# 124 FERC ¶ 61,207 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;

Suedeen G. Kelly, Marc Spitzer,

Philip D. Moeller, and Jon Wellinghoff.

Virginia Electric and Power Company

Docket Nos. ER08-1207-000

ER08-1207-001

#### ORDER GRANTING TRANSMISSION RATE INCENTIVES

(Issued August 29, 2008)

1. On July 1, 2008, as amended on July 2, 2008, Virginia Electric and Power Company (VEPCO) filed proposed tariff sheets with the Commission, pursuant to section 205 of the Federal Power Act (FPA), for inclusion within the Open Access Transmission Tariff (OATT) administered by PJM Interconnection, L.L.C. (PJM). The tariff sheets seek to implement return on equity (ROE) transmission rate incentives pursuant to Order No. 679. Specifically, VEPCO requests that an ROE incentive of 150 basis points be added to its base ROE for four transmission enhancement projects and an ROE incentive of 125 basis points for an additional seven projects. VEPCO requests an effective date of September 1, 2008. For the reasons discussed below, the Commission will grant the requested incentives and accept the revised tariff sheets to be effective September 1, 2008.

# I. Background

2. VEPCO is a wholly-owned, indirect subsidiary of Dominion Resources, Inc., a public utility holding company. VEPCO's facilities were integrated into PJM on May 1, 2005. Dominion has approximately 17,750 MW of generation capacity, 6,000 miles of transmission facilities and 55,000 miles of distribution facilities in Virginia and North Carolina.

<sup>&</sup>lt;sup>1</sup> 16 U.S.C. § 824d (2006).

<sup>&</sup>lt;sup>2</sup> Promoting Transmission Investment through Pricing Reform, Order No. 679, FERC Stats. & Regs. ¶ 31,222, order on reh'g, Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 (2006), order on reh'g, 119 FERC ¶ 61,062 (2007).

- 3. On October 25, 2007, in anticipation of major system expansions, VEPCO filed to change its rates from stated rates to formula rates. Under its proposed forward-looking formula, VEPCO would include in its annual rate update its projected system expansion costs, which would enable VEPCO to recover those costs closer to the period in which they were incurred. On April 29, 2008, the Commission accepted VEPCO's formula rate proposal. The Commission also accepted a base ROE of 10.9 percent, plus a 50 basis point adder for continued membership in an RTO, for a combined ROE of 11.4 percent.
- 4. VEPCO has begun its expansion of its transmission facilities and anticipates that its capital costs will continue to increase. Specifically, between 2003 and 2007, VEPCO's capital investment in transmission facilities averaged \$124 million per year for a total of \$620 million. Between 2008 and 2012, VEPCO expects to more than triple its average annual investment by making capital investments averaging \$412 million per year for a total of \$2.1 billion. Under its formula-rate protocols, VEPCO is required to post its projected annual transmission revenue requirements for 2009 no later than September 15, 2008. For administrative convenience, VEPCO requests that the ROE adder be included in its annual transmission revenue requirement for January 1, 2009.

# II. Proposal

# A. Projects for which VEPCO Requests a 150 Basis Point ROE Adder

# 1. Meadow Brook-Loudoun Line

5. The Meadow Brook-Loudoun line is a 500 kV transmission line that will extend for approximately 65 miles from Frederick County<sup>4</sup> to Loudoun County. It is a PJM Regional Transmission Expansion Plan (RTEP) baseline project that is part of the "502 Junction-to-Loudon" baseline project, which will extend for 265 miles and connect Allegheny's 502 Junction substation in southern Pennsylvania with VEPCO's Loudoun substation. VEPCO states that this project is needed to relieve a North American Electric Reliability Corporation (NERC) TPL-002-0, Category B violation beginning in the summer of 2011. VEPCO states that the significant increase in electrical demand over the past 10 years, as well as projected growth, is responsible for the potential NERC violation. VEPCO states that if these reliability violations are not relieved, there could be rolling blackouts in northern Virginia, northeast West Virginia, Maryland and Washington, DC. VEPCO states that the Meadow Brook-Loudoun line will help relieve congestion on two critical 500 kV transmission lines – the Mt. Storm-Pruntytown line

 $<sup>^3</sup>$  Virginia Electric and Power Co., 123 FERC  $\P$  61,098 (2008) (Formula Rate Order).

<sup>&</sup>lt;sup>4</sup> Unless otherwise stated, all locations are in the Commonwealth of Virginia.

and the Mt. Storm-Doubs line. VEPCO states that its market efficiency analysis estimates that, had this line been in service, approximately \$1.2 billion of congestion costs would have been saved in 2005 and \$750 million in 2006. VEPCO states that this project may reduce system generation production costs by over \$140 million per year and gross payments by load customers by over \$600 million per year. This project will cost approximately \$255 million and is expected to be in service in May 2011.

# 2. <u>Carson-Suffolk-Thrasher Line</u>

6. The Carson-Suffolk-Thrasher line is a new 60-mile long 500 kV transmission line from Dinwiddie County to Suffolk County. In addition, VEPCO will construct a new 21.5-mile 230 kV transmission line from the Suffolk substation to the Thrasher substation in Chesapeake and 15 transmission breakers. VEPCO states that these facilities are necessary to ensure that it can continue to provide reliable electric service to the South Hampton Roads area, which serves one-third of VEPCO's service territory, including the large naval complexes and major shipping ports. VEPCO states that South Hampton Roads is extremely dependent on the 500 kV transmission line to provide the majority of its bulk power requirements. Based on its forecasts of loading conditions for the summer of 2011, VEPCO states that there will only be enough generation located within the load area to supply 63.8 percent of local needs. Without this project, VEPCO could violate NERC TPL-002-0, a Category B violation, and NERC TPL-003-0, a Category C violation. VEPCO states that the South Hampton Roads load area would be prone to blackouts, as there is not enough transmission capacity to transfer power from existing generation sources to customers. The cost of this PJM RTEP baseline project is \$224 million and it is scheduled to be in service in May 2011.

## 3. <u>Mid-Atlantic Power Pathway</u>

7. VEPCO is participating in the Mid-Atlantic Power Pathway project, a PJM RTEP baseline and backbone project involving a new 500 KV transmission line that will run from VEPCO's Possum Point Station Switchyard in northern Virginia, through Potomac Electric and Power Company's (PEPCO) service territory, to Public Service Electric & Gas Corporation's (PSE&G) Salem substation in southern New Jersey. VEPCO's part of this project consists of constructing 0.2 miles of a new 500 kV transmission line, a new 500 kV breaker, and three kV disconnect switches at the Possum Point Station at a cost of approximately \$7 million. VEPCO states that the entire project will resolve most of the reliability criteria violations through PJM's 15-year planning horizon and will provide a strong path for the injection of generation into the southern part of the Delmarva Peninsula. Without the project, VEPCO states that load deliverability criteria violations will begin as early as 2012. VEPCO states that the construction of this project will bring relief to the Washington-Baltimore area resulting from the retirement of two local generating facilities.

8. VEPCO states that historically PJM interfaces have imposed binding constraints on PJM's ability to import power to the eastern Mid-Atlantic and Washington-Baltimore areas. The constraints often led to out-of-merit-order dispatch, which increased congestion costs. The Mid-Atlantic Pathway project, plus the new nuclear generating facilities at North Anna and Calvert Cliffs, will provide a significant source of energy to the Delmarva Peninsula and New Jersey. VEPCO states that the estimated in-service date is December 2011.

## 4. Proactive Transformer Replacement Project

- 9. With the Proactive Transformer Replacement project, VEPCO will replace nine 500/230 kV transformers in seven substations during the 2009-2011 time frame at a cost of approximately \$110 million. Rather than letting these older transformers fail, VEPCO has decided to "proactively" replace the transformers, although it is not required to do so under PJM's RTEP. VEPCO states that the availability of the 500/230 kV transformers is integral to the reliability of PJM's transmission system as well as system performance under contingency and emergency conditions.
- 10. VEPCO states that if the existing old transformers at Loudoun and Ox fail, the northern Virginia area could lose 25-50 percent of its bulk power transformation capability. It further states that the failure of the transformers at the Dooms and Valley substations would overload the remaining transformers in the area, thereby requiring load shedding and depriving the Shenandoah Valley area of 66 percent of its 500/230 kV transformation capability. Similarly, VEPCO states that the loss of the transformer at the Yadkin substation would deprive the South Hampton Roads area of approximately 33 percent of its transformation capability. VEPCO states that the failure of the transformers in the Lexington area and at the Carson substation would result in the lack of service or the severe curtailment of service until the transformers were replaced. Thus, VEPCO contends that although the replacement of the 500/230 kV transformers is not a PJM RTEP baseline project, it will significantly improve reliability on the system by reducing the likelihood of transformer failure.

# B. Projects for which VEPCO Requests a 125 Basis Points ROE Adder

#### 1. Garrisonville Line and Substation

11. The Garrisonville line and substation project involves the construction of a double circuit five-mile 230 kV transmission line, along with new circuit breakers, near Garrisonville. The solid dielectric cable will be encased in a concrete duct bank for protection. There will be two sets of cable per phase per circuit and space for the insertion of an additional cable in the event the ratings of the lines need to be increased. VEPCO states that the need to address contingency conditions is acute. Currently, a mobile transformer is required to pick up load in the event of a transformer failure at the Stafford substation. According to VEPCO, by the summer of 2009, if there is a

transformer outage, over 2000 customers will remain without service due to projected high transformer and circuit loadings during peak load periods. VEPCO states that the new substation and circuits will eliminate the need for a mobile transformer installation and will address both normal and contingency overloads on these facilities. This non-baseline project is expected to cost \$120 million and be in service in December 2009.

#### 2. Pleasant View-Hamilton Line

12. The Pleasant View-Hamilton line is a new 12-mile 230 kV transmission line from Leesburg to Hamilton, plus three new 34.5 kV distribution circuits. Approximately two miles of this project will be underground. VEPCO states that due to dramatic load growth in recent years, under normal conditions, load will nearly exceed the capacity of the distribution circuits by 2010, and under a contingency scenario (i.e., the loss of one of four circuits due to an outage), the remaining circuits will overload in 2008. VEPCO states that this could result in the loss of power to a large block of customers for an extended period of time. VEPCO states that the Pleasant View-Hamilton line will resolve these problems plus allow for future growth. The cost for these non-baseline facilities, which will be in service in May 2010, is \$90 million.

#### 3. Glen Carlyn Gas Insulated Bus

13. With the Glen Carlyn Gas Insulated Bus project, VEPCO will reconfigure and upgrade the Glen Carlyn substation in Arlington County. According to VEPCO, this bus, which was installed in 1982, creates significant reliability concerns in Arlington County. In the event of a NERC N-2 contingency loss of both lines into the Glen Carlyn ring bus, two transformers and the two other lines that feed the Clarendon substation will go out of service. Further, by November 2008, when a 230 kV line is extended from Clarendon to Ballston and a 69 kV line is extended from Clarendon to Rosslyn, four network lines will overload under this same contingency. These outages will effectively black out 40,000 customers in Arlington. VEPCO states that by reconfiguring the bus at Glen Carlyn and adding two 230 kV breakers, it will be able to keep up to 29,000 customers in service in the event of an N-2 contingency. VEPCO states that this is a "proactive," non-baseline investment which will cost approximately \$25 million and be in service in May 2010.

