These five consolidated appeals of right arise from an order of the State Corporation Commission dated October 7, 2008 granting certificates of public convenience and necessity to two electric utilities, Virginia Electric and Power Company ("VEPCO") and Trans-Allegheny Interstate Line Company ("TrAILCo"), for the construction and operation of two Virginia segments of a proposed 500 kilovolt (500kv) interstate electric transmission line. The interstate transmission line is to be operated by a regional transmission...
entity which is subject to federal regulation. VEPCO and TrAILCo are members of that regional transmission entity. As will be addressed subsequently in some detail in this opinion, the focus of the issues raised by the appellants in their challenge to the decision of the Commission involves the interplay of the requirements placed on the Commission by Code §§ 56-46.1 and 56-265.2 and certain federal regulations pertaining to the reliability of a regional electric transmission grid such as the one involved in the present case.

BACKGROUND

On April 19, 2007, VEPCO and TrAILCo, pursuant to the requirement of Code § 56-265.2, filed applications with the Commission for approval of two Virginia segments of a 500kv interstate electric transmission line project.² The project was intended to address an anticipated need for increased

² In pertinent part, Code § 56-265.2 provides:

A. It shall be unlawful for any public utility to construct, enlarge or acquire, by lease or otherwise, any facilities for use in public utility service, except ordinary extensions or improvements in the usual course of business, without first having obtained a certificate from the Commission that the public convenience and necessity require the exercise of such right or privilege . . . . The certificate for overhead electrical transmission lines of 150 kilovolts or more shall be issued by the Commission only after compliance with the provisions of § 56-46.1.
reliability in the transmission of electricity for
distribution to the Virginia suburban communities of the
Washington, D.C. metropolitan area along a transmission line
originating at generation sources in central Pennsylvania and
extending through West Virginia and the Shenandoah Valley to
northern Virginia. VEPCO’s application, filed jointly with
TrAILCo which would hold a 50% stake in ownership of VEPCO’s
segment of the line, sought authority to build a transmission
line from a point in Warren County on the west side of the
Appalachian Trail near the boundary of Warren and Fauquier
Counties to VEPCO’s existing Loudoun Substation in Loudoun
County. TrAILCo’s separate application was for its wholly-
owned segment of the transmission line that would enter the
Commonwealth at the Virginia/West Virginia state line, run
through the existing Meadow Brook Substation in Warren County,
and continue from there a short distance to connect with

3 The terms generation, transmission, and distribution
have specific meanings within the electric utility industry,
and the definitions of these terms have been adopted within
the statutes and regulations that govern that industry. See,
e.g., Code § 56-576. Generation is the production of electric
power, usually on a large scale for wholesale delivery;
transmission is the transfer of electric energy from its
sources of generation across high voltage lines to either a
local distributor or a large-scale industrial consumer;
distribution is the transfer of electric energy through a
retail delivery system to industrial, commercial, and
residential consumers.
VEPCO’s line. Each application proposed preferred and
alternate routes for each line.

Prior to the filing of the applications for approval of
the proposed segments of the transmission line by the
Commission, the determination of the need for the construction
of the entire 500kv interstate electric transmission line was
subject to a federal regulatory process. That process
involved the interaction of three administrative entities:
the Federal Energy Regulatory Commission (“FERC”), a federal
agency whose jurisdiction includes regulation of interstate
electricity sales and wholesale electric rates as well as the
authority to impose mandatory reliability standards on bulk
electric transmission systems, commonly referred to as
“grids;” the North American Electric Reliability Corporation
(“NERC”), a non-profit corporation overseen by FERC and its
Canadian regulatory counterpart that is responsible for
developing standards for transmission grid operation,
monitoring and enforcing compliance with those standards, and
assessing the reliability of interconnected regional grids;
and PJM Interconnection, LLC (“PJM”), a regional transmission
entity⁴ (“RTE”) regulated by FERC and monitored by NERC that

⁴ Also referred to in the record as a “regional
transmission organization,” or RTO, the term used in federal
legislation and regulations; “regional transmission entity” is
the term used in the applicable Virginia statutes, see, e.g.,
coordinates wholesale electricity transmission in 13 states and the District of Columbia, including most of Virginia.

