ADMINISTRATIVE PROCEEDING
FILE NO. 3-1476

UNITED STATES OF AMERICA
Before the
SECURITIES AND EXCHANGE COMMISSION

In the Matter of

AMERICAN ELECTRIC POWER COMPANY, INC.
2 Broadway
New York, New York

(70-4596)

Public Utility Holding Company Act of 1935

INITIAL DECISION

Irving Schiller
Administrative Law Judge

Washington, D. C.

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APPEARANCES: Richard M. Dickie, Albert X. Bader, Jr., John A. Guzzetta, Luin P. Fitch and Patrick F. Walsh of Simpson, Thacher and Bartlett for American Electric Power Company, Inc.

W. G. Porter, Jr., and M. P. Graney of Porter, Stanley, Platt & Arthur for Columbus and Southern Ohio Electric Company.

Thomas E. Kauper, Assistant Attorney General, Antitrust Division, Milton J. Grossman and Joseph J. Saunders for the United States Department of Justice.

William J. Brown, Attorney General of Ohio for the State of Ohio.

Honorable Henry W. Eckhart, Chairman, Public Utilities Commission.

Philip P. Ardery of Brown, Todd & Heyburn for the cities of Orrville, Ohio, Danville, Virginia and the Ohio Muncipal Electric Association.

Julian de Bruyn Kops, J. R. Newlin and Edward S. Pinney, G. Oliver Koppell, Edward O. Byrne and Robert W. Olson of Cravath, Swaine & Moore for the Dayton Power and Light Company, Amicus Curiae.

William J. Moran and Edward S. Pinney, G. Oliver Koppell, Edward O. Byrne and Robert W. Olson of Cravath, Swaine & Moore for The Cincinnati Gas & Electric Company, Amicus Curiae.

Aaron Levy, Bernard Nash, R. Moshe Simon, Gary N. Sundick and Fred J. Franklin for the Division of Corporate Regulation.

BEFORE: Irving Schiller, Administrative Law Judge

I. THE PROCEEDINGS

American Electric Power Company, Inc. ("AEP") a New York Corporation and a registered holding company under Section 3 of the Public Utility Holding Company Act of 1935, 49 Stat. 803, 812, 15 U.S.C. § 79e ("the Act") filed an Application-Declaration on Form U-1, pursuant to Sections 6(a), 7, 9 and 10 of the Act and the regulations thereunder for (1) authorization to make an offer to holders of outstanding Common Stock of Columbus and Southern Ohio Electric Company ("CSOE or Columbus"), a non-associate electric utility company operating in the State of Ohio, to exchange shares of AEP Common Stock ("AEP common") for shares of CSOE common stock on the basis of 1.3 shares of AEP common for each share of CSOE common.

On March 29, 1968, the Commission issued a Notice of Filing and Order For Hearing directing that a hearing commence on April 29, 1968. The hearings began on the date fixed and were concluded on November 8, 1968. (These hearings are referred to below as the "initial hearings".) The then parties in the proceeding, AEP and the Division of Corporate Regulation ("Division") entered into a stipulation which, among other things, waived an initial decision and established a briefing schedule for filing of briefs directly with the Commission. Immediately prior to the closing of the record, The Dayton Power and Light Company ("DPL") and the Cincinnati Gas & Electric Company ("CGE"), whose chief executive officers and other employees had testified as witnesses for the Division, requested and received permission to file briefs amici curiae. Briefs were duly filed by the parties, DPL and CGE. On April

17, 1969, AEP, in lieu of filing its reply brief, moved to reopen these proceedings requesting to be permitted to submit additional evidence relating to the possible anticompetitive effects of the proposed acquisition. Following a hearing on the application an order was issued on June 26, 1969 reopening the record and directing evidentiary hearings to commence July 15, 1969. However, as a result of delays due primarily to procedural requests by the parties and by other persons seeking to intervene in these proceedings, as noted below, the testimonial evidence did not commence until January 1970. In the interim and on April 14, 1969, Ohio Rural Electric Cooperatives Inc. ("OREC") filed a statement amicus curiae in support of the proposed acquisition, which was accepted into the record by order dated April 29, 1969. On April 21, 1969, the State of Ohio and the Public Utilities Commission of Ohio appeared as parties and filed a statement in support of AEP's application to reopen these proceedings. On June 12, 1969, the United States Department of Justice filed a notice of appearance and became a party. On June 19, 1969, the cities of Danville, Virginia ("Danville") and Orrville, Ohio ("Orrville") and the Ohio Muncipal Electric Association ("OMEA"), representing sixty-five muncipal electric utilities in Ohio, moved to intervene in these proceedings. After a hearing on the matter, Danville and Orrville were admitted as parties subject to filing appropriate authorization of counsel to appear on behalf of each city [1/] and OMEA was granted the right to participate in

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1/ The appropriate documents having been filed an order was entered on September 3, 1969 accepting the notices of appearances of counsel.

the proceedings as a limited participant pursuant to Rule 9(c) of the Commission's Rules of Practice. In August 1969, CSOE moved to intervene and became a party in these proceedings. Testimony of witnesses proceeded from time to time until June 1971. No further hearings were held but there followed a series of procedural applications by AEP, the participants and other persons and interlocutory appeals to the Commission from orders of the undersigned relating to the various applications. On October 4, 1971, AEP was advised, among other things, that a date would be set for resumption of the hearings upon its application. On January 4, 1972 when it was apparent no further evidence would be produced, the record was closed for the second time and the parties and participants directed to specify post hearing procedures pursuant to the Rules of Practice. By order dated April 18, 1972 a briefing schedule was ordered requiring briefs to be filed by July 17, 1972 and reply briefs by August 28, 1972. AEP appealed the aforesaid order to the Commission and on June 21, 1972 the Commission affirmed the April 18, 1972 order.

On August 8, 1972 AEP, OMEA and Orrville executed a document, designated as a settlement offer, which, pursuant to Section 8(a) of the Rules of Practice, the Division submitted to the Commission together with its recommendation that it be rejected. By order dated September 6, 1972, the Commission stated it would defer consideration of AEP's so-called offer of settlement until it received this initial decision.

Appropriate notice having been given, hearings, as noted above, were held before the undersigned. Proposed findings of fact and conclusions of law and briefs were filed by AEP, CSOE, the Division, the Department of Justice, Orrville, Danville and OMEA and joint briefs were filed by DPL and CGE as amici.[2/] As noted above, OREC filed a statement amicus curiae on April 14, 1969.

The following findings of fact and conclusions are based upon the preponderance of the evidence as determined by the record, the documents and exhibits therein and an observation of the various witnesses.

2/ The Commission's notice of filing and order for hearing directed that notice of these proceedings be given to the Public Utilities Commission of Ohio and the Federal Power Commission. The record disclosed that such notice was given but neither of these bodies participated in the hearings or filed briefs. However, the record contains a letter dated April 29, 1968 from the Ohio Public Utilities Commission urging the Commission to approve the application of AEP. In addition to the briefs filed after the record was closed for the second time, the Division, DPL and CGE included by reference briefs they filed in 1968 and 1969 prior to the reopening of these proceedings. In essence, all briefs filed (excluding appendices) total approximately 1,400 pages. Mention should also be made of the massive size of the record adduced at these protracted hearings. The transcript of the hearings above is in excess of 20,000 pages, bound in 52 volumes and the documentary evidence is included in 56 similarly bound volumes. In addition, during the course of the hearing, official notice was taken of registration statements, reports and other documents filed with this Commission by all of the companies mentioned above and others, documents and reports filed with or published by the Federal Power Commission and other government agencies, statements, reports or other documents submitted to or published by various Congressional Committees and Subcommittees, publications of various financial services and articles, books, statements by government officials and others relating to various aspects of the electric utility industry.

II. THE APPLICATION AND PROPOSALS MADE DURING THE COURSE OF THESE PROCEEDINGS

In its application, AEP requests authorization to acquire, pursuant to invitation for tenders, the outstanding common shares of CSOE at the rate of 1.3 shares of AEP common stock for each share of CSOE common stock. As part of the acquisition plan, AEP seeks authorization from the Commission to issue and deliver shares of AEP common stock to holders of CSOE common in accordance with the offer of exchange, approval of the acquisition by AEP of the CSOE common stock which CSOE stockholders submit to AEP in exchange for AEP common and certain related actions. Under the agreement between AEP and CSOE with respect to the proposed acquisition, CSOE has agreed that when it is notified by AEP that it has received tenders for at least 80% of its outstanding common stock it will exercise its option to redeem all of its outstanding cumulative preferred shares, consisting of 103,591 shares of its 4¼% series par value $100, at the call price of $110 per share plus accrued dividends to date of redemption, and 89,950 shares of its 4.65% series, par value $100, at the call price of $101 per share plus accrued dividends to redemption date. The record indicates that at the time the application was filed, CSOE would obtain approximately $21 million for such redemption through either additional bank loans or the sale of additional debt securities. Due to the issuance of additional preferred stock by CSOE it would now have to obtain approximately $59.4 million, exclusive of accrued dividends, for such redemption.

During the course of the initial hearings, AEP made certain proposals (collectively referred to as the "Alternate Plan") which it claims were designed to make important economies of scale available to DPL and CGE and thereby offset any possible harm which might result to the two companies if CSOE were to become a part of the AEP system. Briefly stated the alternate plan involved essentially an increase in the size of certain generation and transmission facilities which, under the basic agreements between CSOE, DPL and CGE, were to be installed through 1975 and a realignment of the ownership of proposed commonly owned generating units and transmission facilities. At the conclusion of the initial hearings AEP stated on the record that if permitted to acquire CSOE it would be willing to continue both before and after 1975 to participate with CGE and DPL in the joint planning, construction and operation of large scale generation and bulk transmission facilities to the same extent as if AEP had originally been a member of the CCD pool. 3/

As noted above, in August 1972 following the closing of the record, AEP submitted a so-called offer of settlement to the Commission. Consideration of this settlement proposal was deferred by order of the Commission dated September 26, 1972, pending receipt of this initial decision. AEP asserts that the purported settlement proposal is not

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3/ In June 1962 a Declaration of Intent was executed by CSOE, DPL and CGE and the subsequent program of joint action developed and executed among three companies came to be known as the "CCD pool" which will be described in greater detail later.

before the undersigned for consideration but that the term and conditions set forth in the proposal be viewed as "proposed special conditions to an order approving the acquisition which are acceptable" to it. The Division asserts that the proposed conditions are in the nature of an amended application and that findings and conclusions be rendered with respect to such proposal since it believes the Commission would be aided in assessing the proposed acquisition of CSOE "within the context of the record evidence in this proceeding". The Commission in its above noted order clearly stated that "consideration of the proposals should be deferred until it had the opportunity to consider and evaluate the evidence following the submission of an initial decision. . ." It is thus manifest that the Commission did not request, as it obviously could have, that the initial decision also give consideration to the "new proposals". The undersigned has no intention of pre-empting the Commission's unequivocal determination to defer consideration of the proposals until it had the opportunity to consider and evaluate the evidence following the submission of the instant decision.

III. THE ISSUES PRESENTED

The Commission's Notice of Filing and Order for Hearing dated March 29, 1968 stated that the following issues were presented for determination, without prejudice, however, to the presentation of additional matters and questions upon further examination:

(1) Whether the proposed issue of common shares of AEP pursuant to the exchange offer satisfies the requirements of Section 7 of the Act;

(2) Whether the proposed acquisition by AEP of 80% or more of the outstanding shares of common stock of CSOE meets the standards of Section 10 of the Act, and particularly the requirements of Sections 10(b) and 10(c);

(3) Whether the proposed performance by American Electric Power Service Corporation, a wholly-owned subsidiary company of AEP, of engineering and other technical services for CSOE at cost will contribute to the economies of construction and operation of CSOE and in all other respects comply with the provisions of Section 13(b) of the Act and applicable Rules thereunder;

(4) Whether exemption from compliance with the competitive bidding requirements of Rule 50 should be granted as to the common shares of AEP to be issued pursuant to the exchange offer;

(5) Whether the accounting entries to be made in connection with the proposed transactions are proper and in accord with sound accounting principles;

(6) Whether the fees, commissions and other expenses to be incurred are for necessary services and reasonable in amount;

(7) What terms or conditions, if any, the Commission's Order should contain; and

(8) Generally, whether the proposed transactions are in all respects compatible with the provisions and standards of the applicable sections of the Act and of the Rules and Regulations promulgated thereunder.

Within the issues specified in the Commission's order, particularly with respect to the issues relating to the standards under Section 10 of the Act, evidence was adduced in the initial phase of these proceedings to the impact of the Federal antitrust laws as embodied in Section 7 of the Clayton Act, 15 U.S.C. § 18 upon the proposed acquisition. Following the reopening of the record a vast amount of additional evidence was adduced by AEP and the other parties concerning the

possible anticompetitive effects of the proposed acquisition.

IV. THE UTILITY SYSTEMS AND COMPANIES INVOLVED IN OR AFFECTED BY THE PROPOSED ACQUISITION

Although the issues to be considered in these proceedings relate to the proposed acquisition of CSOE by AEP it appears essential to describe briefly not only the companies directly concerned but the structure of the electric industry in the major areas which will or could be affected by such acquisition.

The AEP System

AEP is an investor owned public-utility holding company with seven wholly-owned subsidiary companies. The service area of the AEP system lies in the East Central Region of the United States. The service area of the system runs from southwestern Michigan through parts of Indiana, Ohio, Kentucky, West Virginia and a small portion of Tennessee.[4/] In addition, AEP owns a service corporation which renders engineering, administrative, financial, accounting and other services at cost to the electric utility companies and several other companies engaged in related services, such as power plant operations, acquisition

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4/ Appalachian Power Company, a Virginia Corporation, operates in Tennessee, Virginia and West Virginia; Indiana & Michigan Electric Company (I&M), an Indiana corporation operates in Indiana and Michigan; Kentucky Power Company, a Kentucky corporation, operates in Kentucky; Kingsport Power Company, a Virginian corporation, operates in Tennessee; Michigan Gas and Electric Company, a Michigan corporation operates in Michigan; Ohio Power Company (Ohio Power), an Ohio corporation, operates in Ohio but owns generating facilities in West Virginia and Wheeling Electric Company, a West Virginia corporation, operates in West Virginia.

and development of coal reserves and other activities supporting the electric operations of the system. AEP also owns a 37.8% equity interest in Ohio Valley Electric Corporation ("OVEC"). In 1968 AEP, through the sale by Ohio Power of a generating unit to Buckeye Power, Inc., set up the Buckeye Project which involves a cooperative arrangement among seven investor-owned operating utility companies in Ohio and the twenty-eight cooperatively organized Buckeye members to serve the power requirements of about 160,000 customers of such members.

