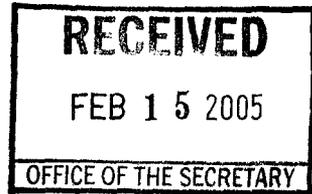


UNITED STATES OF AMERICA
Before the
SECURITIES AND EXCHANGE COMMISSION



In the Matter of

AMERICAN ELECTRIC POWER COMPANY, INC.

Administrative Proceeding
File No. 3-11616

**POST-HEARING BRIEF
SUBMITTED BY
AMERICAN ELECTRIC POWER COMPANY, INC.**

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I. PROCEDURAL BACKGROUND

On January 18, 2002, the United States Court of Appeals for the District of Columbia Circuit in *Nat'l Rural Elec. Coop. Ass'n v. SEC*, 276 F.3d 609 (D.C. Cir. 2002) ("*NRECA v. SEC*") remanded the Commission's approval of the merger of American Electric Power Company, Inc. ("AEP") and Central and South West Corporation ("CSW"). The Court found that the Commission had failed to explain adequately certain of its conclusions relating to whether the merged system satisfies the requirement of the Public Utility Holding Company Act of 1935, 15 USC §79 *et seq.* (2000) (the "Act") that holding company systems operate as an "Integrated public-utility system" as defined in Section 2 of the Act. The Court determined that additional findings are required with respect to certain aspects of the statutory requirement that the combined AEP and CSW systems ("the "Combined System") be: (i) "physically interconnected or capable of physical interconnection" and (ii) "confined in its operations to a single area or region." Section 2(a)(29)(A).

In the *NRECA v. SEC* decision, the Court was reviewing the Commission's order approving AEP's acquisition of the securities of CSW and related transactions under the Act. *American Electric Power Co., Holding Co.* Act Release No. 27186, 54 S.E.C. 697 (June 14, 2000) ("2000 Order"). The 2000 Order went into immediate effect on June 14, 2000 and, pursuant to the 2000 Order and other regulatory approvals, the merger of AEP and CSW was completed on June 15, 2000 ("Merger"). During the eighteen months that the matter was pending on appeal, AEP and its subsidiaries operated as members of a registered holding-company system under the Act, and are continuing to so operate.

In its decision, the Court upheld the Commission's determination under Section 10(c)(2) of the Act that the Merger would "serve the public interest by tending towards the economical

and efficient development of an integrated public-utility system” by, among other things, producing cost savings of approximately \$2.1 billion. *NRECA v. SEC*, 276 F.3d at 619. However, the Court found that the 2000 Order did not adequately explain certain, limited aspects of the Commission’s conclusion under Section 10(c)(1) of the Act that the proposed Merger would not be “detrimental to carrying out the provisions of Section 11.” *Id.* at 610. For this reason, it remanded the case to the Commission for further proceedings.

This case is before the Hearing Officer by virtue of the Commission’s August 30, 2004 Order directing a hearing “for the purpose of determining whether the [AEP and CSW] systems are interconnected and operate in the same area or region.” Pursuant to the Commission’s hearing order, the Hearing Officer established a procedural schedule calling for the filing of position statements, followed by a technical conference in December 2004 and a hearing on January 10, 2005. Participants in the remand proceedings included the Commission’s Division of Investment Management (“the Division”), the National Rural Electric Cooperative Association and the American Public Power Association (“the Associations”); Public Citizen, Inc. (“Public Citizen”) and the National Association of Regulatory Utility Commissioners were granted limited participant status. The hearing was held as scheduled, and this post hearing brief is being filed in accordance with the Hearing Officer’s procedural schedule.

II. SUMMARY OF POSITION

The Court of Appeals identified two deficiencies in the Commission’s 2000 review of the Merger. First, it found that the Commission had not adequately supported its approval of the use of a contract path to interconnect the AEP and CSW systems. It questioned the Commission’s putative acceptance of the use of a “unidirectional” contract path to achieve interconnection as well as the Commission’s failure to address cases that appeared to establish a prior policy

prohibiting the use of contract rights to interconnect “distant” utilities. Second, it stated that the Commission failed to make separate evidentiary findings that the Combined System would operate in a “single area or region.” These were the two issues set for hearing.

Interconnection: AEP has demonstrated that the Contract Path it acquired to interconnect the AEP and CSW systems is not unidirectional. AEP has acquired firm transmission service from east to west between the former AEP and CSW systems under the FERC’s standard open access tariff. However, FERC’s open access rules permit AEP to “redirect” such service on a firm or non-firm basis without additional charge in order to move power in a different direction. Since the merger, AEP has used this transmission service to move power in both directions between the former AEP and CSW systems in response to system conditions. AEP chose not to purchase a separate “firm” contract path from west to east because its planning studies showed that it would rarely need to move power in this direction and that sufficient transmission capacity was available from west to east reasonably to rely on redirected firm or non-firm service for interconnection purposes. AEP’s experience since the merger has confirmed that the contract transmission rights it acquired are adequate to integrate the Combined System.

A review of relevant Commission decisions shows that the Commission’s interconnection policy has evolved over many years to permit the use of contract paths as the electric industry has changed. In four recent cases other than this one, the Commission approved the use of a contract path to interconnect utilities that were separated by distances far exceeding the distance between former AEP and CSW. To the extent that a prior policy prohibiting contract interconnections for distant utilities did exist, the Commission correctly relied on changes in the electric industry created by FERC’s open access requirements to justify a modification of that

policy. AEP has presented evidence confirming the reasonableness of the Commission's current interconnection policy, both as a generic matter and in the context of the Combined System.

Single Area or Region: The Court recognized that the Commission has broad discretion in defining "area or region" under the Act. The Commission has not addressed this statutory standard with any specificity in four decades and should now apply its discretion to define the area or region requirement in light of current electric industry conditions and economic realities. AEP's evidence shows that the electric industry exhibits substantially greater interconnection, coordination and interdependence since the Act was passed, and electric power flows and markets now exist over broad geographic areas. From a purely physical standpoint, advances in transmission technology have significantly increased the distances over which electricity can be transmitted economically, and system interconnections have expanded tremendously. Comparable changes have occurred in the economy as a whole. AEP has presented expert testimony from a regional economist demonstrating that changes in the economic infrastructure have expanded the quantity and geographic scope of economic interactions, creating much broader regions from the standpoint of both economic homogeneity and functional interdependence.

AEP's evidence supports a finding that the Combined System operates in a single area or region based on four independent criteria, each of which would be adequate standing alone to satisfy the statutory standard.

- The "Eastern Interconnection" defines a single area or region of the country from the standpoint of the electric power infrastructure. The Eastern Interconnection operates as a single, interdependent electrical machine. All of the Combined System is located within the

Eastern Interconnection except for the portion of the system located in the Electric Reliability Council of Texas (“ERCOT”).¹

- The area defined by the boundaries of the three major Regional Transmission Organizations (“RTOs”) approved by the FERC in the Eastern Interconnection comprises a single area or region from an electricity market and operations perspective. These three RTOs are PJM, the Midwest ISO (“MISO”) and the Southwest Power Pool (“SPP”). The FERC has mandated that all RTOs operate unified electricity markets within their geographic footprint. It has also ordered PJM, MISO and SPP to enter into joint operating agreements to eliminate barriers to trade between the three RTOs and has taken steps to eliminate the most significant barrier to long distance trading in electricity--pancaked transmission pricing. The joint operating agreements between PJM and MISO, and between MISO and SPP, have been signed and filed at the FERC. The Combined System operates within the footprint of the three coordinated RTOs, with the exception of the ERCOT portion of the system, which is integrated for the reasons described above. AEP has also provided testimony showing that the Combined System operates within a single electric market, which further supports this definition of a single area or region.
- The Commission has already established a definition of “region” for purposes of its review of the competitive impacts of mergers pursuant to Section 10(b)(1) of the Act. This definition states that merging utilities and all directly interconnected neighbors (“first tier utilities”) comprise a single market area in which the merged company competes to supply electric

¹ The Commission previously held that the ERCOT and non-ERCOT portions of the CSW system are part of a single integrated utility system. Even if the Commission were to revisit that holding, AEP would be permitted to retain the ERCOT portion of the Combined System under Section 11(b) of the Act because separation of this portion of the system would result in significant lost economies.

power. In light of the centrality of competition to the operation of the electric industry at this time, it is appropriate to use this market area definition (the FERC uses the same market area in its review of competitive impacts) in establishing the single area or region requirement for purposes of Section 11(b)(1).

- AEP's expert economic witness demonstrated that the Combined System operates within a single area or region from the standpoint of trading in important commodities and the transportation infrastructure for such trade. This expert examined trade flows within the region that includes the service territories of the Combined System and compared them with trade flows between this region and other economic regions. His conclusion was that the central portion of the United States comprises a single economic region.

AEP has therefore submitted substantial evidence demonstrating that it meets the Act's interconnection and single area or region requirements, taking into account the concerns raised by the Court of Appeals. In contrast, no other party submitted evidence addressing relevant facts about the AEP system, or expert evidence analyzing the AEP system. Public Citizen's so-called expert testimony consists of generalized, conclusory statements, most of which are irrelevant to the issues set for hearing. Accordingly, the overwhelming preponderance of the evidence in the record supports a finding that AEP has satisfied the two remaining prongs of the integrated public-utility system standard.

III. SCOPE OF HEARING ON REMAND

Section 11(b)(1) of the Act requires that the Commission limit the operations of a registered holding company to "a single integrated public-utility system," which the Act defines, as it relates to electric utility operations, as:

a system consisting of one or more units of generating plants and/or transmission lines and/or distributing facilities, whose

utility assets, whether owned by one or more electric utility companies, are *physically interconnected or capable of physical interconnection* and which under normal conditions may be economically operated as a single interconnected and coordinated system *confined in its operations to a single area or region, in one or more States*, not so large as to impair (considering the state of the art and the area or region affected) the advantages of localized management, efficient operation, and the effectiveness of regulation.