The federal determination of need for the new interstate transmission line was the result of a mandatory regional transmission expansion planning (“RTEP”) process in which PJM attempts to identify future transmission system additions and improvements needed within PJM’s operating area necessary to maintain transmission reliability standards established by NERC. During its 2006 RTEP process, PJM determined that additional transmission capacity would be needed to supply electricity to northern Virginia based on data that showed that an existing transmission line, the “Mt. Storm – Doubs line,” was expected to begin experiencing intermittent overloads in 2011 with increasing severity thereafter, resulting in violations of NERC reliability standards on that line and elsewhere within PJM’s operational area. VEPCO and TrAILCo used PJM’s data showing the projected NERC violations, which supported the federal regulatory finding of need for the interstate transmission line, in their applications to the Commission to support the assertion that the Virginia segments of the line were a necessary improvement as required by Code §§ 56-265.2 and 56-46.1(B).

Code § 56-579, and, accordingly, we will adopt that term for use in this opinion.
On June 1, 2007, the Commission issued an order directing publication of public notice of VEPCO’s and TrAILCo’s applications. The order also established a schedule for reviewing the applications and set hearing dates to receive public comment and evidence. The Commission appointed Alexander F. Skirpan, Jr., as a Hearing Examiner, to conduct further proceedings on the applications for approval of the segments of the transmission line. On July 28, 2008, Skirpan entered a 223-page report that detailed the extensive proceedings which he conducted, summarized the voluminous record, analyzed the evidence and issues, and made certain findings and recommendations to the Commission for favorable resolution of the applications.

As reflected in his report to the Commission, between July 2007 and July 2008, Skirpan conducted 23 days of public hearings in Richmond, as well as in Bristow, Front Royal, Warrenton, and Winchester, communities located on or near the proposed routes of the transmission lines. Skirpan identified over 30 government entities, public interest organizations and individuals, including the five appellants, who had directly participated in these proceedings. In addition, the Commission received over 1,300 written and electronic communications during the course of the proceedings.
Among the evidence and supporting documents received by Skirpan was the post-hearing memorandum of the Commission staff discussing the issues that the Commission would be required to address and giving recommendations as to their resolution. As relevant to the issues raised in these appeals, the staff’s analysis of the utilities’ assertion of need for the lines was based principally upon a report made by Bates White, LLC ("Bates White"), a consulting firm retained by the Commission “to conduct a review and independent verification of the Applicants’ load flow modeling, contingency analyses and reliability needs assessment as introduced in the applications to justify the proposed transmission line.” Bates White reviewed the reliability data originally used by PJM in the federal regulatory process that established the need for the new line in order to satisfy NERC standards, as well as updates to that data provided by the utilities at the request of the Commission. Bates White also reviewed evidence from the record to determine whether there were alternative methods to meet the anticipated future transmission reliability requirements including increasing the transmission infrastructure in other ways, introducing new sources of power generation on the existing transmission infrastructure, and through demand side management strategies.
for increased conservation to reduce the need for increased transmission and/or generation infrastructure.

On October 7, 2008, the Commission issued a final order approving both applications. As relevant to the issues raised in these appeals, the Commission found that the evidence established that the transmission line was needed to ensure future NERC reliability requirements within PJM’s region of operation and specifically with respect to VEPCO’s distribution of electricity to consumers in northern Virginia in 2011. The Commission further found that reasonably reliable estimates of new generation capacity within VEPCO’s service area alone would not be sufficient to meet the future needs of the northern Virginia area, and that conservation through demand side management, alone or in combination with other transmission upgrades and/or additional generation capacity, would not be sufficient to avoid violations of NERC reliability requirements.

The Commission addressed the environmental impact of the proposed routes for the line segments and the review process conducted under the auspices of the Department of Environmental Quality in that regard. In giving final approval to the applications, the Commission conditioned its issuance of the certificates of public convenience and necessity to the utilities on the approval of the remaining
segments of the line by the respective state commissions of West Virginia and Pennsylvania. The Commission further addressed the basis for the selection of the approved routes for the line segments from among the options given in the applications and placed additional restrictions and requirements on the utilities that are not germane to the issues raised in these appeals.

In a separate concurrence to the order approving the applications, Commissioner Preston C. Shannon\(^5\) noted his concern, echoing the position of some of the opponents to the approval of the applications, that changes in the process for regulating the electric utility industry in Virginia, which had resulted in the mandatory transfer of control over transmission infrastructure within Virginia to an RTE, Code § 56-579, “places a myriad of restrictions on Virginia’s sovereign authority over its public utilities – including effectively placing the responsibility for transmission planning, as well as [VEPCO’s] ability to interconnect its new generating facilities to its transmission facilities, under the control of the federally-regulated PJM.” In Commissioner Shannon’s view, the legislature’s decision to place Virginia’s electric transmission infrastructure under the supervision of

\(^5\) Commissioner Shannon, who retired from the Commission in 1996, sat on this case by designation.
federally-regulated RTEs “has not served Virginia well” and “could prevent critical generation, needed in Virginia, from being implemented on a timely basis.” Nonetheless, he agreed with the majority view of the Commission that approval of the applications at issue here was in accord with “the current laws that this Commission must follow in conjunction with the facts presented.”