#### 4. Remington-Sowego-Gainesville Converter

14. The Remington-Sowego-Gainesville Converter project involves rebuilding part of the Remington-Sowego 115 kV line for operation at 230 kV. It also involves continuing the line by installing a new 230 kV transmission line to Gainesville. VEPCO will also build a new 115 kV line between Sowego and Bristers and install a new 230/115 kV transformer at the Bristers substation. VEPCO states that this project will alleviate the NERC reliability violations and operational performance issues in northern Virginia because this project will provide a direct outlet for the seven generating units located at the Marsh Run and Remington stations, which serve load via the 230 kV system. In

addition, this project will allow for the future conversion of two 115 kV lines to 230 kV lines to meet projected load growth in Prince William County. VEPCO states that tying these lines together will strengthen the 230 kV network in the entire northern Virginia region. Further, the completion of this project will allow the operation of all seven of the generators during contingencies, which will reduce congestion costs. These PJM RTEP baseline projects are estimated to cost \$32 million and to have an in-service date in May 2012.

## 5. <u>Lexington Tie</u>

15. The Lexington Tie project involves the installation of two 230 kV line breakers and a pair of two 230 kV tie breakers at VEPCO's Lexington substation in Rockbridge County. According to VEPCO's reliability analysis, a double contingency loss (NERC N-2) at the Lexington substation will result in blackout conditions from Fairfield to Glasgow to Craigsville, an area that serves approximately 18,000 customers. An outage will affect several thousand customers for a prolonged period of time. VEPCO states that this project will provide significant reliability improvements at various voltage levels within the Lexington substation because of the ability to isolate faults at one voltage level from the other voltage levels. The Lexington Tie project, which is a PJM RTEP baseline project, will cost \$6 million and is projected to be in service in May 2009.

# 6. <u>Dickerson-Pleasant View Reconductor</u>

16. The Dickerson-Pleasant View Reconductor project consists of the replacement of the existing structures and conductor on VEPCO's portion of the 230 kV transmission line with a triple-circuit structure and a high-temperature/high-capacity conductor. These facilities are located at the Dickerson Substation in Montgomery County, Maryland and will provide service for a proposed 230 kV delivery point across the Potomac River at Edwards Ferry. PJM's 2007 RTEP identified this baseline project as necessary to resolve reliability issues in the area. In addition, the Mid-Atlantic Area Council (MAAC) shows that by 2012, an overload on the Dickerson-Pleasant View line will in turn cause a failure on the Possum Point-Burches line which will then result in cascading outages. This project is estimated to cost \$5 million and will be in service in May 2011.

## 7. <u>Idylwood-Arlington Reconductor</u>

17. The Idylwood-Arlington Reconductor project is a PJM RTEP baseline project. With the Idylwood-Arlington Reconductor project, VEPCO will replace the existing conductor on a 230 kV transmission line with a high-temperature/high-capacity conductor. VEPCO states that a double contingency loss (NERC N-2) of two 230 kV lines in the Alexandria-Arlington area will overload the Idylwood-Arlington line. An outage on just one of the lines could cascade into the other line and affect over 130,000 customers in Arlington County. The project is estimated to cost \$3 million and to go into service in December 2008.

## III. Procedural History, Notice of Filings and Responsive Pleadings

- 18. Notice of VEPCO's filing was published in the *Federal Register*, 73 Fed. Reg. 41,056 (2008), with interventions and comments due on or before July 22, 2008.
- 19. Timely motions to intervene were filed by American Municipal Power – Ohio; Blue Ridge Power Agency; Exelon Corporation; and PJM. Motions to intervene and protests were filed by North Carolina Electric Membership Corporation, Old Dominion Electric Cooperative, PJM Industrial Customer Coalition, and Virginia Municipal Electric Association (Indicated Customers),<sup>5</sup> and Office of the Attorney General of Virginia, Division of Consumer Counsel (Virginia Consumer Counsel). The Pennsylvania Office of Consumer Advocate; Maryland Office of People's Counsel; D.C. Office of People's Counsel; New Jersey Division of Rate Counsel; Consumer Advocate Division, Public Service Commission of West Virginia; and Delaware Division of the Public Advocate (Consumer Advocates) filed a motion to intervene, request to extend the comment period, protest and request for a hearing. The North Carolina Utilities Commission (North Carolina Commission) filed a notice of intervention and protest. The Public Service Commission of Maryland (Maryland Commission) filed a notice of intervention and protest supporting the positions of Indicated Customers. Allegheny Power and Trans-Allegheny Interstate Line Company jointly filed an untimely motion to intervene.
- 20. On July 25, 2008, VEPCO filed an answer to Consumer Advocates' request to extend the comment date. On August 4, 2008, VEPCO filed an answer to the comments and protests. On August 12, 2008, VEPCO filed a supplemental answer. On August 15, 2008, the North Carolina Commission filed a motion to correct its protest and answer to VEPCO's answer.

#### IV. <u>Discussion</u>

# A. <u>Procedural Matters</u>

21. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2008), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2008), the Commission will grant the late-filed motions to intervene given their interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

<sup>&</sup>lt;sup>5</sup> Indicated Customers filed an errata to their protest on July 24, 2008.

22. Rule 213(a) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2), prohibits an answer to protests, unless otherwise ordered by the decisional authority. The Commission accepts VEPCO's answers and the North Carolina Commission's answer as they aided the Commission in its decision-making process.

## **B.** Section 219 Requirements

- 23. In the Energy Policy Act of 2005 (EPAct 2005), Congress added section 219 to the FPA, directing the Commission to establish, by rule, incentive-based rate treatments to promote capital investment in transmission infrastructure. The Commission subsequently issued Order No. 679, which sets forth processes by which a public utility could seek transmission rate incentives pursuant to section 219, including the incentives requested here by VEPCO.
- 24. Pursuant to section 219, an applicant must show that "the facilities for which it seeks incentives either ensure reliability or reduce the cost of delivered power by reducing transmission congestion." Also, as part of this demonstration, "section 219(d) provides that all rates approved under the Rule are subject to the requirements of sections 205 and 206 of the FPA, which require that all rates, charges, terms and conditions be just and reasonable and not unduly discriminatory or preferential."
- 25. Order No. 679 provides that a public utility may file a petition for declaratory order or a section 205 filing to obtain incentive rate treatment for transmission infrastructure investment that satisfies the requirements of section 219, i.e., the applicant must demonstrate that the facilities for which it seeks incentives either ensure reliability or reduce the cost of delivered power by reducing transmission congestion. Order No. 679 established a process for an applicant to follow to demonstrate that it meets this standard, including a rebuttable presumption that the standard is met if: (1) the transmission project results from a fair and open regional planning process that considers and evaluates projects for reliability and/or congestion and is found to be acceptable to the Commission; or (2) a project has received construction approval from an appropriate state commission or state siting authority. Order No. 679-A clarifies the operation of this rebuttable presumption by noting that the authorities and/or processes on which it is

<sup>&</sup>lt;sup>6</sup> Pub. L. No. 109-58, 119 Stat. 594, § 1241.

 $<sup>^7</sup>$  Order No. 679, FERC Stats. & Regs.  $\P$  31,222 at P 8 (citing 16 U.S.C. §§ 824(d) and 824(e)).

<sup>&</sup>lt;sup>8</sup> 18 C.F.R. § 35.35(i) (2008).

<sup>&</sup>lt;sup>9</sup> Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 at P 58.

based (i.e., a regional planning process, a state commission, or siting authority) must, in fact, consider whether the project ensures reliability or reduces the cost of delivered power by reducing congestion. <sup>10</sup>

# 1. <u>Protests</u>

- 26. With one exception related to the Carson-Thrasher-Suffolk project discussed below, no party questions VEPCO's entitlement to a rebuttable presumption for the PJM RTEP baseline projects (Meadow Brook-Loudoun line, Carson-Suffolk-Thrasher line, Mid-Atlantic Power Pathway, Remington-Sowego-Gainesville Converter line, Lexington Tie, Dickerson-Pleasant View Reconductor and Idylwood-Arlington Reconductor). Some parties, however, request that the Commission find that VEPCO does not meet the requirements of section 219 for the non-baseline projects (Proactive Transformer Replacement Project, Garrisonville line and substation, Pleasant View-Hamilton line and Glen Carlyn Gas Insulated Bus).
- 27. The Virginia Consumer Counsel and Indicated Customers contend that the Garrisonville line and the Pleasant View-Hamilton line are not necessary for regional reliability or to reduce congestions costs, but rather, are to confer local benefits. They note that VEPCO's applications before the Virginia State Corporation Commission (Virginia Commission) stated that the construction of the proposed transmission facilities is necessary to ensure that VEPCO can continue to meet projected load growth in the Garrisonville area consistent with the distribution reliability planning criteria. They further note that as a condition of receiving siting authority by the Virginia Commission, VEPCO was required to complete the construction of the facilities. The Virginia Consumer Counsel states that in *Westar*, 2 projects that were built due to a prior obligation were rejected. Indicated Customers also note that these projects are "Supplemental Projects" for purposes of PJM's RTEP, which by definition means they only confer a local benefit.

(continued...)

<sup>&</sup>lt;sup>10</sup> *Id.* P 49.

<sup>&</sup>lt;sup>11</sup> Indicated Customers Protest at 34; VCC Protest at 5-6, citing Application of Virginia Electric Power Co. For Approval and Certification of Electric Transmission Facilities, Appendix I.A at 3-4, Docket No. PUE-2006-00091 (Aug. 30, 2006) *available at* <a href="http://docket.scc.virginia.gov/vaprod/main.asp">http://docket.scc.virginia.gov/vaprod/main.asp</a>

<sup>&</sup>lt;sup>12</sup> Westar Energy, Inc., 122 FERC ¶ 61,268 (2008) (Westar).

<sup>&</sup>lt;sup>13</sup> Indicated Customers cite the Commission's recent distinction between baseline RTEP projects and Supplemental projects:

- 28. The North Carolina Commission raises concerns about the allocation of the costs of these two projects to all of VEPCO's wholesale customers. Specifically, the North Carolina Commission objects to the incremental costs for the five miles of the underground portions of the Garrisonville line and the two miles of the Pleasant View-Hamilton line. It contends that less-expensive above-ground alternatives are available for both projects, but VEPCO selected the underground routes based on local pressure for more aesthetically pleasing purposes. The North Carolina Commission also notes that the Virginia Commission in the siting proceeding agreed that the Pleasant View-Hamilton line should be above ground. Accordingly, the North Carolina Commission contends that it would be unjust and unreasonable for all of VEPCO's wholesale transmission customers to pay for the expensive choices of local, not regional, decision makers.
- 29. Certain protesters also contend that the Proactive Transformer Replacement project does not meet the requirements of section 219 because it has not been approved by the PJM RTEP process. The North Carolina Commission and the Virginia Consumer Counsel question why this project was not approved by the RTEP process. Further the North Carolina Commission notes that the Problematic Risk Assessment (PRA), which VEPCO uses to justify this project, finds that the optimal number of spare transformers is seven, not nine. Consumer Advocates note that the projects are at the end of their useful lives and should have been gradually replaced or upgraded. Indicated Customers and Consumer Advocates request a hearing to further explore these issues.
- 30. The North Carolina Commission and Indicated Customers request that the Commission defer action on the Glen Carlyn Gas Insulated Bus project because the

According to PJM, an RTEP baseline project will be subject to approval by the PJM Board of Managers. As a result, an RTEP baseline project is considered required for compliance with PJM criteria: system reliability, operational performance, or economic efficiency pursuant to a determination by PJM. PJM indicates that such criteria are regional rather than local. PJM indicates that such baseline regional projects will be eligible for PJM Tariff Schedule 12 cost allocation.

