many as 86,000 EVs could be in use in its service territory by 2020. DVP's pilot program offers two time-of-day pricing options to encourage off-peak charging of EVs. One tariff option relates to charging the EV only and operates as a companion tariff to a customer's existing standard household service tariff. The second tariff option applies to the customer's entire service from DVP, including the house and the EV. The program is open to up to 1,500 residential customers, with up to 750 participants in each of the two experimental rate classes through December 1, 2015.

## **2. Activity by Appalachian Power Company**

On September 12, 2011, the Commission issued a Final Order approving two Demand Response Riders ("DR Riders") for APCo.<sup>41</sup> These DR Riders consist of: (i) a Peak Shaving Demand Response ("PSDR") Rider;<sup>42</sup> and (ii) a Peak Shaving and Emergency Demand Response ("PSEDR") Rider. APCo stated that the PSEDR Rider is aligned with the existing PJM Demand Response Program, which allows for curtailments of load by nonresidential customers during

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<sup>39</sup> *Petition of Virginia Electric and Power Company, For approval to implement new demand-side management programs and for approval of two updated rate adjustment clauses pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUE-2014-00071, Doc. Con. Ctr. No. 150420228, Final Order (Apr. 24, 2015).

<sup>40</sup> *Application of Virginia Electric and Power Company, For approval to establish an electric vehicle pilot program pursuant to § 56-234 of the Code of Virginia*, Case No. PUE-2011-00014, 2011 S.C.C. Ann. Rept. 436, Order Granting Approval (July 11, 2011).

<sup>41</sup> *Application of Appalachian Power Company, Pursuant to Chapters 752 and 855 of the 2009 Acts of the Virginia General Assembly, for approval of demand response programs to be offered to its retail customers*, Case No. PUE-2011-00001, 2011 S.C.C. Ann. Rept. 417, Final Order (Sept. 12, 2011).

<sup>42</sup> The PSDR Rider was subsequently terminated by Commission Order. *Application of Appalachian Power Company, For approval to terminate its Peak Shaving Demand Response Rider*, Case No. PUE-2013-00083, 2013 S.C.C. Ann. Rept. 441, Order (Sept. 24, 2013).

system emergencies. The Commission's Order also permitted APCo to defer costs associated with the DR Riders and found that such costs would be offset by any non-compliance payments received by APCo from customers participating in the DR Riders.

On April 8, 2014, APCo submitted its biennial review, which also requested approval to implement a residential low income energy efficiency program and a residential direct load control demand response program. APCo proposed a three-year Residential Low Income Program, which will provide weatherization and energy efficiency services to customers with annual household income at or below 60% of the state median income level and who live in electrically-heated, single-family homes. APCo also proposed an ongoing Residential Direct Load Control Program, which is designed to reduce residential peak demand by the use of direct load controllers attached to the air conditioning systems and heat pumps of participating residential customers. On November 26, 2014, the Commission issued an Order approving both programs for a three-year period.<sup>43</sup>

On October 24, 2014, pursuant to § 56-585.1 A 5 c of the Code, APCo filed an application for approval to implement the following six energy efficiency ("EE") programs: (a) Home Performance Program, (b) Residential Appliance Recycling Program, (c) Manufactured Housing Energy Star Program, (d) Residential Efficient Products Program, (e) Commercial & Industrial Prescriptive Program, and (f) Commercial & Industrial Custom Program.<sup>44</sup> On June 24, 2015, the Commission issued a Final Order wherein, among other things, it approved, with modification, five of APCo's proposed EE programs; denied the Commercial & Industrial Custom Program; and implemented a three-year cost cap on the approved EE programs.

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<sup>43</sup> *Application of Appalachian Power Company, For a 2014 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585.1 A of the Code of Virginia*, Case No. PUE-2014-00026, 2014 S.C.C. Ann. Rept. 392, Final Order (Nov. 26, 2014).

<sup>44</sup> *Application of Appalachian Power Company, For approval to implement a portfolio of energy efficiency programs and for approval of a rate adjustment clause pursuant to § 56-585.1 A 5 c of the Code of Virginia*, Case No. PUE-2014-00039, Doc. Con. Ctr. No. 150630092, Final Order (June 24, 2015).

### **3. Activity by Electric Cooperatives**

The Commission has approved the request for approval of a DSM program involving member-consumers' central air conditioning systems for several electric cooperatives.<sup>45</sup> Under this program, the member-consumer allows his or her cooperative to install a load-cycling switch device on the member-consumer's central air conditioning system to allow the cooperative to control the air conditioning compressor during peak load periods. If the device remains operational for a full year of operation of the installed switch, the member-consumer receives a one-time bill credit or written check for \$25.

#### **L. Regulatory/Rate Proceedings**

The following is a brief summary of regulatory proceedings primarily involving rate increase requests now pending before the Commission or completed within the last year. Further information on these proceedings is available on the Commission's website:

<http://www.scc.virginia.gov/case/index.aspx>.

##### **1. Appalachian Power Company**

###### *Biennial Review (2014)*

On March 31, 2014, APCo filed its biennial review pursuant to § 56-585.1 A of the Code, providing information on its generation, distribution, and transmission services for calendar years 2012 and 2013.

The Commission issued its Final Order on November 26, 2014, wherein it found, among other things: (1) the fair combined ROE for the 2012-2013 biennial review period was 10.9%,

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<sup>45</sup> *Application of Southside Electric Cooperative, For approval of a demand-side management program including promotional allowances*, Case No. PUE-2013-00066, 2013 S.C.C. Ann. Rept. 419, Order Granting Approval (Sept. 6, 2013). *Application of Rappahannock Electric Cooperative, For approval of a demand-side management program including promotional allowances*, Case No. PUE-2010-00046, 2011 S.C.C. Ann. Rept. 333, Order Granting Petition (Jan. 4, 2011); *Application of Prince George Electric Cooperative, For approval of a demand-side management program including promotional allowances*, Case No. PUE-2012-00002, 2012 S.C.C. Ann. Rept. 373, Order Granting Approval (Mar. 5, 2012); and *Application of Northern Neck Electric Cooperative, For approval of a demand-side management program including promotional allowances*, Case No. PUE-2012-00003, 2012 S.C.C. Ann. Rept. 374, Order Granting Approval (Mar. 5, 2012).

which resulted in an earnings band of 10.4%-11.4%; (2) APCo earned an 11.86% ROE during the 2012-2013 biennial review period, more than 50 basis points above the earnings band; (3) a refund of \$5.8 million must be credited to customers' bills pursuant to § 56-585.1 A 8 (ii) of the Code; (4) the fair combined ROE going forward is 9.7%; (5) the proposed energy efficiency and demand response programs should be approved; and (6) certain rate design changes should be approved.<sup>46</sup>

*Renewable Portfolio Rate Adjustment Clause (2014)*

On March 31, 2014, pursuant to §§ 56-585.1 A 5 d and 56-585.2 E of the Code, APCo filed a petition requesting approval to revise its RAC which recovers the incremental costs associated with its participation in an RPS program. APCo's petition proposed a surcredit of \$8.7 million. On November 26, 2014, the Commission issued an Order finding that APCo had not met its burden of proof to establish what costs represent incremental costs incurred for the purpose of participation in the RPS program and denying the application.<sup>47</sup>

*Energy Efficiency Programs Rate Adjustment Clause (2014)*

On October 24, 2014, pursuant to § 56-585.1 A 5 c of the Code, APCo filed an application for approval to: (1) implement the following six energy efficiency programs: (a) Home Performance Program, (b) Residential Appliance Recycling Program, (c) Manufactured Housing Energy Star Program, (d) Residential Efficient Products Program, (e) Commercial & Industrial Prescriptive Program, and (f) Commercial & Industrial Custom Program; and (2) implement a rate adjustment clause, which would recover a \$6.9 million annual revenue requirement. On June 24, 2015, the Commission issued a Final Order wherein, among

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<sup>46</sup> *Application of Appalachian Power Company, For a 2014 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585.1 A of the Code of Virginia* Case No. PUE-2014-00026, 2014 S.C.C. Ann. Rept. 392, Final Order (Nov. 26, 2014).

<sup>47</sup> *Petition of Appalachian Power Company, For approval to revise a rate adjustment clause: RPS-RAC, for the recovery of the incremental costs of participation in the Virginia renewable energy portfolio standard program pursuant to Va. Code §§ 56-585.1 A 5 d and 56-585.2 E*, Case No. PUE-2014-00007, 2014 S.C.C. Ann. Rept. 369, Order (Apr. 11, 2014).

other things, it approved a \$5.2 million annual revenue requirement; approved, with modification, five of APCo's proposed EE programs; denied the Commercial & Industrial Custom Program; and implemented a three-year cost cap on the approved EE programs.<sup>48</sup>

*Renewable Portfolio Rate Adjustment Clause (2015)*

On March 31, 2015, pursuant to §§ 56-585.1 A 5 d and 56-585.2 E of the Code, APCo filed a petition requesting approval to revise its RAC which recovers the incremental costs associated with its participation in an RPS program. APCo's petition proposes a surcredit of \$8.6 million, effective February 1, 2016. On April 9, 2015, the Commission issued its Order for Notice and Hearing wherein, among other things, it established a procedural schedule, required notice to the public of the application, and set a public hearing for September 3, 2015.<sup>49</sup> The hearing was subsequently moved to September 16, 2015. This proceeding is pending before the Commission.

*Transmission Rate Adjustment Clause (2015)*

On July 1, 2015, APCo filed a notice of intent to file a petition for approval of a transmission rate adjustment clause ("T-RAC") pursuant to § 56-585.1 A 4 of the Code on August 31, 2015. APCo recovers transmission costs through a combination of base rates and an incremental T-RAC.

*Experimental Rider for Renewable Energy (2015)*

On April 17, 2015, APCo filed an application requesting approval of an experimental rate rider for renewable energy. Under this voluntary program, customers can purchase renewable energy generated by a facility that is owned and operated by a third party. On May 6, 2015, the Commission issued its Order for Notice and Hearing wherein, among other things, it established

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<sup>48</sup> *Application of Appalachian Power Company, For approval to implement a portfolio of energy efficiency programs and for approval of a rate adjustment clause pursuant to § 56-585.1 A 5 c of the Code of Virginia, Case No. PUE-2014-00039, Doc. Con. Ctr. No. 150630092, Final Order (June 24, 2015).*

<sup>49</sup> *Petition of Appalachian Power Company, For approval of a rate adjustment clause related to its participation in the Renewable Energy Portfolio Program pursuant to Va. Code §§ 56-585.1 A 5 d and 56-585.2 E, Case No. PUE-2015-00034, Doc. Con. Ctr. No. 150410201, Order for Notice and Hearing (Apr. 9, 2015).*

a procedural schedule, required notice to the public of the application, and set a public hearing for September 29, 2015. This proceeding is pending before the Commission.<sup>50</sup>

## **2. Dominion Virginia Power**

### *Demand-Side Management and Energy Efficiency Programs Rate Adjustment Clause (2014)*

As discussed earlier in this report, on August 29, 2014, DVP filed an application for approval to implement the following new DSM programs for a five-year period beginning May 1, 2015: (1) Income and Age Qualifying Home Improvement Program; (2) Residential Appliance Recycling Program; and (3) Qualifying Small Business Improvement Program. DVP proposed a five-year spending cap for all three proposed Phase IV programs of \$109.4 million. Additionally, DVP requested to continue two rate adjustment clauses, Riders C1A and C2A, for the May 1, 2015 rate year.

On April 24, 2015, the Commission issued an Order<sup>51</sup> wherein, among other things, it approved the Income and Age Qualifying Home Improvement and the Residential Appliance Recycling Programs for a three-year period subject to a cost cap of \$15.2 million and \$4.8 million, respectively. In addition, the Commission approved an annual revenue requirement of \$36,510,148 for Riders C1A and C2A for the Rate Year. The Commission did not approve the Qualifying Small Business Improvement Program.

### *Fuel Case (2014)*

On May 2, 2014, DVP filed an application to increase its fuel factor from 2.572¢/kWh to 3.018¢/kWh, or alternatively 3.218¢/kWh, for service rendered on and after July 1, 2014. DVP's proposed fuel factor of 3.018¢/kWh represents a mitigation proposal in which DVP would waive

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<sup>50</sup> *Application of Appalachian Power Company, For approval to establish Experimental Rider R.G.P. for the purchase of non-dispatchable renewable generation, Case No. PUE-2015-00040, Doc. Con. Ctr. No. 150520031, Order for Notice and Hearing (May 6, 2015).*

<sup>51</sup> *Petition of Virginia Electric and Power Company, For approval to implement new demand-side management programs and for approval of two updated rate adjustment clauses pursuant to § 56-585.1 A 5 of the Code of Virginia, Case No. PUE-2014-00071, Doc. Con. Ctr. No. 150420228, Final Order (Apr. 24, 2015).*

its right to recover the full deferral balance over the current period in favor of recovery of the deferral balance over two fuel periods.

On September 18, 2014, the Commission issued its Order Establishing 2014-2015 Fuel Factor<sup>52</sup> that, among other things, approved DVP's mitigation proposal and a fuel factor of 3.018¢/kWh for usage on or after July 1, 2014.

*Rate Adjustment Clauses to Recover Generation Facility Costs (2014)*

*(i) Virginia City Hybrid Energy Center*

On June 16, 2014, DVP filed an application to revise Rider S, designed to recover the costs associated with the VCHEC generating facility in Wise County, Virginia. DVP requested that the Commission approve rates to recover an annual revenue requirement of \$244.5 million for the rate year beginning April 1, 2015. The revenue requirement was based on an ROE of 11.0% (including a base ROE of 10.0% and a 100 basis point adder pursuant to § 56-585.1 A 6 of the Code).

The Commission approved a settlement presented by DVP and the Staff which, among other things, provided for a \$244.5 million annual revenue requirement based on an ROE of 11.0% for service rendered on and after April 1, 2015.<sup>53</sup>

*(ii) Warren County Power Station*

On May 30, 2014, DVP filed an application to revise Rider W, designed to recover the costs associated with the Warren County Generating Station in Warren County, Virginia. According to the application, the Warren County Generating Station was generally proceeding on schedule and on budget, and DVP projected a commercial operations date of December 1, 2014. DVP requested that the Commission approve rates to recover an average annual revenue

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<sup>52</sup> *Application of Virginia Electric and Power Company, To revise its fuel factor pursuant to §56-249.6 of the Code of Virginia*, Case No. PUE-2014-00033, S.C.C. Ann. Rept. 418, Final Order (Sept. 18, 2014).

<sup>53</sup> *Application of Virginia Electric and Power Company, For revision of rate adjustment clause: Rider S, Virginia City Hybrid Energy Center*, Case No. PUE-2014-00051, Doc. Con. Ctr. No. 150310313, Final Order (Mar. 12, 2015).

requirement of \$134.7 million for the rate year beginning April 1, 2015. The revenue requirement was based on an ROE of 11.0% (including a base ROE of 10.0% and a 100 basis point adder pursuant to § 56-585.1 A 6 of the Code).