Section 2(a)(29)(A) of the Act. The Court upheld most of the Commission's findings under Section 2(a)(29)(A). It disagreed only with limited aspects of the Commission's treatment of the Act's "interconnection" requirement and with the Commission's treatment of the "single area or region" requirement.

With respect to the "interconnection" requirement, the Court affirmed the Commission's finding that contract rights may be used to meet this requirement and agreed with the Commission that the 250 MW transmission contract path ("Contract Path") acquired to interconnect the Combined System was neither too "small" nor too "tentative." *NRECA v. SEC*, 276 F.3d at 614-15. The Court's disagreement with the Commission was based on its belief that the Commission had approved, without explanation, the use of a "unidirectional" contract path to achieve system integration. *Id.* at 615. The Court also found that prior Commission cases appeared to establish a policy prohibiting the use of contract transmission rights to interconnect "distant" utilities and therefore directed the Commission either to explain how the use of a contract path in this case was consistent with that prior policy or to provide a "reasoned analysis" as to why the Commission was changing its prior policy. *Id.* at 616.

The Court also remanded the Commission's finding that the Combined System satisfied the requirement that holding companies operate within a "single area or region." The Court acknowledged that there may be a "legitimate basis" for finding that the Combined System

operates in a single “area or region,” but held that the Commission failed to make separate evidentiary findings concerning this standard because it appeared to subsume this standard within other requirements of the Act. *Id.* at 618-19.

The Commission’s August 30, 2004 Order setting this case for hearing was narrowly tailored to the foregoing two issues and effectively tracks the Court’s own description of their scope.

IV. THE INTERCONNECTION REQUIREMENT

A. The Combined System is interconnected pursuant to a Contract Path that provides for, and has been used for, two-way transfers of power.

In finding that the Commission had not adequately justified its approval of the Contract Path acquired by AEP, the Court focused on the statutory term “interconnection,” which it found to connote “*mutual* connection,” a definition “that seems, on its face, to require two-way transfers of power.” *Id.* at 615. The Court added that “absent some explanation from the Commission” it “[could] not understand how a system restricted to unidirectional flow of power from one half to the other” could be operated as a “single interconnected and coordinated” whole. *Id.*

In this proceeding, AEP has presented substantial evidence showing that the Contract Path acquired to move power between the AEP east (initial AEP) and AEP west (formerly CSW) zones is not limited to the unidirectional flow of power. That Contract Path is capable of, and has been used consistently for, two-way transfers of power in satisfaction of the test articulated by the Court.

AEP witness J. Craig Baker explained that AEP has purchased 250 MW of firm, point-to-point transmission service under the FERC’s standard open access transmission tariff (“FERC

OATT”)² in order to establish the interconnection of the AEP east and west zones. He explained that such transmission service permits transfers in two directions. A purchaser of firm transmission service under the FERC OATT acquires the right to deliver power in one direction on a firm basis, but is entitled to redirect the service for use in other directions on either a firm or non-firm basis at no additional cost. AEP Exhibit No. 5 at 10, 12-14.³ Accordingly, the Contract Path acquired by AEP allows for the delivery of power in both directions, east to west and west to east, and is not unidirectional. The Court’s decision does not appear to recognize these facts and the record before it may not have been clear.

Mr. Baker further testified, and included exhibits showing, that AEP has used the Contract Path acquired under the FERC OATT for deliveries in both directions on a number of occasions. AEP Exhibit No. 5 at 16. AEP Exhibits 6 and 7, sponsored by Mr. Baker, describe the substantial amounts of power that have been transferred in each direction over the Contract Path since the Merger. Mr. Baker explained that AEP uses its power system resources in the east and the west collectively to provide the lowest cost and most reliable supply of power overall to the Combined System. He explained that AEP moves power from east to west in circumstances when the marginal cost or market price of power in the west is higher, and in the opposite direction when the cost or market price of power is higher in the east. AEP Exhibit No. 5 at 16-17.

No testimony or documentary evidence of any kind was submitted that would rebut any of the above testimony concerning the two-way nature of the Contract Path that AEP has

² The FERC OATT is a standard transmission service tariff that all public utility transmission owners regulated by the FERC must have on file with the FERC pursuant to FERC’s Order No. 888. The terms and conditions of the FERC OATT were included as part of the regulations approved by the FERC in Order No. 888.

³ These rights are set forth in Sections 22.1 and 22.2 of the FERC OATT that was issued as part of FERC Order No. 888.

acquired to interconnect the Combined System or concerning the use of these transmission rights for two-way transfers. Rather, the Associations appear from their Statement of Position to focus, not on the issue of bidirectional transfers that was the Court's concern, but on the fact that the transmission rights AEP has from west to east under the FERC OATT are predominantly non-firm.

However, no basis exists in either the Court's decision or prior Commission decisions for the proposition that a Company must acquire firm transmission rights in both directions in order to satisfy the Act's interconnection requirement. The Court did not suggest that this was necessary. It merely stated that interconnection "require[s] two-way transfers of power". *NRECA v. SEC* 276 F.3d at 615. Nor has the Commission imposed such a requirement. It has approved several mergers in which the applicants purchased *firm* transmission rights in only one direction, with the apparent intention to use non-firm rights in the other direction for interconnection purposes. See *CP&L Energy, Inc., Holding Co.* Act Release No. 27284, 54 S.E.C. 996 (Nov. 27, 2000) ("*CP&L Energy*") (firm contract path unnecessary to show interconnection between two non-contiguous parts of utility system where adequate transmission capacity is available through open access and other transmission arrangements); *Exelon Corp., Holding Co.* Act Release No. 27256 (Oct. 19, 2000) ("*Exelon*") (combination of a firm contract path in one direction and adequate transmission capacity in the other direction sufficient to interconnect noncontiguous properties of two utilities); *New Century Energies, Holding Co.* Act Release No 27212 (August 16, 2000) ("*New Century Energies*") (approving interconnection based on acquisition of a firm "Northbound Path"); *Energy East Corp., Holding Co.* Act Release

No. 27224 (August 31, 2000) (“Energy East”) (approving interconnection based on acquisition of firm east to west contract path).⁴

The common feature of these cases is the Commission’s recognition that, since 1996, the electric industry has been operating pursuant to the open transmission access regime implemented by the FERC in its Order No. 888,⁵ in which a combination of firm and non-firm transmission services are made available throughout the industry. This regime has made it possible to acquire, as needed, transmission capacity on third party systems in order to move power to enhance reliability and achieve economic integration between distant utilities. See AEP Exhibit No. 5 at 11-12.

The intervenors provided no evidence about the AEP system to support the contention that firm transmission rights in both directions are necessary to permit the Combined System to operate as single utility system.⁶ AEP’s evidence decisively refuted any such assertion. Mr.

⁴ The Associations argue that the Court implicitly rejected AEP’s reliance on non-firm transmission service from west to east because such service was referenced in AEP’s brief to the Court. The Associations’ Statement of Position at 11. They suggest that the Court’s finding of a ‘unidirectional contract path’ was an oblique rejection of the use of non-firm service. *Id.* However, there is nothing in the Court’s decision to support this contention. The Court did not consider the bundle of rights that AEP acquired when it purchased firm transmission service under the FERC OATT, and the phrase “non-firm transmission” cannot be found in the Court’s decision. Even if the Court had considered the use of non-firm transmission for purposes of interconnection, its consideration of this issue would have to give way to developments in the industry and, more importantly, subsequent statements from the Commission that more fully articulate the rationale for relying on non-firm transmission for purposes of interconnection. See *CP&L Energy; Exelon; and Exelon Corp., Holding Co.* Act Release No. 27904 (Oct. 28, 2004). These statements provide the reasoned basis for the Commission’s conclusion that it is now possible to rely on a combination of firm and non-firm transmission rights to achieve interconnection under the Act.

⁵ *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities*, Order No. 888, 61 Fed. Reg. 21540 (May 10, 1996), FERC Stats. & Regs. ¶ 31,036 (1996); *order on reh’g*, Order No. 888-A, 62 Fed. Reg. 12274 (March 14, 1997), FERC Stats. & Regs. ¶ 31,048 (1997); *order on reh’g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997); *order on reh’g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff’d in part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff’d sub nom. New York v. FERC*, 535 U.S. 1 (2002); *order on remand*, 101 FERC ¶ 61,104 (2002) (“Order No. 888”)

⁶ In his testimony, Public Citizen witness Cassazza makes the conclusory assertion that non-firm transmission cannot be used to integrate two parts of a public utility system (Public Citizen Exhibit No. 1 at 8), but he provided no support or basis for this conclusion, either as a general matter or in connection with the specific integration requirements of the AEP system. His unsupported assertion is overwhelmed by the detailed evidence provided by AEP explaining why non-firm transmission rights from West to East are sufficient here. Moreover, Mr. Cassazza’s

Baker explained that the decision to acquire firm transmission rights in the east to west direction was the result of careful analysis of the needs of the Combined System. He explained that AEP's analyses showed that the cost/price of power in the east was projected to be lower than in the west in most hours, so that the opportunities to take advantage of single system operation would usually require the transfer of lower cost power from the east to the west, which is why AEP chose to buy firm transmission service in this direction. AEP Exhibit No. 5 at 15. He explained that the cost of acquiring firm transmission service in the west to east direction would have been much higher than the projected savings from such transfers, and would have undermined the economic benefits of system integration. *Id.* Mr. Baker further testified that AEP analyzed the availability of transmission capacity from west to the east and concluded that, for the limited times when AEP would require the ability to move power in this direction, that capacity would normally be available, such that reliance on the ability under the FERC OATT to redirect the firm service for deliveries in this direction was reasonable and appropriate from a system planning perspective. *Id.*

The evidence shows that AEP's analysis of system integration requirements prior to the merger has turned out to be correct. In order to integrate the Combined System, only approximately 2 percent of the transfers have been in the west to east direction. AEP Exhibit No. 5 at 16. If AEP had acquired firm transmission service in the west to east direction, the unit cost for this service would have been extraordinarily high, and the additional cost incurred by AEP would have been unnecessary. AEP Exhibit No. 5 at 16-17. It certainly would be ironic if AEP were directed to increase unnecessarily its cost to supply electricity to its customers in order

assertion that non-firm rights can *never* be used for system integration is inconsistent with the decisions of the Commission, as set forth in the several prior merger decisions that permitted the use of non-firm transmission rights for this purpose, as explained above.

to achieve integration under a statute that is designed to protect the interests of those same customers.