AEP is the largest holding-company system and ranks among the largest electric utility systems in this country. In its 1971 Annual Report to Shareholders the AEP system shows that at December 31, 1971 it had total assets of $3.8 billion of which $3.4 billion represented consolidated utility plant less accumulated provisions for depreciation and depletion. For the year 1971 AEP had operating revenues of approximately $748,000,000 and total energy sales in excess of 62 billion kwh to approximately 1,677,000 customers.

At the 1971 year end, the AEP system had a capability of 14,000 mw of which about 12,300 was from its own generating plants (predominantly coal-fired steam) and about 1,700 mw from contracts with other utilities. [5/] Its net system peak load was 10,917 mw.

5/ AEP states in its brief that the principal generating facilities of the system consist of three stations in Indiana, one station in Kentucky, four stations in Ohio, eight stations in West Virginia, five stations in Virginia and five stations in Michigan. All these stations though geographically dispersed are linked together and to system load centers as well as to other unaffiliated utilities.

AEP's transmission system as at the same period consisted of 670 circuit miles of 765 kv transmission (the highest capacity lines in the nation), approximately 2,600 circuit miles of 345 kv and 500 kv transmission and approximately 13,800 circuit miles of lower voltage transmission. The transmission network of the AEP system is interconnected to the lines of 23 other investor-owned systems at 92 locations and the total capacity of their interconnections aggregate 22.6 million kw. The AEP system, through Ohio Power, is interconnected with CSOE at three separate locations. AEP's vice-president for system planning of its service corporation testified that if the proposed acquisition were consummated it would be possible for the two systems to add five additional interconnections which, in his opinion, would increase reliability and improve service for CSOE.

Ohio Power

AEP's operating subsidiary in Ohio, the Ohio Power Company, the largest electric utility in the system, serves approximately 550,000 customers in over 650 communities in an area in excess of 15,000 square miles in eastern, central, southern and northwestern Ohio. As of the end of 1971, about 483,000 such customers were classified as residential, 60,000 as commercial customers and 2,900 as industrial customers. As at December 31, 1971 Ohio's total electric plant in service was $1,351,000,000 (at original cost less accumulated provision for depreciation); its total electric operating revenues for the year 1971 were $289,887,000 and sales of electric energy were 27,664 million kwh. Of such energy sales approximately

59% represented sales to industrial customers. The record shows that for the year 1970, Ohio Power as compared with CSOE and five other systems in Ohio, had the lowest average cost of generation per kwh and the lowest total electric operating and maintenance expense per kwh.

CSOE

CSOE is an investor-owned public utility owning and operating an electric generation and distribution system in the central and south-central portions of Ohio. It is immediately adjacent to and interconnected with electric facilities of Ohio Power and provides retail and wholesale electric service in the metropolitan Columbus area. From about 1945 CSOE has operated as an independent unaffiliated system. In the early 60's, in order to meet future demand, CSOE constructed a new fossil-fueled generating plant at Conesville and installed three units, the largest of which has a capacity of 161.5 mw. In 1961, CSOE recognized the desirability of seeking for its consumers and security holders the benefits flowing from economies of scale, accepted the suggestion of DPL and CGE to "explore the possibility of common ownership and coordination. . ." The results of these discussions are noted infra under "CCD Pool."

CSOE serves customers in about 170 communities in a 6,200 square mile service area and at the end of 1971 had approximately 385,000 customers. At December 31, 1971 CSOE had total assets of $520.6 million of which $460.8 million represented consolidated utility plant less accumulated depreciation. For the year 1971, CSOE had operating

revenues of $118.9 million and total energy sales in excess of 6 billion kwh. At the end of 1971 approximately 90% of CSOE's customers represented sales to residential customers, 9% to commercial customers and 1% to industrial customers. CSOE has 618 miles of 138 kv transmission lines and 608 miles of transmission lines of lesser voltage. It also owns 361.5 miles of 345 kv transmission lines in common with CGE and DPL.

DPL and CGE

DPL is a public utility company supplying electric service at wholesale and retail in all or part of 24 adjacent counties in west central Ohio and gas to retail customers in 16 counties in urban and suburban portions of the same general area. At the end of 1971 it had approximately 370,000 electric customers and 267,000 gas customers in a 6,000 square mile area. As at December 31, 1971 DPL's electric plant was stated at $609,908,000 (at cost) and its gas plant at $96,654,000 (at cost). For the year 1971 its operating revenues were $203,611,000 of which $132,951,000 or about 66% were derived from electric operations and $67,626,000 or about 33% were derived from gas operations. DPL was interconnected with CSOE, Onio Power, OVEC, CGE and Ohio Edison Company ("Ohio Edison").

CGE is also a combination utility serving an area in southwestern Ohio. Through subsidiaries it also provides electric and gas service in two adjoining states adjacent to the Cincinnati area, Indiana and Kentucky. As at December 1971, CGE's investment (before depreciation)

in electric plant and equipment was $843,284,000 and in its gas plant property and equipment $173,964,000. For the year 1971 it had consolidated gross operating revenues of $294,372,000 of which $187,996,000 or 36% from gas operations. At the end of 1971 CGE had slightly less than 500,000 electric customers and slightly more than 361,600 gas customers. CGE is interconnected with Ohio Power, CSOE, DPL, OVEC, I&M, Public Service Company of Indiana, Louisville Gas and Electric Company and East Kentucky Rural Electric Cooperative.

CCD Pool

As noted above, the managements of CSOE, DPL and CGE had in 1961 concluded that to achieve the advantages of economies of scale it would be to their mutual interest to explore the possibilities of common ownership of generating facilities and operation of existing equipment on a coordinated basis. In June 1962 the three systems executed a Declaration of Intent which in essence stated the companies would plan such interconnection facilities as are needed to enable them to operate on a coordinated basis with the equipment they then had, and, upon completion of such planning, contracts would be entered into to provide for the design, construction, ownership, operation and equitable sharing of costs thereof. The document further stated the companies would study such other matters relating to power supply and operations which would be to their material advantage. This joint coordination program developed into the "CCD Pool" (and will be referred to as such herein). In August 1963

the three companies entered into a Memorandum of Understanding which, among other things, related to generation and transmission and provided that the first generating unit of the CCD pool, with an expected net capability of 400 mw, would be owned by the three companies as tenants in common. Since the unit was to be at the Beckjord Station of CGE that company was given the responsibility for installation and operation of the unit. With respect to transmission it was agreed that CGE and DPL would build a 345 kv transmission line. It was also tentatively agreed that additional pool generation would be required which should be at Conesville, having a probable capacity of 500 mw (net). This was subsequently changed in a Second Memorandum of Understanding, May 1965, to provide for construction of three units at DPL's generating station (J. M. Stuart) on the Ohio River and DPL was given responsibility to install and operate the three units. In May 1966 a Third Memorandum of Understanding was executed by the three companies which provided, among other things, that the companies would enter into a "coordination agreement" to be effective for a seven year period starting June 1, 1968. It also contained provisions for central dispatching for all of the normal capacity and load requirements of the companies. In July 1967, the three companies retained their independent auditor to study the possibilities and advantages of corporate affiliation. The record discloses that in September the firm stated in a progress report, to the said companies, that there were no insurmountable obstacles to such affiliation. In December 1967 the three companies executed another Memorandum relating to the installation and operation of a fossil fired

generating unit of approximately 600,000 kw at the Conesville plant of CSOE to be scheduled for operation in January 1973 and a nuclear fueled generating unit of approximately 800,000 kw at the Moscow site owned by CGE (Zimmer Plant) for completion in 1975. It is thus apparent from the record that shortly prior to AEP's offer to CSOE the CCD pool had agreed on plans for construction and operation of larger scale generating units to meet the anticipated load growth of the participants, construction and operation of some 400 miles of 345 kv transmission lines and the installation of a central dispatch system.

Other Electric Utilities in Ohio

In addition to Ohio Power, CSOE, DPL and CGE there are three other major investor-owned electric utilities operating in Ohio to wit: The Cleveland Electric Illuminating Company ("Cleveland"), Ohio Edison Company ("Ohio Edison") and The Toledo Edison Company ("Toledo").[6/] Each of these companies is interconnected, directly or indirectly through another Ohio utility, with all others. In 1971, Ohio Edison, which provides electric service in the eastern and central portions of Ohio, had electric operating revenues of about $267 million. In 1971 Cleveland,

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6/ In addition, Monongahela Power Company ("Monongahela"), a subsidiary of the Allegheny Power System, Inc. holding company, which provides electric service in West Virginia, Western Maryland and Western Virginia, also furnishes such service in the Marietta area of Eastern Ohio.

which provides electric service in northeastern Ohio had electric operating revenues of about $267 million. Toledo, provides electric service in northwestern Ohio, including Toledo and furnishes gas service in some portions of its service area excluding Toledo. In 1971, Toledo had electric operating revenues of about $102 million.

In the latter part of 1964 Ohio Edison, Cleveland, Toledo and Duquesne Light Company (a major electric utility serving Pittsburgh and western Pennsylvania) formed the Central Area Power Coordination Group ("CAPCO"). By 1967, CAPCO was established as a regional power pool engaging in coordinated planning, construction and operation of the participant's generating and transmission facilities. In 1968, shortly after AEP announced its intention to acquire CSOE, the CAPCO companies along with CGE and DPL undertook to work out a plan to establish a holding-company system, including a service corporation, to provide centralized services for the system. 7/ The record discloses that the formation of the eight companies into a group, which came to be known as the "Eight Company Study Group," was precipitated by the proposed acquisition of CSOE by AEP and that the objective of the group was to attempt to realize the benefits of economies of scale so as to be in a competitive position. However, in 1969, the study group

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7/ These companies included DPL, CGE, Union Light, Heat & Power Company (an electric subsidiary of CGE), Cleveland, Duquesne, Ohio Edison, Pennsylvania Power Company (a subsidiary of Ohio Edison) and Toledo. (The latter five companies comprised CAPCO.)

suspended studies of the feasibility of the proposed holding company pending the outcome of these proceedings.

Muncipal Electric Systems in Ohio

The record reflectsthat in 1969 there were more than 80 muncipal electric systems in Ohio of which about 20 generate their own electric power, 9 partially generate their own energy and purchase the balance from investor-owned utilities and 66 purchase all of their requirements from privately-owned utilities. Of the muncipal electric systems in Ohio about 88 are members of OMEA which association appeared and participated in these proceedings. One of its witnesses testified that the total capacity of the generating stations of all muncipal distribution systems was 622,000 kw. The total non-coincident peak demand of all Ohio muncipal systems is approximately 1,000,000 kw. It was estimated that muncipal-owned systems serve approximately 240,000 customers.

Rural Electric Cooperatives in Ohio

There are about 28 rural electric cooperatives in Ohio serving approximately 150,000 consumers throughout a substantial portion (about 60%) of the geographic area of Ohio. In 1968, AEP through Ohio Power organized and participated in the creation of the so-called Buckeye project. As a result of agreements between Ohio Power and most of the other investor-owned utilities in Ohio, Ohio Power sold to Buckeye a new unit of 600 mw at its Cardinal Station and undertook to provide

back-up power from its units to support the new unit. Energy was to be transmitted over Ohio Power's transmission lines, either directly or indirectly over the transmission facilities of the participating companies ("wheeling"), to over 230 points of delivery to the Buckeye members. In 1968 when operations commenced at the Cardinal Station the peak demand on Cardinal Unit No. 2 was less than 300,000 kw. The extent to which such demand has increased in subsequent years is apparent from Ohio Power's statement that the peak demand of the Buckeye members on January 15, 1972 was recorded at 534,600 kw. Since the loads of the rural electric cooperatives appear to continue to increase, plans have been developed by Ohio Power and Buckeye for construction of an additional generating unit at the Cardinal Station with a nominal capacity of 600,000 kw to be owned by Buckeye which, if conditions precedent are met, is scheduled for commercial operation in 1976.

V. Applicable Statutory Standards

It is apparent from the voluminous briefs filed by the parties and other participants in these proceedings that there are two areas of unanimity with respect to the resolution of the complex issues presented. First, there is evidently no disagreement that since a registered public-utility holding company, AEP, seeks to acquire the securities of another utility, the standards embodied in Sections 10(b) and 10(c) of the Act are applicable. This, of course, is not intended to indicate that there is, by any means,

complete agreement as to the interpretation to be placed upon a particular section of the Act, nor is it intended to indicate, by any means, that there is complete agreement concerning the application of the evidence, both oral and documentary, to such provisions. Second, the parties and the other participants make it manifest that at the very heart of the request for approval of the proposed acquisition is the future structure of the electric utility industry.[8/]

Section 10

The two vital sections of the Act governing proposed acquisitions are Sections 10(b)(1) and 10(c)(2).[9/] Under Section 10(b)(1) the Commission is required to approve an acquisition unless it finds that

> "such acquisition will tend towards interlocking relations or the concentration of control of public-utility companies, of a kind or to an extent detrimental to the public interest or the interest of investors or consumers;"

Section 10(c)(2) of the Act, as pertinent here, provides that "Notwithstanding the provisions of subsection (b)," as noted above, the Commission shall not approve -

> "(2) the acquisition of securities or utility assets of a public-utility or holding company unless the

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8/ Donald C. Cook (Cook) chief executive officer of AEP clearly stated his views on the issues posed in these proceedings:

> ". . . the ultimate resolution. . . is going to result in a substantial restructuring of the electric utility industry."

9/ Section 10(f) of the Act, as pertinent here, bars approval of a proposed acquisition which does not comply with applicable State laws. No issue is raised by the parties as to lack of compliance with any State law.

> Commission finds that such acquisition will serve the public interest by tending towards the economical and efficient development of an integrated public-utility system. . ."

An "integrated public-utility system" is defined in Section 2(a)(29)(A) of the Act to mean

> "(A) As applied to electric utility companies, 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; . . ."