Conversely, PJM states that the Supplemental Projects will be defined in the [PJM Operating Agreement] as a Regional RTEP project or Subregional RTEP project that is not required for compliance with the PJM criteria. Thus, PJM indicates that Supplemental Projects are planned to meet local reliability or economic criteria and are not eligible for PJM Tariff Schedule 12 cost allocation ....

Indicated Customers Protest at 33, *citing PJM Interconnection*, *L.L.C.*, 123 FERC ¶ 61,163, at P 127-28 (2008) (citations omitted).

project may be included in a future RTEP. Indicated Customers note that in B&GEI the Commission rejected projects for exactly this reason.<sup>14</sup>

31. Indicated Customers note that in *PJM* the Commission found that 500/230 kV transformers serve the limited function of "sending energy directly to load," rather than providing broad regional benefits. <sup>15</sup> Accordingly, Indicated Customers request that the Commission not approve incentive treatment for the transformer bank which is part of the Carson-Suffolk-Thrasher project.

# 2. <u>Commission Determination</u>

#### a. Baseline Projects

- 32. The Commission finds that the VEPCO baseline projects satisfy the requirements for a rebuttable presumption for eligibility for transmission incentives under section 219. These projects have been vetted and approved as part of PJM's 2006, 2007 or 2008 RTEPs, which constitutes "a fair and open regional planning process." Moreover, there is substantial evidence that these projects ensure reliability or reduce the cost of delivered power. For example, the Meadow Brook-Loudoun line will relieve anticipated violations of NERC standards under multiple contingency conditions beginning in the summer of 2011. The Carson-Suffolk-Thrasher line will eliminate anticipated NERC voltage criteria violations and thermal overloads in the Norfolk-Virginia Beach area by the summer of 2011. The Mid-Atlantic Power Pathway project will resolve most of the PJM-identified load deliverability criteria violations that are projected to occur as early as 2012 on the Delmarva Peninsula.
- 33. In addition, the Remington-Sowego-Gainesville Conversion project will allow for the full dispatch of existing generation from the Marsh Run and Remington turbines within northern Virginia. By allowing for the full dispatch of existing generation, congestion will be reduced in northern Virginia under contingency conditions. Further, the Lexington Tie arrangement will lessen the possibility of a voltage collapse on the 230 kV, 138 kV and 115 kV systems that would result from a double contingency loss of two

<sup>&</sup>lt;sup>14</sup> Indicated Customers Protest at 48, citing *Baltimore Gas and Electric Co.*, 120 FERC ¶ 61,084, at P 45 (2007) (BG&EI).

<sup>&</sup>lt;sup>15</sup> Indicated Customers Protest at 47, citing *PJM Interconnection, LLC*, 124 FERC ¶ 61,033, at P 8 (2008) (*PJM*).

<sup>&</sup>lt;sup>16</sup> *Duquesne Light Co.*, 118 FERC ¶ 61,087, at P 62-68 (2007).

transmission elements at the Lexington substation. The reliability of this infrastructure is critical because the Lexington substation is connected to the Lexington-Cloverdale 500 kV line, which is a major regional interface of the Eastern Interconnection.

- 34. Furthermore, the Dickerson-Pleasant View Reconductor project will address transmission line overloads for the Pleasant View-Doubs line in 2011 and for the Possum Point-Burches line in 2012. Finally, the Idylwood-Arlington Reconductor project will correct a double contingency loss of two 230 kV underground lines in the Alexandria-Arlington areas.
- 35. Therefore, for the baseline projects, the Commission finds that VEPCO has satisfied the rebuttable presumption as set forth in Order No. 679.

## b. Non-Baseline Projects

- 36. The Commission finds that VEPCO's four non-baseline projects ensure reliability or reduce congestion as explained below, and thus satisfy the requirements set forth in Order No. 679.
- 37. The replacement of nine 500/230 kV transformers through the Proactive Transformer Replacement project will significantly reduce congestion and congestion costs. The Commission concurs with PJM's analyses that demonstrate that outages and thermal deratings of these transformers have resulted in significant annual losses. PJM and VEPCO collaborated to develop the PRA analysis tool for use when evaluating risk and determining monetary savings. The process uses the variables associated with "loss consequences" and the "likelihood of a loss." The method takes an innovative approach to the likelihood of loss as it is based on both observations and historical data rather than just historical data. The Commission agrees that without the proposed action, loss of a transformer could potentially cause VEPCO to curtail service to customers in the Shenandoah Valley, South Hampton Roads, Lexington, or Carson areas.
- 38. The North Carolina Commission argues that the optimal number of spare transformers is seven, not nine. VEPCO is not requesting incentives for any new spare transformers. Further, the Commission finds that transporting 500/235 kV spare transformers from one location to another is not always operationally feasible or economic and therefore rejects this argument. Further, transformer failure can result in overloads and loss of load resulting in extended outages until a spare transformer can be installed.

<sup>&</sup>lt;sup>17</sup> See VEPCO Filing, Exhibit No. DVP-8 at 36.

<sup>&</sup>lt;sup>18</sup> See VEPCO Answer at 23, n. 36 & 37.

- 39. The Commission finds that the Garrisonville line and substation will ensure reliability in Stafford County through the construction of a new transmission line and improve distribution to meet the increased electrical load demand. As noted by VEPCO, the proposed service area load growth increased from 161.4 MVA in 2001 to 234.9 MVA in 2006, an increase of over 46 percent. Through 2008, load growth is projected to be in excess of 5 percent per year and well in excess of 4 percent through 2011. 19 Approximately 1,000 new electric connects have occurred each year for the last 10 years in Stafford County, and this pace is expected to continue. This sustained growth will exceed the capability of distribution facilities in this area within the next five years. Under normal loading conditions over the next five years, overloading of transformers or distribution circuits will cause over 2,000 customers to remain without service due to overloads. The Commission finds that the proposed line and substation would solve these loading problems by providing another source and distribution method for meeting the electrical demand.<sup>20</sup> In addition, the Virginia Commission has approved this project for construction. The Virginia Commission found that "without an additional source of supply, [VEPCO] would be unable to meet its projected peak demand during the summer of 2009."<sup>21</sup>
- 40. The Commission agrees with VEPCO and the Virginia Commission that the Pleasant View-Hamilton line will ensure reliability. Without the proposed additional transmission capacity the Purcellville Load Area will "nearly exceed the capacity of the distribution circuits in 2010 under normal load conditions, and under a single contingency scenario will exceed that capacity in summer of 2008." The Purcellville load area has experienced dramatic load growth over the past few years and without this transmission upgrade, load curtailment may be necessary as early as summer 2008 under

<sup>&</sup>lt;sup>19</sup> See VEPCO Filing, Exhibit No. DVP-8 at 40.

<sup>&</sup>lt;sup>20</sup> See also Southern California Edison Co., 121 FERC ¶ 61,168, at P 39 (2007) (approving transmission incentives for projects needed to reliably serve load growth in fast-growing regions).

<sup>&</sup>lt;sup>21</sup> See VSCC's Final Order- Garrison 230 kV Transmission Line, VEPCO Filing, Exhibit No. DVP-16 at 7.

<sup>&</sup>lt;sup>22</sup> See VEPCO Filing, Exhibit No. DVP-7 at 33.

<sup>&</sup>lt;sup>23</sup> See VEPCO Filing, Exhibit No. DVP-7 at page 33.

single contingency scenario.<sup>24</sup> The proposed 230 kV line and the 230/34.5 kV Hamilton substation will alleviate the need for curtailment and enhance reliability of the transmission system.<sup>25</sup>

- 41. The Virginia Consumer Counsel claims that under the Commission's decision in *Westar*, projects that are mandated by prior regulatory obligations should not receive incentive treatment. However, this finding is not applicable to the Garrisonville and the Pleasant View-Hamilton transmission lines because the Virginia Commission did not initiate a request requiring VEPCO to build these lines. In *Westar*, the Commission denied an incentive for a project that the Commission itself had required the utility to construct in order to mitigate the utility's market power. VEPCO, in contrast, applied for and was granted a Certificate of Public Convenience and Necessity by the Virginia Commission conditioned upon the project being constructed and in-service by January 1, 2011. Therefore, the Commission's holding in *Westar* does not preclude VEPCO's receipt of incentive treatment for the Garrisonville and Pleasant View-Hamilton projects.
- 42. The Commission agrees with VEPCO that the reconfiguration and upgrade of the Glen Carlyn Substation is required to ensure reliability because "under [N-2] contingency conditions, outages could impact nearly 40,000 VEPCO customers [in the Arlington region of northern Virginia] and 240 MVA of electric load by cutting service at the Falls Church, Gallows, Keene Mill, and Arlington substations. By reconfiguring the Glen Carlyn Gas Insulated Breakers and adding two 230 kV breakers to accommodate the splitting and termination of Line No. 251, the contingency condition would only affect approximately 7,000 customers and 50 MVA of load." <sup>27</sup> As noted above, upgrades to existing facilities will lead to higher levels of reliability. <sup>28</sup>
- 43. As discussed more fully below, the Commission rejects Indicated Customers' argument that the 500/230 kV transformers, which are part of the Proactive Transformer Replacement project and the Carson-Suffolk-Thrasher project, serve the limited function of "sending energy directly to load." Indicated Customers mischaracterize the Commission's ruling in *PJM*. The "limited function" solely refers to PJM's allocation of

<sup>&</sup>lt;sup>24</sup> See VEPCO Filing, Exhibit No. DVP-8 at page 46.

<sup>&</sup>lt;sup>25</sup> See VEPCO Filing, Exhibit No. DVP-7 at page 32.

<sup>&</sup>lt;sup>26</sup> Westar, 122 FERC ¶ 61,268 at P 49-52.

<sup>&</sup>lt;sup>27</sup> See VEPCO Filing, Exhibit No. DVP-7 at 37-38.

 $<sup>^{28}</sup>$  Baltimore Gas and Electric Co., 121 FERC  $\P$  61,167, at P 34-35 (2007) (BG&E II).

costs of facilities below 500 kV. *PJM* does not address whether certain projects qualify for transmission rate incentives. Rather, these transformers are integral to VEPCO's system and provide regional benefits, as discussed more fully below.