In addition, the non-firm transmission rights AEP has acquired from west to east have generally been available when they have been needed, and Mr. Baker testified that this capacity is likely to be available in the future. AEP Exhibit No. 5 at 17-18. Finally, Mr. Baker explained that the Contract Path has become even more robust and reliable since the merger because RTOs have now been formed on both sides of the Contract Path. AEP Exhibit No. 5 at 18-19. In addition, under FERC's rules, AEP has the right to "rollover" its contract transmission rights into a new contract when the current one expires. AEP Exhibit No. 5 at 19. There also are alternative contract paths that AEP could acquire in the future as a backup. AEP Exhibit No. 5 at 20.

Significantly, none of the factual evidence submitted by AEP has been rebutted. The overwhelming evidence in the record supports the conclusion that AEP has responsibly achieved the interconnection of the Combined System by acquiring firm transmission rights in one direction, which can be redirected to use in the other direction on a firm or non-firm basis.⁷ The record in this proceeding shows that the Commission was correct in permitting non-firm transmission rights to be used for interconnection purposes in appropriate circumstances.

B. The record supports the Commission's decision not to prohibit "distant" utilities from using contract paths to interconnect their systems.

The Court of Appeals reviewed dicta from certain older Commission decisions which, in the Court's view, appeared to establish a policy prohibiting the use of contract rights alone to interconnect "distant" utilities. The Court recognized that the Commission could change this

⁷ Given the availability of non-firm service from west to east, AEP has not had an occasion to seek to redirect its contract path on a firm basis as permitted by the FERC OATT. AEP Exhibit No. 5 at 10.

prior policy, but stated that any such change requires “a reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored.” *NRECA v. SEC*, 276 F.3d at 615 (citing *Greater Boston Tel. Corp. v. FCC*, 444 F.2d 841, 852 (D.C. Cir. 1970).) The Court found that the Commission’s explanation of its approval of the use of the Contract Path in this case was inadequate in light of prior decisions. *Id.*

Since the adoption of FERC Order No. 888, the Commission has issued at least four decisions (other than its decision approving the instant Merger) approving mergers in which the merging systems were proposing to interconnect via contract transmission paths comparable to or greater in length than the Contract Path proposal in this case. In *CP&L Energy*, the Commission approved the use of a contract path to interconnect utilities with service territories in South Carolina and Florida, a distance identified by the Commission of approximately 350 miles.⁸ In *Exelon*, the Commission approved the use of a contract path to interconnect utilities with service territories in and around Philadelphia and Chicago; based on the 1999 Rand McNally map of the United States, the distance between these two cities is almost 800 miles. In *New Century Energies*, the Commission approved the use of a contract path to interconnect utilities with service territories in Minnesota/Wisconsin and Colorado, a distance of approximately 500 miles according to the merger application filed in that case.⁹ And, in *Energy East*, the Commission approved the merger of utilities in Maine and New York using contract transmission rights to interconnect their systems across a long distance.

⁸ *CP&L Energy*, at 1016.

⁹ Application of New Century Energies, Inc. on Form U-1, Amendment No. 4 at n.72 (File 70-9539) (Aug. 16, 2000).

In these cases, the Commission relied on the changes created by the promulgation of FERC Order Nos. 888 and 889 to support its reliance on contract paths to achieve interconnection.¹⁰ The Commission held that non-contiguous utilities separated by long distances can show interconnection through adequate available transmission capacity under intervening utilities' OATTs.¹¹ Similarly, the Commission recognized the importance of RTOs in the interconnection context and held that the interconnection requirement is satisfied where two non-contiguous utilities become members of an RTO. *Exelon Corp., Holding Co. Act Release No. 27904* (Oct. 28, 2004) (approving a system interconnected by PJM Interconnection LLC, a regional transmission organization).

Nor do the Commission's recent decisions represent an abrupt reversal of policy. They are part of a natural evolution of Commission policy over several decades. During the 1950's and 1960's, the Commission developed its interconnection requirement by holding that a generating plant and its sponsoring companies could be interconnected through a "transmission grid," *Connecticut Yankee Atomic Power Co., Holding Co. Act Release No. 14968* (Nov. 15, 1963), or a "transmission network," *Yankee Atomic Elec. Co.*, 36 S.E.C. 552 (Nov. 25, 1955).

The Commission also found that non-contiguous companies could show interconnection without

¹⁰ *CP&L Energy* ("Open access transmission makes it possible now for the [non-contiguous areas of the Carolina Power & Light Company system] to coordinate their operations through the use of OATTs and OASIS . . . [Applicants] explain that reliance on numerous transmission service reservations increases the number of potential interconnection options and allows utilities to use less expensive non-firm products where appropriate, while providing a high level of assurance that transmission capacity will be available when needed. Utilities can obtain a portfolio of transmission capacity over multiple paths, with various degrees of firmness, providing for various amounts of capacity that can be selected to achieve optimal integrated operations. Today, interchange capacity can be achieved via a portfolio of short-term firm and non-firm transmission at a lower comprehensive cost than the more limited, rigid, single firm contract path.")

¹¹ See *CP&L Energy* (concluding that a firm contract path is unnecessary to show interconnection between two non-contiguous parts of a utility system where adequate transmission is available through open access, using the OATTs of other utilities and OASIS, and through other transmission arrangements); *Exelon* (determining that a combination of a 100 MW firm contract path in one direction and adequate available transmission capacity in the other direction sufficed to interconnect PECO and Commonwealth Edison).

the ability to transfer unlimited amounts of power over a third party's line, at least where they can supplement power transfers through potential transmission contracts with other parties. *Mississippi Valley Generating Co.*, 36 S.E.C. 159 (1955). By the 1970's, when utilities were voluntarily forming regional associations to improve reliability and economy of power supply, the Commission reacted to this change by relying on transmission agreements among members of the regional associations to satisfy the interconnection requirement. *See, e.g., Conectiv, Inc.*, Holding Co. Act Release No. 26832 (Feb. 25, 1998); *Unitil Corp.*, Holding Co. Act Release No. 25524 n.29 (Apr. 24, 1992); *Centerior Energy Corp.*, Holding Co. Act Release No. 24073 (Apr. 29, 1986). The Commission's interpretation of the Act that permitted the use of contract rights over third party systems to meet the interconnection standard was approved by the court. *Madison Gas & Elec. Co. v. SEC*, 168 F.3d 1337, 1340 (D.C. Cir. 1999).

In any event, the Court's ruling appears to require that the Commission supply a reasoned analysis supporting its current policy in this remand proceeding. The record in this case includes substantial testimony from AEP explaining why the Commission's current interconnection policy represents a reasoned extension of the policy the Commission articulated prior to the issuance of FERC Order No. 888, and why application of a policy prohibiting the use of contract transmission rights for distant utilities would not make sense in light of current conditions in the electric industry.

AEP witness Baker testified how open access transmission service under FERC Order No. 888 and FERC companion Order No. 889¹² has facilitated the interconnection of utility

¹² *Open Access Same-Time Information System and Standards of Conduct*, Order No. 889, 61 Fed. Reg. 21,737 (May 10, 1996), FERC Stats. & Regs. ¶ 31,035 (1996), *order on reh'g*, Order No. 889-A, 62 Fed. Reg. 12,484 (March 14, 1997), FERC Stats. & Regs. ¶ 31,049 (1997), *order on reh'g*, Order No. 889-B, 81 FERC ¶ 61,253 (1997).

systems using contract transmission rights. He explained that under Order No. 888, FERC-jurisdictional utilities must sell transmission service to others on a non-discriminatory basis when capacity is available for such sales, and must build new transmission capacity to accommodate requests for firm transmission service when capacity is not available. AEP Exhibit No. 5 at 11-12. The fundamental objective of Order 888 and the FERC OATT is to achieve “comparability” between the rights enjoyed by the owners of transmission facilities and the rights acquired by third parties to such facilities. *Id.* Mr. Baker further testified to the role played by regional transmission organizations (“RTOs”) formed pursuant to FERC Order No. 2000 in facilitating the interconnection of utility assets. AEP Exhibit No. 5 at 18-19.

AEP’s testimony also explains why distance has become less of a factor in establishing the capability to interconnect utility systems. Several of FERC’s recent policy initiatives have been geared to reducing distance as a consideration in electric power transactions. Mr. Baker gave several examples of why the distance of a contract path used to integrate utilities should have far less relevance than it may have had in the past. He pointed out that open access transmission rights under FERC Order No. 888 do not vary according to the distance involved. That is, a firm transmission path across a small system carries no superior legal or physical rights than a path across a large system. AEP Exhibit No. 5 at 35.

Second, RTOs have expanded the economically effective distance of contract paths. Now, each RTO (instead of each of the several utilities within the RTO) is treated as a single leg of the contract path. By reducing the number of entities from whom a transmission user has to obtain service, RTOs facilitate much longer power transactions than may have been readily

available in the past, when each utility in a chain linking two “distant” utilities would have had to agree to provide the service and charged an additive rate. AEP Exhibit No. 5 at 35-36.