It is quite evident from the legislative history of the Act that Congress was concerned with the manner in which electric and gas utility systems had developed and sought not only to eliminate the abuses found to exist but more importantly to create an environment through a statutory design which would in the future, regulate and control such systems so as to forestall recurrence of the attendant evils. In Section 1(b) of the Act, Congress specifically enumerated the persistent and wide-spread abuses to which the legislation was directed, declaring that the national public interest, the interest of holding company investors and the interest of consumers of electric energy and natural and manufactured gas, are or may be adversely affected when, among other things, 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 or when in any other respect there is a lack of effective public regulation. That section went on to state that it is the policy of the Act that all of its provisions "shall be interpreted to meet the problems and eliminate the evils as enumerated in this section." In light of these declarations of national public interest a brief review of the origin of the above quoted provisions of Section 10 which reflect the Congressional intent as well as Commission and Court interpretations thereunder will be of assistance in viewing the complexities involved in the proposed acquisition, and aid in determining whether the standards in that section are met.

The present provisions of Section 10(b)(1) were not in the bill as originally introduced in Congress. The National Power Policy Committee, composed of persons appointed by the President, recommended that the Commission be authorized to approve an acquisition if certain standards are met. This recommendation was included in Section 9(b)(1) of H.R. 5423 which provided that

> "[T]he Commission shall approve the acquisition. . . unless. . . such acquisition will tend to create a monopoly or restraint of trade in the exercise of control of public-utility companies. . ." 10/

10/ See Section 9(b)(I) of H.R. 5423, 74th Cong., 1st Sess. (1935). Identical language appeared in Section 10(b)(1) in the campanion bill S 1725, 74th Cong., 1st Sess. (1935).

As a result of hearings on the bill the language in Section 9(b)(1) was changed by eliminating the words after "will tend" and inserted in their place

> "towards interlocking relations or the concentration of control of public-utility companies, of a kind or to an extent detrimental to the public interest or the interest of investors or consumers."

In its Report the Senate Committee indicated the change was made to make the Act more flexible and workable and stated:

> "Essentially local systems will tend to operate utilities rather than to play with high finance and essentially local enterprise is far less likely to accumulate a disproportionate amount of political and economic power." S. Rep. No. 621, 74th Cong., 1st Sess., 12 (1935).

After the Senate passed the amended S 2796 (79th Cong. Rec. 9065) (1935) the bill was sent to the House where the Committee on Interstate and Foreign Commerce added Section 10(c)(2) to the bill together with the definition of an integrated public-utility system which is presently set forth in Section 2(a)(29)(A). In its report the House stated that the addition "further defines the conditions which an acquisition must meet to be approved". H. Rep. No. 1318, 74th Cong. 1st Sess. 16 (1935).

AEP urges that Section 10(b)(1) does not involve completely distinct considerations from Section 10(c)(2) suggesting that while the emphasis is somewhat different in each of the Sections, they are both primarily concerned with balancing the detriments of increased holding company size against the advantages of integrated operation, the specific guidelines contained in Section 2(a)(29)(A) and 1(b).

The argument is not supported by the legislative history which indicates that inclusion of the two Sections in the Act was intended to require that an acquisition be viewed from different perspectives. The standards included in Section 10(c)(2) reflect concern with the effect upon the utility being acquired, the holding company seeking the acquisition and the consumers and agencies involved. Section 10(b)(1) on the other hand sets forth additional criteria which in essence inhibit acquisitions tending toward undue concentration of economic power. The distinctions between the two Sections appears to be clear and obviously both must be considered in the determination of the issues in this proceeding. The argument that one can come to an appropriate disposition of this proceeding by selecting a few words contained in Section 10(c)(2) without consideration of all the material facts and circumstances developed in this proceeding cannot be accepted. The language of Section 10(c)(2) must be considered in the context of the Act itself, the legislative history and the evidence in the case as a whole. The language cannot be construed in vacuo.

AEP appears to argue that once efficiencies and economies are established the standards under both Sections are met. However, Section 10(b)(1) was designed to prevent the monopoly growth of the holding company, notwithstanding economies, efficiencies and geographic integration under Section 10(c)(2). This was clearly pointed out by the Commission in 1946 when it denied a prior application by AEP (then known as American Gas and Electric Company) to acquire CSOE wnen it stated:

> "[T]he difference between Section 11, as a compromise of the policy of 'elimination' of holding companies otherwise than as permitted by the Act (Section 1(c)), and the 'new acquisition' standards of Section 10 which were designed as a more restrictive check on further growth of holding companies and further extension of their control." American Gas and Electric Company 22 S.E.C. 808, 815 (1946).

The separate statutory standards in Sections 10(b)(1) and 10(c)(2) must be met before any growth and extension of control by public-utility systems may be approved. Stated differently, a proposed acquisition which cannot meet the standards of Section 10(b)(1) cannot be approved by demonstrating that economies and efficiencies will be realized by the affiliation in conformity with the standards of Section 10(c)(2). Support for such interpretation is found in the opening phrase of Section 10(c)(2) which plainly and perceptibly states "Notwithstanding the provisions of subsection (b) . . ." Congress obviously intended, by such language, that each of the Sections must be independently considered and that establishing the standards of one Section does not, of itself, satisfy the requirements of the other or even that a balancing of advantages and disadvantages of one with the advantages or disadvantages of the other. Any other construction would, in essence, make one or the other section superfluous, or result in a single set of interchangeable standards. Had Congress so intended, the provisions would have been appropriately drafted.

The Commission in 1969 clearly and unequivocally pointed out that the standards in Section 10(b)(1) are required to be considered separately, irrespective of compliance with other standards of the Act.

In National Fuel Gas Company the Commission held:

> "Under Section 10(b)(1), we are required to approve the proposed acquisition unless we find that "such acquisition will tend towards. . . the concentration of control of public-utility companies. . ." Thus, Section 10(b)(1), irrespective of compliance with the other standards of the Act, requires us to disapprove the proposed acquisition if we find that such acquisition tends toward an undue concentration of economic power;. . ." Holding Company Act Release No. 16527, p. 7 (November 20, 1969).

As noted earlier Section 10(b)(1) condemns a proposed acquisition when it is found that it will tend toward "the concentration of control of public-utility companies. . . detrimental to the public interest of the interest of investors or consumers;" The concepts inherent in evaluating evidence relating to concentration of control as used in Section 10 of the Act are also present in the policies underlying the antitrust laws. It is well settled that when consideration is given to whether the evidence establishes that an acquisition tends toward concentration of control, deliberation must at the same time be given to the Federal antitrust policies as embodied in Section 7 of the Clayton Act. When first enacted in 1914, the law prohibited stock acquisitions which would result in substantial lessening of competition but did not, in explicit terms, bar asset acquisitions. 11/ In 1950 Section 7 was amended to "plug the loophole".

11/ 15 U.S.C. Section 18 provides:

> "No corporation engaged in commerce shall require, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce where the effect of such acquisition may substantially lessen competition, or tend to create a monopoly."

In 1962 the Supreme Court in an analysis of the 1950 amendments to Section 7 stated the underlying policies of the Clayton Act as follows:

> "The dominant theme pervading Congressional consideration of the 1950 amendments was a fear of what was considered to be a rising tide of economic concentration in the American economy." Brown Shoe Co. Inc. v. United States 370 U.S. 294, 315 (1962).

Shortly thereafter the Supreme Court again was faced with the application of the policies of the antitrust laws, this time in the banking industry which it characterized as a "highly regulated industry," pointedly stated that the fact that banking is a highly regulated industry critical to the Nation's welfare makes the play of competition not less important but more so. United States v. Philadelphia National Bank 374 U.S. 321 (1963). The Court held that under Section 7 the statutory test is "whether the effect of the merger 'may be substantially to lessen competition' in any line of commerce in any section of the country" and after noting the above quoted language from the Brown Shoe Co. case supra stated:

> "This intense congressional concern with the trend toward concentration warrants dispensing, in certain cases, with elaborate proof of market structure, market behavior, or probable anti-competitive effects. Specifically, we think that a merger which produces a firm controlling an undue percentage share of the relevant market, and results in a significant increase in the concentration of firms in that market, is so inherently likely to lessen competition substantially that it must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anticompetitive effects. (Citation omitted)"
>
> "Such a test lightens the burden of proving illegality only with respect to mergers whose size makes them inherently suspect in light of Congress' design in § 7 to prevent undue concentration. Furthermore, the test is fully consonant with economic theory."

These stated policies were further expanded by the Supreme Court in United States v. Von's Grocery Co. 384 U.S. 270 (1966) where the Court stated that Section 7 looks not merely to the present effect of a merger but its effect upon future competition among many small businesses by "arresting a trend toward concentration in its incipiency before that trend developed to the point that a market was left in the grip of a few big companies". The Court then held:

> "Thus, where concentration is gaining momentum in a market, we must be alert to carry out Congress' intent to protect competition against ever increasing concentration through mergers.",

The application of the criteria inherent in Section 7 of the Clayton Act the relationship of such criteria to Section 10(b)(1) of the Act was clearly enunciated in Municipal Electric Association v. S.E.C., 413 F 2d 1052 (1969)(hereafter referred to as 'Vermont Yankee') where the District of Columbia Court of Appeals defined the Commission's function under Section 10(b)(1) as follows:

> . . . Section 10(b) must take significant content from [federal anti-trust] policies. In a case involving Section 11(b)(1) of the Act, in considering the effect of the terms of Section 1(b) that when subsidiary public-utility companies entered into transactions in which evils result from "restraint of free and independent competition, the Supreme Court stated that the theme of elimination of such restraint "runs throughout the Act." S.E.C. v. New England Electric System, [citation omitted]; and in California v. F.P.C., [citation omitted], in passing upon the validity of merger transactions under Section 7 of the Natural Gas Act, [footnote omitted] the Court stated that evidence of anti-trust violations is plainly relevant because part of the content of "public convenience and necessity" terms used in that section is found in the laws of the United States. By like reasoning the antitrust laws bear upon "the public interest or the interest of investors or consumers," terms used in Section 10(b)(1) of the Act now before us. [citation omitted]

More recently the Commission had occasion to state unequivocally that under Section 10(b)(1) it was required "to consider the proposed acquisition in light of Federal antitrust policies. Hawaiian Electric Co. Holding Company Act Release No. 16592, p. 6 (January 26, 1970).

AEP attacks the position taken by the Courts and the Commission with respect to the interrelationship of the criteria appearing in Section 10(b)(1) with the antitrust policies stemming from Section 7 of the Clayton Act. It urges that the legislative history of Section 10(b)(1) shows that it was intended to protect against recurrence of certain specific abuses and not to foster intramodal competition of otherwise limit the legitimate future developement of integrated holding company systems. While it is true that the said Section was intended to protect against recurrence of abuses the argument loses sight of the fact the Congress intended to prevent amalgamations which result in undue concentration of economic power. In City of Lafayette, Louisiana, v. S.E.C. 454 F 2d 941, 956 (1971) the Court stated that the exercise of authority to approve acquisitions requires consideration of antitrust matters, "particularly in view of the statutory purpose to avoid undue concentration of control in public utility holding companies . . . ." "The proposed acquisition must be examined by the Commission to ascertain whether it embraces a substantial possibility of undue concentration of control . . ." Additionally the Vermont Yankee decision holds that the "public interest" criteria in Section 10(b)(1) must also take "significant content" from the policies underlying the federal antitrust laws. 413 F 2d at 1056-57. AEP contends that since the electric utility industry is regulated, the value of

competition is substantially reduced and competition is not essential to the public interest. However, where competition is concerned there does not appear to be any conflict between the policies underlying the antitrust laws and the State and Federal schemes of regulation of the electric utility industry. In Northern Natural Gas Co. v. F.P.C. 399 F 2d 953 (D.C. Cir. 1968) the Court stated: ". . . it appears that the basic goal of direct governmental regulation through administrative bodies and the goal of indirect governmental regulation in the form of antitrust law is the same - to achieve the most efficient allocation of resources possible". AEP's reliance upon Northern Natural Gas Co. supra for the principle that in a regulated industry, such as electric utilities, direct regulation is a matter in which the public is protected from excessive prices and poor services, rather than concern for competition, is misplaced. The Court, in reversing the Federal Power Commission, clearly stated ". . . it is clear that anti-trust concepts are intimately involved in a determination of what action is in the public interest, and therefore the Commission is obliged to weigh anti-trust policy." The Court further held that the case ". . . demonstrates the important role competition can play as a complementary force in regulated industries." The Court finally concluded ". . . we find that the Commission failed to apply the proper standards to determine relevant anti-trust policy and consequently ignored significant anticompetitive effects of the joint venture". 399 F 2d at 977. AEP's reliance upon the Northern Lines Merger cases 396 U.S. 491 (1970) does not support its theory of the limited importance of competition in regulated industries. That case

involved a merger in the railroad industry under Section 5 of the Interstate Commerce Act, the purpose of which section the Supreme Court held was to facilitate and encourage mergers and consolidations to alleviate the economic and financial plight of the railroad industry, was totally different from its purpose in passing the Holding Company Act where its expressed concern was the evil produced by increased concentration in the utility industry. The fact that the electric utility industry may be a highly regulated one and critical to the welfare of the nation makes the significance of competition not a limited factor, but a more important one. U.S. v. Philadelphia National Bank supra.