## C. The Nexus Requirement

44. In addition to satisfying the section 219 requirement of ensuring reliability or reducing the cost of delivered power by reducing congestion, an applicant must demonstrate that there is a nexus between the incentive sought and the investment being made. In Order No. 679-A, the Commission clarified that the nexus test is met when an applicant demonstrates that the total package of incentives requested is "tailored to address the demonstrable risks or challenges faced by the applicant." As part of this evaluation, the Commission has found the question of whether a project is routine to be particularly probative. In Order No. 679-A, the Commission elaborated on how it will evaluate projects to determine whether they are routine and the effect this evaluation has on an applicant's request for incentives:

[W]e held in Order No. 679 that routine investments "may not always qualify" for incentives. However, the Commission did not find that they would never qualify. Similarly, in Order No. 679-A, we held that projects with "special risks and challenges" present "the most compelling case" for incentives, but did not hold they are the only projects that can qualify for incentives. Second, we held that routine investments "to meet existing reliability standards" may not always qualify for incentives. However, we did not hold that, if a project's primary or sole purpose is to maintain reliability, it should not be eligible for incentives. Indeed, to do so would have been to disregard the plain language of section 219, which required the Commission to adopt a rule that "promote[s] reliable and economically efficient transmission and generation of electricity by promoting capital investment in the enlargement, improvement, maintenance, and operation of all facilities for the transmission of electric energy in interstate commerce. <sup>31</sup>

45. The Commission further stated that it will consider all relevant factors presented by an applicant to determine whether a project is routine; and the applicant must provide detailed factual information in support of the factors it relied upon.<sup>32</sup> The relevant factors

<sup>&</sup>lt;sup>29</sup> Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 at P 40.

 $<sup>^{30}</sup>$  BG&E I, 120 FERC ¶ 61,084 at P 48.

<sup>&</sup>lt;sup>31</sup> *Id.* P 51 (footnotes omitted).

<sup>&</sup>lt;sup>32</sup> See id. P 53.

to be considered as part of the analysis of whether a project is routine include, but are not limited to: (1) the scope of the project (e.g., dollar investment, increase in transfer capability, involvement of multiple entities or jurisdictions, size, effect on region); (2) the effect of the project (e.g., improving reliability or reducing congestion costs); and (3) the challenges or risks faced by the project (e.g., siting, internal competition for financing with other projects, long lead times, regulatory and political risks, specific financing challenges, other impediments).<sup>33</sup> Additionally, the Commission clarified that "when an applicant has adequately demonstrated that the project for which it requests an incentive is not routine, that applicant has, for purposes of the nexus test, shown that the project faces risks and challenges that merit an incentive."<sup>34</sup> Finally, the Commission stated that if it determines that a project is routine, an applicant is not foreclosed from the requested incentive; it may show that its project faces risks and challenges or provides sufficient benefits to warrant incentive rate treatment.<sup>35</sup>

- 46. The Commission has also found that transmission investments identified as baseline projects in the RTEP process are significant in our analysis of the nexus test because such projects provide benefits to customers in one or more transmission owner zones.
- 47. In Order No. 679-A, the Commission clarified that its nexus test is met when an applicant demonstrates that the total package of incentives requested is tailored to address the demonstrable risks or challenges faced by the applicant. The Commission noted that this nexus test is fact-specific and requires the Commission to review each application on a case-by-case basis.
- 48. As discussed below, the Commission finds that VEPCO satisfies the nexus requirement for both its baseline and non-baseline projects. VEPCO is undertaking considerable risks and challenges to develop and construct its projects. It has demonstrated a nexus between those risks and challenges and the incentives that it has requested, both as a package and for each individual project.

<sup>&</sup>lt;sup>33</sup> *Id.* P 52.

<sup>&</sup>lt;sup>34</sup> *Id.* P 54.

<sup>&</sup>lt;sup>35</sup> *Id.* P 55.

## 1. Nexus Between Projects and 150 Basis Points

#### a. Meadow Brook-Loudon Line

# i. VEPCO's Proposal

- 49. VEPCO argues that the Meadow Brook-Loudon line satisfies the nexus requirement because it is an approved PJM RTEP baseline project; is part of a 265-mile project spanning Pennsylvania, West Virginia and Virginia; and faces numerous risks, including regulatory risk, siting risk, construction risk and cost risk. VEPCO notes that three state commissions Pennsylvania, West Virginia and Virginia will need to approve components of the project, as well as numerous state and federal environmental agencies. VEPCO also notes that it will need to coordinate the project with the Trans-Allegheny Interstate Line Co. (TrAILCo).
- 50. This project will cost approximately \$255 million and is expected to be completed in May 2011.

## ii. Comments and Protests

51. No parties challenge the application of incentives to this project. The North Carolina Commission notes that the Meadow Brook-Loudoun line appears to be an ambitious project that will help to assure grid reliability in the future, and it does not oppose incentives for this project. It requests that the Commission, however, ensure that customers are not charged for cost overruns.

#### iii. Commission Determination

- 52. The Commission finds that the Meadow Brook-Loudoun line satisfies the nexus requirement. This project is a PJM RTEP baseline project and as such, provides regional and local benefits. As a result of the Meadow Brook-Loudon line being a segment of a project spanning three states, the Commission finds that the line has far-reaching scope and involves greater regulatory and siting risks. Finally, the Commission notes that no parties challenged VEPCO's demonstration of the nexus between this project and the requested incentives. The Commission therefore finds that the Meadow Brook-Loudon line is not routine, and VEPCO has demonstrated a nexus between its requested 150 basis point adder and the investment being made in the Meadow Brook-Loudoun line.
- 53. In response to the North Carolina Commission's concerns regarding cost overruns relating to several VEPCO projects, Order No. 679 does not limit transmission rate incentives granted to transmission projects to the original estimate of the project's cost when the entity requested the incentives from the Commission. Cost overruns on projects can be monitored by parties and they may raise any issues during VEPCO's annual formula rate updates or in a complaint filed with the Commission.

## b. Carson-Suffolk-Thrasher Line

#### i. <u>VEPCO's Proposal</u>

- 54. VEPCO states that the Carson-Suffolk-Thrasher project meets the Commission's requirement that there be a nexus between the incentive sought and VEPCO's investment. First, because the project is an approved PJM RTEP baseline project, VEPCO states that it, by definition, provides both local and regional benefits and is thus not "routine" for purposes of establishing eligibility for incentive treatment.
- 55. Second, VEPCO states that this project will have a significant impact on maintaining reliable service in southeastern Virginia and northeastern North Carolina, where load is rapidly growing. Third, VEPCO states that this project faces numerous challenges. VEPCO notes that the project must be approved by the Virginia Commission and thirteen state and federal environmental agencies. The project also must cross sensitive areas, including heavily urbanized areas, numerous large ponds, swamps, 142 acres of wetlands, streams and the Blackwater River. VEPCO states that it will need to acquire nearly 1,000 acres of new rights-of-way from more than 238 property owners. VECPO states that the complexities of construction and operation ranging from urban areas to sensitive wildlife habitats will challenge it and its contractors to ensure that the process is completed in a safe and compliant manner. Because the project will be constructed over a four-year period, VEPCO states that it runs the risk that the capital investment required for completion of the project will increase as the costs of copper, aluminum, steel and labor are raising rapidly. Finally, similar to the Meadow Brook-Loudoun line, the \$224 million cost of this project is 40 percent greater than VEPCO's entire transmission capital investment for 2007.

#### ii. Protests and Comments

56. With one exception, no parties challenge the application of incentives to this project. Similar to its comments for the Meadow Brook-Loudon line, the North Carolina Commission requests that the Commission ensure that customers are not charged for cost overruns. While Indicated Customers do not challenge VEPCO's demonstration of a nexus between its investment in the Carson-Suffolk-Thrasher project and the requested incentives, if the Commission finds that the Carson-Suffolk-Thrasher project qualifies for incentives, Indicated Customers ask that project's 500/230 kV transformer bank be excluded from any incentives. They point to the Commission's finding in *PJM*, <sup>36</sup> that 500/230 kV transformers should be excluded from the class of "Regional Facilities"

 $<sup>^{36}</sup>$  PJM Interconnection, L.L.C., Opinion No. 494, 119 FERC  $\P$  61,063 (2007); order on reh'g and compliance filing, Opinion No. 494-A, 122 FERC  $\P$  61,082; order on reh'g, 124 FERC  $\P$  61,033 (2008).

entitled to postage-stamp cost allocation, as demonstrating that such transformers do not provide regional benefits and should not qualify for incentive treatment.

#### iii. Commission Determination

- 57. The Commission finds that the Carson-Suffolk-Thrasher line satisfies the nexus requirement. This project is a PJM RTEP baseline project and as such provides regional and local benefits. As discussed above, the Commission finds that the Carson-Suffolk-Thrasher line is needed to ensure reliability and to serve load in the South Hampton Roads area.<sup>37</sup> Further, the project involves significant regulatory, siting and construction risk given the sensitive areas in which the project is located.<sup>38</sup> The Commission therefore finds that the Carson-Suffolk-Thrasher line is not routine, and VEPCO has demonstrated a nexus between its requested 150 basis point adder and the investment being made in the Carson-Suffolk-Thrasher line.
- 58. The Commission rejects the Indicated Customers' request that the Carson-Suffolk-Thrasher line's transformer bank be excluded from the incentives granted to this project. In the *PJM* case, which addressed the cost allocation of new transmission projects in PJM, the Commission held:

[t]he Commission accepted PJM's proposal to exclude from PJM-wide cost allocation: (1) transformers with low-side voltages below 500 kV that are not "integral" to the system, [footnote 10] and (2) transmission facilities that operate below 500 kV and deliver energy from a 500 kV facility to load. PJM explained that the function of these facilities is to deliver energy to load beyond the terminal of a 500 kV facility to load. The Commission agreed that, because of the function of these facilities, they are not a part of the transmission system that operates at 500 kV and above and thus the costs of such facilities should not be allocated on the same basis as 500 kV facilities.

[footnote 10] PJM explains that "integral" transformers operate in parallel with a regional facility, and non-integral transformers are in series with the regional facilities, rather than in parallel. "Integral transformers" do not deliver energy to load; rather, they facilitate the connection of a regional facility.<sup>39</sup>

<sup>&</sup>lt;sup>37</sup> See VEPCO Filing, Exhibit No. DVP-8 at 11-14.

<sup>&</sup>lt;sup>38</sup> *Id.* at 14-19.

<sup>&</sup>lt;sup>39</sup> *PJM*, 124 FERC ¶ 61,033 at P 4.

- 59. On rehearing, the Commission rejected one party's request that all transformers with a low-side voltage of below 500 kV provide support to the 500 kV systems and should be allocated based on their connection to such system. The Commission upheld its earlier finding that the function of the transformers determines whether they are integral to the system and it is not arbitrary and capricious to find that some transformers operating below 500 kV are integral to the system and some are not.<sup>40</sup>
- 60. The Commission rejects Indicated Customers' request to exclude the Carson-Suffolk-Thrasher transformer bank from any incentives granted to the Carson-Suffolk-Thrasher line because the Carson-Suffolk-Thrasher transformer bank is integral to the Carson-Suffolk-Thrasher line. As VEPCO notes, the Carson project could not achieve its stated objectives without the transformer bank, and the project as a whole provides significant regional benefits, including reducing congestion and increasing regional reliability.