AEP witness Johnson explained that transmission technology now permits transfers over very long distances, AEP Exhibit No. 2 at 13, and he described several recent transactions which involved deliveries over several hundred miles. Tr. 53:14-54:6. It therefore would be unsound from a technological standpoint for the Commission to rely on notions of “distance” that may have been relevant decades ago.

No testimony was presented to rebut AEP’s showing that the use of contract paths to interconnect distant utilities is now appropriate given changes in industry conditions. Nor was any testimony presented that casts doubt on the reasonableness of the Commission’s own recent decisions approving the use of contract paths to meet the interconnection requirement in the context of utilities separated by hundreds of miles. The Associations appear from their Statement of Position to base their position on a disagreement over the actual length of the Contract Path acquired by AEP. Mr. Baker testified that the length of the Contract Path is 250 miles as measured from the west beginning at the eastern terminus of the MOKANOK Line¹³ and from the east at the Breed Casey interconnect near the Illinois border in Indiana. Tr. 60:21-61:9. This is the standard of measurement dictated by the Act because Section 2(a)(29), in stipulating the criteria of an integrated public utility system, describes, in relevant part, “a system . . . whose utility *assets*, whether owned by one or more electric utility companies, are physically

¹³ Pursuant to agreements governing the ownership and operation of the MOKANOK Line, AEP currently has an undivided interest in the entire MOKANOK Line which extends from the Tulsa area to central Missouri.

interconnected or capable of physical interconnection [and] confined in its operations to a single area or region[.]” (emphasis added).¹⁴

In any event, the Associations’ quibbling over the actual length of the Contract Path is irrelevant. The Commission has approved the use of contract paths to interconnect utilities at distances in excess of 500 miles, twice the length of the Contract Path in this case, and all the relevant evidence shows that AEP could justifiably rely on transmission service under FERC Order No. 888 to achieve an adequate interconnection in this proceeding, regardless of the precise length of the Contract Path.

Accordingly, the Commission’s finding that the Combined System may be integrated using the Contract Path reflects a reasonable interpretation of the statute in light of current industry conditions and is consistent with its prior precedent allowing the formation of other holding company systems interconnected by a contract path over greater distances than the Combined System. To the extent that the use of a contract path to interconnect the AEP and CSW systems can be characterized as reflecting a change in Commission policy, the Commission has articulated reasonable grounds for such a change in its prior decisions, and the record in this case confirms the reasonableness of the current policy.

III. THE SINGLE AREA OR REGION REQUIREMENT

A. Defining a Single Area or Region

The Court of Appeals found that the Commission failed to make separate evidentiary findings on the issue of whether the Combined System would operate in a single area or region

¹⁴ After the record closed, AEP received notice from Associated Electric Cooperative, a member of the NRECA, that it would like to terminate its MOKANOK contract with AEP. AEP intends to explore its options with respect to this contract, but if Associated is able successfully to terminate this agreement, the length of the Contract Path between AEP east and AEP west would increase to approximately 400 miles, well within the distance found acceptable in prior Commission proceedings.

of the United States.¹⁵ The Commission's task on remand, therefore, is to consider the statutory standard in light of the relevant evidence submitted by AEP and other parties to determine whether the record supports a finding that the Combined System satisfies the single area or region requirement.

The Act provides scant guidance to the Commission to assist it in interpreting this requirement. Unlike the 1935 Federal Power Act, it does not direct the Commission to divide the country into specific regions,¹⁶ and neither the Commission nor the courts have ever interpreted the Act to require the Commission to designate fixed areas or regions for generic application. The Act, however, provides that the integrated public-utility system requirement should be interpreted in light of the "state of the art" of technology. Section 2(a)(29)(a).¹⁷ The Legislative History of the Act does not indicate with any precision what Congress intended by the phrase "single area or region." There is evidence that the evil that Congress addressed was "the kind of companies that spread all over the country and have no physical connection with their operating plants."¹⁸ As Senator Wheeler, the chairman of the Senate Committee on Interstate Commerce, described it:

¹⁵ Specifically, the Court criticized the Commission's "single area or region" determination as having relied on a finding that "New AEP satisfies all other PUHCA requirements," rather than having analyzed the "single area or region" requirement as a separate element necessary to satisfy the definition of an "integrated [electric] public-utility system" in Section 2(a)(29)(A). *NRECA v. SEC*, 276 F.3d at 618. The Court also found that the Commission "failed to make any evidentiary findings on the issue." *Id.*

¹⁶ Section 202(a) of the Federal Power Act directs the FERC to divide the United States into "regional districts" for purposes of electric system coordination. 18 USC §824b(a).

¹⁷ Consistent with this statutory standard, the Supreme Court has recently held that the Act's sister statute, the Federal Power Act, should be interpreted in light of current industry conditions and realities, not on the state of the industry as it existed when the statute was passed in the 1930s. *New York v. FERC*, 535 U.S. at 23 (2002).

¹⁸ Senate Hearings, pp. 771-72 (Statement of Senator Couzens (during questioning of John F. Benton, General Solicitor, National Association of Railroad and Utility Commissions (April 29, 1935))).

The guiding principle I would say is simply this: That we do not want to have them spread all over the United States and have absentee landlordism. As a matter of fact the people do not want to have one holding company with offices, we will say in New York, with absolute control and ownership of a "public utility in Nevada, and another one in California, and another one in Missouri, and another in Florida, and another one in Michigan, and another one in Wisconsin, and so on.

The arguments of opponents that were rejected by Congress focused on the financial and earnings stability benefits of owning a diverse portfolio of investments.¹⁹ Thomas G. Corcoran, Counsel to the Reconstruction Finance Committee and one of the framers of the Act, testified, however, that "we reached a point where we had sprawling, unrelated systems all over the country, without any real justification of diversification of risk."²⁰

Congress clearly set forth the policies that underlie the Act, in Section 1 of the Act, by listing with specificity the problems that the Act was intended to remedy, the one most pertinent to construction of the language in issue here being:

(4) When the growth and extension of holding companies bears no relation to economy of management and operation or the integration and coordination of related operating properties

In this case, the Commission has already found that the merger of AEP and CSW should result in over \$2 billion of economies of management and operation, and that the combined system "may be economically operated as a single interconnected and coordinated system." These findings were left undisturbed by the decision of the Court of Appeals.

¹⁹ See Testimony of John F. MacLame, representing the Committee of Public Utility Executives, Senate Hearings, p. 311 (April 22, 1935); testimony of C.W. Kellogg, Chairman, Engineers Public Service Co., *Id.* at p. 871 (April 26, 1935).

²⁰ Senate Hearings, p. 170 (April 18, 1935).

The Court of Appeals acknowledged that the Commission has broad discretion to interpret the “single area or region” provision and “may make its own decision regarding the meaning of the region requirement.”²¹ It is not bound by “the regions or areas defined by other entities.”²² *NRECA v. SEC*, 276 F.3d at 617. Further, the Court “accepted as true” the Commission’s statements that “the terms ‘area’ and ‘region’ are ‘by their nature . . . susceptible of flexible interpretation,” and that “‘recent institutional, legal and technological changes have reduced the relative importance of geographic limitations’ on utility systems.” *Id.* at 617-18. Nor did the Court disagree with the Commission’s position that the single area or region requirement should be interpreted in light of current economic and technological conditions. *Id.*

The Commission has not addressed the single area or region requirement with any specificity in four decades. The decisions in this area cited by the Court were made in the mid-1940s (*Middle West decisions*)²³ and the mid-1960s (*American Natural Gas*).²⁴ The electric

²¹ It is settled law that agencies enjoy wide deference in interpreting the terms of the statutes they administer where Congress is silent on a specific issue. *Rust v. Sullivan*, 500 U.S. 173, 186 (1991); *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837, 841 (1984). Deference under *Chevron* is especially appropriate where the regulated industry is prone to structural evolution. “Our deference is particularly great where, as here, the issues involve ‘a high level of technical expertise in an area of rapidly changing technological and competitive circumstances.’” *Verizon Tel. Cos. v. FCC*, 292 F.3d 903, 909 (D.C. Cir. 2002) (quoting *Sprint Comms. Co. v. FCC*, 274 F.3d 549, 556 (D.C. Cir. 2001)); *See also, e.g., Nat’l Home Equity Mortgage Ass’n v. Office of Thrift Supervision*, 373 F.3d 1355, 1360 (D.C. Cir. 2004) (“An agency’s interpretation of a statute is entitled to no less deference . . . simply because it has changed over time”); *Southern Utah Wilderness Alliance v. Dabney*, 222 F.3d 819, 828 (10th Cir. 2000) (“An agency is free to change the meaning it attaches to ambiguous statutory language, and the new interpretation may still be accorded *Chevron* deference.”); *Lovilia Coal Co. v. Harvey*, 109 F.3d 445, 452 (8th Cir. 1997); *Himes v. Shalala*, 999 F.2d 684, 690 (2d Cir. 1993).

²² Were the Commission required to divide the country into set geographic regions – for example, by adopting the Associations’ suggestion that the Commission limit itself to the specific geographical boundaries developed by regional power pools – even contiguous systems that were closely interconnected could be deemed not to operate in a “single area or region” if they happened to fall on two sides of an arbitrary geographic line. Such a reading would make no sense, and the Court agreed that the Commission rightly rejected any such approach as controlling its determinations.

²³ *Middle West Corp., Holding Co.* Release No. 4846, 15 S.E.C. 309 (1944); *Middle West Corp., Holding Co.* Release No. 5606, 18 S.E.C. 296 (1945).