The Commission approved a settlement presented by DVP and the Staff which, among other things, provided for a \$134.7 million annual revenue requirement based on an ROE of 11.0% for service rendered on and after April 1, 2015.<sup>54</sup>

*(iii) Biomass Conversions*

On June 16, 2014, DVP filed an application to revise its Rider B, designed to recover the costs associated with the Biomass Conversions of its Altavista, Hopewell, and Southampton power stations. DVP requested that the Commission approve rates to recover an annual revenue requirement of \$12.98 million for the rate year beginning April 1, 2015. The revenue requirement was based on an ROE of 12.0% (including a base ROE of 10.0% and a 200 basis point adder pursuant to § 56-585.1 A 6 of the Code).

In its Final Order<sup>55</sup> issued on March 12, 2015, the Commission approved an annual revenue requirement of \$8.8 million based on an ROE of 12.0% for service rendered on and after April 1, 2015.

*(iv) Bear Garden Power Station*

On June 16, 2014, DVP filed an application to revise Rider R, designed to recover the costs associated with the Bear Garden Generating Station in Buckingham County, Virginia. DVP requested that the Commission approve rates to recover an annual revenue requirement of \$83.6 million for the rate year beginning April 1, 2015. The revenue requirement was based on

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<sup>54</sup> *Application of Virginia Electric and Power Company, For revision of rate adjustment clause: Rider W, Warren County Power Station, for the rate year commencing April 1, 2015, Case No. PUE-2014-00042, Doc. Con. Ctr. No. 150220018, Final Order (Feb. 18, 2015)*

<sup>55</sup> *Application of Virginia Electric and Power Company, For revision of rate adjustment clause: Rider B, Biomass Conversions of the Altavista, Hopewell, and Southampton Power Stations, for the Rate Year Commencing April 1, 2015, Case No. PUE-2014-00050, Doc. Con. Ctr. No. 150310314, Final Order (Mar. 12, 2015).*

an ROE of 11.0%, (including a base ROE of 10.0% and a 100 basis point adder pursuant to § 56-585.1 A 6 of the Code).

The Commission approved a settlement presented by DVP and the Staff which, among other things, provided for an \$83.6 million base revenue requirement based on an ROE of 11.0% for service rendered on and after April 1, 2015.<sup>56</sup>

(v) *Brunswick County Power Station*

On October 30, 2014, DVP filed an application to revise Rider BW, designed to recover the costs associated with the Brunswick County Power Station in Brunswick County, Virginia. DVP requested that the Commission approve rates to recover an annual revenue requirement of \$111.5 million for the Rate Year beginning September 1, 2015. The revenue requirement over the rate year was based on an ROE of 11.0%, (including a base ROE of 10.0% and a 100 basis point adder pursuant to § 56-585.1 A 6 of the Code).

The Commission approved a settlement presented by DVP and the Staff which, among other things, provided for a \$111.5 million base revenue requirement based on an ROE of 11.0% for service rendered on and after September 1, 2015.<sup>57</sup>

*Transmission Rate Adjustment Clause (2015)*

On May 4, 2015, DVP filed an application for approval of a RAC, designated Rider T1, requesting recovery of transmission costs through a combination of base rates and a new increment/decrement RAC designated Rider T1. DVP asserts that Rider T1 is designed to recover the increment/decrement between revenues produced from its base rate transmission revenues and the new annual revenue requirement of transmission costs based on § 56-585.1 A 4 of the Code. The total revenue requirement to be recovered over the rate year is \$668.1 million

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<sup>56</sup> *Application of Virginia Electric and Power Company, For revision of rate adjustment clause: Rider R, Bear Garden Generating Station, Case No. PUE-2014-00052, Doc. Con. Ctr. No. 150310315, Final Order (Mar. 12, 2015).*

<sup>57</sup> *Application of Virginia Electric and Power Company, For revision of rate adjustment clause: Rider BW, Brunswick County Power Station, for the rate year commencing September 1, 2015, Case No. PUE-2014-00103, Doc. Con. Ctr. No. 150420038, Final Order (Apr. 21, 2015).*

comprising an increment Rider T1 of \$186.1 million and forecast collections of \$482 million through the transmission component of base rates. This proposed total annual revenue requirement represents an increase of \$127.2 million over the revenues projected to be produced during the Rate Year by the combination of the base rate component of § 56-585.1 A 4 (DVP's former Rider T) and the Rider T1 rates currently in effect. DVP also developed a mitigation proposal, under which DVP would defer, without carrying costs, recovery of approximately \$96.1 million of the Rider T1 revenue requirement from this rate year to the rate year that begins on September 1, 2016. This would result in a total transmission revenue requirement of \$572.1 million to be recovered during the Rate Year, rather than \$668.1 million. On August 4, 2015, the Commission issued its Final Order, finding that a revenue requirement of \$668,117,002 is just and reasonable and not adopting any deferral of the recovery thereof.<sup>58</sup>

*New Underground Distribution Facilities Rate Adjustment Clauses (2015)*

On October 30, 2014, DVP filed an application for approval of a RAC designed to recover costs associated with new underground distribution facilities for the rate year commencing September 1, 2015. DVP requested a limit on annual expenditures of approximately \$175 million, which equates to an annual revenue requirement of \$28.4 million. The Commission issued its Final Order on July 30, 2015, denying this application.<sup>59</sup>

*Pilot Program for Distributed Solar Generation Rate Adjustment Clause (2015)*

As discussed earlier in this report, On January 20, 2015, DVP filed an application for approval of the DCS<sup>60</sup> Pilot and experimental rate to enable voluntary customer purchases of electric energy output from a DVP-owned distributed solar generation facility sited in Virginia.

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<sup>58</sup> *Application of Virginia Electric and Power Company, For approval of a rate adjustment clause pursuant to § 56-585.1 A 4 of the Code of Virginia*, Case No. PUE-2015-00041, Doc. Con. Ctr. No. 150810162, Final Order (Aug. 4, 2015).

<sup>59</sup> *Application of Virginia Electric and Power Company, For approval of a rate adjustment clause: Rider U, new underground distribution facilities, for the rate year commencing September 1, 2015*, Case No. PUE-2014-00089, Doc. Con. Ctr. No. 150750144, Final Order (July 30, 2015).

<sup>60</sup> Dominion Community Solar.

As proposed, customers participating in the Dominion Community Service Pilot would have the opportunity to purchase a portion of their electricity needs from output produced by a new DVP-owned solar facility and would purchase the remainder of their electricity needs under their current rate schedule. DVP proposes to sell "blocks" of output from the solar facility in increments of 100 kWh at a cost of \$4 per block. On August 7, 2015, the Commission issued a Final Order approving the application.<sup>61</sup>

*Fuel Case (2015)*

On February 27, 2015, DVP filed an application seeking a decrease in its fuel factor from 3.018¢/kWh to 2.406¢/kWh, effective for usage on and after April 1, 2015, on an interim basis. On March 12, 2015, the Commission issued its Order Establishing 2015-2016 Fuel Factor Proceeding<sup>62</sup> wherein, among other things, it established a procedural schedule (including a public hearing on June 18, 2015), and authorized an interim fuel factor of 2.406¢/kWh effective for usage on and after April 1, 2015. This proceeding is pending before the Commission.

*Biennial Review (2015)*

On March 31, 2015, DVP filed its third biennial review application pursuant to § 56-585.1 A of the Code, providing information on its generation, distribution, and transmission services for the calendar years 2013 and 2014.

On April 10, 2015, the Commission issued its Order for Notice and Hearing<sup>63</sup> that, among other things, established a procedural schedule and set a hearing date of September 9,

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<sup>61</sup> *Application of Virginia Electric and Power Company, For approval of a pilot and experimental rate, designated Rider DCS, to enable customer purchases of distributed solar generation pursuant to § 56-234 B of the Code of Virginia*, Case No. PUE-2015-00005, Doc. Con. Ctr. No. 150820013, Final Order (Aug. 7, 2015).

<sup>62</sup> *Application of Virginia Electric and Power Company, To revise its fuel factor pursuant to § 56-249.6 of the Code of Virginia*, Case No. PUE-2015-00022, Doc. Con. Ctr. No. 150310311, Order Establishing 2015-2016 Fuel Factor Proceeding (Mar. 12, 2015).

<sup>63</sup> *Application of Virginia Electric and Power Company, For a 2015 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585.1 A of the Code of Virginia*, Case No. PUE-2015-00027, Doc. Con. Ctr. No. 150410215, Order for Notice and Hearing (Apr. 10, 2015).

2015, to receive public comments, with an evidentiary proceeding on DVP's application to commence on September 10. This proceeding is pending before the Commission.

*Rate Adjustment Clauses to Recover Generation Facility Costs (2015)*

*(i) Virginia City Hybrid Energy Center*

On June 1, 2015, DVP filed an application to revise Rider S, designed to recover the costs associated with the Virginia City Hybrid Energy Center in Wise County, Virginia. On June 3, 2015, DVP filed corrections to its application. In its application, as corrected, DVP requests that the Commission approve rates to recover an average annual revenue requirement of \$251.1 million for the rate year beginning April 1, 2016. The revenue requirement is based on an ROE of 11.0%, (including a base ROE of 10.0% and a 100 basis point adder pursuant to § 56-585.1 A 6 of the Code). On June 30, 2015, the Commission issued an Order for Notice and Hearing<sup>64</sup> that, among other things, established a procedural schedule and set a hearing date of December 9, 2015, to receive public comments and evidence on DVP's application. This proceeding is pending before the Commission.

*(ii) Warren County Power Station*

On June 1, 2015, DVP filed an application to revise Rider W, a RAC designed to recover the costs associated with the Warren County Power Station in Warren County, Virginia. DVP requests that the Commission approve rates to recover an average annual revenue requirement of \$117.9 million for the rate year beginning April 1, 2016. The revenue requirement is based on an ROE of 11.0% (including a base ROE of 10.0% and a 100 basis point adder pursuant to § 56 585.1 A 6 of the Code).

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<sup>64</sup> *Application of Virginia Electric and Power Company, For revision of rate adjustment clause: Rider S, Virginia City Hybrid Energy Center, Case No. PUE-2015-00060, Doc. Con. Ctr. No. 150630234, Order for Notice and Hearing (June 30, 2015).*

On June 12, 2015, the Commission issued an Order for Notice and Hearing<sup>65</sup> that, among other things, established a procedural schedule and set a hearing date of November 17, 2015, to receive public comments and evidence on DVP's application. This proceeding is pending before the Commission.

*(iii) Biomass Conversions*

On June 1, 2015, DVP filed an application to revise its Rider B, a RAC designed to recover the costs associated with the Biomass Conversions of its Altavista, Hopewell, and Southampton power stations. DVP requests that the Commission approve rates to recover an annual revenue requirement of \$29.7 million for the rate year beginning April 1, 2016. The revenue requirement is based on an ROE of 12.0% (including a base ROE of 10.0% and a 200 basis point adder pursuant to § 56 585.1 A 6 of the Code).

On June 19, 2015, the Commission issued an Order for Notice and Hearing<sup>66</sup> that, among other things, established a procedural schedule and set a hearing date of January 26, 2016, to receive public comments and evidence on DVP's application. This proceeding is pending before the Commission.

*(iv) Bear Garden Power Station*

On June 11, 2015, DVP filed an application to revise Rider R, a RAC designed to recover the costs associated with the Bear Garden Generating Station in Buckingham County, Virginia. DVP requests that the Commission approve rates to recover an annual revenue requirement of \$74.3 million for the rate year beginning April 1, 2015. The revenue requirement is based on an ROE of 11.0%, (including a base ROE of 10.0% and a 100 basis point adder pursuant to § 56 585.1 A 6 of the Code).

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<sup>65</sup> *Application of Virginia Electric and Power Company, For revision of rate adjustment clause: Rider W, Warren County Power Station, Case No. PUE-2015-00061, Doc. Con. Ctr. No. 150620168, Order for Notice and Hearing (June 12, 2015).*

<sup>66</sup> *Application of Virginia Electric and Power Company, For revision of rate adjustment clause: Rider B, Biomass Conversions of the Altavista, Hopewell, and Southampton power stations for the rate year commencing April 1, 2016, Case No. PUE-2015-00058, Doc. Con. Ctr. No. 150630002, Order for Notice and Hearing (June 19, 2015).*

On June 18, 2015, the Commission issued an Order for Notice and Hearing<sup>67</sup> that, among other things, established a procedural schedule and set a hearing date of November 11, 2015, to receive public comments and evidence on DVP's application. This proceeding is pending before the Commission.

(v) *Remington Solar*

On January 20, 2015, DVP filed an application for approval and a certificate of public convenience and necessity to construct and operate a 20 MW utility-scale solar electric generating facility near the town of Remington in Fauquier County, Virginia. DVP also requests approval of a RAC, designated Rider US-1, designed to recover the costs associated with the Remington Solar Facility. DVP expects the proposed project to begin commercial operation on or about October 1, 2016. The Remington Solar Facility is estimated to cost approximately \$47 million, excluding financing costs. DVP requests that the Commission approve rates to recover an annual revenue requirement of \$2.7 million for the rate year beginning December 1, 2015 through November 30, 2016. The revenue requirement is based on an ROE of 10.0%. This proceeding is pending before the Commission.<sup>68</sup>

(vi) *Greensville Power Station*

On July 1, 2015, DVP filed an application for a certificate of public convenience and necessity and for approval to construct and operate the Greensville County Power Station. The facility will be an approximately 1,588 MW natural gas-fired combined-cycle electric generating facility located in Greensville County, Virginia, together with its associated transmission interconnection facilities. DVP also requested approval of a RAC, designated Rider GV,

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<sup>67</sup> *Application of Virginia Electric and Power Company, For revision of rate adjustment clause: Rider R, Bear Garden Generating Station For the rate year commencing April 1, 2016*, Case No. PUE-2015-00059, Doc. Con. Ctr. No. 150620356, Order for Notice and Hearing (June 18, 2015).

<sup>68</sup> *Application of Virginia Electric and Power Company, For approval and certification for the proposed Remington Solar Facility pursuant to §§ 56-46.1 and 56-580 D of the Code of Virginia, and for approval of a rate adjustment clause pursuant to § 56-585.1 A 6 of the Code of Virginia*, Case No. PUE-2015-00006, Doc. Con. Ctr. No. 150220178, Order for Notice and Hearing (Feb. 20, 2015).

designed to recover the costs associated with the Greenville project. DVP expects the proposed project to begin commercial operation on or about October 1, 2016, and is estimated to cost approximately \$1.33 billion, excluding financing costs. DVP requests that the Commission approve rates to recover an annual revenue requirement of \$41.6 million for the rate year beginning April 1, 2016. The revenue requirement is based on an ROE of 10.0%. This proceeding is pending before the Commission.<sup>69</sup>

### **3. Kentucky Utilities d/b/a Old Dominion Power Company**

#### *Fuel Case (2015)*

On February 13, 2015, KU/ODP filed an application proposing to decrease its levelized fuel factor by \$0.00132/kWh from \$0.03052/kWh to \$0.02920/kWh, effective for service rendered on and after April 1, 2015.