Though it appears clear from the Court decisions that the Commission is required to fully explore the anticompetitive effect of a proposed acquisition under the Act, AEP throughout its briefs vigorously minimizes the importance of competition in the regulated electric utility industry by reference to phrases or sentences extracted from court opinions which it claims sustains its position. In nearly all such instances the quotations, though accurate, do not reflect the true holding by the Court regarding competition in the regulated sector, or deal with public interest standards under other statutes which are not applicable to the issues as framed in the proceedings. For example, AEP contends that the only court decisions which have any relevance here are those which hold that anticompetitive effects are only one factor to be weighed under a broad "public interest" standard and "explicitly reject the notion that application of such standard involves the usual consideration of antitrust policy." In the effort to sustain

its position it quotes the following from City of Lafayette, Louisiana supra: "[T]he doctrine of public interest consideration does not contemplate that an agency will be engaged in a determination of anti-trust issues as such." The Court first stated the general principles that under "public interest" standards, agencies have responsibilities to consider anti-competitive consequences of a proposal including the legislative history of a particular statute, the nature of the agency and the breadth of its responsibility involved.12/ However, the Court in an exhaustive analysis of the Commission's responsibilities under both Sections 6 and 10 of the Act, in fact, held that the Commission in considering an acquisition under Section 10 of the Act was required to give consideration to the antitrust issues under that section, never once mentioning or even indicating that such issues have only limited relevance. The Court reaffirmed its previous decision in the Vermont Yankee case supra which held that Section 10 of the Act "required the S.E.C. to consider anticompetitive effects" and stated unequivocally:

> "In Muncipals [Vermont Yankee] the utility's acquisition of stock was subject to SEC jurisdiction. And the court held that the exercise of the authority to approve acquisitions requires consideration of antitrust matters, particularly in view of the statutory purpose to avoid

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12/ The general conclusions are worth noting, particularly since reference is made to monopolies characterized by various degrees of government control:

> "However, it is a fair consensus of the cases cited that the Nation's profound and pervasive devotion to competition as a fundamental economic policy, and conviction that the public interest is disadvantaged when private enterprises are permitted to engage in anti-competitive agreements and restraints, is applicable at least presumptively even in the case of monoplies or quasi-monoplies characterized by various degrees of government control and protection, subject of course to offset or rebuttal on analysis by the cognizant agency". [454 F 2d at 948-49]

> undue concentration of control in public utility holding companies. This is a more static issue than direct surveillance of operations. It is rather a review of proposed structure to ascertain whether it embraces a substantial possibility of undue concentration of control. Of course a decision on structure requires "economic forecasting" concerning operations, in such matters as e.g., profitability, consequence of independence of management. [Citation Omitted] Yet although the matters are interrelated, the SEC's jurisdiction relates to structure rather than directly to operations."

Another example, is AEP's reliance upon quotations from Utility Users League v. F.P.C. 394 F 2d 16 (7th Cir. 1968). In that case the Court noted that it had no jurisdiction to entertain a petition for review unless petitioner was an "aggrieved party". The Court held that petitioners had not shown that the merger had any significant effect on them and stated:

> "Petitioners have shown, in general terms, that the merger will increase Edison's economic power and contribute to economic concentration in the electrical energy industry. They have not shown how growth and concentration will aggrieve them."

With respect to competition the Court held:

> "We do not say the merger of Edison and Central has no adverse effect on competition, we merely hold that petitioners have not shown an anti-competitive injury affecting them."

In the instant case the anticompetitive effects of the proposed acquisition is an issue squarely presented for determination. Proof has been adduced as to the economic power of the AEP system as well as its economic concentration in the electrical energy industry.

Similar to the Court's decision in the Vermont Yankee case, the case at bar requires a review of the structure of the AEP system to ascertain whether, in light of the statutory purposes, the system resulting from the proposed acquisition involves undue concentration of

control. The conclusion is inescapable that the Courts have determined that the standards under Section 10(b)(1) of the Act and the antitrust policies underlying Section 7 of the Clayton Act are not antithetical but complementary. They are equally relevant and each must be given due and adequate consideration. The decisions relied upon by AEP fail to sustain the position that the anticompetitive factors have but limited relevance under Section 10 of the Act. Any doubts on this score were removed by the Vermont Yankee case where the Court considered the intent of Congress concerning the impact of Section 7 of the Clayton Act to the Commission's jurisdiction under Section 10 stating:

> "We note also that Section 7 of the Clayton Act provides that nothing therein shall apply to transactions consummated pursuant to authority given by the Securities and Exchange Commission in the exercise of its jurisdiction under Section 10 of the Public Utility Holding Company Act. This is indicative of a congressional interest that the Commission take into account the policies underlying the Clayton Act in deciding whether to approve a stock acquisition."
>
> "Though the purpose of Congress was to remedy economic evils inherent in the control of utilities by holding companies, the term of Section 10(b)(1) do not by definition limit the prohibited control to a particular method." 413 F 2d at 1057.

In light of the above decisions it is thus evident that Section 10(b)(1) requires disapproval of the proposed acquisition if a preponderance of the evidence in the record supports the finding (1) that such acquisition tends toward an undue concentration of economic power and (2) that such acquisition, under the general antitrust policies of the United States as embodied in Section 7 of the Clayton Act, results in a substantial lessening of actual or potential competition.

In addition, irrespective of the standards of subsection (b) above, Section 10(c)(2) requires disapproval of the proposed acquisition if the record, by similar quantum of evidence does not support the finding required thereunder that ". . . such acquisition will serve the public interest by tending towards the economical and efficient development of an integrated public-utility system," as defined in Section 2(a)(29)(A) of the Act. 13/

The Standards and Criteria Under Section 10(c)(2)

Size Factor Within Section 2(a)(29)(A)

Since, as noted above, approval of an acquisition under Section 10(c)(2) of the Act requires a finding that a proposed acquisition will tend towards the economical and efficient development of an integrated public-utility system, it is essential under the definition of such a system in Section 2(a)(29)(A) to consider whether such system is "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."

It is evident that the phrase "not so large" mandates that size of the resultant system be deemed a significant factor, independent of connection or coordination, in determining whether such system impairs the advantages of localized management, efficient operation and the

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13/ National Fuel Gas Company, Holding Company Act Release No. 16527 (November 20, 1969).

effectiveness of regulation. The Commission clearly so stated in 1946 when the AEP system first sought to acquire CSOE and merge it with its subsidiary, Ohio Power. It wrote, referring to Sections 10(c)(2) and 2(a)(29)(A) "This size as a factor independent of connection or coordination, is of vital significance in appraising the proposal before us." In a note on the same page the Commission stated "It is not an accident of rhetoric that size is made an independent factor in this legislation. The Congress regarded localization of operations per se, as an important aim to be achieved in this legislation." 22 SEC at 813. Furthermore, the Commission stated in its opinion that in 1945 it had occasion to make a detailed study of the Central System (as AEP was then known) and came to the conclusion "that the system, as presently constituted, constitutes a single integrated utility system within the meaning of Section 2(a)(29)(A) of the Act." Nevertheless, it emphatically stated "We are of the opinion, however, that the Central System approaches the maximum size which we believe is consistent with the standards of localized management, efficient operation and effectiveness of regulation contained in Section 2(a)(29) and 11(b)(1)." The Commission in concluding in 1946 that it could not make the necessary finding under Section 10(c)(2), set forth the criteria it considered essential in determining that the proposed acquisition very materially and very substantially enlarged the system.

The Division, CGE and DPL urge that in the instant case consideration be similarly given to the same criteria by which the Commission was guided in the earlier case. AEP urges that the instant application

be viewed in the factual setting of today's world, and not that of a quarter century past; and that the proposed acquisition be determined not on the basis of hypothetical arguments or pre-1935 industry conditions, but rather on the basis of current industry realities, namely, the state of the art and all factors and circumstances relative to the statutory concept together with the very real energy crisis now facing the Nation. In addition, AEP urges that the size standard of Section 2(a)(29)(A) and the other standards of Section 10(c)(2) must, in the instant case, apply to the resultant system, i.e., AEP, and not to Ohio Power or any other operating subsidiary.

These broad arguments are insufficient as a basis for disregarding the criteria the Commission considered essential. There can be no serious dispute that in the years since 1946 there have been substantial and significant technological developments in the art of generation and transmission in the electric utility industry which has enabled the companies to achieve scale economies. This does not mean that the criteria which the Commission considered significant should now be disregarded as antiquated. They still provide a viable method for analysis to determine whether the effects of the proposed acquisition meet the statutory standards of Section 10 of the Act as they relate to size and concentration of control.

The following tables depict the increase in the size of the AEP system, as of 1971, on a pro forma basis giving effect to the proposed acquisition and comparing such results with other investor-owned electric utilities in Ohio.

TABLE I

COMPARISON OF SIZE OF PRO FORMA AEP OPERATIONS IN OHIO (OHIO POWER AND CSOE) WITH OTHER INVESTOR-OWNED ELECTRIC UTILITIES IN OHIO - 1971

	ELECTRIC UTILITY PLANT - CROSS		ELECTRIC OPERATING REVENUES		TOTAL MWH SALES		ELECTRIC CUSTOMERS		NET SYSTEM CAPABILITY (MW)		NET SYSTEM PEAK LOAD (MW)		AREA SERVED (SQUARE MILES)***	
	Amount $(000)	Percent	Amount $(000)	Percent	Amount (000)	Percent	Amount (000)	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Ohio Power	1,610,719	25.5	289,887	21.3	27,664	31.9	544	16.5	5,962*	31.0	4,305	26.4	15,615	37.1
CSOE	586,053	09.3	118,875	08.8	6,311	07.3	377	11.4	1,580	8.2	1,429	08.7	6,200	14.7
Total	2,196,772	34.8	408,762	30.1	33,975	39.2	921	27.9	7,542	39.2	5,734	35.1	21,815	51.8
Cincinnati Gas and Elec. (Ohio Only)	795,789	12.6	179,517	13.2	10,177	11.8	417	12.6	2,361	12.3	2,092	12.9	2,636	6.3
Dayton Power & Lgt.	613,413	09.7	133,764	09.9	7,172	08.3	365	11.1	1,726	9.0	1,501	09.2	6,041	14.4
Ohio Edison (Corporate Only)	1,204,213	19.10	267,481	19.7	15,308	17.7	709	21.5	3,209	16.7	2,974	18.3	7,426	17.6
Cleveland Electric Illuminating	1,087,957	17.3	266,575	19.6	14,065	16.2	661	20.0	3,100	16.1	2,792	17.2	1,700	4.0
Toledo Edison	411,187	06.5	101,702	07.5	5,879	06.8	230	06.9	1,295	6.7	1,191	07.3	2,500	5.9
Total	4,112,559	65.2	949,039	69.9	52,601	60.8	2,382	72.1	11,691	60.8	10,550	64.9	20,303	48.2
State of Ohio	6,309,331	100.0	1,357,801	100.0	86,576	100.0	3,303	100.0	19,233	100.0	16,274	100.0	42,118	100.0

Source: Federal Power Commission Form 1 and Form 12.

* Uniform Statistical Report Year Ended December 31, 1971.

** Applicant's Exhibit 29 - 1966.

TABLE II

Year Ended December 31, 1971

	State of Ohio				AEP System		
	Ohio Power	CSOE	Ohio Power and CSOE	Percent Increase	Actual	Pro Forma	Percent Increase
Population (000)	1,584	1,244	2,828	78.5	5,593	6,837	22.2
Customers (Elec.) (Average)	544,000	377,000	921,000	69.3	1,677,398	2,054,398	22.5
Elec. Plant $ (000) (Dec. 31)	1,610,719	586,053	2,196,772	36.4	4,339,471	4,925,524	13.5
Elec. Rev. $ (000)	289,887	118,875	408,762	41.0	748,217	867,092	15.9
MWH Sales (000)	27,664	6,311	33,975	22.8	62,453	68,764	10.1
Area (Square Miles)*	15,615	6,200	21,815	39.7	48,985	55,185	12.7
Plant Capacity (MW)	5,911	1,580	7,491	26.7	12,308	13,888	12.8

Sources: FPC Form 1 and Form 12 -- 1971.
Uniform Statistical Report -- 1971.
Annual Report to Shareholders -- 1971.

* App. Ex. 29 -- 1966.

An analysis of the tables shows the effects of the proposed acquisition, as of 1971, on the operations in Ohio and on the System as a whole with respect to the various categories noted. AEP's electric operating revenues in Ohio would increase from 21.3% to 30.1% or by 41%; energy sales from 31.9% to 39.2% or by 22.8%, electric plant from 25.5% to 38.8% or by 36.4%; net system capability from 31.0% to 39.2% or by 25.2%; electric customers from 16.4% to 27.9% or by 69.3% and areas served from 37.1% to 51.8% or by 39.7%. Although the above increases show the changes in Ohio on a pro forma basis (Ohio Power and CSOE), a comparison of the AEP system as a whole, actual and pro forma, shows increases in each of the categories noted ranging from 10.1% to 22.5%. A comparision of the percentage increases in the categories mentioned, with the increases which the Commission found in 1946 demonstrated the kind of concentration that precluded it from making the finding required by Section 10(c)(2), establishes that the 1971 statistics show an even greater tendency toward concentration. Moreover, the record shows that AEP's internal projections indicate that even absent the acquisition of CSOE,it will double in size by 1980 and perhaps triple by 1990. In 1946 the Commission stated that the then proposed acquisition

> "Would represent a major extension into new territory which very materially and very substantially enlarges the system. It takes the system beyond the maximum limit we deemed permissible in making our 11(b)(1) determination on whether the status quo should be affected. A fortiori the proposed acquisition is not, in our opinion, permissible under Section 10 as a new extension of the system." 22 SEC at 815.

The present proposed acquisition similarly represents a major extension

into new territory which very materially and very substantially enlarges the system.

AEP concedes its system is "unquestionably large" but states that when matched against comparable systems it "is not inordinately large in any respect." Its conclusions are reached by showing that in 1970 its system generation represented 3.7% of the net generation of all investor-owned and publicly-owned utilities in the continental United States and its sales represented 2.9% of the total sales of electricity of investor-owned and publicly-owned utilities in the continental United States.[14/] In 1970 AEP combined with CSOE represented just over 4% and less than 3½% respectively in the aforesaid categories. However, rather than compare the AEP system with all investor-owned and publicly-owned utilities in the continental United States, a more significant and realistic comparison appears in the tables above which show the increase in concentration of AEP's operations in Ohio on a pro forma basis and the increases in the AEP system as whole, on a pro forma basis.

AEP further urges that a comparison of its system including the addition of CSOE with fifteen other large investor-owned utilities indicates it will not be first in any of the categories mentioned above. However, excluding TVA, a Federal entity, and Consolidated Edison of New York, which serves the New York City area with a population of

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14/ It is interesting to note that from 1970 to 1972 the AEP system generation had increased by 23.4% and its total sales of electricity by 29.1%.