²⁴ *American Natural Gas Co.*, 43 S.E.C. 203, 206 (1966).

industry and the national economy have changed dramatically since that time.²⁵ The most significant change can be identified as the broadening of the areas in which electric utilities coordinate their operations and engage in power transactions. This has occurred as a result of both dramatic advances in transmission technology and the expansion of the related infrastructure described by AEP witness Johnson (AEP Exhibit No. 2 at 5-8, 12-5), together with the changes in the regulatory and commercial setting of the industry as described by AEP witness Baker. AEP Exhibit No. 5 at 21. Accordingly, any discussion of the “single area or region” requirement in the context of the electric power industry should recognize that an appropriate area or region must be much broader than existed when the Act was passed and when the Commission last reviewed this requirement nearly a half century ago.

The same is true for the economy as a whole. AEP witness Dr. David Harrison described in his Prepared Direct Testimony a significant expansion of economic interactions between localities that has occurred since the Act was passed, in large part because of expansions in critical infrastructure that permit the transportation of goods across broader areas.

Unquestionably, the U. S. economy is significantly less balkanized than it was in 1935 when the Act was passed.

In order to provide a meaningful modern definition of a single area or region, AEP presented the testimony of Dr Harrison, who is an expert in the field of regional economics. He

²⁵ The Supreme Court “has rejected the argument that an agency’s interpretation ‘is not entitled to deference because it represents a sharp break with prior interpretations’ of the statute in question.” *Rust*, 500 U.S. at 186 (quoting *Chevron*, 467 U.S. at 862); *Strickland v. Comm’r, Maine Dep’t of Human Servs.*, 48 F.3d 12, 18 (1st Cir. 1995). Indeed, agencies enjoy *Chevron* deference not “because of a presumption that they drafted the provisions in question, or were present at the hearings . . . , but rather because of a presumption that Congress, when it left ambiguity in a statute meant for implementation by an agency, understood that the ambiguity would be resolved . . . by the agency.” *Id.* at 741. Thus, in *Chevron* itself, the Supreme Court specifically ruled that the EPA was allowed to shift its interpretation of the term “source” under the Clean Air Act in order to properly implement Congressional policy “in a technical and complex area.” 467 U.S. at 863.

testified that regions are identified by regional economists on two general bases: “(1) homogeneous regions demarcated on the basis of internal uniformity []; and (2) functional regions based upon areas that exhibit more interaction with one another than with outside areas based upon some criteria.”²⁶ AEP Exhibit No. 1 at 3-4. Dr. Harrison testified that “one means of defining homogeneous regions would be in terms of the location of common types of facilities,” while “functional regions are characterized by economic interdependence.” *Id.* at 4. Dr. Harrison explained that this economic interdependence consists of the movement of goods and services and other measures of transactions within the region, including transportation infrastructure. *Id.* at 4 and 7.²⁷

AEP has presented four separate analyses of the area in which the Combined System operates, applying a combination of the regional characteristics of homogeneity and functional interdependence described by Dr. Harrison, to assess whether the Combined System can be found to operate in a single area or region. Each of these analyses standing alone would be sufficient to satisfy the statutory requirement. In combination, they provide compelling evidence that the Combined System meets this requirement on several separate bases. No testimony or other evidence was submitted to rebut these analyses or the conclusion based on them, and the

²⁶ Citing Hoover, E. M. and F. Giarratani. *An Introduction to Regional Economics*. Third Edition. University of Pittsburgh. URL: <http://www.rri.wpi.edu/WebBook/Giarratani/main.htm>.

²⁷ Defining regions on the basis of both homogeneity and functional interdependence is not inconsistent with the analyses of this issue by the Commission in the 1940s and 1960s. In its 1944 and 1945 *Middle West* orders, the Commission appeared to focus on attributes of homogeneity in identifying a single area or region. *Middle West*, 15 S.E.C. 309, 339 (1944); *Middle West*, 18 S.E.C. 296, 305 (1945). In its 1966 *American Natural Gas* order, the Commission appeared to focus on functional attributes in determining that the subject gas properties were in a single area or region. *American Natural Gas Co.*, 43 S.E.C. 203, 206 (1966). For example, among the circumstances present that the Commission noted before making its finding were “such factors as industrial, marketing and general business activity [and] transportation facilities” around the Great Lakes, functional characteristics as defined by Dr. Harrison.

substantial evidence in the record therefore supports AEP's position that the Combined System satisfies this requirement of the Act.

B. The Eastern Interconnection has evolved into a region on the basis of homogeneous and functional attributes.

The Eastern Interconnection consists of the synchronized electric system that encompasses most of the eastern half of the United States. The Eastern Interconnection has the attribute of homogeneity in that it is the only common electric transmission and distribution infrastructure in the eastern portion of North America.²⁸ AEP Exhibit No. 2 at 6-7. The Eastern Interconnection is defined as the collective interconnected electric transmission and distribution lines that operate in synchronism in the area east of the Rocky Mountains (excluding some of Texas). *Id.*

The Eastern Interconnection also exhibits the attributes of a single functional region, because there is interdependence among all of the participants in the Interconnection. As Mr. Johnson explained, because the Interconnection operates synchronously, utilities throughout the interconnection must coordinate their activities to maintain system reliability, and events occurring at locations within the interconnection affect power flows throughout the Interconnection. AEP Exhibit No. 2 at 18-22. The August 14, 2003, blackout is an example of this interdependence. *Id.* at 23.

At the time the Act was passed, the Eastern Interconnection could not have been described accurately as a single area or region. The Eastern Interconnection did not exist in its present form when the Act was passed, or at the time the Commission first addressed the single area or region requirement in 1944 and 1945. As AEP witnesses Johnson and Baker testified, advances in technology, the economies and efficiencies that result from interconnection and

²⁸ See AEP Exhibit No. 3

coordination of electric utilities, plus changes in the law intended to promote interconnection, have driven the industry to become increasingly expanded and interconnected. At the time of the Act, this process had just begun and three separate interconnections covered only a portion of the area now covered by the Eastern Interconnection. AEP Exhibit No. 2 at 8-11 As the years passed and transmission technology advanced, these three interconnections were tied together, and with other utility interconnections, to form the Eastern Interconnection, which now operates, in the words of the United States Department of Energy, as “the world’s largest synchronized machine.” *Id.* at 22.

Mr. Baker explained that these changes were also accomplished as a result of federal laws and policies that promoted increased interconnection, coordination and competition. AEP Exhibit No. 5 at 22-23. These changes are related directly to the matter at issue because the Act’s single area or region requirement exists because of concerns over the ability of utilities to operate as integrated systems over broader geographic areas. However, the expansion of utility interconnections since 1935 has enhanced the ability to achieve economies through coordinated, single-system planning and operation, which is the essence of integration. AEP Exhibit No. 5 at 5-9.

The FERC has taken actions over the past 10 years to expand the capability to trade electric power across the entire Eastern Interconnection. First, by establishing open access to transmission in Order No. 888 it eliminated ownership of transmission as a barrier to transacting in electricity across the Interconnection. Second, by establishing RTOs, it further facilitated enhanced trading across broad areas throughout the Eastern Interconnection by transferring operational authority to independent entities that are required under FERC rules to establish broad regional markets for electric power. Third, the FERC has taken steps to eliminate “seams”

between RTOs that would inhibit trading. It has moved toward the elimination of rate pancaking, which makes it economical to buy and sell electricity at very great distances across multiple electric systems and even across multiple RTOs. And, it has recently approved joint operating agreements between RTOs, including PJM, MISO and SPP (in which most of the Combined System operate) to facilitate trading across great distances. AEP Exhibit No. 5 at 30-31.

As Mr. Johnson testified, the expansion of the scope of electric markets "...takes advantage of the Eastern Interconnection's 'oneness' to foster greater economic benefits to entities within the eastern footprint." AEP Exhibit No. 2 at 24. Mr. Baker therefore testified that, from an electrical standpoint, the Eastern Interconnection can accurately be described as a 'single area'." AEP Exhibit No. 5 at 21.

The United States Supreme Court, in its decision upholding FERC Order No. 888, refers to the homogeneous and functional attributes of the interconnected grids, one of which is the Eastern Interconnection, reinforcing the conclusion that the Eastern Interconnection is a distinct region:

unlike the local power networks of the past, electricity is now delivered over three major networks, or "grids" in the continental United States . . . [A]ny electricity that enters the grid immediately becomes a part of a vast pool of energy that is constantly moving in interstate commerce. As a result, it is now possible for power companies to transmit electric energy over long distances at a low cost.

New York v. FERC, 535 U.S. at 7 (footnotes omitted). Likewise, FERC has emphasized that the "transmission facilities of any one utility in a region are part of a larger, integrated transmission

system.”²⁹ In terms apt for the Commission’s present purpose of determining whether AEP’s operations are within a “single” area or region, the FERC has emphasized that:

From an electric engineering perspective, each of the three interconnections in the United States (the Eastern, the Western, and ERCOT) operates as a single machine.³⁰

Based on all of the foregoing characteristics, consisting of both homogeneous and functional attributes, the Eastern Interconnection can be defined as a single area or region for purposes of the Act. All of AEP’s non-ERCOT operations are entirely within the Eastern Interconnection and, therefore, are within a single area or region for purposes of the Act. The ERCOT and non-ERCOT portions of the former CSW are directly interconnected and the Commission has already found that the ERCOT and non-ERCOT portions of the former CSW system are integrated,³¹ so it is proper to consider the ERCOT portion of CSW as being in the same area of region. In addition, even if the ERCOT portion of CSW were not integrated with the rest of that system, AEP would be permitted to retain this part of the system pursuant to Section 11(b)(1)(A)(B)(C) of the Act because the ERCOT portion of the Combined System cannot be operated as an independent system without the loss of substantial economies. Mr. Baker testified that operating the ERCOT portion of the Combined System separately would entail lost economies in excess of \$50 million per year. AEP Exhibit No. 5 at 22.