On April 28, 2015, the Staff filed testimony that concluded that an update to KU/ODP's actual net fuel recovery results through March 31, 2015, showed that a further reduction to the fuel factor was warranted. Accordingly, Staff recommended a revised fuel factor of \$0.02863/kWh.

On May 5, 2015, KU/ODP filed a letter requesting that the Commission approve the Staff's proposed revised fuel factor of \$0.02863/kWh.

On June 11, 2015, the Commission entered the Order Establishing Fuel Factor<sup>70</sup> of \$0.02863/kWh for service rendered on and after July 1, 2015.

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<sup>69</sup> *Application of Virginia Electric and Power Company, For approval and certification of the proposed Greenville County Power Station electric generation and related transmission facilities under §§ 56-580 D, 56-265.2 and 56-46.1 of the Code of Virginia and for approval of a rate adjustment clause, designated Rider GV, under § 56-585.1 A 6 of the Code of Virginia, Case No. PUE-2015-00075, Doc. Con. Ctr. No. 150750083, Order for Notice and Hearing (July 29, 2015).*

<sup>70</sup> *Application of Kentucky Utilities Company d/b/a Old Dominion Power Company, To revise its fuel factor pursuant to § 56-249.6 of the Code of Virginia, Case No. PUE-2015-00019, Doc. Con. Ctr. No. 150620146, Order Establishing Fuel Factor (June 11, 2015).*

*General Rate Case (2015)*

On June 30, 2015, KU/ODP filed an application with the Commission requesting authority to increase its annual base rate revenues by \$7.16 million, which is a 10.12% increase in total operating revenues, including fuel. This proceeding is pending before the Commission.<sup>71</sup>

**M. Environmental Protection Agency Regulation of Carbon Dioxide**

On August 3, 2015, the U.S. Environmental Protection Agency ("EPA") released three final rules for the regulation of carbon dioxide emissions from existing, new, and modified fossil fuel electric generating facilities:

- (1) A final Rule, issued under Section 111(d) of the Clean Air Act, for the regulation of carbon dioxide emissions from certain existing coal, natural gas, and oil facilities. EPA assigned to Virginia an average carbon emission rate of 1,047 pounds per megawatt-hour for the interim compliance period of 2022-2029; and a final rate of 934 pounds per megawatt-hour for compliance beginning in 2030. EPA also established, as compliance alternatives, state-specific tonnage limits and technology-specific emission rate limits. The deadline for states to submit plans for complying with this rule is September 2016, with the opportunity to request an extension to September 2018.
- (2) A Proposed Federal Plan and Model Trading Rules, also issued under Section 111(d) of the Clean Air Act, for the regulation of carbon dioxide emissions from certain existing facilities. EPA would finalize and enforce a federal plan for states that decline to submit a plan to comply with the Final 111(d) Rule or that have their plan disapproved by EPA. The Model Trading Rules, which EPA plans to finalize in the summer of 2016, are intended to facilitate interstate trading of carbon allowances or credits.
- (3) A Final Rule, issued under a different provision of the Clean Air Act, Section 111(b), establishing *new source* performance standards for carbon emissions from certain new or modified facilities. New coal and natural gas combined cycle units are limited to carbon emission rates of 1,400 pounds and 1,000 pounds per megawatt-hour, respectively.

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<sup>71</sup> *Application of Kentucky Utilities Company d/b/a Old Dominion Power Company for an Adjustment of Electric Base Rates*, Case No. PUE-2015-00063, Doc. Con. Ctr. No. 150740170, Order for Notice and Hearing (July 24, 2015).

The final rule is currently under review, and its full impact on Virginia has not yet been determined.

### **III. ELECTRICITY PRICES**

The Commission continues to monitor electric rates in the Commonwealth, with a particular focus on changes in rates since the Regulation Act went into effect on July 1, 2007. Appendix 1 to this report compares the change in Virginia residential rates since implementation of the Regulation Act.

Section 56-585.1 A 2 e of the Code requires that in setting the ROE for an electric IOU, "the Commission shall strive to maintain costs of retail electric energy that are cost competitive with costs of retail electric energy provided by the other peer group investor-owned electric utilities." [To that end, and pursuant to the Seventh Enactment Clause of the 2007 Regulation Act<sup>72</sup>, the Commission is to report by November 1, 2015, on the rates, terms and conditions of incumbent electric utilities in the Commonwealth.] The report is to include analyses of the amount, reliability, and type of generation facilities required to serve Virginia native load compared to that available to serve such load. The report also must compare Virginia incumbent electric utilities to those in their peer groups that meet the criteria of § 56-585.1 A 2 of the Code.

Pursuant to these directives, the Commission, through its Staff, developed several rate comparisons that utilize information from various Edison Electric Institute ("EEI") publications

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<sup>72</sup> Chapter 933 of the 2007 Acts of Assembly.

in an effort to assess the competitiveness of DVP's and APCo's rates as compared to those of the statutorily defined peer groups.<sup>73</sup> In examining rate competitiveness, this analysis focused on the level of rates and did not attempt to focus on other potential measures of competitiveness such as electrical costs as a percent of income or as a percent of production costs.

The EEI information was used in several ways to rank the rates of APCo, DVP, and their peer groups from lowest to highest.<sup>74</sup> First, the EEI data was used to compare average rate per kWh for residential, commercial, and industrial rates for 2006 and 2014.<sup>75</sup> The 2014 information was utilized to assess the competitiveness of the then current rates. The 2014 information was then compared to the 2006 data to determine whether there has been any upward or downward trend in DVP's or APCo's rate competitiveness.

Typical bills for DVP, APCo, and their statutorily defined peer groups also were examined for differing customer groups and varying ranges of consumption.<sup>76</sup> This analysis focuses on typical bills for residential, commercial, and industrial customers and examines the competitiveness of DVP's rates and APCo's rates that were in effect on January 1, 2015, and any change of such rates in effect in 2006. It should be noted that the typical bill comparisons are based on the annualized rates in effect on January 1, 2015, and as such do not reflect any subsequent or pending rate changes. Any pending changes could increase or decrease the

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<sup>73</sup> In the Final Order in Dominion Virginia Power's 2013 Biennial Review, the Commission found that KU/ODP and Louisville Gas and Electric Company ("LG&E") satisfied the requirements for inclusion in the peer group. Both KU/ODP and LG&E are a part of EEI's East South Central Region. Therefore, the averages for that region, as well as the data for both utilities is now included in the Appendicies. *Application of Virginia Electric and Power Company, For a 2013 biennial review of the rates, terms and conditions for the provision of generation, distribution, and transmission services pursuant to § 56-585.1 A of the Code of Virginia*, Case No. PUE-2013-00020, Final Order (Nov. 26, 2013). Data for Old Dominion Power Company, a unit of KU which is located in Virginia, also has been included.

<sup>74</sup> It should be noted that the number of companies ranked differ for the average revenue per kWh comparisons and typical bill comparisons.

<sup>75</sup> The 2014 information was taken from EEI's "Typical Bills and Average Rates Report Winter 2015." The 2006 information was taken from EEI's "Typical Bills and Average Rates Report Winter 2007" and the Excel files accompanying that report, as well as EEI's "Typical Bills and Average Rates Report Summer 2006."

<sup>76</sup> Typical bills are presented based on the usage and demand levels reported in the EEI reports.

relative competitiveness of DVP's or APCo's rates and potentially their ranking if the rates of the peer group do not change on a comparable basis.

The change in average rates per customer class is summarized in Appendix 2 to this report, which presents the average 2006 and 2014 revenue information for DVP, APCo, and their statutorily defined peer groups for residential, commercial, and industrial rates.

Appendices 3, 4, and 5 to this report present typical bill information for residential, commercial, and industrial customers, respectively, of DVP, APCo, and their statutorily defined peer groups. The typical bills presented in these appendices are annualized so that seasonal rate differences (*i.e.*, summer and winter rate differentials) are averaged across the year. Typical bills are presented separately by state for those companies that serve in multiple states.

APCo's and DVP's 2014-15 electricity rates appear to be competitive with their peer utilities, although pending rate requests could impact the competitiveness of electricity rates in the future.

#### **IV. REGIONAL TRANSMISSION ENTITY PARTICIPATION**

Section 56-579 G of the Code requires the Commission to report annually "its assessment of the practices and policies of the regional transmission entity ("RTE") to which the Commission has approved the transfer of management and control of an incumbent electric utility's transmission assets."<sup>77</sup> APCo, DVP, and Old Dominion Electric Cooperative ("ODEC") are currently participating in such an RTE known as PJM.<sup>78</sup> This report will discuss recent developments in RTE participation and the impacts of RTE operations on the energy market.

Pursuant to § 56-579 A of the Code, Virginia's largest electric utilities have been integrated into PJM for over ten years now and will continue to participate in PJM markets and processes. Dominion currently purchases a significant portion of its energy needs from

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<sup>77</sup> This also is referred to as regional transmission organization, or RTO.

<sup>78</sup> PJM accepted control of American Electric Power's transmission facilities, including those of APCo, on October 1, 2004, and Dominion Virginia Power's transmission facilities on May 1, 2005.

PJM-administered wholesale markets. Also, Virginia's electric cooperatives and municipal utilities and their retail customers remain affected by PJM wholesale market electricity prices. In addition, Virginia's utilities participate in PJM demand response programs and are affected by PJM's transmission system planning.

Prices associated with PJM's energy markets are based on a system of locational marginal prices ("LMP"), where the price of electricity for a given time increment is based on the offer to sell electricity submitted by the last, or highest-priced, generating unit needed to operate during that time period, as selected through a competitive auction. All generating units selected during this time interval receive the same payment based on the last selected bid; *i.e.*, the "market clearing" price. Virginia's electricity consumers are impacted by the PJM energy market to the extent that their utilities purchase electricity from and sell electricity to the PJM market.

PJM also manages a capacity market that is designed to ensure the adequate availability of necessary resources; *i.e.*, generating capacity or demand response that can be called upon whenever needed to ensure the reliability of the electrical grid. The basis for the PJM capacity market design is the reliability pricing model ("RPM"). The goal of RPM is to align capacity pricing with system reliability requirements and to provide transparent information to all market participants far enough in advance to provide for actionable response to the information. In simpler terms, RPM is intended to produce capacity prices high enough to spur construction of new generation or transmission where needed to promote reliable service. DVP and ODEC participate in the RPM. The PJM capacity market also contains an alternative method of participation, known as the Fixed Resource Requirement ("FRR") Alternative ("FRR Alternative"). The FRR Alternative provides utilities with the option to submit an FRR capacity plan and meet a fixed capacity resource requirement as an alternative to the requirement to

participate in the RPM. APCo utilizes the FRR Alternative and has opted out of the capacity auction through the 2017-18 plan year.

## V. SIGNIFICANT RTE-RELATED DOCKETS AT FERC

Section 56-579 C of the Code directs the Commission to participate "to the fullest extent permitted" in RTE-related dockets at FERC. The following is a discussion of recent developments in significant RTE-related dockets at FERC in which the Commission participated.

### A. PJM's Reliability Pricing Model

PJM has conducted several RPM auctions under procedures approved by FERC. The May 2008 auction, for the 2011-2012 delivery year, was the first to procure capacity under a full three-year forward commitment.<sup>79</sup> On June 9, 2015, FERC approved changes to PJM's RPM auction procedure, which will now include capacity performance. PJM maintains that this change will enhance the incentives for capacity resources to be available when needed most, help reduce price spikes during system emergencies and reduce the chance of forced outages. As a result, PJM held two transition auctions, starting with the 2016-17 delivery year, with an offer window that was open on August 26-27, 2015. PJM posted results of that transition auction on August 31, 2015. For the 2017-18 delivery year, PJM will open a window on September 3-4, 2015, and post results on September 9. PJM also has delayed the base residual auction for the 2018-19 delivery year, which would normally have been conducted in May 2015. PJM opened the 2018-19 base residual auction on August 10, 2015, and the offer window closed August 14, 2015. PJM posted the results on August 21.<sup>80</sup>

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<sup>79</sup> PJM conducts a Base Residual Auction each year to establish prices for the three-year planning horizon and also conducts incremental auctions as needed to adjust the PJM supply portfolio for known conditions.

<sup>80</sup> P.J.M. Interconnection, L.L.C., 151 FERC ¶ 61,208 (2015), *reh'g pending*.

**B. Issues Related to PJM's Market Monitoring Function**

The Commission long has been concerned with market monitoring issues at PJM. The Commission continues to monitor interactions between PJM and its market monitor and communicates with PJM and the market monitor on a regular basis regarding such issues.

**C. Cost Allocation and Regional Transmission Planning**

In 2007 FERC approved a proposal from PJM that would socialize costs of transmission projects operating at or above 500 kilovolts ("kV") across all PJM transmission zones, based on the transmission owners' respective load ratio shares.<sup>81</sup> Projects operating below 500 kV would continue to be financed under PJM's existing methodology, wherein all new facilities in PJM's region have been financed by contributions from the region's electric utilities calculated on the basis of the benefits that each utility receives from the facilities.

On August 6, 2009, the U.S. Court of Appeals for the Seventh Circuit ruled that FERC had not justified its cost allocation methodology for projects operating at or above 500 kV, finding that FERC is not authorized to approve a pricing scheme that requires a group of utilities to pay for facilities from which its members derive no benefits, or benefits that are trivial in relation to the costs sought to be shifted to its members.<sup>82</sup> The Court remanded the case to FERC for further consideration. On March 30, 2012, FERC issued its Order on Remand in which it reiterated that PJM's pre-existing tariff and practice of utilizing exclusively a static flow-based model for allocating the costs of high voltage transmission lines is unjust and unreasonable and that allocating costs of transmission enhancements that operate at or above 500 kV to utility zones using a postage stamp cost allocation methodology is a just, reasonable, and not unduly discriminatory method of allocating the costs of these new facilities.<sup>83</sup> On June 25, 2014, the Seventh Circuit again reversed this cost allocation methodology and remanded the case back to

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<sup>81</sup> PJM Interconnection, L.L.C., 119 FERC ¶ 61,063 (2007), reh'g denied, 122 FERC ¶ 61,082 (2008).

<sup>82</sup> Illinois Commerce Comm'n v. F.E.R.C., 576 F.3d 470 (7th Cir. 2009).

<sup>83</sup> PJM Interconnection L.L.C., 138 FERC ¶ 61,230 (2012) reh'g pending.

FERC for further consideration.<sup>84</sup> Following requests by numerous parties, FERC is now conducting settlement negotiations in this proceeding. If settlement is not reached, the matter will proceed to hearing. Dominion, APCo, ODEC and the Commission are participating in these negotiations.

On July 11, 2011, FERC issued a final rule ("Order No. 1000"), reforming its transmission planning and cost allocation policy.<sup>85</sup> Order No. 1000 requires transmission providers to participate in regional transmission planning processes to develop regional transmission plans that would identify necessary transmission facilities and non-transmission solutions. In addition, a transmission provider would be required to specify in its Open Access Transmission Tariff the procedures for evaluating transmission projects proposed to satisfy public policy requirements.