9 million with the bulk of its transmission and distribution plant underground, the AEP system would rank first or second in the most significant categories of 1971 kwh sales, operating revenues, electric utility plant and maximum demand although fifth in electric customers. The record supports the conclusion that the AEP system excluding TVA and Consolidated Edison is the largest investor-owned electric utility system in the nation as measured by the kwh sales, operating revenues, electric utility plant and maximum demand. The record also supports the conclusion that by acquiring CSOE the AEP system in Ohio would be double the size of the next largest electric utility in Ohio. The increases per se, as noted above, are indicative of a tendency towards increased concentration which Section 10 was designed to arrest.

In applying the standards of Section 2(a)(29)(A) it is necessary, when evaluating whether a system, as defined therein, is so large as to impair the advantages of localized management and the effectiveness of regulation, to give consideration to the state of the art. In defining an integrated public-utility system Congress was obviously aware that technological progress had been made by the electric utility industry and that it would continue in the future. Nevertheless, it sought assurance that notwithstanding such developments, referred to as the state of the art, systems would not grow so large as to impair the advantages of localized management or become unamenable to effective regulation. The Commission pointed out that the legislative history of that Section indicates its overall purpose

is not only the encouragement of operating advantages stemming from unified operations to the extent that such advantages are not outweighed by the disadvantages resulting from undue concentration of economic power, but that this latter standard is also specifically embodied, as far as acquisitions are concerned, in Section 10(b)(1) of the Act. The Southern Company, 31 SEC 821, 933 (1950).

Congress' belief in the future of the state of the art was justified. The evidence in the record reflects that since the turn of the century continuously growing need for electric power has provided the impetus for technological improvements and innovations in the electric utility industry. In the past three decades progress in generating has brought about significant increases in the size of generating units from a capacity of approximately 200 mw in 1946 to a capacity about 1,300 mw. Substantial increases in transmission voltages from 138 kv to 765 kv also resulted from the technological advances. Predictions by the industry are that the size of generating units will continue to increase and may reach the order of 2,000 megawatts by 1980 and possibly 2,700 megawatts by 1990.

The national demand for electricity has followed a pattern of doubling about every ten years. During the past fifty years the most important single change in the electric industry has been the increased use of nuclear energy. In 1946 there was only 1,000 megawatts of nuclear generating capacity in commercial operation. Industry predictions now are that by 1980 nuclear capacity may reach 140,000 megawatts. The Atomic Energy Commission estimates that by 1990 such

capacity may be in the order of 500,000 megawatts. Along with the technologial advances there developed a network of interconnection among the various utilities. From small isolated systems there evolved a network in which nearly every major electric utility system in the country is connected with neighboring systems to form a large interconnected network. The innovations in generation and transmission accelerated interconnection and coordination among the various systems in an effort to achieve greater economy, reliability and relatively lower unit costs of operation.

Just as changes occurred in the technology, so too has the structure and composition of the electric utility industry undergone change. In 1927 there were about 4,333 utility systems of which 2,135 were private or investor-owned and 2,198 public (non-Federal). By 1968, the number of systems declined to 3,480 of which 405 were were private, 2,075 public (non-Federal), 960 rural electric cooperatives and 40 Federal. Since 1962 the investor-owned systems declined about 15.6% as a result of mergers or acquisitions.[15/]

Functionally, not all of the systems engage in generation and transmission. In 1968 approximately 30% of the systems engaged in generation and transmission, plus distribution. In the private sector approximately 62% of the systems were so engaged. At the end of 1970 the investor-owned segment accounted for 77% of the nation's generating capacity, the Federal sector about 13% with the remainder provided

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15/ Competitive Aspects of the Energy Industry, Hearings before Senate Subcommittee on Antitrust and Monopy, 91st Cong., 2d Sess. 560, 561, 570 (1970) ("Energy Hearings").

by municipal systems and the cooperatives. The evidence also shows that in 1968 the registered and exempt holding-company systems controlled 50.3% of privately-owned installed generating capacity and that 13 registered holding companies controlled 21.3%. In addition, 35 separate decision makers (20 independent and 15 holding companies) represent the largest 70 companies and control 70% of all assets. 16/

The continued higher energy requirements of the electric industry has also brought about changes. The record shows there were 20 electric systems with annual energy requirements of 10 billion kwh in 1962. In 1968 there were in excess of 39 systems with this level of annual energy requirements. 17/ Hence, the record establishes that considerable change has occurred in the state of the art since the Act was passed.

The legislative history of the Act furnishes the framework for ascertaining the Congressional intent under Section 10(c)(2) of the Act with respect to whether the size of an integrated public-utility system as defined in Section 2(a)(29)(A) impairs the advantages of localized management and effectiveness of regulation. The Senate Report, in emphasizing that an essentially local enterprise is far less likely to accumulate a disproportionate amount of political and economic power, stated:

16/ Energy Hearings at 621.

17/ Competitive Aspects of the Energy Industry, Hearings before Senate Subcommittee on Antitrust and Monopoly, 91st Cong., 2d Sess., 560, 561, 570 (1970) ("Energy Hearings").

> "'An operating system whose management is confined in its interest, its energies, and its profits to the needs, the problems, and the service of one regional community is likely to serve that community better, to confine itself to the operating business, to be amenable to local regulation, to be attuned and responsible to the fair demands of the public, and more often, to get along with the public to mutual advantage . . . and essentially local enterprise is far less likely to accumulate a disproportionate amount of political and economic power.' (Report of The Committee on Interstate Commerce, 74th Cong., 1st Sess. Rep. No. 621, May 13, 1935, p. 12). See too The North American Company, 11 S.E.C. 194 (1942)."

As noted earlier AEP operates in 7 states and owns, directly or indirectly, all of the outstanding common stocks of its electric utility subsidiaries, the service areas of which are located in one or more of the seven states. The headquarters and principal executive office of the system is located in New York City. The chief executive officer is the president of the holding company and serves in the same capacity for each of the 24 subsidiary companies including the service company, (American Electric Power Service Corporation) with one exception. The other officers and directors of the seven electric subsidiaries consist, for the most part, of the same persons. The operations of the system are controlled by means of electronic equipment located in Canton, Ohio.

The evidence demonstrates that "ultimate decisions" for the entire system are made by its chief executive officer who, as noted, holds a similar office in each of the principal operating subsidiaries. Included within the ambit of ultimate decisions are all matters affecting the entire system. These relate to increasing and decreasing rates, matters which have an impact upon economies and efficiencies for the

system as a whole including planning, generation, high voltage transmission, type of equipment design, location of sites, engineering and construction, and the financing of the system. The testimony further shows that although the great percentage of the daily decision making concerning operations of the electric utility is the responsibility of the personnel in the operating company, residual authority for altering or reversing decisions by such personnel is lodged in the chief executive officer in New York. Cook's testimony best describes his dual capacity as chief executive officer of the holding company and of each of its operating subsidiaries:

> "And it just happens that when ultimate decisions have to be made, the location of the chief executive is in New York, and therefore the ultimate decision is made in New York.
>
> But that is not to say that the decision is made by a holding company, or a service corporation. It is only to say that the ultimate decision that needs to be made by the chief executive of this company, or indeed of any other company, is made in New York, but it is made by the man who is there in his capacity as the chief executive officer of the operating company."

In so far as the manner in which the decision making process is functionally exercised in the system, Cook's testimony is again most revealing

> "[T]he key to understanding the . . . System lies in forgetting about the fact that it contains a number of corporate entities, those corporate entities exist because of legal requirements. The holding company exists because the system is an integrated electric utility system, and needs to be held together because the operating companies could not serve in some States as foreign corporations. . . .
>
> . . . .
>
> "Now a helpful analogy is if you could think of a large industrial corporation which operates through a number of divisions, and which has in the central organization an executive staff and a group of experts in particular

> specialties, which experts are available to take care of matters to render assistance to the several divisions, this is, in essence, what we have in American Electric Power with the operating companies being in effect for purposes of the analogy a division with the service company in effect being the central executive and administrative group that has the special technical competence."

AEP contends that the testimony rather than establishing an insensitivity to localized concerns establishes that the system, with respect to ultimate system-wide decision-making on such vital matters as system planning and the operation of bulk generation and transmission facilities, illustrates an attempt by AEP to meet its duty to provide low cost and reliable service to every locality and customer within its service area. AEP urges that since it proposes to preserve the corporate identity of CSOE and that the present officers of CSOE will remain, presumably in capacities similar to those of its present operating utilities, decisions by persons in the area served by CSOE will continue to be made because its concept of management permits line (as opposed to staff) functions to be performed locally. AEP's conclusion that the record fails to disclose any respect in which the benefits of localized management will be impaired by the proposed transaction is unfounded. The record clearly establishes that if the proposed acquisition is consummated the ultimate decisional responsibility in such vital areas as bulk power generation, high voltage transmission, engineering, construction and financing will shift from a chief executive officer located in the service area, to a chief executive officer who concededly will be removed from such area and whose definitive responsibilities for such matters can not, because of the demands of a system as far filing as the AEP system, be confined solely to the community

served by CSOE. Nor can he be expected to be readily accessable to consumers whose demands or needs can not be resolved by local personnel but require ultimate solution by the chief executive officer. An example of the type of consumer concern which a local chief executive officer would be cognizant of is referred to in the 1970 National Power Survey of the Federal Power Commission ("National Power Survey"). It states that, commencing in about 1964, mounting public concern developed about air pollution from fossil fueled plants and water pollution from waste heat or chemicals discharged to water bodies. Efforts to deal with this growing nation wide problem resulted in the passage of the Clean Air Act of 1969 and amendments thereto in 1970 and the National Environmental Policy Act of 1969. On the local level consumers whose properties are affected by pollution from existing generating facilities with high sulfur oxide emissions or those who could be affected by proposed location of generating facilities or transmission lines on or close to their properties, might find it necessary to bring their problems for solution to a chief executive officer whose decision would be determined solely by the needs of the local service area and the local community. A management whose interests are confined to the needs and problems of one regional community is more apt to serve that community with greater understanding than a large wide spread system, whose essential concerns must, of necessity, embrace the entire service area of the system. The concern of Congress with these matters has been noted above. Report of the Committee on Interstate Commerce 74 Cong., 1st Sess. Rep. No. 621, May 18, 1935 p. 12 supra.

AEP further contends that in addition to preserving local management if the acquisition is consummated it "plans" to construct a major system operating headquarters building in Columbus for its service corporation and for a substantial number and possibly all service company personnel presently located in New York. The argument if related to the local management concept, is not persuasive for there is no assurance in the record that if the acquisition is approved the construction will, in fact, be accomplished; or whether it will be built within a particular period of time. It is quite evident that the ultimate decision as to whether the operating headquarters building will be built will in all likelihood be determined, not by local management, but by the system's chief executive officer who obviously will be guided not solely by needs of the local community but rather those which will be of paramount concern to the system as a whole.

In addition, there is no evidence that the chief executive officer will become a resident of Columbus, rather the indications are that he and possibly other responsible system decision makers will remain in New York. In this connection Charles R. Ross, (Ross) a former Federal Power Commissioner (1961 to 1968), and prior thereto Chairman of the Vermont Public Service Commission, testified he believed that recognizing that utility companies and their chief executives are being confronted by an environmental awareness, it is more important than ever that the chief executive and top decision makers be a part of the community to be able to appreciate the esthetic and environmental

aspects of locating transmission lines, locating generating stations, locating substations and locating distribution lines. He concluded

> "I think to the extent , . . . that customers of an operating company are not blessed by having the top executive in the operating territory, they have been rendered a disservice from an environmental and esthetic point of view which I consider an aspect of localized management."

His views are accepted as being within the meaning of the term localized management as used in Section 2(a)(29)(A) of the Act.

Where, as the record in the instant case discloses the AEP system management is highly centralized in New York and the evidence reflects that should the acquisition be consummated, vital policy determinations in matters involving or relating to generation, transmission and financing will not be the ultimate responsibility of local management but that of the chief executive officer of the System in New York, a finding cannot be made that the advantages of localized management will not be impaired. Section 2(a)(29)(A) mandates that an integrated public-utility system, as used in Section 10(c)(2) of the Act, be one that would insure local mnnagement clothed with ultimate decision-making authority responsible to local needs and local public feeling, all of which factors the record fails to establish.

Consideration must be given under Sections 10 and 2(a)(29)(A) as to the effects of the proposed acquisition on the effectiveness of regulation of the resultant system. Here again the Act itself sets the framework within which the above Section should be viewed. Section 1(a)(5) states that public-utility holding companies and their

subsidiaries are affected with a national public interest where "their activities extending over many States are not susceptible of effective control by any State and make difficult, if not impossible, effective State regulation of public-utility companies." AEP conceded that while there is little doubt that state regulatory commissions were generally ineffective in regulating the massive holding companies of the depression era, it is clear that since 1935 State Commissions have generally been strengthened by their respective legislatures with larger staffs, better appropriations and more effective regulatory laws. As authority for such conclusion AEP cites a 1961 law journal article. Such conclusion is not supported by the record. It reflects that in 1963 Judge Gibson in a dissenting opinion in an Ohio rate case, (Ohio Fuel Gas v. Public Utilities Commission of Ohio, 191 N.E. 2d at 347) stated:

> ". . . the Commission, partly because of lack of interest, and partly because of lack of personnel, has accepted any rate schedule filed by the utility as long as it yields approximately the same number of dollars authorized to it as increase earnings."

Moreover, the annual report of the Public Utilities Commission of Ohio for the fiscal year 1972 shows little improvement, although efforts towards that end are being made. The report states that although there were 8 investor-owned electric utilities, 89 municipal systems, 28 rural electric cooperatives and 2 wholesale generating companies in Ohio, the Public Utilities Commission in the past had "no one to analyze in detail the rate structures proferred by the utilities". The report further states "While tariff changes were

examined, the Commission lacked the personnel to give them the in-depth analysis they deserved." In December 1971 a Utility Rates and Economics Section was formed to expedite the Commmission's workload. The Section has a professional engineer with expertise in rate analysis and a staff economist.[18/] The testimony shows additional areas in which regulation may be said to be less than effective. Examples are Ohio's home rule requirement, in which cities having even less competent personnel to make careful analyses of rate matters, and Ohio's reproduction-cost-new-less-depreciation rate base which requires an experienced professional staff analysis, also sorely lacking.