²⁹ *Regional Transmission Organizations*, Order No. 2000, 65 Fed. Reg. 809 (Jan. 6, 2000), FERC Stats. & Regs. ¶ 31,089 at 31,003 (1999), *order on reh’g*, Order No. 2000-A, 65 Fed. Reg. 12,088 (March 8, 2000), FERC Stats. & Regs. ¶ 31,092 (2000), *petitions for review dismissed sub nom. Pub. Util. Dist. No. 1 of Snohomish County, Washington v. FERC*, 272 F.3d 607 (D.C. Cir. 2001) (“Order No. 2000”).

³⁰ *Regional Transmission Organizations*, Notice of Proposed Rulemaking, 64 Fed. Reg. 31,389 (June 10, 1999), FERC Stats. & Regs. ¶ 32,541 at 33,697 (1999).

³¹ *See Central and South West Corp., Holding Co.* Act Release No. 22439 (Apr. 1, 1982).

i. The PJM, MISO and SPP RTOs are part of a single region on the basis of homogeneous and functional attributes.

The predominant *homogeneous* attributes of the PJM, MISO and SPP RTOs (“Coordinated RTOs”) are (1) as a subset of the Eastern Interconnection, they are part of the common electric transmission and distribution infrastructure in the eastern portion of North America, and (2) substantially identical Joint Operating Agreements establish rules for market transactions within and between PJM, MISO and SPP. AEP Exhibit No. 5 at 29-31. The predominant *functional* attribute of these three RTOs is that they form a region in which the combination of FERC rules and electric infrastructure facilitate commercial activity and interdependence among its electric power participants. *Id.* at 33.

AEP submitted evidence that in recent years FERC has pursued a policy of expanding the scope and scale of electric industry institutions and markets. The first phase began with FERC Order No. 888, which, as discussed earlier, essentially made interstate transmission systems common carriers. AEP Exhibit No. 5 at 11-12. This action, by itself, greatly expanded the interaction of electric utilities and use of the interstate transmission grid. *Id.* Electric transmission systems, which once were used principally by vertically-integrated electric utilities to serve their local customers, became increasingly used for commerce between and among utilities. *Id.* at 24. New industry entrants, including Exempt Wholesale Generators (“EWGs”) and power marketers, began to use electric transmission systems to effect long distance power transactions. *Id.* FERC has described the effect of Order No. 888 (and its companion order, No. 889), as follows:

Power resources are now acquired over increasingly large regional areas, and interregional transfers of electricity have increased. The very success of Order Nos. 888 and 889, and the initiatives of some utilities that have pursued voluntary restructuring beyond the minimum open access requirements, have placed new stresses on

regional transmission systems – stresses that call for regional solutions.

Order No. 2000, at 30,996-97.

The “regional solutions” fashioned by FERC included its issuance of Order No. 2000 on December 20, 1999, signaling the second phase of its policy initiatives. AEP Exhibit No. 5 at 26-27. FERC issued Order No. 2000 to advance the formation of RTOs, which both control and operate the combined transmission systems of the members of the RTOs and manage centralized wholesale electricity markets. *Id.* at 27-28.

Since Order No. 2000, several RTOs have been approved by the FERC, including PJM, MISO and SPP. *Id.* at 28-30. These three large RTOs cover the area encompassed by the Combined System (excluding ERCOT) and beyond.³² In fulfillment of conditions imposed by the FERC on approval of the Merger, the AEP east zone operating companies have become members of PJM and its non-ERCOT west zone companies have become members of SPP. *Id.* at 29-30.

The third phase of FERC’s policy initiatives began with its issuance of a Notice of Proposed Rulemaking proposing a Standard Market Design for the nation (“SMD NOPR”).³³ *Id.* at 28-29. Among other things, the SMD NOPR envisioned the creation of geographically large electricity markets with standard market rules, employing centralized dispatch of generation resources, and tying together RTOs through joint operating agreements and joint and common markets. *Id.*

³² See AEP Exhibit No. 9.

³³ *Remedying Undue Discrimination Through Open Access Transmission Service and Standard Electricity Market Design*, Notice of Proposed Rulemaking, FERC Stats. & Regs. ¶ 32,563 (2002), 67 Fed. Reg. 55451 (Aug. 29, 2002), 67 Fed. Reg. 58751 (Sept. 18, 2002), 67 Fed. Reg. 63327 (Oct. 11, 2002).

In July 2002, FERC conditionally approved the choice of AEP and others to join the PJM RTO rather than the MISO, but imposed conditions that emphasized FERC's desire to bring PJM and MISO together into one energy market.³⁴ *Id.* at 29-30. As a result, the practice of charging additive (in FERC parlance "pancaked") transmission rates for transactions throughout the combined PJM/MISO footprint was eliminated, effective December 1, 2004. *Id.* In addition, PJM and MISO will, beginning this spring, be operating pursuant to a common set of market rules that implement the FERC's Standard Market Design. The MISO/PJM joint operating agreement ("JOA") has been negotiated and accepted by FERC and is now in operation. *Id.* The JOA is a state-of-the-art agreement providing for a higher level of operational coordination and cooperation than had ever existed between or among existing RTOs, utilities or control areas. *Id.*

This market will now encompass the SPP as well, as the result of orders issued in 2004 by FERC granting SPP RTO status.³⁵ *Id.* at 30-31. FERC's approval of the SPP as an RTO was based on SPP's creation of a joint and common market with MISO and negotiation of a JOA between SPP and MISO. *Id.* FERC has accepted a JOA addressing early stage operations and ordered SPP and MISO to negotiate and file a mutually agreeable JOA for more advanced operations by December 1, 2004.³⁶ *Id.* The latter was filed with the FERC in December,³⁷ and is being reviewed by the FERC at this time.

³⁴ *Alliance Companies*, 100 FERC ¶ 61,137 (2002), *order on clarification*, 102 FERC ¶ 61,214 (2003), *order on reh'g and clarification*, 103 FERC ¶ 61,274 (2003), *order denying reh'g and granting clarification*, 105 FERC ¶ 61,215 (2003); *appeal docketed sub nom., American Electric Power Serv. Corp. v. FERC*, No. 03-1223 (D.C. Cir. Aug. 1, 2003).

³⁵ *Southwest Power Pool, Inc.* 106 FERC ¶ 61,110 (2004); *order on compliance filing*, 108 FERC ¶ 61,003 (2004).

³⁶ *Southwest Power Pool, Inc.* 109 FERC ¶ 61,008 (2004).

³⁷ *Southwest Power Pool, Inc.* Docket No. ER04-1096-000 (December 2, 2004).

These FERC actions tie the Combined System to the electricity coordination and market area encompassed by the Coordinated RTOs, establishing that by operating within these three RTOs, the Combined System lies within a single area or region from the standpoint of electric power institutional arrangements, common markets and functional interactions relating to electricity. It is expected that the actions taken by FERC to create the three RTOs, and then to minimize market barriers and inefficiencies between them, will reduce variations in the wholesale price of electricity, increase bulk power trading activity and produce a more efficient distribution of energy resources. AEP Exh. 5 at 28-31.

As further support for this “area or region” definition, Mr. Baker testified that the AEP east and west zones are part of the same wholesale power market by virtue of the fact that the Combined System’s operators trade power by transmitting it across the Contract Path on a daily and hourly basis based on market demand and prices. AEP Exhibit No. 5 at 32. This applies to both the ERCOT and non-ERCOT portions of the Combined System. *Id.* at 33. Mr. Baker further explained that:

[T]his market is fundamentally defined as all of the generating resources and load commitments that are situated in a common transmission infrastructure. AEP trades in this market most actively in the PJM, Cinergy Hub and Energy Hub (which I refer to as the “Hubs”). The Hubs are different locations in this market that brings buyers and sellers of wholesale power together. All of the utility participants in these Hubse are either directly or indirectly linked through a common transmission infrastructure. The AEP East zone is in PJM and is adjacent to the Cinergy Hub. The AEP West zone is adjacent to the Entergy Hub.

AEP Exhibit No. 5 at 33.

The Associations assert that the Coordinated RTOs cannot be a single region because “the very name ‘Regional’ Transmission Organization indicates that each RTO is a separate

region[.]” (Associations Statement of Position at 18). However, the Court has already dispensed with this argument:

While the *Commission* could potentially point to boundaries identified by ... FERC as evidence that a utility system is confined to a single region, *The Associations* may not point to such boundaries as evidence that a utility system is not so confined. The Commission may make its own decision regarding the meaning of the region requirement

NRECA v. SEC, 276 F.3d at 617 (emphasis in original). Accordingly, the Associations were free to present evidence in this proceeding that the RTO boundaries should be used to establish the boundaries of a single area or region under the Act, but they could not simply rely on FERC’s definitions without such evidence. They did not present any evidence, and their unsupported allegations are therefore insufficient to rebut the substantial evidence submitted by AEP in support of defining the Coordinated RTOs as a single area or region.

ii. ***The service territories of the Combined System and the utilities directly interconnected constitute a single region that the Commission has identified as relevant for other purposes under the Act.***

For purposes of its analysis under Section 10(b)(1) of the Act, the Commission has defined the relevant area or region of operation by application of the concept of the service areas of “first-tier utilities.” In its 1993 order approving Entergy Corporation’s proposed acquisition of Gulf States Utilities, the Commission adopted and approved Entergy’s proposal that the appropriate region for this 10(b)(1) test be defined by the first-tier interconnections of the merging companies (that is, the relevant region consisted of the Entergy and Gulf States operating territories, and all the utilities directly interconnected with either). Analyzing the competitive effects of the merger in light of this definition of the relevant region, the Commission found that the merger “would not significantly change the relationship between the

size of the Entergy system and the rest of the electric utility industry in the region.”³⁸ In *Entergy*, the Commission cited Section 2(a)(29), the definition of an “integrated public-utility system,” in support of the proposition that the Commission must “exercise its best judgment under Section 10(b)(1) as to the maximum size of a holding company in a particular area.”³⁹ See also, *Northeast Utilities, Holding Co. Act Release No. 25221* (Dec. 21, 1990) (“Section 10(b) allows the Commission to exercise its best judgment as to the maximum size of a holding company in a particular *area*, considering the state of the art and the *area or region* effected”) (emphasis added).⁴⁰

AEP also used the “first-tier utility” method to define the relevant region under Section 10(b)(1) in its application. The Commission found that the Merger satisfied the requirements of Section 10(b)(1), and that finding was not challenged on appeal.