Order No. 1000 also includes provisions intended to prevent undue discrimination against non-incumbent transmission providers (*e.g.*, merchant transmission developers or utilities developing projects outside of their service territories), and proposed to improve coordination between regional planning processes.

Finally, Order No. 1000 requires that regional cost allocation methodologies follow six general principles of cost allocation.<sup>86</sup> FERC Order No. 1000 was appealed by numerous parties, including a number of IOUs participating through appeals filed by EEI and the Coalition for Fair

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<sup>84</sup> *Illinois Commerce Comm'n v. F.E.R.C.*, Docket No. 13-1674 (7th Cir. 2014).

<sup>85</sup> Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, Order No. 1000, 136 FERC ¶ 61,051 (2011).

<sup>86</sup> The six principles are: (1) costs should be allocated in a way roughly commensurate with benefits; (2) no involuntary allocation of costs to non-beneficiaries; (3) cost-benefit thresholds should not be set so high as to exclude projects with significant positive net benefits; (4) allocation must be solely within a planning region unless outsiders voluntarily assume costs; (5) there must be a transparent method for determining benefits and identifying beneficiaries; and (6) a region may elect to use different cost allocation methodologies for different types of facilities.

Transmission Policy. A federal appellate court issued an order on August 15, 2014, unanimously rejecting challenges to FERC's jurisdiction and upholding FERC Order No. 1000.<sup>87</sup>

On March 22, 2013, FERC approved changes to the cost allocation for new transmission facilities in the PJM region.<sup>88</sup> Whereas projects 500 kV and above were previously 100% socialized across the PJM region, as a general matter, projects 345 kV and above are now 50% socialized with the remaining 50% financed by contributions from the region's electric utilities calculated on the basis of the benefits that each utility receives from the facilities. New projects below 345 kV are financed entirely by the utilities that benefit from the facilities.<sup>89</sup>

Although Order No. 1000 eliminated the federal right of first refusal previously provided to utilities when developing transmission projects, on May 15, 2014, FERC ruled that PJM may designate an incumbent transmission owner to build certain types of transmission projects when required by law, regulation or administrative agency order of the state where such projects would be located.<sup>90</sup>

#### **D. Eastern Interconnection Planning Collaborative**

The Eastern Interconnection Planning Collaborative ("EIPC") is a coalition of 24 regional Planning Authorities listed on the North American Electric Reliability Corporation compliance registry, and other interested stakeholders, representing the entire Eastern Interconnection. EIPC was awarded a \$16 million grant by the U.S. Department of Energy ("DOE") to integrate existing sub-regional plans and evaluate longer-term resource and policy scenarios. Subsequently, the Eastern Interconnection States Planning Council<sup>91</sup> ("EISPC") was awarded a \$14 million grant by the DOE to develop inputs as needed to conduct the interconnection-level

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<sup>87</sup> *South Carolina Public Service Authority v. FERC, et al.*, Docket No. 12-1232, D.C. Cir. (Aug. 15, 2014).

<sup>88</sup> Indicated PJM Transmission Owners, 142 FERC ¶ 61,214 (2013).

<sup>89</sup> The cost allocation for 345 kV projects and other types of projects depends on their specific details.

<sup>90</sup> PJM Interconnection, L.L.C., 147 FERC ¶ 61,128 (2014), reh'g pending.

<sup>91</sup> The District of Columbia, the City of New Orleans, and the 39 states located within the Eastern Interconnection comprise the 41 entities that have state or local regulatory jurisdiction over the retail electric industry.

analyses prepared by EIPC and to designate energy zones of particular interest for low- or no-carbon electricity.

The Staff participated in discussions relating to the implementation of the studies funded by the DOE grant.<sup>92</sup> Additionally, the Staff has attended meetings and is part of the ongoing discussions and studies. EIPC submitted its final report to the DOE on December 22, 2012, concluding the work originally identified in the federal grant.<sup>93</sup> The report identifies three planning scenarios suitable for interregional coordination. Subsequently, the DOE noted the rapid changes in the natural gas market since the beginning of the study, such as the discovery and development of new natural gas resources and the increasing reliance on natural gas for power generation. DOE questioned whether the existing natural gas infrastructure was sufficient to support the anticipated need for natural gas power production in the future. DOE extended EIPC's funding to perform additional technical analyses to evaluate the interaction between the natural gas and electric systems.

EISPC's funding via the DOE ended as of June 30, 2015. The planning activities and research under EISPC's auspices continue, however, under leadership from the National Association of Regulatory Utility Commissioners, continuing to focus on research into demand response, energy efficiency, energy storage, customer-owned generation, smart grid studies, probabilistic risk assessment, load forecasting, data mining and incentives and disincentives to nuclear power development. EISPC's Studies and White Paper Working Group will be responsible for any such research. EISPC also has developed a web-based mapping tool that will

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<sup>92</sup> The Commission's participation does not imply that the Commission endorses any specific recommendations or agreements that may result from the EIPC, and the Commission has expressly reserved the right to oppose or decline to endorse any specific proposal or recommendation that the Commission believes conflicts, expressly or implicitly, with Virginia law.

<sup>93</sup> See [http://www.eipconline.com/uploads/20130103\\_Phase2Report\\_Part1\\_Final.pdf](http://www.eipconline.com/uploads/20130103_Phase2Report_Part1_Final.pdf).

support EISPC member jurisdictions as they identify areas within the interconnection that are suitable for developing clean energy resources and determining potential clean energy zones.<sup>94</sup>

## **VI. CLOSING**

The Commission continues to execute its responsibilities under the Regulation Act. The Commission does not offer any legislative recommendations at this time but stands ready to provide additional information or assistance if requested.

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<sup>94</sup> See <http://eispctools.anl.gov/>.

**Appendix 1**

CHANGE IN VIRGINIA RESIDENTIAL RATES  
SINCE IMPLEMENTING THE REGULATION ACT

Residential Consumer Electric Rates in Virginia  
Expressed in \$ per 1,000 kWh

| <i>UTILITIES</i>                       | <i>Jul-07</i> | <i>Jul-15</i> | <i>\$ Change</i> | <i>% Change</i> |
|--|---------------|---------------|------------------|-----------------|
| <b><u>IOU</u></b>                      |               |               |                  |                 |
| <b>Appalachian Power Company</b>       | \$66.61       | \$113.28      | 46.67            | 70.06           |
| <b>Dominion Virginia Power</b>         | 90.60         | 109.40        | 18.80            | 20.76           |
| <b>Old Dominion/Kentucky Utilities</b> | 67.57         | 98.36         | 30.79            | 45.57           |
| <b><u>Electric Cooperatives</u></b>    |               |               |                  |                 |
| <b>A&amp;N</b>                         | 122.59        | 121.47        | -1.12            | -0.92           |
| <b>BARC</b>                            | 123.18        | 130.23        | 7.05             | 5.72            |
| <b>Central Virginia</b>                | 83.04         | 133.60        | 50.56            | 60.89           |
| <b>Community</b>                       | 122.37        | 127.90        | 5.53             | 4.52            |
| <b>Craig Botetourt</b>                 | 114.90        | 137.39        | 22.49            | 19.57           |
| <b>Mecklenburg</b>                     | 121.71        | 137.08        | 15.37            | 12.63           |
| <b>Northern Neck</b>                   | 126.35        | 141.63        | 15.28            | 12.09           |
| <b>Northern Virginia</b>               | 129.20        | 129.34        | 0.14             | 0.11            |
| <b>Prince George</b>                   | 118.62        | 129.79        | 11.17            | 9.41            |
| <b>Rappahannock</b>                    | 127.72        | 128.51        | 0.79             | 0.62            |
| <b>Shenandoah Valley</b>               | 115.12        | 123.54        | 8.42             | 7.31            |
| <b>Southside</b>                       | 133.32        | 146.06        | 12.74            | 9.56            |

NOTES

1. Rates are exclusive of Local Utility, Consumption and, except for Rappahannock, Sales and Use taxes.
2. Dominion Virginia Power's rates are annualized rates.

**Appendix 2**

**CHANGE IN AVERAGE RATES PER CUSTOMER CLASS**

**PEER GROUP**  
**Rate Comparison**  
**Average Revenue per kWh**

APPENDIX 2  
page 1 of 3

| <b>Total Rate:</b>                 | <b>2006</b><br>¢/kWh | <b>2014</b><br>¢/kWh | <b>Change</b><br>% | <b>2006</b><br>Ranking | <b>2014</b><br>Ranking | <b>Rank</b><br>Change |
|------------------------------------|----------------------|----------------------|--------------------|------------------------|------------------------|-----------------------|
| Alabama Power                      | 7.09                 | 9.23                 | 30.26              | 8                      | 8                      | 0                     |
| Appalachian Power Company (Va)     | 5.04                 | 9.48                 | 88.10              | 1                      | 9                      | -8                    |
| Dominion Virginia Power            | 6.79                 | 8.79                 | 29.51              | 7                      | 5                      | 2                     |
| DUKE Energy Carolinas (NC)         | 6.48                 | 8.55                 | 31.85              | 6                      | 4                      | 2                     |
| DUKE Energy Carolinas (SC)         | 5.54                 | 7.80                 | 40.77              | 3                      | 1                      | 2                     |
| Entergy Mississippi, Inc           | 9.89                 | 9.75                 | -1.45              | 15                     | 12                     | 3                     |
| FP&L Company                       | 11.22                | 9.81                 | -12.53             | 18                     | 13                     | 5                     |
| Georgia Power                      | 7.29                 | 9.86                 | 35.24              | 11                     | 14                     | -3                    |
| Gulf Power                         | 7.98                 | 10.85                | 35.95              | 14                     | 16                     | -2                    |
| Mississippi Power                  | 7.21                 | 9.55                 | 32.40              | 9                      | 11                     | -2                    |
| Duke Energy Progress, Inc. (NC)    | 7.60                 | 8.98                 | 18.24              | 12                     | 7                      | 5                     |
| Duke Energy Progress, Inc. (SC)    | 7.27                 | 8.28                 | 13.85              | 10                     | 3                      | 7                     |
| Duke Progress Energy Florida, Inc. | 10.55                | 11.72                | 11.14              | 17                     | 18                     | -1                    |
| SCE&G                              | 7.83                 | 11.28                | 44.05              | 13                     | 17                     | -4                    |
| Tampa Electric Company             | 9.96                 | 10.56                | 5.96               | 16                     | 15                     | 1                     |
| Kentucky Utilities (d/b/a ODP)     | 5.85                 | 9.49                 | 62.16              | 5                      | 10                     | -5                    |
| Louisville Gas & Electric          | 5.79                 | 8.82                 | 52.48              | 4                      | 6                      | -2                    |
| Kentucky Utilities (KY)            | 5.32                 | 7.97                 | 49.80              | 2                      | 2                      | 0                     |
| Average For East South Central     | 6.85                 | 9.01                 | 31.53              |                        |                        |                       |
| Average For South Atlantic         | 8.26                 | 9.68                 | 17.19              |                        |                        |                       |
| USA Average                        | 8.89                 | 10.72                | 20.58              |                        |                        |                       |

| <b>Residential Rate:</b>           | <b>2006</b><br>¢/kWh | <b>2014</b><br>¢/kWh | <b>Change</b><br>% | <b>2006</b><br>Ranking | <b>2014</b><br>Ranking | <b>Rank</b><br>Change |
|------------------------------------|----------------------|----------------------|--------------------|------------------------|------------------------|-----------------------|
| Alabama Power                      | 8.93                 | 11.80                | 32.06              | 9                      | 13                     | -4                    |
| Appalachian Power Company (Va)     | 5.95                 | 11.43                | 92.04              | 2                      | 11                     | -9                    |
| Dominion Virginia Power            | 8.43                 | 10.85                | 28.66              | 7                      | 10                     | -3                    |
| DUKE Energy Carolinas (NC)         | 7.93                 | 10.55                | 32.95              | 6                      | 7                      | -1                    |
| DUKE Energy Carolinas (SC)         | 7.33                 | 10.54                | 43.81              | 5                      | 6                      | -1                    |
| Entergy Mississippi, Inc           | 10.55                | 10.32                | -2.20              | 15                     | 5                      | 10                    |
| FP&L Company                       | 11.90                | 10.79                | -9.34              | 18                     | 9                      | 9                     |
| Georgia Power                      | 8.82                 | 12.37                | 40.37              | 8                      | 14                     | -6                    |
| Gulf Power                         | 9.07                 | 12.38                | 36.51              | 12                     | 15                     | -3                    |
| Mississippi Power                  | 10.12                | 13.50                | 33.36              | 14                     | 17                     | -3                    |
| Duke Energy Progress, Inc. (NC)    | 9.03                 | 10.55                | 16.91              | 11                     | 8                      | 3                     |
| Duke Energy Progress, Inc. (SC)    | 9.01                 | 10.10                | 12.11              | 10                     | 4                      | 6                     |
| Duke Progress Energy Florida, Inc. | 11.79                | 13.46                | 14.16              | 17                     | 16                     | 1                     |
| SCE&G                              | 9.92                 | 14.24                | 43.52              | 13                     | 18                     | -5                    |
| Tampa Electric Company             | 10.97                | 11.64                | 6.10               | 16                     | 12                     | 4                     |
| Kentucky Utilities (d/b/a ODP)     | 6.03                 | 9.81                 | 62.62              | 3                      | 2                      | 1                     |
| Louisville Gas & Electric          | 6.63                 | 10.08                | 51.97              | 4                      | 3                      | 1                     |
| Kentucky Utilities (KY)            | 5.87                 | 9.33                 | 59.08              | 1                      | 1                      | 0                     |