Following entry of the Commission’s order granting the applications, the five appellants each noted appeals as a matter of right pursuant to Code § 12.1-39. By orders dated April 2, 2009, we consolidated the appeals for briefing and oral argument.

STANDARD OF REVIEW

Under the Constitution of Virginia and in statutes enacted by the General Assembly, the Commission is given broad authority over the control and regulation of public service corporations. Board of Supervisors of Campbell County v. Appalachian Power Co., 216 Va. 93, 105, 215 S.E.2d 918, 927 (1975). In exercising this authority, “[t]he Commission is charged with the responsibility of finding the facts and making a judgment. This court is neither at liberty to substitute its judgment in matters within the province of the Commission nor to overrule the Commission’s finding of fact unless we can say its determination is contrary to the
evidence or without evidence to support it.”  Id.; see also Appalachian Voices v. State Corp. Comm’n, 277 Va. 509, 516, 675 S.E.2d 458, 461 (2009).

Accordingly, our review of the Commission’s order in the present cases is guided by the well established principle that “[o]n appeal, the findings of the Commission are presumed to be just, reasonable, and correct. The decisions rendered by the Commission must be ascribed the respect due to the judgments of a tribunal appointed by law and informed by experience. Accordingly, a presumption of correctness attaches to actions of the Commission, and its orders will not be disturbed when they are based upon the application of correct principles of law.” Swiss Re Life Co. Am. v. Gross, 253 Va. 139, 144, 479 S.E.2d 857, 860 (1997) (citations and internal quotation marks omitted); accord Northern Virginia Electric Coop. v. Virginia Electric and Power Co., 265 Va. 363, 368, 576 S.E.2d 741, 743 (2003). Moreover, although questions of law are reviewed de novo, the practical construction given by the Commission to a statute it is charged with enforcing “‘is entitled to great weight by the courts and in doubtful cases will be regarded as decisive.’” Appalachian Voices, 277 Va. at 516, 675 S.E.2d at 461 (quoting Commonwealth v. Appalachian Elec. Power Co., 193 Va. 37, 45, 68 S.E.2d 122, 127 (1951)).
DISCUSSION

While Piedmont makes eleven assignments of error, which are distilled into eight interrelated questions presented, the arguments asserted in their opening brief and during oral argument of these appeals may be fairly narrowed to the following substantive issues:

(1) Whether the Commission erroneously interpreted federal law and regulations governing RTEs as requiring the Commission to limit the scope of its inquiry as to the necessity for the Virginia segments of the interstate transmission line to a review of PJM’s determination that the new transmission line was needed in accord with federal regulations.

(2) Whether the Commission failed to conduct an independent analysis of the applications for the Virginia segments of the interstate transmission line by failing to properly consider additional generation and conservation alternatives in determining whether the transmission line was needed.

(3) Whether the Commission erred in approving the applications because of the “inherent bias” of the evidence relied upon by the Commission.

Federal and State Regulation of Electric Utilities

Because the Commission does not operate in a vacuum at any given time, it will be beneficial initially to summarize the changes that have occurred over the past several decades in the regulation of the generation, transmission, and distribution of electricity in the United States. Generation, transmission, and distribution of electricity historically were provided by a single utility that had exclusive rights
over a limited geographic area within a state. The utility was permitted to maintain this monopoly because its operations were regulated by the state, which controlled the construction of new generation and transmission infrastructure and the rates the utility could charge for distribution of electricity to consumers. However, over time as a result of efficiencies of scale favoring the construction of larger generation facilities that could supply electricity to wider geographic areas, a division arose between generation and distribution, with the owners of the generation infrastructure typically also owning the transmission lines. Inevitably, this resulted in electricity generated in one state being sent over transmission lines to be sold by a distributor in another state.