# c. <u>Mid-Atlantic Power Pathway Project</u>

# i. VEPCO's Proposal

- 61. VEPCO contends that the Mid-Atlantic Power Pathway project meets the nexus requirement because this project is an approved PJM RTEP baseline project. In addition, VEPCO states that the project will have a significant impact on maintaining reliable service on the Delmarva Peninsula and in the Washington-Baltimore corridor. VEPCO states that continued growth in power consumption within this area, plus significant obstacles to siting incremental power generation near the load, combine to raise the importance of transmission enhancements such as this project.
- 62. VEPCO also explains that the project faces significant risks and challenges, including engineering challenges, construction risk and regulatory risk. VEPCO states that constructing the facilities presents challenges respecting the engineering and construction of the connection of this high-voltage line into the constrained Possum Point station switchyard. This switchyard is bounded on three sides, either by roads or by steep drop-offs. VEPCO states that it plans to expand the bus work for this project within the existing station fence. It explains that one backbone, or line terminating structure, will be rotated from a "normal" position to better facilitate a line connection to the new bus station. Another existing backbone will support a "fly-under" section of the bus, in order to tie the new line from PEPCO to a distant part of the ring bus from the existing PEPCO line. VEPCO states that this technique is not generally used at the 500 kV level. To free up the necessary bus position, VEPCO explains that an existing line must be relocated so that the new and existing PEPCO line are not side-by-side in their attachment location to

<sup>&</sup>lt;sup>40</sup> *Id.* P 10, 13.

the 500 kV bus; otherwise, the failure of a single piece of equipment would take both PEPCO lines out of service, which would cause significant power flow changes from PEPCO to VEPCO.

- 63. VEPCO states that there are construction and regulatory risks due to the projected in-service date of December 2011. For example, VEPCO notes that the project sponsors must obtain state regulatory approvals, easements and permits from Virginia, Delaware, Maryland and New Jersey, and various federal environmental agencies. VEPCO states that once those approvals are received, construction will need to proceed at an accelerated pace to complete the line's full 220 mile length on schedule. Further, VEPCO explains that there is a strong likelihood of cost increases due to price pressure on material and labor. VEPCO states that the dramatic rise in transmission construction across the electric utility sector is raising costs for transmission construction contractors. VEPCO notes that although its capital investment in this project is relatively limited, access to appropriate materials and qualified labor during the accelerated construction schedule will be vital to the successful completion of the project.
- 64. VEPCO's portion of the Mid-Atlantic Power Pathway project will cost \$7 million.

#### ii. Comments and Protests

65. As earlier noted, the North Carolina Commission requests that the Commission ensure that customers are not charged for cost overruns. The Maryland Commission states that it is opposed to the application of "unreasonable incentives" to the Mid-Atlantic Power Pathway.

#### iii. Commission Determination

66. The Commission finds that VEPCO's portion of the Mid-Atlantic Power Pathway project satisfies the nexus requirement. This project spans four states and is a PJM RTEP baseline project. As such, it provides regional and local benefits, and is therefore not routine. It has a far-reaching scope and involves greater regulatory and siting risks. As VEPCO notes, the project will also face significant construction risk due to the challenges involved in the particular physical location of the project and coordination with existing PEPCO lines. Finally, the Commission notes that no protesters substantively challenged VEPCO's demonstration of the nexus between this project and the requested incentives. The Commission therefore finds that VEPCO has demonstrated

<sup>&</sup>lt;sup>41</sup> See VEPCO Filing, Exhibit No. DVP-7 at 16-17 and Exhibit No. DVP-8 at 20-25.

<sup>&</sup>lt;sup>42</sup> See VEPCO Filing, Exhibit No. DVP-8 at 22.

a nexus between its requested 150 basis-point adder and the investment being made in its portion of the Mid-Atlantic Power Pathway project. Finally, the Commission rejects the Maryland Commission's statements regarding the Mid-Atlantic Power Pathway project as unsubstantiated.

# d. The Proactive Transformer Replacement Project

# i. VEPCO's Proposal

- 67. VEPCO states that although the transformers involved in this project are not part of PJM's RTEP, its Proactive Transformer Replacement project meets the nexus test because it is not routine. VEPCO explains that the investment initiative deviates from the industry standard practice, which is to replace 500/230 kV transformers only after they have failed. VEPCO states that in this case, the replacement of nine transformers is being done proactively based on a probabilistic failure analysis.
- 68. VEPCO states that there are five other reasons why this project is not routine: (1) the total cost of replacing these units is estimated at \$110 million, which is equal to 68 percent of its entire capital investment for transmission construction in 2007; (2) since the project will enhance the performance of both 500 kV and 230 kV faculties, it will improve reliability and reduce congestion throughout PJM; (3) successful completion of this project will require close outage coordination with PJM and will require outages at critical substation locations; (4) the magnitude of this project replacing nine transformers in three years is a first for VEPCO, requiring significant labor and material resources to successfully complete the work; and (5) the long lead time for the project increases the risk that project costs will escalate due to increased costs of materials and the limited supply of skilled labor.

# ii. Protests

69. Indicated Customers argue that VEPCO has not demonstrated a nexus between the project and the requested incentives. They argue that contrary to the PJM press release on the value of new spare transformers, VEPCO has spare transformers that are around 20 years old and VEPCO recently purchased a spare transformer in 2007 for one of the substations included in this project. Indicated Customers argue that VEPCO's PRA study does not demonstrate the need for new transformers and, in fact, each of the named substations already has the optimal number of spare transformers. Indicated Customers state that they do not challenge VEPCO's decision to undertake the Proactive Transformer Replacement project, but rather, they do not believe that the project merits incentive rates. Further, as discussed above, they point to the Commission's finding in *PJM* as demonstrating that 500/230 kV transformers do not provide regional benefits. Finally, Indicated Customers note that part of the project is already complete.

- 70. The Virginia Consumer Counsel notes that this project is not part of the PJM RTEP and does not require any siting approvals. It asserts that this project is routine and does not present unusual challenges. The North Carolina Commission argues since the project is not part of RTEP and VEPCO already has a number of spare transformers, a lower-cost alternative may exist. As such, the North Carolina Commission contends that incentive treatment should not be granted to this project.
- 71. Consumer Advocates argue that VEPCO's claim of acting proactively is unsupported for two reasons. First, the Consumer Advocates argue that VEPCO seeks 150 basis points for relatively standard transmission operations where the risk is already covered in its return on equity. Second, the Consumer Advocates assert that since these transformers are at the end of their lives, VEPCO's actions are reactive not proactive.

# iii. <u>Commission Determination</u>

72. The Commission finds that VEPCO has demonstrated a nexus between the Proactive Transformer Replacement project and its requested incentive. Although the project is not a PJM RTEP baseline project, the Commission finds that VEPCO has demonstrated that the project is not routine because of its significant scope, cost and the fact that it deviates from the standard industry practice of replacing transformers only when they fail. As such, the Commission rejects the Consumer Advocates' argument that VEPCO's actions regarding this project are reactive, rather than proactive. The Commission also rejects the Indicated Customers' argument that since the project is not necessary, it should not qualify for incentive rates because VEPCO has demonstrated that this project meets the nexus test and section 219 criteria. Further, the Commission rejects the request by the North Carolina Commission that this Commission limit the number of transformers subject to the incentive. Since VEPCO has demonstrated that the Proactive Transformer Replacement project is not routine, its inclusion or exclusion from PJM's RTEP is not dispositive.

#### 2. Nexus Between Projects and 125 Basis Points

#### a. Garrisonville Line and Substation

#### i. VEPCO's Proposal

73. VEPCO states that although this project is not a PJM RTEP baseline project, it meets that nexus test because the project is not routine. VEPCO states that this project faces siting and construction challenges related to its underground routing, as property rights are likely to involve additional costs and schedule delays. VEPCO further explains

<sup>&</sup>lt;sup>43</sup> See VEPCO Filing, Exhibit No. DVP-7 at 26.

that the terrain varies greatly in elevation and will require directional boring construction, which is very expensive compared to open-trench construction. In addition, VEPCO states that during construction, soil conditions, landowner concerns and governmental pressure may require additional directional boring that will increase project costs. VEPCO states that the planned transmission route crosses school property as well as parks and recreation land that will require scheduling flexible enough to minimize the impacts on these facilities. Furthermore, VEPCO explains that it has little engineering, construction and maintenance experience with the installation of XLPE design cable. Dominion states that the \$120 million cost of the project represents almost 75 percent of its entire capital investment for 2007.

#### ii. Protests

- 74. The Virginia Consumer Counsel argues that the Commission should reject VEPCO's requested incentive for this project because it is a mandatory, intrastate project to meet local reliability concerns. According to Virginia Consumer Counsel, this project fails the nexus test because the Virginia Commission required VEPCO to build it, as demonstrated by the Commission's findings in *Westar*.
- 75. Indicated Customers argue that VEPCO has failed to demonstrate a nexus between the requested ROE adder and the Garrisonville line and substation project. They argue that the Virginia Commission has already approved VEPCO's requested certificate of public convenience and necessity for the project and no further regulatory approvals are needed for the project. Indicated Customers also note that the Virginia Commission required VEPCO to complete the project by January 1, 2011, its current expected inservice date. Granting incentives would violate the Commission's policy as established in *Westar*, 44 according to Indicated Customers, since VEPCO is already required to meet this deadline. Indicated Customers point out that VEPCO's siting risk for this project is also reduced because it already owns the needed rights-of-way. Indicated Customers also argue that this project is routine, because it is being constructed to address distribution-level concerns and should be paid for by distribution load. Further, Indicated Customers argue that the Commission should not allow VEPCO to apply any incentives it may receive to funds already spent on this project.
- 76. The North Carolina Commission argues that this project should not receive incentives because it was not approved as part of PJM's RTEP, only addresses local needs, and a less-expensive alternative exists.

<sup>&</sup>lt;sup>44</sup> Westar, 122 FERC ¶ 61,268 at P 49-52.

#### iii. Commission Determination

- 77. The Commission finds that VEPCO has demonstrated a nexus between the 125 basis point adder requested for the Garrisonville line and substation project and the investment to be made in the project. The Commission finds that, contrary to the Indicated Customers' and North Carolina Commission's protests, the Garrisonville line and substation project is not routine and is not comprised of local delivery facilities. As VEPCO's witnesses demonstrate, this project will increase regional reliability and involves substantial construction risk due to the difficult terrain on which it will be constructed. Therefore, the Commission finds that VEPCO has demonstrated that this project is not routine. Since the Commission has found that the Garrisonville project is not routine, its inclusion or exclusion from PJM's RTEP is not dispositive.
- 78. The Commission rejects Indicated Customers' interpretation of the Commission's *Westar* decision. In *Westar*, the Commission stated that a prior commitment to build a particular line may not qualify for incentives and such commitment "may have a bearing on our nexus evaluation of individual applications." In *Westar*, however, the commitment to build the particular line was a condition of the Commission's approval of Westar's acquisition of another company, and was required to reduce Westar's market power. Here, VEPCO's construction of the project has not been previously considered, or mandated, by this Commission. Further, the granting of a certificate of public convenience and necessity by the Virginia Commission, while needed by VEPCO to build the Garrisonville line and substation, is not dispositive of the Commission's determination of whether the project meets the nexus test for the requested incentives pursuant to Order No. 679.

#### b. Pleasant View-Hamilton Line

#### i. VEPCO's Proposal

79. VEPCO argues that this non-baseline project is not routine and thus satisfies the nexus test. First, VEPCO explains that the project faces regulatory risks. Since VEPCO received its first order from the Virginia Commission in February 2008, it has had to make two subsequent filings as routing options are regularly challenged by a multitude of parties. Although the proceedings have reached finality, VEPCO states that the Virginia Commission's approvals may still be subject to further changes.