**PEER GROUP**  
**Rate Comparison**  
**Average Revenue per kWh**

|                                |       |       |       |
|--------------------------------|-------|-------|-------|
| Average For East South Central | 8.24  | 10.91 | 32.40 |
| Average For South Atlantic     | 9.79  | 11.51 | 17.57 |
| USA Average                    | 10.62 | 12.70 | 19.59 |

| <b>Commercial Rate:</b>            | <b>2006</b><br>¢/kWh | <b>2014</b><br>¢/kWh | <b>Change</b><br>% | <b>2006</b><br>Ranking | <b>2014</b><br>Ranking | <b>Rank</b><br>Change |
|------------------------------------|----------------------|----------------------|--------------------|------------------------|------------------------|-----------------------|
| Alabama Power                      | 8.17                 | 10.86                | 32.92              | 14                     | 16                     | -2                    |
| Appalachian Power Company (Va)     | 5.09                 | 9.23                 | 81.34              | 1                      | 7                      | -6                    |
| Dominion Virginia Power            | 6.08                 | 7.89                 | 29.74              | 3                      | 1                      | 2                     |
| DUKE Energy Carolinas (NC)         | 6.31                 | 7.92                 | 25.54              | 7                      | 2                      | 5                     |
| DUKE Energy Carolinas (SC)         | 6.26                 | 8.30                 | 32.61              | 6                      | 3                      | 3                     |
| Entergy Mississippi, Inc           | 10.20                | 9.97                 | -2.29              | 17                     | 12                     | 5                     |
| FP&L Company                       | 10.54                | 8.77                 | -16.84             | 18                     | 5                      | 13                    |
| Georgia Power                      | 7.50                 | 10.11                | 34.71              | 9                      | 13                     | -4                    |
| Gulf Power                         | 7.59                 | 10.15                | 33.81              | 10                     | 14                     | -4                    |
| Mississippi Power                  | 8.05                 | 10.87                | 35.00              | 12                     | 17                     | -5                    |
| Duke Energy Progress, Inc. (NC)    | 7.46                 | 8.74                 | 17.12              | 8                      | 4                      | 4                     |
| Duke Energy Progress, Inc. (SC)    | 8.05                 | 9.01                 | 11.86              | 13                     | 6                      | 7                     |
| Duke Progress Energy Florida, Inc. | 9.62                 | 10.21                | 6.15               | 16                     | 15                     | 1                     |
| SCE&G                              | 7.91                 | 11.26                | 42.37              | 11                     | 18                     | -7                    |
| Tampa Electric Company             | 9.48                 | 9.80                 | 3.45               | 15                     | 11                     | 4                     |
| Kentucky Utilities (d/b/a ODP)     | 6.26                 | 9.73                 | 55.47              | 5                      | 10                     | -5                    |
| Louisville Gas & Electric          | 6.18                 | 9.25                 | 49.53              | 4                      | 8                      | -4                    |
| Kentucky Utilities (KY)            | 5.75                 | 9.36                 | 62.66              | 2                      | 9                      | -7                    |
| Average For East South Central     | 7.73                 | 10.23                | 32.34              |                        |                        |                       |
| Average For South Atlantic         | 8.33                 | 9.21                 | 10.56              |                        |                        |                       |
| USA Average                        | 9.33                 | 10.94                | 17.26              |                        |                        |                       |

| <b>Industrial Rate:</b>            | <b>2006</b><br>¢/kWh | <b>2014</b><br>¢/kWh | <b>Change</b><br>% | <b>2006</b><br>Ranking | <b>2014</b><br>Ranking | <b>Rank</b><br>Change |
|------------------------------------|----------------------|----------------------|--------------------|------------------------|------------------------|-----------------------|
| Alabama Power                      | 4.92                 | 6.22                 | 26.45              | 7                      | 5                      | 2                     |
| Appalachian Power Company (Va)     | 3.85                 | 7.13                 | 85.19              | 1                      | 12                     | -11                   |
| Dominion Virginia Power            | 4.62                 | 6.23                 | 34.77              | 5                      | 6                      | -1                    |
| DUKE Energy Carolinas (NC)         | 4.73                 | 6.20                 | 31.13              | 6                      | 4                      | 2                     |
| DUKE Energy Carolinas (SC)         | 4.04                 | 5.40                 | 33.69              | 2                      | 1                      | 1                     |
| Entergy Mississippi, Inc           | 8.04                 | 7.60                 | -5.42              | 16                     | 14                     | 2                     |
| FP&L Company                       | 8.87                 | 6.72                 | -24.23             | 18                     | 10                     | 8                     |
| Georgia Power                      | 5.39                 | 6.48                 | 20.21              | 11                     | 7                      | 4                     |
| Gulf Power                         | 5.85                 | 7.77                 | 32.89              | 14                     | 15                     | -1                    |
| Mississippi Power                  | 5.10                 | 6.99                 | 36.96              | 8                      | 11                     | -3                    |
| Duke Energy Progress, Inc. (NC)    | 5.78                 | 6.59                 | 13.94              | 13                     | 9                      | 4                     |
| Duke Energy Progress, Inc. (SC)    | 5.64                 | 6.06                 | 7.37               | 12                     | 3                      | 9                     |
| Duke Progress Energy Florida, Inc. | 8.31                 | 8.83                 | 6.31               | 17                     | 18                     | -1                    |
| SCE&G                              | 5.15                 | 7.43                 | 44.11              | 9                      | 13                     | -4                    |
| Tampa Electric Company             | 7.65                 | 8.65                 | 13.06              | 15                     | 17                     | -2                    |
| Kentucky Utilities (d/b/a ODP)     | 5.22                 | 8.32                 | 59.47              | 10                     | 16                     | -6                    |

**PEER GROUP  
Rate Comparison**

**Average Revenue per kWh**

|                                |      |      |       |   |   |    |
|--------------------------------|------|------|-------|---|---|----|
| Louisville Gas & Electric      | 4.35 | 6.57 | 51.14 | 3 | 8 | -5 |
| Kentucky Utilities (KY)        | 4.46 | 5.93 | 33.04 | 4 | 2 | 2  |
| Average For East South Central | 4.97 | 6.39 | 28.57 |   |   |    |
| Average For South Atlantic     | 5.19 | 6.82 | 31.41 |   |   |    |
| USA Average                    | 6.00 | 7.21 | 20.17 |   |   |    |

## **Appendix 3**

### TYPICAL RESIDENTIAL BILLS

**PEER GROUP**  
**Typical Bill Comparison**  
**Residential Customers**

**APPENDIX 3**  
page 1 of 2

| <b>Monthly Usage of 500 kWh:</b>   | <b>2006</b> | <b>2015</b> | <b>Change</b> | <b>2006</b> | <b>2015</b> | <b>Rank</b> | <b>Rank</b> | <b>Change</b> |
|------------------------------------|-------------|-------------|---------------|-------------|-------------|-------------|-------------|---------------|
|                                    | <b>\$</b>   | <b>\$</b>   | <b>%</b>      | <b>Rank</b> | <b>Rank</b> |             |             |               |
| Alabama Power                      | 53.33       | 71.70       | 34.45         | 14          | 17          |             |             | -3            |
| Appalachian Power Company (Va)     | 34.58       | 63.25       | 82.91         | 3           | 13          |             |             | -10           |
| Appalachian Power Company (WV)     | 32.48       | 52.42       | 61.39         | 1           | 1           |             |             | 0             |
| Dominion North Carolina Power      | 49.38       | 60.62       | 22.76         | 11          | 7           |             |             | 4             |
| Dominion Virginia Power            | 48.00       | 62.38       | 29.96         | 9           | 11          |             |             | -2            |
| DUKE Energy Carolinas (NC)         | 44.09       | 60.63       | 37.51         | 7           | 8           |             |             | -1            |
| DUKE Energy Carolinas (SC)         | 39.55       | 62.67       | 58.46         | 6           | 12          |             |             | -6            |
| Entergy Mississippi, Inc           | 60.81       | 67.19       | 10.49         | 19          | 16          |             |             | 3             |
| FP&L Company                       | 56.97       | 54.22       | -4.83         | 16          | 2           |             |             | 14            |
| Georgia Power                      | 45.28       | 64.57       | 42.60         | 8           | 14          |             |             | -6            |
| Gulf Power                         | 51.30       | 79.19       | 54.37         | 13          | 19          |             |             | -6            |
| Mississippi Power                  | 64.08       | 85.52       | 33.46         | 20          | 20          |             |             | 0             |
| Duke Energy Progress, Inc. (NC)    | 48.69       | 61.75       | 26.82         | 10          | 9           |             |             | 1             |
| Duke Energy Progress, Inc. (SC)    | 51.17       | 56.49       | 10.40         | 12          | 5           |             |             | 7             |
| Duke Progress Energy Florida, Inc. | 58.90       | 67.06       | 13.85         | 17          | 15          |             |             | 2             |
| SCE&G                              | 53.73       | 78.11       | 45.38         | 15          | 18          |             |             | -3            |
| Tampa Electric Company             | 59.17       | 61.94       | 4.68          | 18          | 10          |             |             | 8             |
| Kentucky Utilities (d/b/a ODP)     | 35.03       | 56.13       | 60.23         | 4           | 4           |             |             | 0             |
| Louisville Gas & Electric          | 35.18       | 57.41       | 63.19         | 5           | 6           |             |             | -1            |
| Kentucky Utilities (KY)            | 32.49       | 54.36       | 67.31         | 2           | 3           |             |             | -1            |
| Average For East South Central     | 43.99       | 60.12       | 36.67         |             |             |             |             |               |
| Average For South Atlantic         | 49.07       | 63.22       | 28.84         |             |             |             |             |               |
| USA Average                        | 56.20       | 72.70       | 29.36         |             |             |             |             |               |

| <b>Monthly Usage of 750 kWh:</b>   | <b>2006</b> | <b>2015</b> | <b>Change</b> | <b>2006</b> | <b>2015</b> | <b>Rank</b> | <b>Rank</b> | <b>Change</b> |
|------------------------------------|-------------|-------------|---------------|-------------|-------------|-------------|-------------|---------------|
|                                    | <b>\$</b>   | <b>\$</b>   | <b>%</b>      | <b>Rank</b> | <b>Rank</b> |             |             |               |
| Alabama Power                      | 74.35       | 100.09      | 34.62         | 14          | 17          |             |             | -3            |
| Appalachian Power Company (Va)     | 48.38       | 90.68       | 87.43         | 3           | 14          |             |             | -11           |
| Appalachian Power Company (WV)     | 43.88       | 73.10       | 66.59         | 1           | 1           |             |             | 0             |
| Dominion North Carolina Power      | 69.30       | 85.04       | 22.71         | 10          | 8           |             |             | 2             |
| Dominion Virginia Power            | 68.48       | 90.08       | 31.54         | 9           | 12          |             |             | -3            |
| DUKE Energy Carolinas (NC)         | 63.52       | 84.55       | 33.11         | 7           | 7           |             |             | 0             |
| DUKE Energy Carolinas (SC)         | 56.24       | 89.86       | 59.78         | 6           | 11          |             |             | -5            |
| Entergy Mississippi, Inc           | 81.37       | 90.52       | 11.24         | 16          | 13          |             |             | 3             |
| FP&L Company                       | 82.79       | 77.45       | -6.45         | 17          | 3           |             |             | 14            |
| Georgia Power                      | 67.28       | 91.37       | 35.81         | 8           | 15          |             |             | -7            |
| Gulf Power                         | 71.82       | 109.24      | 52.10         | 12          | 18          |             |             | -6            |
| Mississippi Power                  | 85.27       | 114.38      | 34.14         | 20          | 20          |             |             | 0             |
| Duke Energy Progress, Inc. (NC)    | 69.66       | 86.64       | 24.38         | 11          | 10          |             |             | 1             |
| Duke Energy Progress, Inc. (SC)    | 73.50       | 81.48       | 10.86         | 13          | 6           |             |             | 7             |
| Duke Progress Energy Florida, Inc. | 84.23       | 96.09       | 14.08         | 18          | 16          |             |             | 2             |

**PEER GROUP**  
**Typical Bill Comparison**  
**Residential Customers**

**APPENDIX 3**  
page 2 of 2

|                                |       |        |       |    |    |    |
|--------------------------------|-------|--------|-------|----|----|----|
| SCE&G                          | 76.84 | 112.17 | 45.98 | 15 | 19 | -4 |
| Tampa Electric Company         | 84.39 | 85.20  | 0.96  | 19 | 9  | 10 |
| Kentucky Utilities (d/b/a ODP) | 49.86 | 78.19  | 56.82 | 4  | 4  | 0  |
| Louisville Gas & Electric      | 50.30 | 80.30  | 59.64 | 5  | 5  | 0  |
| Kentucky Utilities (KY)        | 46.20 | 75.79  | 64.05 | 2  | 2  | 0  |
| Average For East South Central | 61.01 | 83.53  | 36.91 |    |    |    |
| Average For South Atlantic     | 70.42 | 90.03  | 27.85 |    |    |    |
| USA Average                    | 81.56 | 104.92 | 28.64 |    |    |    |

|                                    | <b>2006</b> | <b>2015</b> | <b>Change</b> | <b>2006</b> | <b>2015</b> | <b>Rank</b>   |
|------------------------------------|-------------|-------------|---------------|-------------|-------------|---------------|
| <b>Monthly Usage of 1000 kWh:</b>  | <b>\$</b>   | <b>\$</b>   | <b>%</b>      | <b>Rank</b> | <b>Rank</b> | <b>Change</b> |
| Alabama Power                      | 93.40       | 126.43      | 35.36         | 12          | 17          | -5            |
| Appalachian Power Company (Va)     | 61.39       | 118.11      | 92.39         | 3           | 14          | -11           |
| Appalachian Power Company (WV)     | 55.28       | 93.78       | 69.65         | 1           | 1           | 0             |
| Dominion North Carolina Power      | 89.24       | 109.47      | 22.67         | 9           | 9           | 0             |
| Dominion Virginia Power            | 87.18       | 115.95      | 33.00         | 8           | 12          | -4            |
| DUKE Energy Carolinas (NC)         | 82.95       | 109.07      | 31.49         | 7           | 8           | -1            |
| DUKE Energy Carolinas (SC)         | 72.93       | 117.05      | 60.50         | 6           | 13          | -7            |
| Energy Mississippi, Inc            | 101.92      | 113.83      | 11.69         | 16          | 11          | 5             |
| FP&L Company                       | 108.61      | 100.65      | -7.33         | 18          | 4           | 14            |
| Georgia Power                      | 93.91       | 119.43      | 27.17         | 13          | 15          | -2            |
| Gulf Power                         | 92.34       | 139.29      | 50.84         | 11          | 18          | -7            |
| Mississippi Power                  | 106.27      | 142.98      | 34.54         | 17          | 19          | -2            |
| Duke Energy Progress, Inc. (NC)    | 90.62       | 111.54      | 23.09         | 10          | 10          | 0             |
| Duke Energy Progress, Inc. (SC)    | 94.50       | 105.14      | 11.26         | 14          | 6           | 8             |
| Duke Progress Energy Florida, Inc. | 109.56      | 125.13      | 14.21         | 19          | 16          | 3             |
| SCE&G                              | 99.95       | 146.40      | 46.47         | 15          | 20          | -5            |
| Tampa Electric Company             | 109.61      | 108.47      | -1.04         | 20          | 7           | 13            |
| Kentucky Utilities (d/b/a ODP)     | 64.69       | 100.25      | 54.97         | 4           | 3           | 1             |
| Louisville Gas & Electric          | 65.43       | 103.20      | 57.73         | 5           | 5           | 0             |
| Kentucky Utilities (KY)            | 59.91       | 97.22       | 62.28         | 2           | 2           | 0             |
| Average For East South Central     | 77.74       | 106.64      | 37.18         |             |             |               |
| Average For South Atlantic         | 91.75       | 116.80      | 27.30         |             |             |               |
| USA Average                        | 106.52      | 137.02      | 28.63         |             |             |               |