AEP urges that to the extent that effectiveness of regulation may be judged by the end result of low cost and reliable service, the record shows that, with minor exceptions, the average retail realization by each of the system's subsidiaries is the lowest average realization of any investor-owned public utility in each of the seven states in which it operates. However, the record lacks proof that such results were necessarily directly attributable to effective regulation rather than efficiency of operation. With respect to effectiveness of regulation Dr. David S. Schwartz, ("Schwartz") Assistant Chief Economist of the Federal Power Commission's Office of Economics testified that in 1965 the return on equity for Ohio Power was 19.1%, in 1966; it was 20% and in 1968 it was 17.8%. The 1968 percentage return on equity was the

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18/ Official notice is taken of the July 1, 1971 to June 30, 1972 Annual Report of The Public Utilities Commission of Ohio to Governor John J. Gilligan.

highest for any utility in Ohio and the second largest in the country. Schwartz further testified that in this same period the Federal Power Commission was permitting 6 and 6½ percent overall "which results somewhere in the order depending on the leverage and equity and debts in the capital structure, somewhere in the range of 9 or 10%, not the range of 17 to 20 percent on equity." He concluded, with justification, that the Ohio Commission "has not promulgated the type of tight regulatory control on earnings level" which he believed appropriate.

AEP suggests that the apparent discrepancy between Ohio utilities and the rest of the industry could easily stem from the fact that rates of return for the former are calculated upon a relatively smaller equity base and that the Ohio Commission uses a "reproduction cost new" rate base in calculating rates of return where the Federal Power Commission employs an original cost base. Notwithstanding AEP's explanation as to the possible differences, the fact remains, and the record supports the finding, that Ohio Power's rate of return on equity as permitted by the Ohio Commission was far higher than that allowed by the Federal Power Commission or for that matter in other states. The record further significantly shows that with one exception in 1958 involving a fuel cost adjustment, notwithstanding the various rate applications filed by Ohio Power, no formal rate cases, proceedings or investigation have been brought against the company by the Ohio Commission since 1955.[19/] With respect to

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19/ Though AEP characterizes this evidence as a fabricated concern asserted on the basis of patently hearsay statements by Schwartz since Schwartz received the information by telephone from the chief accountant of the Ohio Commission. However, no evidence to the contrary was offered and his statement remains unrefuted and is credited.

the rates of Ohio Power it appears from the evidence that for the average residential user of electricity using 220 kwh per month or less, constituting 30% of Ohio Power's customers, no rate reductions have been made for this group in the last two decades. Upon the basis of the instant record no finding may be made that the increase in size which would result from the proposed acquisition would not impair the effectiveness of regulation of the resulting system.

Though the staff recognizes that both the AEP system and CSOE face serious environmental problems it suggests that if the proposed acquisition is effected such problems would become complicated and CSOE may well wind up paying for AEP's environmental sins, caused in large part by the necessity of AEP to expend substantial sums to eliminate pollution to the air resulting from its use of low quality coal. In so far as effectiveness of regulation is concerned, the argument cannot be accepted. Unlike other factors mentioned above where effectiveness of regulation could be impaired, there appears to be no basis in the record for concluding that CSOE's problems in the environmental area are more susceptible of solution as an independent entity than as a subsidiary of the AEP system, nor is there evidence in the record upon which a conclusion may be reached that if CSOE were to become part of the AEP system it would suffer substantial financial harm because of AEP's environmental problems.

Alleged Economies

Consideration will be given hereunder as to whether the record supports the finding required under Section 10(c)(2) of the Act that the proposed acquisition will "serve the public interest by tending towards the economical and efficient development of an integrated public-utility system." There seems little doubt that the above criteria for approving a proposed acquisition requires a showing that significant savings can be achieved. The record contains considerable testimony and documentary evidence relating both to the categories of the anticipated savings together with the purported amounts of such savings in each of the categories. AEP contends that the record establishes its estimates of savings are reasonable and satisfy the applicable standards of Section 10(c)(2). The Division and the Department dispute the reasonableness of the estimates in nearly all of the categories. The record discloses that AEP first claimed that the anticipated economies which would result from the integration of CSOE into the AEP system were of the magnitude of $69 million.[20/]

Vassell testified at the reopened hearings that during the ten year period through 1980, the cumulative, aggregate annual savings that would accrue to CSOE and to AEP following the acquisition by AEP,

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20/ The testimony in support of such savings was proferred by AEP's Assistant Vice President of Bulk Power Supply Planning, Gregory S. Vassell ("Vassell"), a recognized engineering expert in the bulk power field. Other expert witnesses also testified on behalf of AEP regarding some aspects of claimed savings. While some of the facts, assumptions, projections and conclusions of such witnesses may not be found supported by the record or may be determined to be speculative, it is stated that based upon an observation of such witnesses, their testimony was premised upon genuine conviction and their veracity is not questioned.

as a result of a reduction in fuel costs and in installed generating capacity reserves, would amount to $69 million. The break down of the foregoing amount by categories is: $20 million in fuel costs ($10 million anticipated during the period 1971 through 1975 and $10 million during the period 1976 through 1980); $25 million from compatability of load patterns ($5 million during the period 1971 through 1975 and $20 million during the period 1976 through 1980); and $24 million from reduction in reserves during the period 1971 through 1980. 21/

The record further discloses that during the course of Vassell's cross examination he determined that his estimate of savings of $69 million originally included as part of his direct testimony was too low and that it would be increased by approximately $30 million. The basis for these additional savings was claimed to result from three sources: (1) an increase by CSOE in load projections for future years which would add about $7 million; (2) increasing from $150 per kw to $250 per kw which would add about another $7 million and (3) savings in operating and maintenance expense, other than fuel, on the CSOE generating equipment which would be reduced if CSOE were part of the AEP system adding approximately $20 million of estimated savings over the ten year period to 1980. 22/

21/ In this connection it is interesting to note that prior to the reopened hearings AEP's expert witness with respect to fuel cost savings testified that the acquisition would produce measurable annual savings in the amount of $1.4 million in 1969 and $1.2 million by 1975.

22/ Although these additional claimed savings add to $34 million as noted in the text, the record testimony refers to the additional "approximately" $30 million.

It should be noted at the outset that the original $69 million of savings which AEP anticipates as a result of integrating CSOE into the AEP system are estimates prepared for the most part either by Vassell or persons under his supervision and purport to reflect his judgment and projections based upon such studies. The additional $30 million reflects both a change in his original estimate which he felt was too low and the addition of operating and maintenance expense he had not previously mentioned. It should also be noted that in essence the claimed savings relate to the production of bulk power, namely, generation and transmission and not the retail distribution of power. At any rate neither AEP nor its experts give assurance that the claimed savings will, in fact, be realized in the specific amounts set forth above since they unquestionably reflect Vassell's judgment based upon studies he made coupled with his experience. The Commission in its earlier decision noted the caution required in asessing claimed savings:

> "Estimates of savings and benefits purporting to state precise dollar and kilowatt figures . . . . are essentially, reached in terms of a series of judgments, weightings, and the measurement of many imponderables. It is not easy to find precise dollar and kilowatt offsets to these estimates to express the disadvantages inherent in the spread of control." (22 S.E.C. 808, 818)

Each of the major categories of claimed savings is analyzed below.

Estimates of Fuel Cost Savings

Perhaps the most illustrative example of the necessity of carefully evaluating AEP's projected estimate of savings and determining the reliance which may be placed thereon appears in the category of fuel savings. It will be recalled that Vassell originally estimated a

projected savings in fuel costs of $20 million for the ten year period 1971-1980. Essentially this estimate was the result of a computerized study designed to reflect savings stemming from AEP and CSOE combined operations, assuming CSOE's generating capacity would be integrated into the AEP central dispatch. One of the essential elements and of crucial significance to such a study, to arrive at a savings figure, was the level of coal costs to the AEP system and to CSOE. Vassell testified that since the fall of 1968 when the original hearings were held, coal costs "changed very significantly" for both the AEP system and CSOE; and that in July 1969, in preparation for the reopened hearings, he estimated the amount of increases in coal costs for each of the AEP plants for 1971, 1973 and 1975, and was furnished similar information by CSOE for the latter's plants.[23/] Such estimates were then included in his fuel cost study from which savings were estimated. In light of the fact that these proceedings have been so protracted it has become possible to compare the fuel cost estimates with actual costs for the year 1971. Such comparison provides a significant guide in formulating a judgment as to the reliability of the claimed savings.

Before analyzing the comparisons it is noted that Vassell estimated that AEP's fuel costs for its generating plants would be

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23/ The record reflects that the estimates for future coal costs for each of the AEP generating plants were, in fact, furnished to Vassell by two other employees of AEP involved in coal purchases. Vassell testified he did not know the manner in which such coal estimates had been formulated but merely accepted the figures furnished by the two AEP officials.

increased to a small extent over 1968 estimates and that such increase would be less than expected at CSOE plants. He testified:

> "It [AEP estimate of fuel costs] demonstrates that fuel costs at most AEP plants will likewise increase during 1971-1975 period, as compared to 1968. This increase will be substantially smaller, however, than that expected at C&S [CSOE] Plants." (underscoring supplied)

When asked the significance of the AEP and CSOE estimates taken together he testified:

> ". . . the estimated fuel cost at Conesville of 25.35 cents per million Btu in 1971, 25.42 cents per million Btu in 1973, and 25.97 cents per million Btu in 1975, is substantially higher than the fuel costs at all but one of AEP's plants during the same period . . . . (underscoring supplied)

The following tables portray a comparison of the fuel costs estimates for 1971 with actual fuel costs as reported by the AEP system and CSOE: 24/

24/ The information in columns (1) through (4) in these tables was taken from AEP exhibits in the record. Columns (5) and (6) were added.

TABLE

Comparison of Projected Fuel Costs for Fossil-Fueled Plants in the AEP System Used in AEP's Computer Studies, with Actual Costs

Plant	Projected in Original Studies before the Reopening for 1969-1975	Projected after Hearing Was Reopened For: 1/			Actual 2/	% Excess 1971 Actual Over Projection in Col. (2)
		1971	1973	1975	1971	
	(1)	(2)	(3)	(4)	(5)	(6)
Amos 3/	19.6	21.9	22.5	23.1	38.61	76.3
Big Sandy	18.4	19.7	20.3	20.9	33.28	68.9
Breed	19.0	22.6	23.3	24.0	30.26	33.9
Cabin Creek	19.7	22.0	22.6	--	36.08	64.0
Cardinal	18.0	19.9	20.4	20.9	28.23	41.9
Clinch River	17.9	20.1	20.7	21.3	26.47	31.7
Glen Lyn	18.1	21.9	22.7	23.6	36.10	64.8
Kammer	19.0	20.3	20.7	21.1	31.01	52.8
Kanawha River	18.1	22.1	22.7	23.3	30.07	36.1
Mitchell	19.0	20.3	20.7	21.1	31.65	55.9
Muskingum River	17.7	17.3	17.8	18.3	30.17	74.4
Philo	16.3	20.7	21.0	21.4	29.69	43.4
Sporn	19.7	22.5	23.1	23.7	36.21	60.9
Tanners Creek	19.6	21.8	22.2	22.7	26.13	19.9
Tidd	17.8	19.3	19.7	20.1	25.14	30.3
Twin Branch	29.7	34.0	34.5	34.9	53.05	56.0

1/ App. Ex. J-2

2/ FPC Form 1 for AEP System Companies, p. 432-a.

3/ The high fuel cost at Amos is especially significant because the Amos plant, when completed in 1973 will be the AEP System's largest generating station having a capacity of 2.9 million kw (AEP 1971 Annual Report, p. 13).

TABLE

Comparison of Fuel Costs for Fossil-Fueled Plants of the CSOE System
as Used in AEP's Original Production Cost Studies and
as Projected by CSOE for 1971, 1973 and 1975, with Actual Costs

Plant	Fuel Costs - c/Million BTU					% Increase (Decrease) 1971 Actual Over Projection in Col. (2)
	Projected in Original Studies before the Reopening for 1969-1975 1/	Projected after Hearing Was Reopened For: 1/			Actual 2/	
		1971	1973	1975	1971	
	(1)	(2)	(3)	(4)	(5)	(6)
Conesville	19.59	25.35	25.42	25.97	26.63	5.0
Poston	20.70	25.02	26.37	28.18	24.77	(1.0)
Picway 2-4	29.05	37.19	39.06	41.50	33.04 3/	(11.2) 3/
Picway 5	29.05	36.36	38.18	40.57		(9.1) 3/
Beckjord 6	22.03	25.08	26.60	28.22	34.42	37.2
Stuart 1-2	18.30	21.18	23.32	24.86	36.62	72.9
Stuart 3	18.30	-	23.32	24.86	-	-
Poston Diesel	74.60	84.64	88.27	91.90	84.53	(0.1)
Pedro Diesel	74.60	84.64	88.27	91.90	86.75	2.5
Addison Diesel	74.60	84.64	88.27	91.90	86.61	2.3
Conesville Diesel	74.60	84.64	88.27	91.90	84.54	(0.1)
Walnut G.T. (4)	78.2	35.90	35.90	35.90	66.52	85.3
Picway G.T.	78.2	83.33	86.98	90.64	84.89	1.9

1/ App. Ex. J-1

2/ FPC Form 1 for CSOE System Companies, p. 432-a.

3/ FPC Form 1 shows only one fuel cost figure for Picway, which figure has been used to measure the percentage decrease for Units 2-4 and 5, respectively.

4/ Walnut G.T. fuel costs are subject to seasonal rates. Revised projections are summer rates based on assumption that Walnut G.T. will be operated primarily during the C&S peak load period.

A perusal of the table comparing projected fuel costs for plants in the AEP system with actual fuel costs for 1971 demonstrates that the actual costs substantially exceeded the projections and that such excess ranged, with one exception, from a low of 30.3% to a high of 76.3%. The actual fuel costs for CSOE plants for 1971 did not substantially exceed CSOE's projections. The table presenting a comparison of projected fuel costs for CSOE plants with actual fuel costs for 1971 shows that in four of the plants the actual costs were less than the estimates, in four other plants the actual coal costs exceeded projections in a range from a low of 1.9% to a high of 5% and in the three remaining plants the excess of actual over projected were 37.2%, 72.9% and 85.3%. These tables thus clearly illustrate that Vassell's judgment that the increases projected for the AEP plants for 1971 would be substantially smaller than increases expected at CSOE plants was not corroborated by actual results. In addition, as noted in the foregoing tables Vassell estimated that in 1971 the fuel costs at the Conesville plant of CSOE, which he characterized as the largest and most efficient plant in the CSOE system, would exceed the fuel cost at every AEP plant, with one exception. Again Vassell's judgment not only was not corroborated by actual results in 1971, but such results were the reverse of his prediction. The Tables show Muskingum River's fuel cost of 30.17¢/million Btu exceeded Conesville cost of 22.63¢/million Btu by 7.54¢/million Btu. As shown in the Tables above, the excess of 1971 actual

fuel costs over projections for the AEP plants was substantially greater than the moderate increase at the Conesville plant, with three minor exceptions.