<sup>&</sup>lt;sup>45</sup> See VEPCO Filing, Exhibit No. DVP-7 at 28-30 and Exhibit No. DVP-8 at 39-45.

<sup>&</sup>lt;sup>46</sup> Westar, 122 FERC ¶ 61,268 at P 50, citing Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 at P 122.

- 80. Second, VEPCO states that the project faces siting challenges. As noted above, there have been numerous iterations of the proposed route for this transmission line due to widespread public opposition, particularly with respect to the W&OD Trail. In addition, VEPCO states that a significant portion of the route is on highway rights-of-way and will require extensive coordination with the Virginia Department of Transportation. VEPCO expects that as it moves forward with construction of this line, it will face further challenges which will cause delays and increase costs.
- 81. Third, VEPCO argues that this project presents unique technological challenges and risks. For example, it must install hybrid circuits, which involve the use of both overhead and underground conductors. VEPCO states that these circuits have special operating parameters that must be taken into account in designing the transmission line protection and control schemes. VEPCO states that the schemes must be able to recognize the difference between underground and overhead faults. In addition, VEPCO explains that traditional power line carrier communications will be utilized.
- 82. VEPCO states that the total estimated cost of the project is \$90 million, which is almost 56 percent of its entire 2007 transmission capital investment. VEPCO notes that any further routing adjustments will add to the capital costs.

#### ii. Protests

- 83. Indicated Customers argue that VEPCO has failed to demonstrate a nexus between the requested ROE adder and the Pleasant View-Hamilton project. According to Indicated Customers, VEPCO has not adequately explained why it needs incentives for the project when the Virginia Commission has already granted a certificate of public convenience and necessity, and the Virginia Commission is the only regulatory agency that needs to review the project. As with the Garrisonville line and Proactive Transformer Replacement project, Indicated Customers argue that granting incentives to the Pleasant View-Hamilton project would violate the Commission's *Westar* policy, since VEPCO is already required to complete the project by January 1, 2011. Indicated Customers also argue that this project is routine, because it is being constructed to address distribution-level concerns and should be paid for by distribution load. Further, Indicated Customers argue that the Commission should not allow VEPCO to apply any incentives it may receive to funds already spent on this project.
- 84. The Virginia Consumer Counsel argues that the Commission should reject VEPCO's requested incentive for this project because it is a mandatory, intrastate project to meet local reliability concerns. According to Virginia Consumer Counsel, this project fails the nexus test because the Virginia Commission has required VEPCO to build it, as demonstrated by the Commission's findings in *Westar*. Further, the project's risk is mitigated by Virginia legislation allowing this project to participate in a pilot program for underground transmission lines, allowing "full and timely" recovery of the costs of such

projects. The North Carolina Commission argues that this project should not receive incentives because it was not approved as part of PJM's RTEP and is only to address local needs.

#### iii. Commission Determination

- 85. The Commission finds that VEPCO has demonstrated a nexus between the 125 basis-point adder requested for the Pleasant View-Hamilton project and the investment to be made in the project. The Commission finds that, contrary to the Indicated Customers' and Virginia Consumer Counsel's protests, the Pleasant View-Hamilton project is not routine. As VEPCO demonstrates, this project will increase regional reliability and involves substantial technological challenges and construction risks. The Commission has found that the project is not routine, its inclusion or exclusion from PJM's RTEP, as well as its receipt of a certificate of public convenience and necessity from the Virginia Commission, is not dispositive of the Commission's determination of whether the project meets the nexus test for the requested incentives pursuant to Order No. 679. The Commission further rejects Indicated Customers' arguments regarding VEPCO's prior commitment to build this project, for the reasons discussed above regarding the Garrisonville line and substation project.
- 86. Further, the Commission rejects the request by the Indicated Customers that VEPCO not be allowed to recover any costs already spent on the Pleasant View-Hamilton project. The Commission has allowed incentives for the costs of projects as long as the funds were spent on or after August 8, 2005, the date EPAct of 2005 was enacted.<sup>49</sup>

#### c. Glen Carlyn Insulated Bus

#### i. VEPCO's Proposal

87. VEPCO states that this project is pending approval as a PJM RTEP baseline project. It further argues that the project meets the nexus test because it is not routine. VEPCO states that it considered constructing a new substation within the footprint of the existing Glen Carlyn substation using gas insulated buses. However, since the substation

<sup>&</sup>lt;sup>47</sup> See VEPCO Filing, Exhibit No. DVP-8 at 48.

<sup>&</sup>lt;sup>48</sup> Westar, 122 FERC ¶ 61,268 at P 50, citing Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 at P 122.

<sup>&</sup>lt;sup>49</sup> See e.g., The United Illuminating Co., 119 FERC  $\P$  61,182, at P 59 (2007) (United Illuminating).

is located adjacent to the W&OD Trail, which is used by thousand of walkers, runners and bikers every day, Dominion will minimize the impact of the project by rebuilding the substation "in-place" under energized conditions. As a result, VEPCO states that there is an increased risk of unplanned outages should an equipment malfunction occur. VEPCO states that construction will take place within the current confines of the station, which increases the risk of unexpected line outages, transformer outages and complete station outages during construction. VEPCO states that the risks associated with coordinated and unexpected outages are magnified given the densely populated area of Arlington County served by the Glen Carlyn substation. VEPCO also states that the project presents cost-associated risks. The project will cost \$25 million and will be in service in May 2010.

### ii. Protests

88. Indicated Customers argue that it would be premature to grant incentives for this project, as it is still pending RTEP approval and has not received any state commission approvals. Further, they note that this project provides for local delivery service. The North Carolina Commission similarly argues that the Commission should not prejudge the outcome of the RTEP process and should not approve incentives now, before PJM has completed its review.

## iii. Commission Determination

- 89. The Commission finds that VEPCO has demonstrated a nexus between the requested 125 basis point adder for the Glen Carlyn Insulated Bus project and the investment it will make. The Commission finds that VEPCO has demonstrated that the project is not routine due to the significant risks involved in completing construction on an energized substation in a very dense urban area. Further, the Glen Carlyn Insulated Bus project is part of the PJM grid and significant reliability concerns exist in the densely-populated Arlington County area where it is located. Since VEPCO has demonstrated that the project satisfies the nexus test, the outcome of PJM's RTEP review will not be dispositive of the project's qualifications for transmission incentives.
- 90. VEPCO has also provided sufficient information for the Commission to find that the Glen Carlyn Insulated Bus meets the section 219 requirements for ensuring reliability and the nexus requirement for the requested incentive. <sup>52</sup> The Commission further notes

<sup>&</sup>lt;sup>50</sup> See VEPCO Filing, Exhibit No. DVP-8 at 55.

<sup>&</sup>lt;sup>51</sup> *Id*.

<sup>&</sup>lt;sup>52</sup> *Id. See also* VEPCO Filing at 24-25.

that in *BG&E I*, ROE incentives were not granted for 37 projects because BG&E did not provide fact-specific reasons why each project qualified for an ROE incentive nor did it explain how each project addressed demonstrable risks or challenges.<sup>53</sup> Conversely, in the instant situation, VEPCO has provided a description of the project, and has also taken significant steps towards its implementation, including submission to PJM's RTEP process. The Commission therefore rejects Indicated Customers' and the North Carolina Commission's protests that the request for an incentive is premature.

#### d. Remington-Sowego-Gainesville Converter Project

#### i. <u>VEPCO's Proposal</u>

- 91. VEPCO states that this project satisfies the nexus test because it is a PJM RTEP baseline project and as such, is not routine. Further, VEPCO states that the project will have a significant impact on maintaining reliable service in the greater northern Virginia and Washington-Baltimore areas. The project will cost \$32 million and has a projected in service date of May 2012.
- 92. In addition, VEPCO states that the project faces significant risks and challenges. It notes that residents of this area of Virginia have vigorously contested many transmission projects in the past, most recently the Meadow Brook-Loudoun and Pleasant View-Hamilton lines described previously. Therefore, VEPCO expects significant public opposition as it seeks to obtain the required permits and approvals for this project. VEPCO states that the long lead time for this project, which has a planned in-service date of May 2012, carries the risk of many contingencies beyond just the siting challenges. According to VEPCO, these include cost increases for material and labor. VEPCO states that its regulatory risks include the need for a certificate of public convenience and necessity from the Virginia Commission, as well as involvement from other agencies, such as the Virginia Department of Environmental Quality and the U.S. Army Corps of Engineers.

#### ii. Protests

93. No parties challenge the application of incentives to this project. The North Carolina Commission specifically states that it does not object to "reasonable" incentives for this project.

<sup>&</sup>lt;sup>53</sup> BG&E I, 120 FERC ¶ 61,084 at P 65.

# iii. Commission Determination

94. The Commission finds that the Remington-Sowego-Gainesville Converter project satisfies the nexus requirement. This project is a PJM RTEP baseline project and provides regional and local benefits and is not routine. The Commission further finds that the project is not routine because it involves regulatory risks, coordination between multiple agencies and construction in the suburban areas of northern Virginia. Finally, the Commission notes that no parties challenged VEPCO's demonstration of the nexus between this project and the requested incentives. The Commission therefore finds that VEPCO has demonstrated a nexus between its requested 125 basis point adder and the investment being made in the Remington-Sowego-Gainesville Converter project.

# e. <u>Lexington Tie Arrangement</u>

# i. <u>VEPCO's Proposal</u>

- 95. VEPCO contends that this project meets the nexus test because it is a PJM RTEP baseline project and thus, it is not routine. Further, VEPCO states that this project will have a significant impact on maintaining reliable service on the Eastern Interconnection, because it is connected to the Lexington-Cloverdale 500 kV line, which is a major interface in the Eastern Interconnection. Once this project is complete, according to VEPCO, a fault or disturbance on one component of the electrical system can be isolated and not "spill over" from one voltage level to another. In other words, VEPCO explains, the Lexington Tie Arrangement project will limit any voltage problems to lower voltages and will prevent a voltage collapse from encroaching onto the 500 kV system.
- 96. VEPCO states that the project faces several risks and challenges, including construction and operational risks. In order to perform the work necessary to resolve the reliability problem, VEPCO states that various parts of the substation must be taken out of service. In the event of any fault during this time, VEPCO explains that the station will immediately be in the situation it is trying to avoid a double contingency loss condition with a severe drop in voltage. VEPCO states that it will employ a number of work practices to mitigate these possibilities. In addition, although VEPCO admits that the cost of the project is relatively low, the project is unique. Due to its location, VEPCO states that the project will greatly improve reliability over a large geographic area.
- 97. The estimated cost of the project is \$6 million and its estimated in service date is May 2009.

#### ii. Protests

98. Indicated Customers argue that VEPCO's requested incentives for this project must be rejected because the project is routine and due to be completed within the year. It involves installation of a bus tie arrangement within an existing substation, which,

according to Indicated Customers, is neither extensive nor expensive to build. Rather, Indicated Customers argue that it is routine maintenance and will not require any regulatory approvals. Indicated Customers further contend that the Lexington Tie project does not qualify for incentive rate treatment because the project is nearly completed. Indicated Customers state that in *Com Ed*, the Commission found that Com Ed had not met the nexus test for three projects because two of the projects had already been completed and the third project was almost complete. Indicated Customers note that VECPO stated that there are no significant regulatory risks associated with this project, because permitting for the project is essentially complete. Indicated Customers also contend that, unlike *Duquesne*, VEPCO has the necessary siting approvals. Moreover, Indicated Customers contend that incentives are not needed for this project because VEPCO's filing is silent as to the status of the financing for each project and it is not unreasonable to conclude that because the project is almost complete, VEPCO has already secured the necessary financing.