## **Appendix 4**

### TYPICAL COMMERCIAL BILLS

**PEER GROUP**  
**Typical Bill Comparison**  
**Commercial Customers**

**APPENDIX 4**  
page 1 of 3

|                                    | 2006  | 2015  | Change | 2006 | 2015 | Rank   |
|------------------------------------|-------|-------|--------|------|------|--------|
| <b>Usage of 375 kWh:</b>           | \$    | \$    | %      | Rank | Rank | Change |
| Alabama Power                      | 50.00 | 82.00 | 64.00  | 14   | 19   | -5     |
| Appalachian Power Company (Va)     | 28.00 | 48.00 | 71.43  | 2    | 3    | -1     |
| Appalachian Power Company (WV)     | 26.00 | 38.00 | 46.15  | 1    | 1    | 0      |
| Dominion North Carolina Power      | 45.00 | 58.00 | 28.89  | 8    | 9    | -1     |
| Dominion Virginia Power            | 44.08 | 54.00 | 22.50  | 7    | 5    | 2      |
| DUKE Energy Carolinas (NC)         | 48.00 | 64.58 | 34.54  | 11   | 15   | -4     |
| DUKE Energy Carolinas (SC)         | 44.00 | 57.85 | 31.48  | 6    | 8    | -2     |
| Entergy Mississippi, Inc           | 56.00 | 62.00 | 10.71  | 18   | 12   | 6      |
| FP&L Company                       | 50.00 | 44.88 | -10.24 | 15   | 2    | 13     |
| Georgia Power                      | 56.00 | 79.95 | 42.77  | 19   | 18   | 1      |
| Gulf Power                         | 47.00 | 68.00 | 44.68  | 10   | 16   | -6     |
| Mississippi Power                  | 64.00 | 85.00 | 32.81  | 20   | 20   | 0      |
| Duke Energy Progress, Inc. (NC)    | 48.00 | 63.00 | 31.25  | 12   | 14   | -2     |
| Duke Energy Progress, Inc. (SC)    | 48.00 | 52.00 | 8.33   | 13   | 4    | 9      |
| Duke Progress Energy Florida, Inc. | 51.00 | 56.71 | 11.20  | 17   | 7    | 10     |
| SCE&G                              | 50.00 | 70.95 | 41.90  | 16   | 17   | -1     |
| Tampa Electric Company             | 46.00 | 55.65 | 20.98  | 9    | 6    | 3      |
| Kentucky Utilities (d/b/a ODP)     | 36.00 | 62.00 | 72.22  | 4    | 13   | -9     |
| Louisville Gas & Electric          | 37.00 | 59.00 | 59.46  | 5    | 10   | -5     |
| Kentucky Utilities (KY)            | 34.00 | 59.00 | 73.53  | 3    | 11   | -8     |
| Average For East South Central     | 44.00 | 62.00 | 40.91  |      |      |        |
| Average For South Atlantic         | 48.00 | 58.00 | 20.83  |      |      |        |
| USA Average                        | 53.00 | 66.00 | 24.53  |      |      |        |

|   | 2006     | 2015     | Change | 2006 | 2015 | Rank   |
|---|----------|----------|--------|------|------|--------|
| <b>Demand of 40 kW and Usage of 10,000 kWh:</b> | \$       | \$       | %      | Rank | Rank | Change |
| Alabama Power                                   | 961.00   | 1,361.00 | 41.62  | 15   | 19   | -4     |
| Appalachian Power Company (Va)                  | 580.00   | 1,077.00 | 85.69  | 2    | 13   | -11    |
| Appalachian Power Company (WV)                  | 569.00   | 919.00   | 61.51  | 1    | 4    | -3     |
| Dominion North Carolina Power                   | 731.00   | 906.00   | 23.94  | 7    | 2    | 5      |
| Dominion Virginia Power                         | 802.00   | 1,067.00 | 33.04  | 10   | 11   | -1     |
| DUKE Energy Carolinas (NC)                      | 723.00   | 877.50   | 21.37  | 6    | 1    | 5      |
| DUKE Energy Carolinas (SC)                      | 678.00   | 958.41   | 41.36  | 4    | 6    | -2     |
| Entergy Mississippi, Inc                        | 1,078.00 | 1,193.00 | 10.67  | 19   | 16   | 3      |
| FP&L Company                                    | 1,117.00 | 1,030.39 | -7.75  | 20   | 10   | 10     |
| Georgia Power                                   | 1,038.00 | 1,449.95 | 39.69  | 18   | 20   | -2     |
| Gulf Power                                      | 811.00   | 1,168.00 | 44.02  | 11   | 15   | -4     |
| Mississippi Power                               | 955.00   | 1,225.00 | 28.27  | 14   | 17   | -3     |
| Duke Energy Progress, Inc. (NC)                 | 753.00   | 908.00   | 20.58  | 8    | 3    | 5      |
| Duke Energy Progress, Inc. (SC)                 | 824.00   | 929.00   | 12.74  | 12   | 5    | 7      |
| Duke Progress Energy Florida, Inc.              | 982.00   | 1,145.02 | 16.60  | 16   | 14   | 2      |
| SCE&G   | 934.00   | 1,310.71 | 40.33  | 13   | 18   | -5     |
| Tampa Electric Company                          | 1,013.00 | 1,072.62 | 5.89   | 17   | 12   | 5      |

**PEER GROUP**  
**Typical Bill Comparison**  
**Commercial Customers**

**APPENDIX 4**  
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|                                |          |          |       |   |   |    |
|--------------------------------|----------|----------|-------|---|---|----|
| Kentucky Utilities (d/b/a ODP) | 692.00   | 1,006.00 | 45.38 | 5 | 7 | -2 |
| Louisville Gas & Electric      | 793.00   | 1,027.00 | 29.51 | 9 | 9 | 0  |
| Kentucky Utilities (KY)        | 664.00   | 1,012.00 | 52.41 | 3 | 8 | -5 |
| Average For East South Central | 834.00   | 1,097.00 | 31.53 |   |   |    |
| Average For South Atlantic     | 930.00   | 1,106.00 | 18.92 |   |   |    |
| USA Average                    | 1,051.00 | 1,290.00 | 22.74 |   |   |    |

|   | 2006     | 2015     | Change | 2006 | 2015 | Rank   |
|---|----------|----------|--------|------|------|--------|
| <b>Demand of 40 kW and Usage of 14,000 kWh:</b> | \$       | \$       | %      | Rank | Rank | Change |
| Alabama Power                                   | 1,192.00 | 1,720.00 | 44.30  | 14   | 19   | -5     |
| Appalachian Power Company (Va)                  | 731.00   | 1,324.00 | 81.12  | 1    | 10   | -9     |
| Appalachian Power Company (WV)                  | 731.00   | 1,184.00 | 61.97  | 2    | 5    | -3     |
| Dominion North Carolina Power                   | 963.00   | 1,196.00 | 24.20  | 10   | 6    | 4      |
| Dominion Virginia Power                         | 951.00   | 1,294.00 | 36.07  | 9    | 8    | 1      |
| DUKE Energy Carolinas (NC)                      | 938.00   | 1,091.64 | 16.38  | 8    | 1    | 7      |
| DUKE Energy Carolinas (SC)                      | 875.00   | 1,127.12 | 28.81  | 5    | 3    | 2      |
| Entergy Mississippi, Inc                        | 1,409.00 | 1,557.00 | 10.50  | 18   | 17   | 1      |
| FP&L Company                                    | 1,438.00 | 1,254.29 | -12.78 | 20   | 7    | 13     |
| Georgia Power                                   | 1,192.00 | 1,646.08 | 38.09  | 15   | 18   | -3     |
| Gulf Power                                      | 1,032.00 | 1,509.00 | 46.22  | 12   | 15   | -3     |
| Mississippi Power                               | 1,189.00 | 1,527.00 | 28.43  | 13   | 16   | -3     |
| Duke Energy Progress, Inc. (NC)                 | 913.00   | 1,126.00 | 23.33  | 7    | 2    | 5      |
| Duke Energy Progress, Inc. (SC)                 | 1,009.00 | 1,154.00 | 14.37  | 11   | 4    | 7      |
| Duke Progress Energy Florida, Inc.              | 1,314.00 | 1,433.51 | 9.10   | 17   | 14   | 3      |
| SCE&G   | 1,299.00 | 1,822.37 | 40.29  | 16   | 20   | -4     |
| Tampa Electric Company                          | 1,415.00 | 1,313.11 | -7.20  | 19   | 9    | 10     |
| Kentucky Utilities (d/b/a ODP)                  | 866.00   | 1,398.00 | 61.43  | 4    | 11   | -7     |
| Louisville Gas & Electric                       | 896.00   | 1,429.00 | 59.49  | 6    | 13   | -7     |
| Kentucky Utilities (KY)                         | 794.00   | 1,409.00 | 77.46  | 3    | 12   | -9     |
| Average For East South Central                  | 1,034.00 | 1,429.00 | 38.20  |      |      |        |
| Average For South Atlantic                      | 1,205.00 | 1,405.00 | 16.60  |      |      |        |
| USA Average                                     | 1,342.00 | 1,654.00 | 23.25  |      |      |        |

|  | 2006      | 2015      | Change | 2006 | 2015 | Rank   |
|--|-----------|-----------|--------|------|------|--------|
| <b>Demand of 500 kW and Usage of 150,000 kWh</b> | \$        | \$        | %      | Rank | Rank | Change |
| Alabama Power                                    | 13,463.00 | 18,719.00 | 39.04  | 16   | 19   | -3     |
| Appalachian Power Company (Va)                   | 8,017.00  | 15,171.00 | 89.24  | 1    | 13   | -12    |
| Appalachian Power Company (WV)                   | 8,062.00  | 12,947.00 | 60.59  | 2    | 6    | -4     |
| Dominion North Carolina Power                    | 10,726.00 | 13,271.00 | 23.73  | 10   | 7    | 3      |
| Dominion Virginia Power                          | 9,860.00  | 14,106.00 | 43.06  | 8    | 9    | -1     |
| DUKE Energy Carolinas (NC)                       | 9,799.00  | 11,713.43 | 19.54  | 6    | 1    | 5      |
| DUKE Energy Carolinas (SC)                       | 9,029.00  | 12,552.61 | 39.03  | 4    | 4    | 0      |

**PEER GROUP**  
**Typical Bill Comparison**  
**Commercial Customers**

**APPENDIX 4**  
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|                                    |           |           |        |    |    |    |
|------------------------------------|-----------|-----------|--------|----|----|----|
| Entergy Mississippi, Inc           | 13,147.00 | 14,239.00 | 8.31   | 15 | 10 | 5  |
| FP&L Company                       | 15,707.00 | 14,087.45 | -10.31 | 20 | 8  | 12 |
| Georgia Power                      | 12,416.16 | 17,100.86 | 37.73  | 13 | 17 | -4 |
| Gulf Power                         | 11,620.00 | 17,711.00 | 52.42  | 12 | 18 | -6 |
| Mississippi Power                  | 12,531.00 | 16,624.00 | 32.66  | 14 | 16 | -2 |
| Duke Energy Progress, Inc. (NC)    | 10,172.00 | 11,775.00 | 15.76  | 9  | 2  | 7  |
| Duke Energy Progress, Inc. (SC)    | 11,225.00 | 11,965.00 | 6.59   | 11 | 3  | 8  |
| Duke Progress Energy Florida, Inc. | 14,074.00 | 15,755.81 | 11.95  | 18 | 15 | 3  |
| SCE&G                              | 13,699.00 | 19,603.37 | 43.10  | 17 | 20 | -3 |
| Tampa Electric Company             | 14,118.00 | 14,556.92 | 3.11   | 19 | 11 | 8  |
| Kentucky Utilities (d/b/a ODP)     | 9,503.00  | 15,454.00 | 62.62  | 5  | 14 | -9 |
| Louisville Gas & Electric          | 9,834.00  | 14,954.00 | 52.06  | 7  | 12 | -5 |
| Kentucky Utilities (KY)            | 8,448.00  | 12,603.00 | 49.18  | 3  | 5  | -2 |
| Average For East South Central     | 10,444.00 | 14,547.00 | 39.29  |    |    |    |
| Average For South Atlantic         | 12,694.00 | 15,414.00 | 21.43  |    |    |    |
| USA Average                        | 14,015.00 | 17,536.00 | 25.12  |    |    |    |

|  | 2006      | 2015      | Change | 2006 | 2015 | Rank   |
|--|-----------|-----------|--------|------|------|--------|
| Demand of 500 kW and Usage of 180,000 kWh: | \$        | \$        | %      | Rank | Rank | Change |
| Alabama Power                              | 15,198.00 | 21,470.00 | 41.27  | 16   | 20   | -4     |
| Appalachian Power Company (Va)             | 8,722.00  | 16,705.00 | 91.53  | 1    | 13   | -12    |
| Appalachian Power Company (WV)             | 9,150.00  | 14,792.00 | 61.66  | 2    | 6    | -4     |
| Dominion North Carolina Power              | 12,129.00 | 14,881.00 | 22.69  | 10   | 7    | 3      |
| Dominion Virginia Power                    | 10,533.00 | 15,128.00 | 43.62  | 5    | 8    | -3     |
| DUKE Energy Carolinas (NC)                 | 11,402.00 | 13,381.14 | 17.36  | 9    | 2    | 7      |
| DUKE Energy Carolinas (SC)                 | 10,392.00 | 13,817.89 | 32.97  | 4    | 5    | -1     |
| Entergy Mississippi, Inc                   | 15,294.00 | 16,545.00 | 8.18   | 17   | 12   | 5      |
| FP&L Company                               | 18,021.00 | 15,615.29 | -13.35 | 20   | 9    | 11     |
| Georgia Power                              | 13,574.88 | 18,571.82 | 36.81  | 13   | 16   | -3     |
| Gulf Power                                 | 13,015.00 | 19,717.00 | 51.49  | 12   | 18   | -6     |
| Mississippi Power                          | 14,124.00 | 18,667.00 | 32.17  | 14   | 17   | -3     |
| Duke Energy Progress, Inc. (NC)            | 11,367.00 | 13,304.00 | 17.04  | 8    | 1    | 7      |
| Duke Energy Progress, Inc. (SC)            | 12,612.00 | 13,487.00 | 6.94   | 11   | 3    | 8      |
| Duke Progress Energy Florida, Inc.         | 16,538.00 | 17,898.10 | 8.22   | 19   | 15   | 4      |
| SCE&G                                      | 14,708.00 | 21,244.67 | 44.44  | 15   | 19   | -4     |
| Tampa Electric Company                     | 16,189.00 | 16,360.61 | 1.06   | 18   | 11   | 7      |
| Kentucky Utilities (d/b/a ODP)             | 10,805.00 | 16,827.00 | 55.73  | 7    | 14   | -7     |
| Louisville Gas & Electric                  | 10,611.00 | 16,214.00 | 52.80  | 6    | 10   | -4     |
| Kentucky Utilities (KY)                    | 9,420.00  | 13,809.00 | 46.59  | 3    | 4    | -1     |
| Average For East South Central             | 11,832.00 | 16,410.00 | 38.69  |      |      |        |
| Average For South Atlantic                 | 14,447.00 | 17,275.00 | 19.57  |      |      |        |
| USA Average                                | 15,959.00 | 19,889.00 | 24.63  |      |      |        |