AEP contends that all utilities are subject to the pressures of the recently erratic coal market and urges that while the size of the differential between the average fuel costs of the two systems may change from year to year, and may become negative for a short period of time, as it did in 1971, there is no reason to assume that the trend showing AEP's fuel costs to be lower than those of CSOE will not continue. The argument is not persuasive nor is it supported by the record. In fact the record shows that coal costs are continuing to increase.[25/] Given a continuation of the present economy and the increasing impact of environmental problems associated with the coal mining industry there is no basis in the record for believing that the cost of coal will be substantially reduced in the future and there is no basis for concluding that AEP's fuel costs will ever approach the low estimate assumed by Vassell. The record supports a contrary finding.

Vassell's fuel savings studies further estimated that two 1300

25/ Official notice is taken of the prospectus dated August 29, 1972, filed as part of the registration statement of Kentucky Power Company (S.E.C. File No. 2045179), which states that there has been a substantial increase in fuel costs at the Big Sandy plant and that the cost of coal has increased from an average cost of 19 cents in 1969 to 33.28 cents per million BTU for 1971 and to 33.79 cents for the 12 months ended May 31, 1972. Compare the actual figure for 1971 with Vassell's estimate of 19.7 cents per million BTU for 1971.

mw generating units would be located at a Western Kentucky site in 1974 and 1975 using low cost Western Kentucky coal. He projected an estimated fuel cost in 1974-75 of 20.9 cents per million BTU. However, AEP's plans apparently changed, for it now reports the two units will be located in Southern Ohio where it plans to develop its own coal reserves which will have to be "deep mined," entailing, according to Vassell, a greater expense than "strip mining." Although AEP made no estimate of the expected cost of this coal supply, a comparison of the 1971 coal cost for its Muskingum plant of 30.17 cents per million BTU where coal is strip mined, and allowing for possible differences in transportation and other costs, it is reasonable to assume that under all of the circumstances the estimated cost of 20.9 cents per million BTU used by Vassell in his fuel cost studies for these two units was substantially understated and the projected savings based thereon cannot be considered wholly reliable. Vassell testified that delay in commercial operating dates of a generating unit was an important factor in his studies. AEP has experienced delays in construction of its larger and presumably more efficient units, placing the generating burden on older, less-efficient units. This would result in reducing or eliminating savings purportedly accruing from the AEP and CSOE joint dispatch. The record shows that in Vassell's fuel savings study, estimates were made as to the time when particular units would be placed in operation. Of significance to the study, because of their size and low energy cost, were two 1100

mw unclear units at the Donald C. Cook Nuclear Plant. Vassell estimated that unit No. 1 would be placed in commercial operation September 1972 and unit No. 2 in June 1973. His study assumed availability for unit No. 1 throughout 1973[26] and for unit No. 2 about half of 1973. AEP latest statement is that the first unit is scheduled for commercial operation in 1974 and the second unit in 1976.[27] In addition, Vassell estimated two 1300 mw units would be in service April 1974 and April 1975 respectively. Again Vassell's savings study appears unrealistic since current information from AEP indicates that commercial operation for these units is now estimated as October 1974 and October 1975. Any future savings predicated upon earlier availability dates of the foregoing units as used in Vassell's studies must also be considered unreliable.

Vassell found it necessary to make certain assumptions with respect to the availability of each of the generating units of AEP and CSOE. Vassell assumed for the AEP-owned coal-fired units an unavailability figure of 14.5% for mature units and 17.5% for immature units during the 1970-1975 period.[28] For the CSOE units he used

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26/ Unit No. 1 was scheduled for maintenance in November 1973 and excluded from availability for that month.

27/ AEP prospectus dated March 28, 1973 included in registration statement File No. 2-47101.

28/ Unavailability figures relate to the time a particular unit is out of service and include forced outages which Vassell testified result from a breakdown of any of the major components of the generating unit, malfunctioning of the complicated control systems, and human error. In addition, units are taken out of service for scheduled maintenance. The percentage figures include time for both forced outages and maintanance.

figures furnished by that company which were about half of the outage rate used for AEP. Vassell testified that in this period AEP plans to install five 800 mw generating units, two 1100 mw units and three 1300 mw units with generating capability of 10,100 megawatts. CSOE plans to install one 800 mw unit. The record discloses that, in general, the history of the industry shows that the larger the size of the unit the higher becomes its forced outage rate, particularly, where the new larger unit involves a change in design of one kind or another. The higher forced outage rate exists during the first few years after the unit has been placed in commercial operation, the "shakedown" period. Vassell testified that a shakedown period ranging up to four years is not unreasonable. The unavailability depends upon the type of unit and its components, particularly whether it is of a super critical design. The record further discloses that other utilities throughout the country have experienced a higher average of unavailability than that used by Vassell. The documentary evidence shows that the unavailability range for coal-fired generating units for 18 utilities throughout the nation with units of over 600 mw ratings in commercial operation in 1969 was from a low of 5.1% to a high of 86.3% or an average of 37.3%. Sixteen of such utilities had unavailability rates 18.9% or higher. AEP records show that on an average weekday, in 1968, 21.3% of its generating capacity was out of service and in 1969 the figure was 21.8%. This experience factor

was for units of less than 800 mw.[29] All of AEP's new units for the 1970-1975 period are large units of 800 to 1300 mw. AEP contends that the higher unavailability rates mentioned above are not the result of larger units but rather because of changes in design and the development of super critical units.[30] Even accepting that premise, the plain fact is that the record demonstrates that there is a correlation between the size of generating units and its forced outage rates i.e.: the larger the unit the higher the rate of unavailability for at least the first several years of operation. The same experience was also demonstrated for nuclear units for which Vassell assumed an unavailability rate of 10% (5% for forced outage and 5% for maintenance) as compared with evidence in the record showing that in 1968 and 1969 nuclear units of other utilities had unavailability rates ranging from a low of 12.7% to a high of 53.6% for a 430 mw unit and a 600 mw unit respectively.

On the basis of AEP's experience with its own nuclear generating units the assumed unavailability rate of 10% lacks believability. Cook stated ". . . . it will be a considerable period of time before

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29/ The documentary evidence shows that in 1968 Vassell recognized the upward trend of forced outage rate experienced by AEP and reported at its management meeting that year, that during the previous two years AEP encountered "a very substantial increase" in the System forced outage rate and that this "is a very disturbing trend" which if continued would require higher reserves.

30/ Vassell's testimony is most revealing. He stated:

> "I believe that higher outage rate has been experienced with super critical units which are of new design. Most of the super critical units happen to be also larger units."

we project another nuclear unit." The evidence shows that it has been AEP's experience that nearly all of its supercritical units require some scheduled maintenance during the first year of operation. It is considered that the record amply supports the finding that the unavailability percentage figures used by Vassell in his fuel cost studies are not realistic and the amount of savings predicted thereon cannot be considered other than as speculative and not reliable.

Claimed Savings With Respect to Generating Reserves

Vassell further predicted that if CSOE becomes a part of the AEP system it would experience savings during the 5-year period 1976 to 1980 in fixed charges arising from reduced generating reserves, in an aggregate amount of $24,000,000 which amount he reduced to about $20 million during his cross examination. The support for this claim is based in essence, upon the principle, stated by Vassell, that the level of generating reserves which a system is required to maintain is determined by the size of its largest generating units in relation to the size of the system or acceptance of a lower level of reliability.[31/] It is evident from the record that increased generation reserves associated with larger generating units installed on a power system is necessitated by the need to provide for both outages of the systems generating units and slippage of dates of commercial operation of new generating units. Vassell testified that the pertinent question is "what is the differential in reserve that CSOE would need to maintain as part of the CCD group, instead of part of AEP and still have the benefit of the same level of reliability of bulk power supply." Vassell estimated that the members of the CCD group would have to maintain about a 5% higher reserve level than that which AEP expects to maintain so as to have available a

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31/ Vassell testified that "the use of larger units on a given power system requires either installation of higher reserves or acceptance of lower reliability levels."

The National Power Survey (Part II p. II-2-43) states

> "Generating unit size has a significant effect on system reserves requirements. Larger unit sizes, when related to a given system size, inherently require larger reserves in order to meet a given standard of reliability."

level of reliability comparable to that of AEP.[32/] However, the record does not reflect that the CCD members would, in fact, maintain a reserve level higher than that of AEP. Thus the evidence shows that AEP estimates that for the winter seasons 1974-75 through 1981-82 it will maintain average available reserves equal to 30.8% of its expected peak load. CGE projected its reserve percentage for the summer seasons 1974 through 1981 would average 16.3% of its expected peak load. For the same periods CSOE estimates a reserve percentage of 17.1%; and DPL estimates a reserve percentage of 18.5%. From these statistics it appears that AEP plans to maintain a higher level of reserves from 1974 through 1981. Hence the record does not clearly support a finding that the acquisition of CSOE would result in specific dollar savings from a lower level of reserve.

The evidence shows that the new generating units AEP plans to install are of the largest available size, and that some will include new design features made possible by advances in technology. The CCD pool also had plans for larger size units but it is clear from the record they were to be smaller than the units AEP is planning. The CCD pool units are not prototypes but rather second or third generation units of a particular size. Having found that the forced outage rates

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32/ According to Vassell the purpose of installing generating reserves is to enable a system to carry its load when some of its units are out of service because of forced outage or maintenance. Vassell arrived at the 5% higher reserve level for the CCD group by assuming the unavailability of the two largest units of the CCD group and by assuming each of the systems would carry an installed generating capacity reserve of 20% of its annual peak load. He concluded that the CCD group and CSOE, as part thereof, would need to carry 5.3% more reserves than the AEP system so as to have a comparable level of reliability.

for the larger generating units, particularly those including innovative design concepts, are higher for the initial period which Vassell concedes could be up to four years, it is reasonable to conclude that the AEP system would need to maintain a higher level of reserves than the CCD pool. This conclusion is reached with the recognition of AEP's strenuous argument that in determining the generating capacity reserve it is important to determine the size of the generating units relative to the size of the system. In that connection it is noted that AEP concedes that the foregoing is the principal reason why systems form power pools i.e. to attempt to reduce the size of the large units they are installing in relation to the size of the system. The CCD pool is just such an example.

Assuming arguendo that because of the comparatively small size of the CCD pool it could not maintain a level of reserves comparable to that of AEP with equivalent reliability, the question arises whether the sole solution to CSOE's obtaining larger reserves is by acquisition. There has been a growing acceptance of power pools as a mechanism to share the risks of forced outages and thereby lower the level of generating reserves which each of the pool participants would otherwise independently be required to maintain. The 1964 National Power Survey pointed out that by sharing reserves through interconnection, systems can reduce the combined reserve level for unscheduled outages. The 1970 National Power Survey noted that pooled reserve requirements continue to be one of the essential pool functions. (1970 National Power Survey Part I, p. I-17-2-4). If therefore, the CCD pool is not large enough to achieve the benefits of reserve sharing there are alternative means of accomplishing such purpose

by joining other neighboring pools. This concept was given added impetus by the Federal Power Commission which, absent voluntary agreement on the part of neighboring systems to interconnect and share reserves, ordered them to do so. The Supreme Court upheld such an order noting that "the major importance of an interconnection is that it reduces the need for an 'isolated' utility to build and maintain 'reserve' generating capacity". Gainsville Utilities Department v. Florida Power Corp., 402 U.S. 515, 518-9 (1971). In other words the record does not clearly establish that the purported savings which CSOE may derive from reserve requirements could be achieved only by AEP's acquisition of CSOE.

AEP contends that under Section 10(c)(2) of the Act savings available to CSOE by any means other than by way of affiliation are neither relevant nor material. The argument is without merit. The Commission in its 1946 decision held:

> "In view of the emphasis which has been placed on the savings and increased efficiency which, it is asserted, would accompany the acquisition, it may not be inappropriate to note also the extent to which the physical benefits claimed to result from the acquisition may be achieved in other ways. . . . The capacity of independently owned utilities to coordinate their operations and interchange power through mutual operation of power pools has been amply demonstrated in the history of utility operations in this country. . ." (22 S.E.C. 817).

There is no dispute that the major factor in planning the future reserve requirements to which Vassell testified was his own judgment as an expert in the field. The factors involved in planning such a reserve level is set forth in the National Power Survey, Part II, p. II-2-43 as follows:

> "It is judgment that establishes the basis for the input projections and assumptions for any reserve study. These projections and assumptions must be made in a number of areas, including system load growth and forced outage performance of generating capacity. Likewise, judgment must be used in evaluating the results of any reserve study. Consideration must be given to such factors as the possibility of slippage in the in-service date of new generating units, availability of supplemental capacity resources, and the extent to which provision needs to be made for actual conditions several years into the future being different from existing conditions."

Vassell testified that in the final analysis it was his judgment that was essentially involved in the planning of reserve requirements for the AEP system. If the issues in this case were confined solely to an evaluation of the appropriate method of planning reserves for the AEP system, Vassell's judgment factors would be viewed accordingly. Vassell's testimony however, is not restricted solely to his judgments relating to reserve planning. They are translated into dollar amounts of savings which are projected for a five year period and aggregate some $20 million. In light of the findings that some of his projections and assumptions are at the very least questionable or not supported by the record, his estimates of savings must perforce fall in the category of sheer speculation and their reliability becomes hazardous.

Compatability of Load Savings

AEP further claims that CSOE will also derive substantial savings in the capital cost of generating equipment as a consequence of the compatability of load patterns of the CSOE and AEP systems. The load pattern of CSOE is characterized by the occurrence of annual peaks

in the system demand during the summer months whereas AEP's pattern is characterized by the occurrence of annual peaks in system demands during the winter months. Vassell testified that following the acquisition of CSOE by AEP the combined systems could be dispatched and their generation planned as a single entity. The installed generating capacity needed by the two systems combined would thus be reduced substantially.