99. The North Carolina Commission opposes incentives for this project because it asserts that incentives should not be provided to completed projects.

# iii. <u>Commission Determination</u>

100. The Commission finds that VEPCO has demonstrated a nexus between the 125 basis adder requested for the Lexington project and its investment in the project. The project is not routine because it is needed to support reliability on the Eastern Interconnection. The Commission finds that this project's significant beneficial impact on the reliability of the 500 kV system through the reduction of the risks of voltage collapse, demonstrates that it is not routine. Further, the Lexington Tie Arrangement project will involve substantial construction risks because the work will be completed at an in-service substation, with portions of the substation taken out-of-service as needed. The risk of a double contingency loss condition with voltage drop during the construction period is significant and demonstrates the level of construction risk involved in the project. As such, the Commission finds that the Lexington Tie Arrangement project is not routine.

<sup>&</sup>lt;sup>54</sup> Indicated Customers Protest at 50-51, citing *Commonwealth Edison Co.*, 119 FERC ¶ 61,238, at P 64 (2007), *order on reh'g*, 122 FERC ¶ 61,037, at P 30-32 (2008) (*Com Ed*); *Westar*, 122 FERC ¶ 61,268 at P 53.

<sup>&</sup>lt;sup>55</sup> Duquesne Light Co., 118 FERC ¶ 61,087 (2007).

<sup>&</sup>lt;sup>56</sup> See VEPCO Filing, Exhibit No. DVP-8 at 64.

<sup>&</sup>lt;sup>57</sup> See VEPCO Filing at 28.

101. The Commission finds that Indicated Customers' and the North Carolina Commission's reliance on *Com Ed* and *Westar* is misplaced. The projects at issue in the cited orders, Com Ed's Grenshaw project and Westar's Swissvale transformer project were already completed, whereas the Lexington Tie project is not yet completed. VEPCO states that this project will go into service in June 2009. Further, the Commission has allowed incentives for projects as the costs for the projects were spent on or after August 8, 2005, the date EPAct of 2005 was enacted. <sup>58</sup>

# f. Dickerson-Pleasant View Reconductor

# i. <u>VEPCO's Proposal</u>

- 102. VEPCO states that this project is a PJM RTEP baseline project and is therefore not routine. VEPCO further states that the project's reliability impact on both its system and all of the system in MACC demonstrates that the project is not routine.
- 103. VEPCO states that the construction of this infrastructure will require close coordination among PEPCO and PJM in order to schedule the necessary outages on the Dickerson-Pleasant View Tie line. Because rebuilding the line will require a unique structure type (triple-circuit H-frame), approval from the Virginia Commission will be required. Furthermore, VEPCO notes that work on this project will need to be coordinated with the Pleasant View-Hamilton line and VEPCO's proposed Edwards Ferry substation. The estimated cost of the project is \$5 million and the projected inservice date is May 2011.

#### ii. Protests

104. Indicated Customers argue that VEPCO's requested incentives for this project must be rejected because the project is routine. It involves reconductoring certain transmission lines, which, according to Indicated Customers, is neither extensive nor expensive to build. Rather, Indicated Customers argue that it is routine maintenance. The North Carolina Commission notes that this project appears to address reliability issues and to prevent islanding.

# iii. Commission Determination

105. The Commission finds that VEPCO has demonstrated a nexus between the 125 basis adder requested for the Dickerson-Pleasant View Reconductor project and its investment in the project. The project is a PJM RTEP baseline project and therefore is presumed to provide regional benefits. Further, it is not routine because it will require

<sup>&</sup>lt;sup>58</sup> United Illuminating, 119 FERC ¶ 61,182 at P 59.

coordination between multiple utilities and other transmission line projects. As such, the Commission rejects Indicated Customers' arguments to the contrary and finds that the Dickerson-Pleasant View Reconductor project is not routine, and is eligible for the requested incentive.

#### g. <u>Idylwood-Arlington Reconductor</u>

# i. VEPCO's Proposal

106. VEPCO states that this project is a PJM RTEP baseline project and-the project's reliability impact in the Arlington region demonstrates that the project is not routine. VEPCO argues that the project faces numerous risks and challenges because it is being rebuilt in a very dense urban environment. The project is located along the most heavily used portion of the W&OD Trail, and is likely to be the target of significant opposition. VEPCO states that the sensitivity of the project is demonstrated by the fact that Dominion's first two applications for road crossing permits were denied; its third application is currently pending. Dominion also states that it will use an advanced technology conductor, which will allow it to reconductor the circuit without increasing the number or size of structures needed. VEPCO states that this should reduce public opposition to the project, but will increase its costs. The total cost of the project is \$3 million and it is expected to be completed in late 2008.

## ii. Protests

- 107. Indicated Customers argue that VEPCO's requested incentives for this project must be rejected because the project is routine and due to be completed within the year. It involves reconductoring certain transmission lines, which according to Indicated Customers, is neither extensive nor expensive to build. Rather, Indicated Customers argue that it is routine maintenance and will not require any regulatory approvals.
- 108. Similar to its comments on the Lexington Tie, Indicated Customers contend that the Idylwood-Arlington Reconductor project does not qualify for incentive rate treatment because it is nearly completed and financing has already been secured. Indicated Customers contend that the permitting for the project is essentially complete and construction is scheduled to begin in September 2008 and be completed in December 2008.
- 109. The Virginia Consumer Counsel asserts that this project should not be granted incentives because it is almost completed and a nexus justification cannot be done on historical risks. The North Carolina Commission opposes incentives for this project because it asserts that incentives should not be provided to completed projects.

#### iii. Commission Determination

110. The Commission finds that VEPCO has demonstrated a nexus between the 125 basis adder requested for the Idylwood-Arlington Reconductor project and its investment in the project. The project is not routine because it is a PJM RTEP baseline project, will have a substantial reliability impact on the densely-populated Arlington area, and will involve substantial construction risks because the work will be completed in a dense area where significant opposition to the project is expected. For the same reason cited for the Lexington Tie project, the Commission finds that Indicated Customers' reliance on *Com Ed* and *Westar* is misplaced and the Commission rejects Indicated Customers' arguments that the project should not receive incentive treatment because it is nearly complete.

# 3. Nexus Between VEPCO's Proposal and Total Package of Incentives

#### a. <u>VEPCO's proposal</u>

111. In VEPCO's formula rate filing, it stated that it was not seeking an ROE transmission rate incentive in that proceeding, but included placeholders for such incentives. <sup>59</sup> In this proceeding, VEPCO is only requesting one type of incentive and therefore did not discuss the impact of the total package of incentives.

#### **b.** Comments and Protests

112. Indicated Customers argue that VEPCO did not address the overall package of incentives. Indicated Customers contend that VEPCO's recent change from a stated rate to a formula rate reduces financial risk for investors, allows for more timely recovery of costs, and improves cash flow benefits for the utility. Indicated Customers contend that the inter-relationship between the incentive requested in this proceeding and the formula rate proceeding warrant a 25-50 basis point reduction in VEPCO's requested ROE adders.

#### c. Commission Determination

113. The Commission finds that VEPCO's requested ROE incentives of 125 and 150 basis points, in conjunction with its formula rate filing, is tailored to address the demonstrable risks or challenges faced by VEPCO, as discussed in more detail above. The Commission further finds that the formula rate and the ROE adders are not mutually

<sup>&</sup>lt;sup>59</sup> Formula Rate Order, 122 FERC ¶61,098 at P 22.

<sup>&</sup>lt;sup>60</sup> Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 at P 21, 27.

exclusive but together will encourage investors to invest in a variety of transmission projects. Thus, the Commission rejects Indicated Customers' recommendation to reduce the level of the proposed incentive.

# D. Zone of Reasonableness for VEPCO's ROE

#### 1. VEPCO's Proposal

114. VEPCO presents evidence to show that with its requested ROE adders of 125 and 150 basis points, the resulting ROE will remain within the zone of reasonableness for the cost of its equity. To do this, VEPCO applied a one-step discounted cash flow analysis (DCF) to a sample of publicly-owned regulated electric utilities (or their holding companies) that are members of PJM, NYISO and ISO-NE. VEPCO states that it estimated its cost of capital in accordance with the guidance provided by the Commission in the *Formula Rate Order*, *PATH*, *SoCal Edison* and *Golden Spread*. <sup>61</sup> VEPCO excludes: (1) utilities that are not currently paying cash dividends; (2) utilities that have announced a merger during the six-month period used to calculate the dividend yields; (3) utilities primarily operating as natural gas companies; and (4) utilities that do not have both an IBES (International Brokers Estimation System) growth rate and *Value Line* data. This resulted in a group of 15 companies. <sup>62</sup>

115. Then, consistent with the policy expressed in the *Formula Rate Order*, VEPCO eliminated those utilities whose Bloomberg bond ratings were not either one rating above

 $<sup>^{61}</sup>$  Potomac-Appalachian Transmission Highline, L.L.C., 122 FERC  $\P$  61,188 (2008) (PATH), Southern California Edison Co., 122 FERC  $\P$  61,187 (2008) (SoCal Edison); Golden Spread Elec. Coop., Inc., 123 FERC  $\P$  61,054 (2008) (Golden Spread).

<sup>62</sup> Consistent with the methodology prescribed in *PATH*, VEPCO used a starting sample of publicly-owned companies in PJM, NYISO and ISO-NE. However, VEPCO's starting sample is not identical to the starting sample the Commission adopted in *PATH*. Those 15 companies were American Electric Power Co., Central Vermont Public Service, Consolidated Edison, Inc., Constellation Energy Group, Dominion Resources, DPL Inc., Exelon Corporation, FirstEnergy Corporation, FPL Group, Inc., Northeast Utilities, NSTAR, Pepco Holdings, Inc., PPL Corporation, Public Service Enterprise Group, and UIL Holdings. Although thirteen companies are the same in both starting samples, VEPCO's sample did not include Central Vermont Public Service or Pepco Holding, Inc., but did include Allegheny Energy Inc. and CH Energy Group, Inc. VEPCO did not explain why there was a difference in the starting group, nor did any party challenge the composition of the starting group.

or below its rating of BBB+.<sup>63</sup> That resulted in a proxy group of only utilities with bond ratings between BBB and A-, which consists of VEPCO's parent, Dominion Resources, Exelon Corp., FirstEnergy Corp., Northeast Utilities, Public Service Enterprise Group Inc. and AEP.<sup>64</sup> VEPCO states that including Dominion Resources is appropriate because it owns transmission assets in PJM and meets all of the other Commission requirements. Based on this proxy group, VEPCO states that the zone of reasonable returns for its cost of equity is 9.46 percent to 14.4 percent.