The Commission’s definition of the relevant region for purposes of Section 10(b)(1) of the Act provides an appropriate definition of the same term for purposes of meeting the “single area or region” test under Section 2(a)(29). Just as competitive interactions between utilities have become increasingly central to the way in which utilities must operate, it makes sense that the definition of area or region used by the Commission to assess competitive conditions should be the same as the one used to establish whether utilities operate in a single area or region for purposes of the integrated public-utility system requirement. The Act requires the Commission

³⁸ *Entergy Corp., Holding Co. Act Release No. 25952* (Dec. 17, 1993), *request for reconsideration denied*, *Holding Co. Act Release No. 26037* (Apr. 28, 1994), *remanded sub nom. Cajun Elec. Power Coop. Inc. v. SEC*, 1994 WL 704047 (D.C. Cir. Nov. 16, 1994), *on remand*, *Entergy Corp., Holding Co. Act Release No. 26410* (Nov. 17, 1995) (citations omitted) (emphasis added).

³⁹ *Entergy Corp., Holding Co. Act Release No. 25952* at n.34 (Dec. 17, 1993).

⁴⁰ See, e.g., *Sierra Pacific Resources, Holding Co. Act Release No. 24566* (Jan. 28, 1988); *Eastern Utilities Associates, Holding Co. Act Release No. 24245* (Nov. 21, 1986).

to identify the appropriate area or region in which holding companies operate for two purposes -- competition and system integration -- and it is reasonable for the Commission to apply consistent definitions in both contexts in the absence of policy reasons or factual evidence which demonstrate that the same regional definition should not apply.

AEP also submitted into evidence a map showing that the Combined System and the first-tier utilities are in a single region. AEP Exhibit No. 11. The shaded area on the map forms a single seamless area, devoid of any attributes of gerrymandering or "scatteration." As further indicated on the map, this area or region has a well-developed transmission system that interweaves and binds together this region and supports its function as an economic unit.

iii. The Combined System lies within a single functional region defined by significant non-electric economic interactions .

AEP witness Dr. Harrison presented substantial evidence to establish that the Combined System is part of a larger single area or region on the basis of both homogeneous and functional attributes. The predominant homogeneous characteristics of this region were derived from the location of manufacturing and employment centers. AEP Exhibit No. 1 at 4. Dr. Harrison testified that the following processing and manufacturing centers were evidence of a homogeneous economic region: petroleum, machinery (excluding electric), fabricated metals and instruments. Tr 17:12-18:22. Most of Dr. Harrison's testimony identified functional attributes, demonstrated by trade flows and infrastructure, which further support the finding of an economic region. Dr. Harrison testified that, "transportation infrastructure is crucial to the determination of the geographic scope of a functional region." AEP Exhibit No. 1 at 7.

Dr. Harrison pointed to the following infrastructures and related trade flows that were vital to the economic interdependence of the region that have developed considerably over the past 70 years to lower transactional and commercial costs: natural gas pipelines (*Id.* at 8-14),

crude oil pipelines (*Id.* at 14-22), road networks (*Id.* at 22-28), waterways (*Id.* at 28-33), railways (*Id.* at 33-37). Dr. Harrison testified to the significant trade flows that illustrate the linkages among parts of the region:

The substantial infrastructure that connects the AEP East and AEP West states facilitates a substantial amount of trade between them. In 1997, AEP West states exported over \$65 billion worth of goods to AEP East states and AEP East states exported almost \$95 billion worth of goods to AEP West states.

Id. at 37. To interpret these results and compare them with trade flows from other areas, Dr. Harrison developed linkage coefficients using equations accepted by regional economists. *Id.* at 39 (citing Hoover, E. M. and F. Giarratani. *An Introduction to Regional Economics*. Third Edition. University of Pittsburgh). Dr. Harrison described the process and results as follows:

I considered linkages among the four U.S. Census regions, using information on domestic trade flows from the Bureau of Transportation Statistics. [There are] four U.S. Census regions – the Northeast, the Midwest, the South, and the West.⁴¹ ... [T]he linkage coefficients ... indicate that the Midwest and South regions (which consist of three and eight AEP states, respectively) are the most closely connected of the four Census regions. This suggests that these two Census regions are in a broad economic region, encompassing much of the center of the country.

Id. at 39-40. The coefficient linkage for the Midwest and South⁴² was 0.51, the next highest was 0.36 (the coefficient linkage for the South and Northeast). *Id.* at 41.

In summarizing the significance of the analytical evidence that is reviewed in his testimony, Dr. Harrison concluded:

⁴¹ Three of the AEP states (Ohio, Indiana and Michigan) are located in the Midwest region and the remaining eight (West Virginia, Virginia, Kentucky, Tennessee, Arkansas, Louisiana, Oklahoma and Texas) are located in the South region.

⁴² The Combined System is situated exclusively within the Midwest and South.

The totality of the evidence indicates to me that the AEP combined system is located within a broader region. This broader area includes key infrastructure -- including pipelines, waterway, railroads, and highways -- that functionally tie the parts of the region together. Trade flows and product price relations provide additional indicates of the usefulness of identifying this broad area for purposes of the Act.

AEP Exhibit No. 1 at 42. No party in the case attempted to rebut Dr. Harrison's testimony. It is even more significant that no party, including those who appealed from the Commission's previous order approving this merger, offered any evidence in support of an alternative analytical approach. Dr. Harrison is eminently qualified to testify on the subject of regional economics; his testimony is based upon a thorough and careful analysis; and, his analysis and conclusions are unchallenged by any record evidence in this proceeding.

IV. CONCLUSION

On the basis of the substantial evidence added as a result of the Hearing, the record before the Commission is more than sufficient to demonstrate that the Combined System satisfies both the interconnection as well as single area or region requirements of the Act.

Respectfully submitted,



John B. Keane

Jeffrey D. Cross

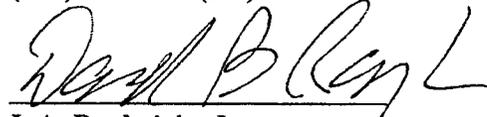
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Dated: February 14, 2005

Attachment A

Proposed Findings of Fact and Conclusions of Law

**Proposed Findings of Fact
And
Conclusions of Law¹**

I. Findings of Fact - Interconnection Requirement:

1. In order to interconnect the east and west portions of the Combined System, AEP has acquired a contract for firm transmission service between the AEP east zone, consisting of the pre-merger AEP system, and the AEP west zone, consisting of the pre-merger CSW system. ("Contract Path"). AEP Exhibit No. 5 at 9.

2. The transmission service acquired by AEP to establish the Contract Path is pursuant to the rates, terms and conditions of the FERC OATT. AEP Exhibit No. 5 at 9, 12-13.

3. The FERC OATT permits AEP to redirect east to west firm transmission service to permit deliveries from west to east on either a firm or non-firm basis at no additional cost, subject to the availability of transmission capacity for such redirected service. AEP Exhibit No. 5 at 10-11, 13.

4. The Contract Path acquired by AEP between the AEP east zone and the AEP west zone permits AEP to schedule deliveries in both directions and is not limited to deliveries in the east to west direction. AEP Exhibit No. 5 at 10-11, 13.

5. AEP has used, and will continue to use, the Contract Path to move power from the AEP west zone to the AEP east zone in circumstances where the price of electric power in AEP east is higher than the price of power in AEP west. Since the Merger took place, approximately 2 percent of the transfers over the Contract Path have been from west to east. AEP Exhibit No. 5 at 15-17.

6. AEP studied the requirement for transfers between the AEP east and AEP west systems prior to the merger and concluded that the vast majority of transfers required for system integration purposes would be in the east to west direction. This analysis has turned out to be correct. AEP Exhibit No. 5 at 15.

¹ These Proposed Findings of Fact and Conclusions of Law use the defined terms that are defined in the Post Hearing Brief of AEP of which these Proposed Findings and Conclusions are a part.

7. AEP made a correct judgment that it would not have been economical to purchase a second firm contract transmission path from west to east to interconnect the Combined System in light of the high cost of acquiring this second transmission path for the limited amount of transfers in this direction necessary for integration purposes. Purchasing such a second firm contract path would have been inconsistent with the underlying purposes of the Act, which includes the interest of consumers of electric energy. AEP Exhibit No. 5 at 16-17.

8. AEP studied the availability of transmission capacity to make transfers from AEP west to AEP east and concluded that it was reasonable to rely on redirected non-firm transmission service for such transfers. AEP's most recent analyses confirm its prior conclusions. AEP Exhibit No. 5 at 16-17.

9. Since the consummation of the merger, transmission service from west to east has been consistently available when it has been economical for AEP to transfer power from west to east, and it is likely to be available to meet AEP's future west to east needs. AEP Exhibit No. 5 at 17-18.

10. AEP has the option in the future to purchase firm transmission service from west to east to upgrade the Contract Path if it concludes that such service is necessary. AEP Exhibit No. 5 at 17-19.

11. AEP has the option of acquiring transmission service over alternative paths under the FERC OATT if it concludes in the future that the existing Contract Path is inadequate. AEP Exhibit No. 5 at 20.