**Appendix 5**

TYPICAL INDUSTRIAL BILLS

| <b>Demand of 75 kW and<br/>Usage of 15,000 kWh:</b> | <b>2006<br/>\$</b> | <b>2015<br/>\$</b> | <b>Change<br/>%</b> | <b>2006<br/>Rank</b> | <b>2015<br/>Rank</b> | <b>Rank<br/>Change</b> |
|---|--------------------|--------------------|---------------------|----------------------|----------------------|------------------------|
| Alabama Power                                       | 1,457              | 2,023.00           | 38.85               | 14                   | 18                   | -4                     |
| Appalachian Power Company (Va)                      | 912                | 1,670.00           | 83.11               | 2                    | 7                    | -5                     |
| Appalachian Power Company (WV)                      | 908                | 1,457.00           | 60.46               | 1                    | 6                    | -5                     |
| Dominion North Carolina Power                       | 1,079              | 1,356.00           | 25.67               | 6                    | 1                    | 5                      |
| Dominion Virginia Power                             | 1,317              | 1,819.00           | 38.12               | 11                   | 12                   | -1                     |
| DUKE Energy Carolinas (NC)                          | 1,101              | 1,356.85           | 23.24               | 7                    | 2                    | 5                      |
| DUKE Energy Carolinas (SC)                          | 1,030              | 1,437.79           | 39.59               | 5                    | 5                    | 0                      |
| Entergy Mississippi, Inc                            | 1,637              | 1,811.00           | 10.63               | 18                   | 11                   | 7                      |
| FP&L Company  | 1,765              | 1,704.60           | -3.42               | 20                   | 8                    | 12                     |
| Georgia Power                                       | 1,737              | 2,363.45           | 36.07               | 19                   | 20                   | -1                     |
| Gulf Power  | 1,281              | 1,830.00           | 42.86               | 10                   | 14                   | -4                     |
| Mississippi Power                                   | 1,519              | 2,146.00           | 41.28               | 15                   | 19                   | -4                     |
| Duke Energy Progress, Inc. (NC)                     | 1,243              | 1,427.00           | 14.80               | 9                    | 4                    | 5                      |
| Duke Energy Progress, Inc. (SC)                     | 1,331              | 1,409.00           | 5.86                | 12                   | 3                    | 9                      |
| Duke Progress Energy Florida, Inc.                  | 1,521              | 1,866.04           | 22.69               | 16                   | 15                   | 1                      |
| SCE&G   | 1,390              | 1,950.28           | 40.31               | 13                   | 17                   | -4                     |
| Tampa Electric Company                              | 1,636              | 1,758.77           | 7.50                | 17                   | 9                    | 8                      |
| Kentucky Utilities (d/b/a ODP)                      | 1,018              | 1,763.81           | 73.26               | 3                    | 10                   | -7                     |
| Louisville Gas & Electric                           | 1,205              | 1,823.89           | 51.36               | 8                    | 13                   | -5                     |
| Kentucky Utilities (KY)                             | 1,029              | 1,868.52           | 81.59               | 4                    | 16                   | -12                    |
| Average For East South Central                      | 1,299              | 1,792.00           | 37.95               |                      |                      |                        |
| Average For South Atlantic                          | 1,422              | 1,772.00           | 24.61               |                      |                      |                        |
| USA Average   | 1,650              | 2,038.00           | 23.52               |                      |                      |                        |

| <b>Demand of 75 kW and<br/>Usage of 30,000 kWh:</b> | <b>2006<br/>\$</b> | <b>2015<br/>\$</b> | <b>Change<br/>%</b> | <b>2006<br/>Rank</b> | <b>2015<br/>Rank</b> | <b>Rank<br/>Change</b> |
|---|--------------------|--------------------|---------------------|----------------------|----------------------|------------------------|
| Alabama Power                                       | 2,378              | 3,450.00           | 45.08               | 14                   | 19                   | -5                     |
| Appalachian Power Company (Va)                      | 1,415              | 2,663.00           | 88.20               | 1                    | 13                   | -12                    |
| Appalachian Power Company (WV)                      | 1,469              | 2,344.00           | 59.56               | 2                    | 5                    | -3                     |
| Dominion North Carolina Power                       | 1,950              | 2,444.00           | 25.33               | 10                   | 8                    | 2                      |
| Dominion Virginia Power                             | 1,878              | 2,573.00           | 37.01               | 9                    | 11                   | -2                     |
| DUKE Energy Carolinas (NC)                          | 1,865              | 2,220.55           | 19.06               | 8                    | 3                    | 5                      |
| DUKE Energy Carolinas (SC)                          | 1,749              | 2,226.70           | 27.31               | 6                    | 4                    | 2                      |
| Entergy Mississippi, Inc                            | 2,834              | 3,130.00           | 10.44               | 19                   | 17                   | 2                      |
| FP&L Company  | 2,968              | 2,544.21           | -14.28              | 20                   | 10                   | 10                     |
| Georgia Power                                       | 2,320              | 3,095.28           | 33.42               | 13                   | 15                   | -2                     |
| Gulf Power  | 2,110              | 3,107.00           | 47.25               | 12                   | 16                   | -4                     |
| Mississippi Power                                   | 2,394              | 3,276.00           | 36.84               | 15                   | 18                   | -3                     |
| Duke Energy Progress, Inc. (NC)                     | 1,842              | 2,197.00           | 19.27               | 7                    | 2                    | 5                      |
| Duke Energy Progress, Inc. (SC)                     | 2,047              | 2,192.00           | 7.08                | 11                   | 1                    | 10                     |
| Duke Progress Energy Florida, Inc.                  | 2,766              | 2,947.89           | 6.58                | 18                   | 14                   | 4                      |
| SCE&G   | 2,437              | 3,598.32           | 47.65               | 16                   | 20                   | -4                     |
| Tampa Electric Company                              | 2,672              | 2,660.62           | -0.43               | 17                   | 12                   | 5                      |
| Kentucky Utilities (d/b/a ODP)                      | 1,669              | 2,453.81           | 47.02               | 5                    | 9                    | -4                     |

**PEER GROUP**  
**Typical Bill Comparison**  
**Industrial Customers**

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|                                |       |          |       |   |   |    |
|--------------------------------|-------|----------|-------|---|---|----|
| Louisville Gas & Electric      | 1,538 | 2,431.39 | 58.09 | 4 | 7 | -3 |
| Kentucky Utilities (KY)        | 1,515 | 2,414.51 | 59.37 | 3 | 6 | -3 |
| <br>                           |       |          |       |   |   |    |
| Average For East South Central | 2,039 | 2,804.00 | 37.52 |   |   |    |
| Average For South Atlantic     | 2,364 | 2,815.00 | 19.08 |   |   |    |
| USA Average                    | 2,668 | 3,299.00 | 23.65 |   |   |    |

| <b>Demand of 75 kW and<br/>Usage of 50,000 kWh:</b> | <b>2006<br/>\$</b> | <b>2015<br/>\$</b> | <b>Change<br/>%</b> | <b>2006<br/>Rank</b> | <b>2015<br/>Rank</b> | <b>Rank<br/>Change</b> |
|---|--------------------|--------------------|---------------------|----------------------|----------------------|------------------------|
| Alabama Power                                       | 3,507              | 5,253.00           | 49.79               | 15                   | 20                   | -5                     |
| Appalachian Power Company (Va)                      | 1,885              | 3,688.00           | 95.65               | 1                    | 12                   | -11                    |
| Appalachian Power Company (WV)                      | 2,028              | 3,104.00           | 53.06               | 3                    | 3                    | 0                      |
| Dominion North Carolina Power                       | 2,864              | 3,572.00           | 24.72               | 10                   | 10                   | 0                      |
| Dominion Virginia Power                             | 2,343              | 3,274.00           | 39.74               | 6                    | 8                    | -2                     |
| DUKE Energy Carolinas (NC)                          | 2,570              | 3,023.47           | 17.64               | 8                    | 1                    | 7                      |
| DUKE Energy Carolinas (SC)                          | 2,274              | 3,064.79           | 34.78               | 5                    | 2                    | 3                      |
| Entergy Mississippi, Inc                            | 4,431              | 4,888.00           | 10.31               | 19                   | 19                   | 0                      |
| FP&L Company  | 4,572              | 3,663.70           | -19.87              | 20                   | 11                   | 9                      |
| Georgia Power                                       | 3,044              | 3,995.99           | 31.27               | 12                   | 14                   | -2                     |
| Gulf Power  | 3,214              | 4,808.00           | 49.60               | 14                   | 18                   | -4                     |
| Mississippi Power                                   | 3,560              | 4,533.00           | 27.33               | 16                   | 16                   | 0                      |
| Duke Energy Progress, Inc. (NC)                     | 2,591              | 3,169.00           | 22.31               | 9                    | 6                    | 3                      |
| Duke Energy Progress, Inc. (SC)                     | 2,924              | 3,158.00           | 8.00                | 11                   | 5                    | 6                      |
| Duke Progress Energy Florida, Inc.                  | 4,209              | 4,263.39           | 1.29                | 18                   | 15                   | 3                      |
| SCE&G   | 3,143              | 4,779.12           | 52.06               | 13                   | 17                   | -4                     |
| Tampa Electric Company                              | 4,053              | 3,863.08           | -4.69               | 17                   | 13                   | 4                      |
| Kentucky Utilities (d/b/a ODP)                      | 2,537              | 3,373.81           | 32.98               | 7                    | 9                    | -2                     |
| Louisville Gas & Electric                           | 1,981              | 3,241.38           | 63.62               | 2                    | 7                    | -5                     |
| Kentucky Utilities (KY)                             | 2,164              | 3,142.48           | 45.22               | 4                    | 4                    | 0                      |
| <br>  |                    |                    |                     |                      |                      |                        |
| Average For East South Central                      | 2,998              | 4,090.00           | 36.42               |                      |                      |                        |
| Average For South Atlantic                          | 3,496              | 4,046.00           | 15.73               |                      |                      |                        |
| USA Average   | 3,940              | 4,914.00           | 24.72               |                      |                      |                        |

| <b>Demand of 1,000 kW and<br/>Usage of 200,000 kWh:</b> | <b>2006<br/>\$</b> | <b>2015<br/>\$</b> | <b>Change<br/>%</b> | <b>2006<br/>Rank</b> | <b>2015<br/>Rank</b> | <b>Rank<br/>Change</b> |
|---|--------------------|--------------------|---------------------|----------------------|----------------------|------------------------|
| Alabama Power   | 15,200             | 18,343.00          | 20.68               | 8                    | 3                    | 5                      |
| Appalachian Power Company (Va)                          | 11,157             | 20,513.00          | 83.86               | 2                    | 7                    | -5                     |
| Appalachian Power Company (WV)                          | 10,840             | 17,871.00          | 64.86               | 1                    | 2                    | -1                     |
| Dominion North Carolina Power                           | 15,841             | 19,529.00          | 23.28               | 9                    | 6                    | 3                      |
| Dominion Virginia Power                                 | 17,350             | 24,679.00          | 42.24               | 10                   | 15                   | -5                     |
| DUKE Energy Carolinas (NC)                              | 13,620             | 17,481.95          | 28.35               | 5                    | 1                    | 4                      |

**PEER GROUP**  
**Typical Bill Comparison**  
**Industrial Customers**

**APPENDIX 5**  
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|                                    |        |           |        |    |    |     |
|------------------------------------|--------|-----------|--------|----|----|-----|
| DUKE Energy Carolinas (SC)         | 12,471 | 30,524.65 | 144.77 | 3  | 19 | -16 |
| Entergy Mississippi, Inc           | 17,675 | 18,979.00 | 7.38   | 11 | 4  | 7   |
| FP&L Company                       | 23,661 | 23,021.04 | -2.70  | 20 | 10 | 10  |
| Georgia Power                      | 23,285 | 32,045.09 | 37.62  | 19 | 20 | -1  |
| Gulf Power                         | 18,432 | 28,465.00 | 54.43  | 12 | 18 | -6  |
| Mississippi Power                  | 18,783 | 25,232.00 | 34.33  | 13 | 16 | -3  |
| Duke Energy Progress, Inc. (NC)    | 20,250 | 21,823.00 | 7.77   | 17 | 9  | 8   |
| Duke Energy Progress, Inc. (SC)    | 20,171 | 21,205.00 | 5.13   | 16 | 8  | 8   |
| Duke Progress Energy Florida, Inc. | 19,795 | 24,220.35 | 22.36  | 15 | 14 | 1   |
| SCE&G                              | 19,408 | 26,790.27 | 38.04  | 14 | 17 | -3  |
| Tampa Electric Company             | 21,457 | 23,070.77 | 7.52   | 18 | 12 | 6   |
| Kentucky Utilities (d/b/a ODP)     | 13,855 | 23,666.00 | 70.81  | 6  | 13 | -7  |
| Louisville Gas & Electric          | 14,788 | 23,032.00 | 55.75  | 7  | 11 | -4  |
| Kentucky Utilities (KY)            | 13,167 | 19,139.00 | 45.36  | 4  | 5  | -1  |
| Average For East South Central     | 15,430 | 20,762.00 | 34.56  |    |    |     |
| Average For South Atlantic         | 17,968 | 23,275.00 | 29.54  |    |    |     |
| USA Average                        | 20,947 | 26,415.00 | 26.10  |    |    |     |

| <b>Demand of 1,000 kW and<br/>Usage of 400,000 kWh:</b> | <b>2006<br/>\$</b> | <b>2015<br/>\$</b> | <b>Change<br/>%</b> | <b>2006<br/>Rank</b> | <b>2015<br/>Rank</b> | <b>Rank<br/>Change</b> |
|---|--------------------|--------------------|---------------------|----------------------|----------------------|------------------------|
| Alabama Power   | 23,852             | 29,915.00          | 25.42               | 9                    | 5                    | 4                      |
| Appalachian Power Company (Va)                          | 17,076             | 32,907.00          | 92.71               | 1                    | 12                   | -11                    |
| Appalachian Power Company (WV)                          | 17,105             | 28,601.00          | 67.21               | 2                    | 3                    | -1                     |
| Dominion North Carolina Power                           | 25,581             | 31,571.00          | 23.42               | 10                   | 9                    | 1                      |
| Dominion Virginia Power                                 | 21,834             | 31,491.00          | 44.23               | 6                    | 8                    | -2                     |
| DUKE Energy Carolinas (NC)                              | 23,159             | 28,174.63          | 21.66               | 8                    | 2                    | 6                      |
| DUKE Energy Carolinas (SC)                              | 21,271             | 29,172.38          | 37.15               | 5                    | 4                    | 1                      |
| Entergy Mississippi, Inc                                | 31,759             | 33,928.00          | 6.83                | 17                   | 14                   | 3                      |
| FP&L Company  | 39,089             | 33,206.68          | -15.05              | 20                   | 13                   | 7                      |
| Georgia Power   | 31,381             | 42,331.77          | 34.90               | 16                   | 20                   | -4                     |
| Gulf Power  | 27,731             | 41,840.00          | 50.88               | 12                   | 19                   | -7                     |
| Mississippi Power                                       | 29,510             | 38,975.00          | 32.07               | 15                   | 18                   | -3                     |
| Duke Energy Progress, Inc. (NC)                         | 28,750             | 32,237.00          | 12.13               | 13                   | 10                   | 3                      |
| Duke Energy Progress, Inc. (SC)                         | 29,117             | 31,045.00          | 6.62                | 14                   | 7                    | 7                      |
| Duke Progress Energy Florida, Inc.                      | 36,224             | 38,502.28          | 6.29                | 19                   | 16                   | 3                      |
| SCE&G   | 26,106             | 38,918.00          | 49.08               | 11                   | 17                   | -6                     |
| Tampa Electric Company                                  | 35,217             | 35,095.38          | -0.35               | 18                   | 15                   | 3                      |
| Kentucky Utilities (d/b/a ODP)                          | 22,538             | 32,866.00          | 45.82               | 7                    | 11                   | -4                     |
| Louisville Gas & Electric                               | 19,217             | 30,286.00          | 57.60               | 3                    | 6                    | -3                     |
| Kentucky Utilities (KY)                                 | 19,651             | 26,857.00          | 36.67               | 4                    | 1                    | 3                      |
| Average For East South Central                          | 23,303             | 30,834.00          | 32.32               |                      |                      |                        |
| Average For South Atlantic                              | 28,633             | 34,826.00          | 21.63               |                      |                      |                        |
| USA Average   | 33,137             | 41,351.00          | 24.79               |                      |                      |                        |
| <b>Demand of 1,000 kW and</b>                           | <b>2006</b>        | <b>2015</b>        | <b>Change</b>       | <b>2006</b>          | <b>2015</b>          | <b>Rank</b>            |