In *Public Utilities Commission v. Attleboro Steam & Electric Co.*, 273 U.S. 83, 90 (1927), the United States Supreme Court, holding that the negative impact of the Commerce Clause prohibits state regulation that would directly burden interstate commerce, determined that the interstate transmission of electrical power was subject to regulation only “by the exercise of the power vested in Congress.” 273 U.S. 83, 90 (1927). Congress exercised this power eight years after the *Attleboro Steam* decision by enacting the Federal Power Act of 1935, now codified as amended at 16 U.S.C. § 824
et seq. (2006 & Supp. I 2007), which created the Federal Power Commission ("FPC"), the predecessor of FERC, "to provide effective federal regulation of the expanding business of transmitting and selling electric power in interstate commerce." Gulf States Utils. Co. v. FPC, 411 U.S. 747, 758 (1973). Specifically, Congress recognized the FPC’s jurisdiction as including “the transmission of electric energy in interstate commerce” and “the sale of electric energy at wholesale in interstate commerce.” 16 U.S.C. § 824(b).

Following passage of the Federal Power Act of 1935, the generation and transmission of electric power has increasingly become a matter of interstate commerce, and correspondingly the federal role in the regulation of the electric industry has also grown. With the passage in 1978 of the Public Utility Regulatory Policy Act ("PURPA"), 16 U.S.C. § 2601 et seq. (2006 & Supp. I 2007), the federal government required utilities to allow the transmission of power from other generators across their transmission and distribution lines, even within the borders of a state. This was deemed necessary because established producers of electric power continued to control the majority of the transmission capacity and were reluctant to purchase power from "nontraditional facilities" or allow such competitors to have access to the existing transmission infrastructure. PURPA directed FERC to
promulgate rules requiring utilities to purchase electricity from “qualifying cogeneration and small power production facilities” and allow transmission of power produced by other generators on their lines. *FERC v. Mississippi*, 456 U.S. 742, 751 (1982); see also 16 U.S.C. § 824a. Overseen by FERC, this “open access” mandate for wholesale interstate transmission of electricity would prove to be the first step toward market competition through the creation of regional distribution systems on a nationwide structure of interconnected transmission grids.

Subsequent federal legislation further expanded FERC’s authority to order individual utilities to provide transmission services to unaffiliated wholesale generators on a case-by-case basis. See 16 U.S.C. § 824j and § 824k. In addition, FERC was also authorized to override any state law or regulation that “prohibits or prevents the voluntary coordination of electric utilities.” 16 U.S.C. § 824a-1(a). Applying this authority, FERC promulgated the so-called “Open Access Rules” through its Orders 888 and 889. FERC’s Order No. 888 “remove[d] impediments to competition in the wholesale bulk power marketplace and [brought] more efficient, lower cost power to the Nation's electricity consumers” by requiring any public utility that owns, operates or controls interstate transmission facilities to provide service to any power

These “Open Access Rules have been described as ‘the legal, functional, and regulatory prerequisite to the implementation of nationwide deregulation of the electric utility business.’” State ex rel. Sandel v. New Mexico Pub. Util. Comm’n, 980 P.2d 55, 59 (N.M. 1999) (quoting Michael Evan Stern & Margaret M. Mlynczak Stern, A Critical Overview of the Economic and Environmental Consequences of the Deregulation of the U.S. Electric Power Industry, 4 Envtl. Law. 79, 95 (1997)).

Concurrent with the expanding role of the federal government in regulating the interstate transmission of electricity, members of the electric utilities industry recognized the need to assure that the expanding interstate transmission infrastructure would be sufficient to meet the rapid increase in demand for electricity in growing urban
markets. Compacts between electric utilities, originally known as “power pools” and now more commonly referred to as “interconnections,” date to the early twentieth century. Following the “Great Blackout” of November 9, 1965, which resulted from a catastrophic failure of the interconnected electric transmission grids in the northeastern United States and Ontario, Canada, the FPC, at the direction of President Lyndon Johnson, recommended the formation of a council on power to assist in resolving interregional coordination of transmission reliability. See, e.g., Steven Ferrey, Power Future, 15 Duke Envtl. L. & Pol'y F. 261, 276 n.55 (2005); Scott V. Heck, Lights Out For New Jersey: The August 2003 Blackout and the End of Electricity Regulation in New Jersey, 29 Seton Hall Legis. J. 279, 280-81 (2004).