12. Since the issuance of FERC Order No. 888, the Commission has issued at least four decisions approving utility mergers under the Act, other than its 2000 Order approving the Merger, in which it has approved the interconnection of utilities separated by hundreds of miles using contract transmission rights that have been reserved on a firm basis in only one direction. *CP&L Energy, Inc., Holding Co.* Act Release No. 27284, 54 S.E.C. 996 (Nov. 27, 2000); *Exelon Corp., Holding Co.* Act Release No. 27256 (Oct. 19, 2000); *New Century Energies, Holding Co.* Act Release No. 27212 (August 16, 2000); *See also Energy East Corp, Holding Co.* Act Release No. 27224 (August 31, 2000).

13. The distance between the AEP east system and the AEP west system is approximately 250 miles, which is significantly less than the distances between other merging utilities in which the Commission has approved the use of a contract

path for interconnection purposes. Tr. 60:21-61:9; see also AEP Post-Hearing Brief at 10-11.

14. FERC Order No. 888 has significantly expanded the availability of transmission services on third party transmission systems, making it possible to rely more heavily on contract transmission rights pursuant to the FERC OATT to achieve interconnection under the Act. AEP Exhibit No. 5 at 11-12, 25-26

15. A primary objective of the open transmission access requirements of FERC Order No. 888 is to achieve "comparability" between the ownership and third party contract use of transmission, reducing the functional distinctions between ownership and third party use of transmission. AEP Exhibit No. 5 at 12

16. Even prior to Order No. 888, the Commission's decisions since the 1960s evidenced an evolution toward permitting utilities to use contract paths to achieve interconnection in appropriate circumstances. See AEP Post-Hearing Brief at 15-16.

17. Order No. 888 transmission service is available for deliveries over long distances, and the terms and conditions of the FERC OATT do not favor short distance over long distance transmission transactions. AEP Exhibit No. 5 at 35.

18. The establishment of RTOs under FERC Order No. 2000 has facilitated the contract transmission of power over longer distances, in part because FERC has eliminated the charging of multiple ("pancaked") transmission rates for service within RTOs. AEP Exhibit No. 5 at 35.

19. The facts concerning AEP's acquisition of the Contract Path using the FERC OATT (AEP Exhibit No. 5 at 9-13), the formation of RTOs on either side of the Contract Path which enhances the availability of transmission service (AEP Exhibit No. 5 at 18), the ability of AEP to reserve firm transmission service from west to east under the FERC OATT if AEP desires to upgrade the Contract Path in the future (AEP Exhibit No. 5 at 32), and the availability of transmission service over alternative contract paths (AEP Exhibit No. 5 at 20; AEP Exhibit No. 8), all confirm the reasonableness of the Commission's willingness to approve the use of a Contract Path to interconnect the AEP and CSW systems.

II. Findings of Fact - Single Area or Region Requirement

1. The requirements of the Act are properly interpreted by taking into account the state of the art of the industry and the effects of the regulatory environment. AEP Exhibit No. 5 at 21; Tr. 48:17-22.

2. The Commission has not addressed the single area or region requirement of the Act with specificity in approximately forty years. See AEP Post-Hearing Brief at 22-23.

3. The structure, operation and commercial arrangements in the electric power industry have changed substantially since the Commission last addressed the single area or region requirement with specificity. AEP Exhibit No. 2 at 8-14; AEP Exhibit No. 5 at 22-29.

4. A significant change in the electric utility industry over the past fifty years has been the expansion of the areas in which utilities can trade electric power, both as a result of new transmission technologies and increased interconnection between utilities. AEP Exhibit No. 5 at 31.

5. Transmission technologies have improved over the past fifty years and now permit large quantities of electric power to move over distances of a thousand miles or more at extremely high voltages. AEP Exhibit No. 2 at 11-12, 15.

6. The electric transmission grid has become more tightly interconnected over the past fifty years, and the electric grid is therefore more interdependent highly coordinated for reliability. AEP Exhibit No. 2 at 13-15.

7. There have been significant changes in the commercial setting of the electric power industry during the past fifty years in that utilities now participate in broad wholesale power markets in which significant amounts of electric power are traded over long distances. AEP Exhibit No. 5 at 27-29.

8. The United States economy has experienced significant changes during the past fifty years. The economy is now less balkanized and commerce can flow over long distances using various means of transportation that were less developed in earlier decades. AEP Exhibit No. 1 at 3-4.

9. Economists define regions both in terms of homogeneity (i.e., similarities within areas of the country) and functional interdependence (internal commercial interactions that exceed interactions outside an area), and both

definitions can and should be used to define a single area or region. AEP Exhibit No. 1 at 3-8.

10. The Eastern Interconnection consists of the synchronized electric system that encompasses most of the eastern United States. AEP Exhibit No. 2 at 14-15; AEP Exhibit No. 5 at 21.

11. The Eastern Interconnection has the attribute of homogeneity in that it is the only common electric infrastructure that is available for trade and coordination in the eastern United States. AEP Exhibit No. 2 at 14-15; AEP Exhibit No. 5 at 21-22.

12. Because the Eastern Interconnection operates synchronously, all utilities in the Eastern Interconnection must coordinate their operations for reliability and events occurring at any one place in the Eastern Interconnection affect power flows throughout the Interconnection. AEP Exhibit No. 2 at 13, 17-18.

13. At the time the Act was passed, the Eastern Interconnection could not have been characterized as a single area or region. AEP Exhibit No. 2 at 13.

14. The efficiencies and greater reliability that are gained through increased interconnection and coordination have driven the electric industry to move toward expansion and interconnection of the transmission grid. AEP Exhibit No. 5 at 22.

15. Federal laws and policies have promoted increased coordination and interconnection and are responsible in part for the larger interconnected network that currently exists in the eastern United States. AEP Exhibit No. 5 at 22-24.

16. The Eastern Interconnection now operates as a single, synchronized machine. AEP Exhibit No. 2 at 21-22.

17. The FERC's policies have promoted the establishment of broad electricity markets. These policies include FERC's Order No 888 establishing open access transmission, FERC's Order No. 2000 promoting the formation of RTOs, and the FERC's Standard Market Design rulemaking. AEP Exhibit No. 5 at 25-29.

18. The ERCOT and non-ERCOT portions of the Combined System are directly interconnected and the Commission has previously found that these two parts of the former CSW system are integrated. *See Central and South West Corp., Holding Co. Act Release No. 22439 (Apr. 1, 1982).*

19. The ERCOT portion of the Combined System cannot be operated independently of the rest of AEP without incurring substantial lost economies. The amount of such lost economies has been projected as approximately \$50 million per year. AEP Exhibit No. 5 at 22.

20. The MISO, PJM and SPP are three FERC approved RTOs in the Eastern Interconnection. AEP Exhibit No. 5 at 29.

21. The FERC has approved joint operating agreements between PJM and MISO, and between MISO and SPP, that have eliminated market "seams" between these RTOs and moved the three RTOs in the direction of establishing a single common market across their entire geographic footprint. AEP Exhibit No. 30-31.

22. The FERC has eliminated transmission rate "pancaking" for transactions across the boundaries of PJM and MISO, and has stated its intent to eliminate such pancaking across the boundaries of MISO and SPP. These FERC actions are facilitating the formation of a single common market encompassing the three RTOs. AEP Exhibit No. 5 at 35.

23. The AEP east and AEP west zones are part of the same wholesale power market. AEP Exhibit No. 5 at 32.

24. The Commission has used the service territories of merging utilities plus their interconnected neighbors ("first tier utilities") to define a region of operation for purposes of analyzing the competitive effects of mergers. AEP Exhibit No. 5 at 36.

25. In light of the importance of competition to the electric industry at this time, it is reasonable to use the definition of a region used by the Commission for competition analysis for the purpose of defining a single area or region for purposes of meeting the integrated public utility standard of the Act. AEP Exhibit No. 5 at 36-37.

26. The area comprised of the Combined System plus its directly interconnected neighbors forms a cohesive area without any attributes of gerrymandering or scatteration. AEP Exhibit No. 5 at 37.

27. Economists evaluate regions from the standpoint of both homogeneity and functional interdependence. Both are valid methods for analyzing regions. AEP Exhibit No. 1 at 3-4, 41-42.

28. The Combined System satisfies the regional characteristic of homogeneity in light of the location of manufacturing and employment centers. AEP Exhibit No. 1 at 6-7.

29. A study of economic (trade) linkages indicates that the Midwest and South census regions are the most closely connected of the four census regions in the United States, which supports the conclusion that these two census regions are in a broad economic region. AEP Exhibit No. 1 at 40-42.

30. The Combined System lies within a single area or region from the standpoint of the functional characteristic of interdependence and linkage as shown by a study of transportation infrastructure and related trade flows. AEP Exhibit No. 1 at 8-39.

31. As a result of the enormous growth of infrastructure and the volume of movement of goods, the appropriate size of economic regions has grown considerably since the Act was passed. AEP Exhibit No. 5 at 42-43.

III. Conclusions Of Law

1. The Commission has wide latitude to construe the Act, particularly where, as here, the issues involve "a high level of technical expertise in an area of rapidly changing technological and competitive circumstances."

2. The interconnection and single area or region provisions of the Act are appropriately construed in light of the state of the art of technology and operating practices in the industry and the evolution of the regulatory policies and rules that apply to the industry.

3. AEP has acquired sufficiently bidirectional contract transmission rights to satisfy the requirement of the Act that the Combined system be interconnected or capable of interconnection.

4. The Commission has reasonable grounds in this case for applying its current policy of permitting utilities separated by long distances to rely on contract transmission rights to achieve interconnection under the Act.

5. The Combined System operates within a single area or region of the United States for purposes of satisfying the single integrated public utility standard of the Act.