116. VEPCO is not proposing to change its overall ROE of 11.4 percent, which was accepted in the *Formula Rate Order*.

#### 2. Protests

117. Consumer Advocates contend that VEPCO inappropriately included Dominion Resources and PSEG in its proxy group because they have a greater level of risk than VEPCO. Specifically, Consumer Advocates state that Dominion Resources derives a substantial amount of revenues from its gas operations and unregulated merchant energy and generation businesses, whereas PSEG's revenues from its competitive merchant generation business has more than doubled in the last three years. Without Dominion Resources and PSEG, Consumer Advocates contend that the resulting range of reasonableness would be 7.97 percent to 11.2 percent. If, however, Exelon were also excluded from the sample because it derives about 50 percent of its revenues coming from its unregulated power generation business, the range of reasonableness would be reduced to 7.97 percent to 11.1 percent.

118. Consumer Advocates also contend that VEPCO should use the median, not the midpoint, to determine the base ROE because it best represents the central tendency of a proxy group with a skewed distribution. Using the appropriate proxy group, Consumer Advocates state that VEPCO's requested 12.9 percent ROE would result in an unjust and unreasonable rate and fall outside the range of reasonableness. To fully address these issues, Consumer Advocates request a full evidentiary hearing.

<sup>&</sup>lt;sup>63</sup> Dominion Resources has a split bond rating. Standards & Poors (S&P) assigns it a rating of A-, Moody's Investor Services assigns it Baa2, which is equivalent to a S&P rating of BBB, and Fitch Ratings assigns it a rating of BBB+, which is equivalent to S&P's BBB+ rating. The combined rating is BBB+. VEPCO Filing, Exhibit No. DVP-24 at 2.

<sup>&</sup>lt;sup>64</sup> Dr. Vilbert would prefer to include a wider range for credit ratings, but he provided workpapers to support a "strict" adherence to the Commission's recent ROE determinations.

#### 3. Commission Determination

- 119. In the *Formula Rate Order*, the Commission determined that the appropriate base ROE for VEPCO was 10.9 percent, plus a 50 basis point ROE adder for continued RTO membership, for an overall ROE of 11.4 percent. The Commission also determined that, based on the then-current bond ratings of BBB to A-, the appropriate proxy group for VEPCO included American Electric Power Corporation, DPL Inc., FirstEnergy Corporation, Northeast Utilities, Pepco Holdings, and PPL Corporation. Finally, the Commission determined that the range of reasonableness for VEPCO's ROE was 7.9 percent to 14.9 percent. Finally percent.
- 120. The Commission finds that VEPCO's methodology for determining its zone of reasonableness reflects current data and is consistent with Commission precedent. Based on the proxy group of Dominion Resources, Exelon, FirstEnergy, Northeast Utilities, PSEG and AEP, the zone of reasonableness is 9.46 percent to 14.4 percent. The Commission finds that with VEPCO's requested ROE incentives of 125 basis points and 150 basis points for the projects described above, its resulting ROE (12.65 percent and 12.9 percent) fall within the zone of reasonableness. <sup>68</sup>
- 121. There is a difference between the proxy group used for determining VEPCO's ROE in the *Formula Rate Order* and that used in this proceeding. In the *Formula Rate Order*, Exelon and PSEG were excluded because they had unsustainably high growth rates at that time.<sup>69</sup> Based on current data, however, the high ends of these companies' growth rates are now 9.68 percent and 10.22 percent, respectively,<sup>70</sup> and they are thus appropriately included in the proxy group. On the other hand, the current growth rates for PPL and DPL of 14.48 percent and 13.9 percent, respectively, are unsustainably high, and VEPCO properly excluded them.<sup>71</sup> Also, in the *Formula Rate Order*, the Commission excluded Dominion Resources because its ROE was lower than its cost of

<sup>&</sup>lt;sup>65</sup> Formula Rate Order, 123 FERC ¶ 61,098 at P 67.

<sup>&</sup>lt;sup>66</sup> *Id.* P 65.

<sup>&</sup>lt;sup>67</sup> *Id.* P 67, citing *Golden Spread Electric Coop., Inc. v. Southwestern Public Service Co.,* 123 FERC ¶ 61,047, at P 63 (2008).

<sup>&</sup>lt;sup>68</sup> VEPCO Filing, Exhibit No. DVP-24 at 6.

<sup>&</sup>lt;sup>69</sup> Formula Rate Order, 123 FERC ¶ 61,098 at P 64.

<sup>&</sup>lt;sup>70</sup> VEPCO Filing, Exhibit No. DVP-24 at 6-7.

<sup>&</sup>lt;sup>71</sup> VEPCO Filing, Exhibit No. DVP-24 at p. 4.

- debt.<sup>72</sup> According to VEPCO, however, that is no longer the case.<sup>73</sup> As such, Dominion Resources is now included in VEPCO's proxy group. Further, in the *Formula Rate Order*, Pepco Holdings was a member of the proxy group; in this proceeding, VEPCO excludes Pepco Holdings. Finally, in the *Formula Rate Order*, the Commission excluded utilities whose high-end cost of equity was more than 100 basis points above the next highest cost of equity. Based on the updated data provided by VEPCO, this exclusion is no longer necessary because there are no companies in the current proxy group with a high-end cost of equity more than 100 basis points above the next highest cost of equity.
- 122. The Commission rejects Consumer Advocates' protest of the inclusion of Dominion Resources, PSEG and Exelon in VEPCO's proxy group as a collateral attack on the *PATH* and *Formula Rate Orders*. In those orders, the Commission set forth a list of 15 companies that would serve as a good starting point for an ROE analysis, including Dominion Resources, PSEG and Exelon. Consumer Advocates argue only that these companies are not properly included in a generic ROE proxy group because of their high growth rates (PSEG), high implied cost of equity (Dominion Resources) or percentage of revenue derived from unregulated businesses (Exelon); they do not attempt to demonstrate that these companies are inappropriate for VEPCO's individual proxy group. Therefore, the Commission rejects Consumer Advocates' protest.
- 123. The Commission also rejects Consumer Advocates' recommendations regarding the use of the median versus the midpoint to determine the base ROE. In this proceeding, VEPCO is not requesting a change in the ROE of 11.4 percent established in the *Formula Rate Order*, and therefore the discussion of midpoint or median is not necessary in the determination of the range of reasonableness for VEPCO's requested transmission rate incentives. The Commission also dismisses Consumer Advocates' request for a hearing, as there are no issues of material fact in dispute as to the range of reasonableness.

#### E. Technology Statement

#### 1. VEPCO's Proposal

124. VEPCO does not seek separate incentives for the use of advanced technologies, but rather provides a description of its use of advanced technologies in support of its requested ROE adders. It also includes a technology statement to describe its use of advanced technologies. VEPCO states that it is utilizing the following advanced

<sup>&</sup>lt;sup>72</sup> Formula Rate Order, 123 FERC ¶ 61,098 at P 65.

<sup>&</sup>lt;sup>73</sup> VEPCO Filing, Exhibit No. DVP-24.

<sup>&</sup>lt;sup>74</sup> See VEPCO Filing, Exhibit No. DVP-10.

technologies: fiber optic technologies; underground cables; advanced conductor technology; enhanced power device monitoring; power electronics and related software; and gas insulated buses. For example, VEPCO's Garrisonville line, Pleasant View-Hamilton line, and Lexington Tie will utilize underground cables. VEPCO will use "Substation Automation Technologies," which include enhanced power device monitoring, fiber optic technologies, and power electronics and related software, as part of its Meadow Brook-Loudoun line, Carson-Suffolk-Thrasher line, Mid-Atlantic Power Pathway, Proactive Transformer Replacement projects, Garrisonville line, Pleasant View-Hamilton line, Glen Carlyn Gas Insulated Bus project, Remington-Sowego-Gainesville Convertors project, and Lexington Tie Arrangement. VEPCO states that its Idylwood-Arlington Reconductor and Dickerson-Pleasant View Reconductor projects will use the Aluminum Conductor Steel Supported HS-285 conductors. In addition, VEPCO will replace traditional conductors with high temperature/high capacity conductors on parallel five-mile circuits in northern Virginia between the Loudoun and Brambleton substations.

## 2. Protests

- 125. Indicated Customers ask the Commission to reject VEPCO's filing because they contend it does not separately identify or justify the proposed advanced technology adder. They state that the Commission has explained that it will examine the Order No. 679 incentive ROE adder for advanced transmission technologies independent of and incremental to other incentives. They also point out that VEPCO has asked for identical incentive adders for projects that incorporate different degrees of advanced technologies. Further, they argue that any ROE incentive granted based on advanced technology must be limited to the costs specifically associated with implementing the advanced technologies. They ask the Commission to require VEPCO to make a compliance filing identifying the projected costs associated with the use of advanced technologies, in addition to support for the claimed incremental advanced technologies adder.
- 126. Other parties argue that VEPCO has not demonstrated that the advanced technologies that it proposes to implement justify any incremental ROE adder pursuant to Order No. 679 and that the cited advanced technologies are generally conventional and routine technologies that have been in use for years.

# 3. <u>Commission Determination</u>

127. We find that VEPCO has satisfied Order No. 679's technology statement requirement in providing a description of the advanced technologies that were considered, and an explanation as to why these particular technologies were chosen over other alternatives. Therefore, there is no need to address the specific issues raised by the protests. The Commission notes, however, that while VEPCO has not requested incentives tied specifically to its use of advanced transmission technologies, VEPCO's proposed investment in advanced transmission technologies like synchrophasors,

transformer sensors, and advanced communications equipment to carry the resulting data may enhance its ability to perform wide-area monitoring of the bulk power system and to identify and react to emergency situations more rapidly than might otherwise be possible.

# F. Motion to Re-Notice Filing

- 128. Consumer Advocates request that the filing be re-noticed and the comment period extended because VEPCO did not make a complete and legible copy of its filing on elibrary and because the 12 days between the Commission's notice of the filing and the due date for comments was "lawfully and substantially insufficient" for Consumer Advocates to retain experts to review the filing and prepare testimony.
- 129. The Commission denies Consumer Advocates' request. First, on July 1, 2008, VEPCO provided electric notice of its filing, with a link to PJM's website for access to the entire filing. This satisfies Rules 2009 and 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. §§ 2009-2010 (2008), that parties, including the individual members of the Consumer Advocates group, be provided notice of the filing. Second, VEPCO filed both electronic and paper copies of the filing at the Commission on July 1, 2008. As noted above, the Commission provided notice of the filing on July 10, 2008 in "Combined Notice of Filings #2." This was a second means of alerting the members of the Consumer Advocates group of the filing. Third, the members of the Consumer Advocates group were not harmed by not having full access to the filing from e-library as they had full access to the filing from PJM's website.

#### The Commission orders:

(A) VEPCO's revised tariff sheets are hereby accepted for filing, effective September 1, 2008, as discussed in the body of this order.

<sup>&</sup>lt;sup>75</sup> The Commission has updated its e-library files to include those parts of VEPCO's filing which were inadvertently omitted from the original e-library posting.

(B) Consumer Advocates' request for the filing to be re-noticed and the comment period extended is hereby denied.

By the Commission. Commissioner Kelly concurring in part and dissenting in part with a separate statement to be issued at a later date.

Commissioner Wellinghoff dissenting with a separate statement to

be issued at a later date.

(SEAL)

Kimberly D. Bose, Secretary.