The resulting entity, the National Electric Reliability Council, the predecessor of NERC, was formed in 1968 and originally served only in an advisory capacity with no official regulatory function. See, e.g., Garkane Power Ass’n v. Public Serv. Comm’n, 681 P.2d 1196, 1201 (Utah 1984). The Federal Power Act of 2005, however, directed FERC to designate a national Electric Reliability Organization charged with establishing and enforcing reliability standards for the interstate transmission of electricity. 16 U.S.C. § 824o(a)(2). Not surprisingly, NERC was the sole applicant
which sought to be designated as the national Electric Reliability Organization and was subsequently designated by FERC to fulfill that role. See Alcoa Inc. v. FERC, 564 F.3d 1342, 1345 (D.C. Cir. 2009). Following the designation of NERC as the national Electric Reliability Organization, FERC adopted through a rulemaking process the majority of NERC’s formerly voluntary transmission reliability standards, making them mandatory and subject to penalty by fines against RTEs and independent utilities that fail to adhere to those standards.\footnote{NERC has already sought, and FERC has approved, imposition of fines in many cases. See, e.g., Scott Grover, FERC Guidance Order Shows Inter-Agency Tension, 23 Nat. Resources & Env’t 61, 61-62 (2009).} Id. at 1344 (citing Mandatory Reliability Standards for the Bulk-Power System, 72 Fed. Reg. 16,416 (Apr. 4, 2007) (codified at 18 C.F.R. pt. 40) (FERC’s final rule adopting NERC standards)).

In apparent response to increased federal regulation and industry emphasis on assuring the reliability of the interstate transmission grids, a number of states began to revise their regulatory schemes governing the operation of electric utilities within their borders. State restructuring of regulations governing the operation of electric utilities was driven principally by the worthy belief that increased competition in the generation and transmission of electricity
would lead to reduced costs for all consumers, but especially for large industrial users, who became strong advocates of deregulation. See, e.g., David B. Spence, The Politics of Electricity Restructuring: Theory vs. Practice, 40 Wake Forest L. Rev. 417, 446-47 (2005).

As part of Virginia’s restructuring of regulation of the operation of electric utilities, in 1999 the General Assembly enacted the Virginia Electric Utility Restructuring Act, now known as the Virginia Electric Utility Regulation Act, Code § 56-576 et seq. As relevant to the issues raised in these appeals, the Act required electric utilities within the Commonwealth that own, operate, or otherwise have control over transmission infrastructure to “join or establish a regional transmission entity” and “transfer the management and control of its transmission system” to the RTE. Code § 56-577(A)(1). The Act further provided that “the Commission shall continue to regulate . . . to the extent not prohibited by federal law, the transmission of electric energy in the Commonwealth.” Code § 56-580(A). Moreover, the Act expressly provided that the Commission would retain “authority over transmission line or facility construction, enlargement or acquisition within this Commonwealth.” Code § 56-579(D)(1).

In 2004, the Commission approved the applications of VEPCO and Allegheny Power, the parent affiliate of TrAILCo, to
transfer operational control of their transmission

Thus, the transmission infrastructure of these utilities
became part of the regional transmission grid administered by
PJM and was thereafter included in its ongoing RTEP process
for evaluating the reliability of its members’ transmission
infrastructure in order to respond to projected reliability
violations of NERC standards.

With this background in mind, we now address the issues
raised by Piedmont in these appeals.

Reliance on PJM’s Application of NERC Reliability Standards

Piedmont contends that the Commission erred, as a matter
of law, when it “conclud[ed] that it was obligated under Va.
Code §§ 56-46.1 and 56-265.2 to grant the Applications if a
clear reliability need had been shown and the transmission
line at issue is an ‘acceptable’ option to meet that need.”
Piedmont reasons that the Commission must have “erroneously
concluded that it was prevented by federal regulation or
policy from conducting the investigation and analysis that is
prescribed by state statutes” to make an independent
determination of the need for the transmission line.

The Commission responds that the record does not support
Piedmont’s contention that the Commission premised its
decision on a presumption that it was preempted by federal
regulation or policy from conducting a full and independent
review of the applications to determine that the construction
of the transmission line was necessary and otherwise comported
with the requirements of Code § 56-46.1. Rather, in the
Commission’s view, Piedmont’s contentions are based on a
mischaracterization of the Commission’s recognition that the
federal regulations were mandatory as applied to the
utilities, and that the Commission could take this factor into
account in its review process. We agree with the Commission.

In his hearing examiner’s report, Skirpan noted that Code
§ 56-46.1(B) directs the Commission to verify “the
applicant[s’] load flow modeling, contingency analyses, and
reliability needs presented to justify the new line.” Skirpan
further noted that “[t]he determination of need begins with a
review of NERC transmission planning reliability standards,
and the procedures and tests employed by PJM and [VEPCO]” to
comply with those standards. While acknowledging that
Piedmont and other opponents to approval of the applications
“questioned whether the PJM tests are appropriate” for
determining whether the line was specifically needed for the
benefit of Virginia consumers, Skirpan concluded that “the
NERC transmission planning standards are mandatory and that
the tests employed by PJM and [VEPCO] properly apply the NERC standards.”