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| <b>Usage of 650,000 kWh:</b>       | <b>\$</b> | <b>\$</b> | <b>%</b> | <b>Rank</b> | <b>Rank</b> | <b>Change</b> |
|------------------------------------|-----------|-----------|----------|-------------|-------------|---------------|
| Alabama Power                      | 33,196    | 42,870.00 | 29.14    | 8           | 9           | -1            |
| Appalachian Power Company (Va)     | 22,149    | 43,404.00 | 95.96    | 2           | 10          | -8            |
| Appalachian Power Company (WV)     | 21,095    | 37,532.00 | 77.92    | 1           | 2           | -1            |
| Dominion North Carolina Power      | 35,741    | 42,668.00 | 19.38    | 11          | 7           | 4             |
| Dominion Virginia Power            | 27,440    | 40,007.00 | 45.80    | 5           | 6           | -1            |
| DUKE Energy Carolinas (NC)         | 33,369    | 38,759.01 | 16.15    | 9           | 3           | 6             |
| DUKE Energy Carolinas (SC)         | 29,581    | 39,648.51 | 34.03    | 6           | 5           | 1             |
| Entergy Mississippi, Inc           | 46,038    | 48,605.00 | 5.58     | 17          | 14          | 3             |
| FP&L Company                       | 58,373    | 45,348.47 | -22.31   | 20          | 13          | 7             |
| Georgia Power                      | 40,776    | 54,023.84 | 32.49    | 15          | 19          | -4            |
| Gulf Power                         | 39,354    | 58,558.00 | 48.80    | 13          | 20          | -7            |
| Mississippi Power                  | 41,529    | 53,298.00 | 28.34    | 16          | 18          | -2            |
| Duke Energy Progress, Inc. (NC)    | 38,120    | 43,775.00 | 14.83    | 12          | 11          | 1             |
| Duke Energy Progress, Inc. (SC)    | 39,721    | 42,767.00 | 7.67     | 14          | 8           | 6             |
| Duke Progress Energy Florida, Inc. | 53,888    | 52,495.38 | -2.58    | 19          | 17          | 2             |
| SCE&G                              | 34,479    | 52,248.00 | 51.54    | 10          | 16          | -6            |
| Tampa Electric Company             | 52,417    | 50,126.15 | -4.37    | 18          | 15          | 3             |
| Kentucky Utilities (d/b/a ODP)     | 32,632    | 44,366.00 | 35.96    | 7           | 12          | -5            |
| Louisville Gas & Electric          | 24,753    | 39,354.00 | 58.99    | 4           | 4           | 0             |
| Kentucky Utilities (KY)            | 23,996    | 36,505.00 | 52.13    | 3           | 1           | 2             |
| Average For East South Central     | 31,900    | 42,379.00 | 32.85    |             |             |               |
| Average For South Atlantic         | 40,934    | 48,475.00 | 18.42    |             |             |               |
| USA Average                        | 47,459    | 59,381.00 | 25.12    |             |             |               |

| <b>Demand of 50,000 kW and<br/>Usage of 15,000,000 kWh:</b> | <b>2006<br/>\$</b> | <b>2015<br/>\$</b> | <b>Change<br/>%</b> | <b>2006<br/>Rank</b> | <b>2015<br/>Rank</b> | <b>Rank<br/>Change</b> |
|---|--------------------|--------------------|---------------------|----------------------|----------------------|------------------------|
| Alabama Power   | 960,686            | 1,187,221.00       | 23.58               | 7                    | 6                    | 1                      |
| Appalachian Power Company (Va)                              | 649,370            | 1,332,270.00       | 105.16              | 2                    | 11                   | -9                     |
| Appalachian Power Company (WV)                              | 643,137            | 1,098,876.00       | 70.86               | 1                    | 4                    | -3                     |
| Dominion North Carolina Power                               | 1,072,319          | 1,351,568.00       | 26.04               | 9                    | 13                   | -4                     |
| Dominion Virginia Power                                     | 962,792            | 1,387,125.00       | 44.07               | 8                    | 14                   | -6                     |
| DUKE Energy Carolinas (NC)                                  | 824,123            | 1,043,730.76       | 26.65               | 6                    | 1                    | 5                      |
| DUKE Energy Carolinas (SC)                                  | 719,461            | 1,054,070.64       | 46.51               | 3                    | 2                    | 1                      |
| Entergy Mississippi, Inc                                    | 1,144,786          | 1,255,345.00       | 9.66                | 13                   | 9                    | 4                      |
| FP&L Company  | 1,555,031          | 1,335,024.01       | -14.15              | 19                   | 12                   | 7                      |
| Georgia Power   | 1,154,245          | 1,554,607.32       | 34.69               | 15                   | 17                   | -2                     |
| Gulf Power  | 1,146,283          | 1,744,404.00       | 52.18               | 14                   | 20                   | -6                     |
| Mississippi Power   | 1,123,217          | 1,509,634.00       | 34.40               | 11                   | 16                   | -5                     |
| Duke Energy Progress, Inc. (NC)                             | 1,185,500          | 1,260,279.00       | 6.31                | 16                   | 10                   | 6                      |
| Duke Energy Progress, Inc. (SC)                             | 1,126,375          | 1,150,725.00       | 2.16                | 12                   | 5                    | 7                      |
| Duke Progress Energy Florida, Inc.                          | 1,393,733          | 1,560,700.02       | 11.98               | 17                   | 18                   | -1                     |

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|                                |           |              |       |    |    |    |
|--------------------------------|-----------|--------------|-------|----|----|----|
| SCE&G                          | 1,079,050 | 1,581,300.00 | 46.55 | 10 | 19 | -9 |
| Tampa Electric Company         | 1,404,056 | 1,452,646.12 | 3.46  | 18 | 15 | 3  |
| Kentucky Utilities (d/b/a ODP) | -         | 1,224,697.00 |       | -  | 8  | -  |
| Louisville Gas & Electric      | 788,933   | 1,217,003.00 | 54.26 | 5  | 7  | -2 |
| Kentucky Utilities (KY)        | 764,603   | 1,078,322.00 | 41.03 | 4  | 3  | 1  |
| Average For East South Central | 891,018   | 1,182,031.00 | 32.66 |    |    |    |
| Average For South Atlantic     | 1,125,102 | 1,347,955.00 | 19.81 |    |    |    |
| USA Average                    | 1,276,726 | 1,573,817.00 | 23.27 |    |    |    |

| <b>Demand of 50,000 kW and<br/>Usage of 25,000,000 kWh:</b> | <b>2006<br/>\$</b> | <b>2015<br/>\$</b> | <b>Change<br/>%</b> | <b>2006<br/>Rank</b> | <b>2015<br/>Rank</b> | <b>Rank<br/>Change</b> |
|---|--------------------|--------------------|---------------------|----------------------|----------------------|------------------------|
| Alabama Power   | 1,328,493          | 1,698,588.00       | 27.86               | 8                    | 9                    | -1                     |
| Appalachian Power Company (Va)                              | 851,270            | 1,688,170.00       | 98.31               | 2                    | 8                    | -6                     |
| Appalachian Power Company (WV)                              | 822,487            | 1,445,416.00       | 75.74               | 1                    | 1                    | 0                      |
| Dominion North Carolina Power                               | 1,478,753          | 1,795,428.00       | 21.42               | 10                   | 14                   | -4                     |
| Dominion Virginia Power                                     | 1,187,012          | 1,724,745.00       | 45.30               | 6                    | 10                   | -4                     |
| DUKE Energy Carolinas (NC)                                  | 1,275,938          | 1,467,105.96       | 14.98               | 7                    | 3                    | 4                      |
| DUKE Energy Carolinas (SC)                                  | 1,105,786          | 1,473,115.84       | 33.22               | 5                    | 4                    | 1                      |
| Entergy Mississippi, Inc                                    | 1,713,124          | 1,778,983.00       | 3.84                | 16                   | 12                   | 4                      |
| FP&L Company  | 2,321,185          | 1,747,681.43       | -24.71              | 19                   | 11                   | 8                      |
| Georgia Power   | 1,538,454          | 2,040,048.01       | 32.60               | 13                   | 15                   | -2                     |
| Gulf Power  | 1,611,214          | 2,413,135.00       | 49.77               | 14                   | 20                   | -6                     |
| Mississippi Power   | 1,638,836          | 2,162,527.00       | 31.96               | 15                   | 19                   | -4                     |
| Duke Energy Progress, Inc. (NC)                             | 1,610,500          | 1,780,979.00       | 10.59               | 13                   | 13                   | 0                      |
| Duke Energy Progress, Inc. (SC)                             | 1,573,675          | 1,642,725.00       | 4.39                | 12                   | 6                    | 6                      |
| Duke Progress Energy Florida, Inc.                          | 2,104,110          | 2,125,373.27       | 1.01                | 18                   | 18                   | 0                      |
| SCE&G   | 1,413,950          | 2,114,500.00       | 49.55               | 9                    | 17                   | -8                     |
| Tampa Electric Company                                      | 2,092,056          | 2,053,876.87       | -1.82               | 17                   | 16                   | 1                      |
| Kentucky Utilities (d/b/a ODP)                              | -                  | 1,682,397.00       |                     | -                    | 7                    | -                      |
| Louisville Gas & Electric                                   | 1,010,396          | 1,587,559.00       | 57.12               | 3                    | 5                    | -2                     |
| Kentucky Utilities (KY)                                     | 1,087,454          | 1,450,088.00       | 33.35               | 4                    | 2                    | 2                      |
| Average For East South Central                              | 1,236,657          | 1,628,843.00       | 31.71               |                      |                      |                        |
| Average For South Atlantic                                  | 1,620,448          | 1,900,371.00       | 17.27               |                      |                      |                        |
| USA Average   | 1,842,062          | 2,267,290.00       | 23.08               |                      |                      |                        |

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| <b>Demand of 50,000 kW and<br/>Usage of 32,500,000 kWh:</b> | <b>2006<br/>\$</b> | <b>2015<br/>\$</b> | <b>Change<br/>%</b> | <b>2006<br/>Rank</b> | <b>2015<br/>Rank</b> | <b>Rank<br/>Change</b> |
|---|--------------------|--------------------|---------------------|----------------------|----------------------|------------------------|
| Alabama Power   | 1,604,349          | 2,082,113.00       | 29.78               | 8                    | 11                   | -3                     |
| Appalachian Power Company (Va)                              | 1,002,695          | 1,955,095.00       | 94.98               | 2                    | 6                    | -4                     |
| Appalachian Power Company (WV)                              | 928,687            | 1,691,446.00       | 82.13               | 1                    | 1                    | 0                      |
| Dominion North Carolina Power                               | 1,783,578          | 2,128,323.00       | 19.33               | 11                   | 13                   | -2                     |
| Dominion Virginia Power                                     | 1,355,177          | 1,977,960.00       | 45.96               | 6                    | 7                    | -1                     |
| DUKE Energy Carolinas (NC)                                  | 1,564,881          | 1,784,637.36       | 14.04               | 7                    | 3                    | 4                      |
| DUKE Energy Carolinas (SC)                                  | 1,303,720          | 1,787,399.74       | 37.10               | 4                    | 4                    | 0                      |
| Entergy Mississippi, Inc                                    | 2,139,377          | 2,171,712.00       | 1.51                | 16                   | 14                   | 2                      |
| FP&L Company  | 2,895,801          | 2,057,174.51       | -28.96              | 19                   | 10                   | 9                      |
| Georgia Power   | 1,811,356          | 2,381,217.18       | 31.46               | 12                   | 15                   | -3                     |
| Gulf Power  | 1,775,793          | 2,694,556.00       | 51.74               | 10                   | 20                   | -10                    |
| Mississippi Power   | 1,984,609          | 2,559,630.00       | 28.97               | 15                   | 18                   | -3                     |
| Duke Energy Progress, Inc. (NC)                             | 1,866,475          | 2,097,774.00       | 12.39               | 13                   | 12                   | 1                      |
| Duke Energy Progress, Inc. (SC)                             | 1,880,233          | 2,011,725.00       | 6.99                | 14                   | 8                    | 6                      |
| Duke Progress Energy Florida, Inc.                          | 2,687,323          | 2,617,030.18       | -2.62               | 18                   | 19                   | -1                     |
| SCE&G   | 1,665,125          | 2,514,400.00       | 51.00               | 9                    | 17                   | -8                     |
| Tampa Electric Company                                      | 2,608,056          | 2,504,799.94       | -3.96               | 17                   | 16                   | 1                      |
| Kentucky Utilities (d/b/a ODP)                              | -                  | 2,025,672.00       |                     | -                    | 9                    | -                      |
| Louisville Gas & Electric                                   | 1,176,493          | 1,865,476.00       | 58.56               | 3                    | 5                    | -2                     |
| Kentucky Utilities (KY)                                     | 1,329,592          | 1,728,912.00       | 30.03               | 5                    | 2                    | 3                      |
| Average For East South Central                              | 1,490,768          | 1,952,380.00       | 30.96               |                      |                      |                        |
| Average For South Atlantic                                  | 1,973,214          | 2,293,775.00       | 16.25               |                      |                      |                        |
| USA Average   | 2,245,855          | 2,773,372.00       | 23.49               |                      |                      |                        |