The Commission agreed with Skirpan’s conclusions, expressly adopting his findings that:

(i) “[t]he PJM generation deliverability and load deliverability tests and the [VEPCO] test properly apply mandatory NERC transmission reliability planning standards;” (ii) “[t]he Applicants’ load forecasts are based on reasonable assumptions for transmission planning purposes, including assumptions that project future savings from [demand side management programs] to remain at current levels;” (iii) “[t]he Applicants’ assumptions regarding future generation are consistent with the federally-mandated functional separation of transmission and generation, and PJM’s general lack of authority to cause generation to be constructed;” and (iv) “[t]he Applicants’ projected load-flow results for 2011 and 2012 support the need for additional transmission to address violations of NERC transmission reliability planning standards.”

Piedmont contends that these statements show that the Commission incorrectly presumed it could not base its decision to grant or deny the applications on factors other than verification of the utilities’ own data showing the anticipated violation of NERC reliability standards. As a result, Piedmont asserts the Commission assumed “that because PJM was obligated to find a solution to a violation of the NERC criteria, the Commission was bound to accept PJM’s solution and ignore the requirements of Va. Code §§ 56-46.1 and 56-265.2.”
Our review of a decision by the Commission requires that we undertake an examination and study of the entire record. Rappahannock League for Environmental Protection, Inc. v. Virginia Electric & Power Co., 216 Va. 774, 783, 222 S.E.2d 802, 808 (1976). When so viewed, we find no support for the assertion that the Commission presumed it was required by the federal regulatory process to limit its consideration of the applications to a review of PJM’s determination that the proposed transmission line was an “acceptable” solution to the anticipated NERC reliability violations or that the Commission actually limited its consideration of the applications in that way. By focusing on isolated statements in the hearing examiner’s report and the Commission’s order to support its contention that the Commission somehow viewed federal regulations as preempting the Commission from conducting the independent review of the applications required by Virginia law, Piedmont has discounted the overwhelming weight of evidence in the record that is plainly contrary to Piedmont’s assertion.

Skirpan correctly noted that as part of the Commission’s responsibility under Code § 56-46.1 to determine that the line is needed “the Commission shall verify the applicant’s load flow modeling, contingency analyses, and reliability needs presented to justify the new line.” (Emphasis added.) A
plain reading of the statute does not support the conclusion, apparently urged by Piedmont, that to accomplish this verification the Commission is required to obtain new data from an independent source, rather than giving any weight to the data provided by the applicant.

Moreover, the record amply demonstrates that the Commission, through its staff, fulfilled its statutory obligation to verify the applicants’ assertion of need for the transmission line by having Bates White analyze the reliability data originally used by PJM and VEPCO that showed the projected violations of NERC standards. Bates White independently reviewed the assumptions on which this data was based, finding that these assumptions were reasonable. While the Commission’s ultimate decision to accept Skirpan’s recommendation to use PJM’s data in determining the need for the new transmission line was obviously contrary to the desires of Piedmont and the other opponents to approval of the applications, the record simply does not support the conclusion that the Commission determined that it was compelled to accept this data because it also had been used in the federal regulatory process approving the need for the line by NERC. Rather, the record more readily supports the conclusion that the Commission, aided by its staff and the employment of a skilled, independent consultant, properly
verified the utilities’ load flow modeling, contingency analyses, and reliability needs presented to justify the new line. Accordingly, we hold that the Commission did not err in using PJM’s NERC data to determine the need for the proposed transmission line as required by Code § 56-46.1.

Consideration of Generation and Conservation Alternatives

Piedmont contends that the Commission also erred, as a matter of law, in that it failed to independently review alternative solutions for addressing the anticipated deficit in transmission reliability on the Mt. Storm - Doubs line. According to Piedmont, rather than conduct its own analysis, the Commission effectively “delegated its statutory responsibility to PJM” by accepting PJM’s assertion that there were no alternatives that could successfully address the increased demand for electricity in northern Virginia by 2011, which the new line was intended to resolve.

The Commission responds that the record shows it reviewed options for developing new generation capacity within VEPCO’s service area, the use of conservation through demand side management, and the availability of alternative transmission infrastructure upgrades, but concluded that none of these alternatives, alone or in combination, were sufficient to assure that PJM’s transmission capability to avoid violations of NERC reliability standards would not be adversely affected.
by the anticipated increase in demand for electricity in northern Virginia in 2011 and beyond. In doing so, the Commission acknowledged that the assumptions regarding future generation and conservation through demand side management were in part based upon data developed though the federal regulatory process overseen by NERC, and that these assumptions favor increased transmission capacity as the principal method for assuring compliance with mandatory reliability standards. Nonetheless, the Commission maintains that its decision was reached through an independent examination of the data as required by Virginia law. Again, we agree with the Commission.

The record reflects that Bates White “studied five additional transmission solutions to overloads on the Mt. Storm – Doubs line,” finding only one alternative to the proposed new transmission line that could sufficiently reduce the chance for reliability violations in the short term. The utilities contended that this alternative would not provide a long-term solution, while Bates White concluded that the utilities’ projections for long-term reliability problems were speculative. Similarly, Skirpan concluded that “PJM’s generation assumptions produce less and less reliable power-flow model results as the forecasts project farther into the future.”
The record also shows, however, that the Commission concluded that the interpretations of the data for transmission alternatives that were presented by opponents to approval of the applications were equally speculative. Thus, the Commission ultimately adopted Skirpan’s view that “the focus of the needs analysis should be on results for 2011 and 2012,” and that the Commission should accept PJM’s data as being the most accurate for verifying that the new transmission line was the only viable option for assuring that NERC reliability standards would be timely met.

Similarly, the record reflects that consideration was also given to the data analysis presented by the utilities and the opponents on generation and conservation alternatives. In his report to the Commission, Skirpan extensively detailed these alternatives, including the environmental impact of the proposed line and the alternative solutions. Based on the independent analysis by Bates White and the recommendations of the staff and the hearing examiner, the Commission found that it was not “reasonable to assume that a sufficient amount of additional new generation necessarily will be available . . . to obviate the reliability need,” and concluded that “the generation assumptions used in the PJM and [VEPCO] tests . . . are reasonable.” Ultimately, the Commission adopted the conclusions drawn by Bates White, the staff, and Skirpan that
none of the alternative scenarios, whether applied individually or in combination, “is a reasonable proposal to meet the need satisfied by the [new] transmission line.”

We agree with the Commission that the record as a whole demonstrates that the Commission fulfilled its statutory obligation to consider alternative solutions to the need for the proposed transmission line. We hold that the Commission acted within its authority to evaluate the evidence presented by the utilities on this issue and determine whether that evidence, when considered against evidence presented by other participants in the process, was reliable and could serve as the basis for the Commission’s determination that no other alternative was available that would obviate the demonstrated need for the line.

It is understandable that the opponents would have preferred that the Commission not rely on the utilities’ data and analysis concerning alternatives to the transmission line. Nonetheless, the record simply will not support a conclusion that the Commission’s decision to do so was arbitrary or capricious so as to amount to a “delegation” of its responsibility to PJM or any other entity. Rather, it is clear that the Commission reached its conclusion through a deliberative consideration of all the evidence consistent with
the authority given to it by the Constitution and the General Assembly.

Approval of the Applications

Piedmont asserts that the Commission erred in approving the applications because the Commission failed to consider the “inherent bias” of VEPCO, TrAILCo, and PJM in reviewing the data submitted by them. Citing Virginia Electric and Power Company v. Citizens for Safe Power, 222 Va. 866, 869, 284 S.E.2d 613, 614 (1981), Piedmont contends that the Commission erred because it “deferred” to the utilities and the RTE by accepting their data instead of exercising its statutory authority to “obtain all relevant . . . information reasonably necessary for it to make a considered judgment.” In Piedmont’s view, because federal law prohibits direct cooperation between the entities that control generation and transmission infrastructure, PJM’s assumptions of future NERC violations are arbitrary in that they consider only the effect of future demands on the transmission grid without regard to the effect of additional generation capacity or conservation efforts. Piedmont contends that “[a]ny arbitrariness in PJM’s assumptions, then, [is] imputed to the Commission” and, thus, to its decision to approve the applications. Piedmont asserts that the Commission should have used its authority to order the utilities to undertake an integrated resource planning
(“IRP”) process, Code § 56-597 et seq., or otherwise exercised its general investigative powers to challenge PJM’s assumptions concerning the lack of sufficient generation or conservation alternatives. Piedmont also asserts that the Commission erred in not exercising its authority under Code § 56-235.1 “to consider generation and conservation alternatives to the proposed transmission line, [and] to require [VEPCO] to implement them.”

In its order approving the applications, the Commission noted that Piedmont and other opponents to approval of the applications contended that because the assumptions used by VEPCO and TrAILCo were, in their view, inherently suspect, the Commission should initiate an IRP “to mesh the myriad of transmission, generation and conservation (including [demand side management]) options into a comprehensive plan that could be presented as a better alternative than building the proposed transmission line.” While indicating that it was “sympathetic to the opponents’ position that planning for transmission, generation and conservation should be done in an integrated and holistic process, in order to arrive at the most rational and cost-effective plan to meet Virginia’s future load growth and transmission reliability needs,” the Commission concluded that “the law and facts applicable to this matter do not enable us to use a transmission line case
brought under Va. Code §§ 56-265.2 and 56-46.1 to conduct an IRP exercise . . . and then use the result of that exercise as a legal basis to deny the application[s] when a clear reliability need has been shown and the proposed transmission line is an acceptable option under Virginia statutes to meet that need.”

The Commission went on to observe that

[a]s a matter of policy, transmission planning and control of transmission assets are now conducted on a regional, multi-state basis by a regional transmission entity (“RTE”), which in this case is PJM. This is a direct result of [Code § 56-579] that requires Virginia’s utilities to join an RTE . . . . It is also undisputed from the record of this case that under federal policy PJM itself cannot order a generating plant to be built to solve a clear reliability problem on a transmission line . . . that clearly tilts the field towards PJM recommending more and more new transmission lines when other options might be a more efficient use of capital and much less intrusive on the landscape. Since PJM is regulated by FERC, whether these federal rules represent sensible policy is ultimately for the United States Congress to decide.

The Commission further noted that even if it were to find that future additions to the transmission and generation infrastructure could obviate the need for the proposed transmission line if it ordered VEPCO to accelerate the timetable for building that infrastructure, it did not have the authority to independently order the inclusion of that infrastructure into PJM’s federally-regulated, interstate operations.
Like the Commission, we are not unmindful of the tensions that have been created as the result of the significant changes in the manner in which electric utilities are regulated. The IRP process, enacted by the General Assembly in 2008, is clearly intended as a response by the legislature to reassert some modicum of state control over future development of new transmission and generation infrastructure. However, we agree with the Commission that the IRP process is a separate and independent provision of the law, and nothing within Code § 56-265.2 would permit the Commission to delay action on or deny approval of an otherwise proper application for a new transmission line under that statute by asserting the need for a completed IRP.\(^7\) Similarly, even if Piedmont were correct that by ordering VEPCO to accelerate the building of new generation infrastructure the need for the proposed line could be obviated, the Commission is correct that its authority does not extend to requiring that PJM introduce this new generation infrastructure into its interstate transmission grid on an accelerated schedule.

\(^7\) Code § 56-599 required electric utilities subject to regulation by the Commission to file their initial biennial IRPs by September 2009. Thus, while the Commission will have access to current IRPs in considering future applications for additional transmission and generation infrastructure, we express no view in this opinion as to the role that IRPs should or will play in the evaluation of such applications.
It is undeniable that the evidence in the record submitted to the Commission by VEPCO and TrAILCo was influenced by the nature of the federal regulatory process that preceded it. And, as the Commission observed, as presently constituted, it is equally undeniable that this process is “tilted” toward favoring improvements in transmission infrastructure over increased generation and improved conservation. However, the resulting “inherent bias” of PJM and the transmission divisions of its member utilities in seeking approval of new transmission lines does not render their evidence concerning the need for such improvements necessarily unreliable. Moreover, it would be an irresponsible approach for the Commission to resolve the issue of the need for a new transmission line by ordering the utilities to build additional generation capacity but waiting until that additional generation was connected to the interstate transmission grid before ascertaining whether the identified need had been met, as Piedmont seems to suggest in these appeals.

The record in this case amply demonstrates that the Commission understood the federal regulations or policies which influenced the evidence presented to it by VEPCO and TrAILCo, but based upon its independent review of that evidence, found that the data presented by them was reliable.
and established that the proposed interstate transmission line was both needed and, in consideration of all other factors, an acceptable solution to resolve the anticipated need for reliability in the delivery of electricity to the affected areas of northern Virginia.

In short, while Piedmont may question the efficacy of the collaborative governance between the federal and state governments that has resulted from the restructuring of electric utility regulation, the Commission was required to make its decision to approve the applications at issue in these appeals based on the record before it and under the current state of the applicable law. We hold that the Commission’s decision to approve the applications is supported by the evidence in the record and proper interpretations of the law.

CONCLUSION

In summary, we hold that the record manifestly demonstrates that the Commission conducted its review of the applications for a new transmission line in accord with the requirements of Code §§ 56-46.1 and 56-265.2, and that the Commission’s decision to grant the applications is supported by the evidence. For these reasons, the order of the Commission approving VEPCO’s and TrAILCo’s applications to
construct their respective segments of the 500kv transmission line, as conditioned, will be affirmed.

Affirmed.