If the AEP and CSOE systems were combined the resultant system would have a winter peak. Vassell claims that because of the variance in the occurrence of peak demand in the two systems the combined systems would need to provide only for the combined winter peak and this would be lower than the sum of the winter and summer peak loads for the two systems. AEP claims it would meet a large increase in its summer peak of about 220 megawatts by 1980 without installing additional generation. AEP's summer reserve levels would thus be decreased.

Vassell, in his original prepared testimony, estimated that for the years 1970 to 1973 CSOE could realize potential savings totaling some $6 million, computed on the basis that CSOE would not need to install approximately 400 megawatts of peaking capacity at a capital cost of $100 per kw and annual fixed charges of 14%. For the years 1976 through 1980, because of the complementary nature of the loads, it was estimated CSOE could save from about $20 million to $33 million depending upon whether the capital cost (of capacity CSOE would not have to install) was $150 per kw or $250 per kw. During the course of his

cross examination Vassell expanded the estimate of savings because he claimed CSOE increased its load projections. He increased his estimated savings for the 1970-73 period to about $8.7 million and for the period 1976-80 to a range from $27.5 million to $45.6 million depending upon the assumptions of the cost per kw.

As noted above, by reason of the complementary nature of the load patterns of the AEP and CSOE systems, AEP claims that it would meet the 220 megawatts increase in its summer peak without adding generation. Unquestionably AEP could absorb such increase without adding generation. A preponderance of the evidence in the record, however, does not establish that AEP would, in fact, absorb the substantial increase in its summer peak loads without installing additional capacity and still maintain the system's reliability standards.

Vassell pointed out the reason it was necessary to maintain somewhat higher reserve levels for summer peaks. Some of the generating units on the AEP system require maintenance in warm weather periods because they have outdoor type boilers. This would make it necessary to schedule maintenance during the summer and would make it incumbent upon AEP to maintain higher levels of reserves for summer peaks because its neighbors, most of which have summer peaks, cannot be relied upon to come to AEP's aid in cases of emergencies. The record discloses that although AEP has seasonal diversity exchange agreements with some of its neighbors, Vassell was of the view that such agreements adversely affected AEP's reliability and he favored their elimination. He

strenuously argued that seasonal diversity exchange with CSOE would not accomplish the same result. The record fails to support his conclusion. Despite Vassell's insistence there appears to be no reasonable explanation that would make it impossible for, nor does there appear to be any technological obstacle to prevent, seasonal diversity exchange of power between AEP and CSOE, absent affiliation. CSOE's president testified it is quite possible that AEP and CSOE could engage in diversity exchange.

Vassell's rationale for his position is that it is not economically feasible for AEP to engage in a diversity exchange agreement with CSOE because the day-to-day or hour-by-hour variations in load and capacity situations on the two systems recognizable in the course of unified operations would not be recognizable for arm's-length arrangements. The record does not support his conclusion. In fact, the record shows that AEP has diversity arrangements with three other systems, one of which Vassell admitted "was executed rather recently" with TVA. Thus a preponderance of the evidence does not establish that AEP could provide CSOE with some 220 megawatts only if it became AEP's subsidiary, but could not engage in a diversity exchange agreement with CSOE if the latter company remained independent. Moreover, the record indicates that AEP assumed that CSOE would not

pay for the 220 megawatts of capacity which AEP would furnish it in the summer. AEP would forego short-term profits it could otherwise obtain by selling such capacity to other systems. Such a result would be an economic detriment to the AEP system.

It may be possible that by combining operations of the AEP and CSOE systems as a single unified system, a reduction in installed generating capacity reserves would result and some savings may be achieved by reason of the complementary nature of the system loads of the two companies. The record, however, does not support a finding that the estimate of savings of approximately $20 million or more (depending upon the cost per kw) will be realized as claimed by AEP. Moreover, the record does not establish that such savings are achievable only as a result of acquisition of CSOE by AEP.

Operation and Maintenance Expense Savings

The record clearly shows that a category of alleged savings, not originally included by Vassell in his direct examination, was claimed during his cross examination and pertain to savings in operation and maintenance expenses (sometimes hereinafter referred to as O & M expenses). These savings were estimated at $2 million per year totaling $20 million for the period 1971-1980. The claimed savings is related to the alleged fuel cost savings. In essence the basis for savings in O & M expenses is that as a result of the proposed acquisition, a program of coordinated planning and combined dispatch of the CSOE and AEP systems can be achieved, which will make it possible to substantially reduce the use of some low efficiency CSOE plants, such as

Conesville units 1, 2 and 3 and the Poston units.

Vassell testified that CSOE, by becoming part of the AEP system, would be able to use the excess capacity of AEP's larger and more efficient generating units having lower coal costs and lower O & M expenses per kilowatt. Vassell further testified that the operation of the Conesville and Poston units would, in his opinion, be reduced by as much as 90 per cent and since the O & M expenses are "pretty much proportional to the use of the units" it was his view that to be on the conservative side he would assume only a 25 per cent reduction in the O & M expenses for such units. As a general proposition it may well be true that if the operation of a generating unit is substantially curtailed the O & M expenses ordinarily could be expected to be proportionately reduced. The record shows, however, that Vassell did not directly factor into his fuel cost study the O & M expenses per kwh in determining the sequence in which the particular units would be loaded. If it developed that the Conesville Poston operations were not curtailed, there would be no such savings since the coal costs of those units are lower than most of AEP's units. In addition, Vassell assumed in his fuel cost study that, if the acquisition becomes effective, the combined dispatch of the Conesville units 1, 2 and 3 and the Poston units involves "cycling" rather than "base-load" operation.[33/] The record shows that the cycling operation

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33/ The term "cycling" refers to the periodic shutting down and starting up of generating units as contrasted with a "base-load" or continuous operation.

of older generating units, initially designed for base-load operations, results in additional O & M expenses; yet Vassell did not specifically include this factor in his studies. AEP's contention that Vassell did not overlook this fact is not supported by the record. The best that can be said with respect to Vassell's testimony on this point is that by expressing his belief that the operation of the units in question would be reduced 25 per cent he was so conservative that it could easily cover cycling with its attendant costs. Even if this theory were to be accepted it does not justify estimated savings of $20 million by CSOE for the period in question. Vassell admitted that the exhibits he prepared, furnishing the basis for the claimed O & M savings if CSOE were acquired by AEP, failed to include an analysis or calculation to support the 25 per cent figure upon which his projected savings for CSOE of $2 million per year is premised. His testimony, when asked whether the exhibit contained the above analysis, is most revealing.

> "No; it is not. I, as I testified yesterday, I believe, the 25 percent reduction in this component is my broad judgment estimate as a very conservative saving as to what could be saved. . . ."

Although it may be theoretically possible that AEP's post-acquisition combined dispatch program could effect some O & M savings, the fact remains and the record establishes that Vassell made no specific study to determine exactly how such savings would be accomplished but simply applied broad judgment. It is concluded that his admittedly broad judgment makes the savings estimate speculative and hardly furnishes a

satisfactory basis for a finding of savings estimated at $20 million.[34]

Savings Through Common Purchasing

An additional category of savings forcast by AEP to result from integration of the two systems is in the purchase of materials, supplies and equipment.[35] AEP maintains that CSOE could benefit to the extent of $2 million annually from large scale purchasing. To support its estimate AEP selected approximately 40 items, allegedly at random, which it believed to be representative or illustrative of items purchased by both systems. It then forwarded the list to CSOE. After a conference between AEP's purchasing expert and CSOE's representative the list was reduced to 25 items which both officials believed to be identical items purchased by each of the systems. The items were then priced on the basis of purchase contracts then in effect for the respective companies; and the percentage difference between the cost of the particular item to each of the companies was noted. The record thus demonstrates that for each of the 25 items AEP's cost was lower in varying percentages of difference ranging up to 27.2%. The evidence discloses that the list represented only 25 out of possibly 18 thousand

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34/ The record is barren of any evidence as to whether CSOE would achieve some O & M savings, absent its affiliation with AEP, by continuing participation in the CCD pool and replacing generation of its older units with generation from existing or planned generation of CCD units. AEP's argument that consideration of such factor is legally irrelevant is rejected for reasons stated earlier.

35/ The record establishes that purchases of fuel and major equipment items were excluded from this category.

or more different items that are purchased by both companies. The aggregate cost of the 25 items[36/] selected represented approximately 9% of the total dollar volume of purchases for both AEP and CSOE. The record shows that one item on the list was later discovered to have been erroneously included; and three items were not identical for the two systems. It was also conceded that other items bought by each of the systems were purchased from different manufacturers and the witness was unable to identify the items that were purchased from the same manufacturer. Other items that were purchased from the same manufacturer had different specifications; and with respect to seven items the record shows that CSOE did not have them under contract as of March 11, 1968, the date used by the two company experts to establish the price out of the items.

The Division and the Department urge that the record fails to provide any basis for savings from large scale purchasing. This argument is not wholly acceptable. An analysis of the record regarding volume purchasing establishes that AEP, as a result of consolidating its system requirements, negotiates large blanket contracts with vendors as a result of which each operating subsidiary receives the benefit of volume purchasing. Cook's testimony in this regard remains unchallenged. However, his conclusion, admittedly based upon belief that CSOE "could, as a subsidiary of AEP, secure on the average reductions in prices of

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36/ Exhibits and testimony do not disclose the total quantities of these items purchased by each of the companies.

materials, supplies and equipment which it purchases in the order of 10%" and that based upon CSOE's 1967 level of purchases of $20 million it could achieve annual savings of $2 million is not fully supported by the record. In the first place the figure of 10% used as an average for reduction in prices estimated for CSOE was premised on the list of 25 items selected for illustrative purposes to demonstrate price differentials. These items were culled from about 18,000 or more items that are purchased both for CSOE and AEP. Although Cook testified the list was representative of highly significant items used in the operation of both systems and selected for their complete comparability it does not purport to be a complete list of such identical items but merely illustrative of price differentials indicative of savings possible by large scale volume purchasing.[37/] In the second place the record, as noted above, indicates that even in the selected list of 25 items some discrepancies or errors appeared concerning either the identity of supposedly identical items or the prices of such items. This raises reasonable doubts as to its complete reliability as a basis for estimating savings of $2 million per year. It is concluded therefore that the record establishes that if CSOE were integrated into the AEP system some savings could be achieved as a result of large scale volume purchasing of significant materials, supplies and equipment (other than major items) but that the record

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37/ The record shows that in 1967 AEP's total purchases of materials, supplies and equipment (other than major items) was approximately five times larger than those of CSOE.

does not establish a sufficient basis for finding savings of $2 million per year nor does the record establish a reasonable basis for any finding with respect to the magnitude of such potential savings.

Economies of Scale

In the past two decades the electric utility industry has experienced a vast and substantial increase in demand which has sparked technological progress in generation and transmission to keep pace with the demand. The more significant results of such advancement in the state of the art have been the increase in the size of generating units and higher voltage transmission lines. There is sufficient evidence in the record to establish that capital costs per kilowatt and operation expenses per kwh generated are less for larger units than for small units. As mentioned earlier there is also evidence that the larger units have experienced some increase in maintenance costs and reduction in unit availability in the first several years of operation, particularly with prototype units. The Federal Power Commission in its National Power Survey notes that fossil-fueled steam electric power plants account for about 76 percent of total generating capacity and more than 80 percent of total generation. It also notes that while reduction in costs per kilowatt-hour for fossil-fueled steam electric production were significant until the end of 1966, thereafter increases in construction and operating costs have more than offset the gains made through technological improvements. (National Power Survey pp. I-5-1 & 2). With respect

to nuclear energy the said Survey states that large scale use of this comparatively new source of power is probably the most important significant change in the electric power industry during the past fifty years. It is expected that nuclear generating capacity will increase from less than 2 percent in 1970 to about 40 percent in 1990. The Survey points out, however, that there are still many substantial problems in design and manufacture connected with increasing the size of units of both fossil-fueled and nuclear types which the industry predicts may produce acceptable solutions by 1990 if greater attention is given to the vital importance of research and development by the industry itself.

The record establishes that the history of the electric utility industry shows that, in general, economies of scale are associated with large generating units and that notwithstanding (a) escalation of capital costs in recent years with no slowdown apparent under the present economy, (b) intensified problems concerning available plant siting and (c) increasing environmental problems of electric utilities associated with air and water quality control, the trend toward larger units will continue in the future. The issues in the instant case relate to whether the proposed acquisition will either make possible such economies of scale or at least enhance or accelerate the ability of the system to take advantage of future economies of scale in bulk power production. The record demonstrates quite clearly that AEP historically has been a pioneer in the development of large-scale generators and has been large enough to achieve the economies

of scale which technological progress made possible.

The evidence shows AEP is in the process of constructing generators with a capacity of 1,300 mw and is considering proposals for units which will have a generating capacity of 1,600 mw to 2,200 mw. In addition, Vassell testified that AEP system has always been able to utilize the largest size generating units available and enjoy maximum economies in bulk power production. Moreover, and of utmost importance, is Cook's earlier testimony that the inclusion of CSOE within the AEP system would have "minor" significance in AEP's ability to build larger units more rapidly since AEP's capacity is approximately ten times that of CSOE. The record supports Cook's considered judgment of the "minor" advantage which the CSOE acquisition could furnish in addition to AEP's ability per se to construct larger units. As reflected in the record AEP projects an average compound growth rate from 1970 to 1975 of 5.8 percent and estimates doubling its system peak load in ten years.

Although, as noted above, it appears that the trend to larger generating units will continue there is evidence in the record that due to the high outage rate of such units additional experience with the present large units in operation is necessary, in the next decade or two, before the industry moves to install even larger units. Lewis H. Roddis (Roddis) president of Consolidated Edison Company testified in essence, among other things, that it was his opinion that, in light of the industry's experience with larger outage rates

associated with increased size of units, the industry would remain on a plateau for a period "approaching ten years" or a leveling off in the extrapolation of size both for fossil-fired and nuclear units to afford the industry time to "digest the experience with those sizes". The National Power Survey confirms this view.[38/] After noting that progress in technology has been responsible for increased size of steam-electric generating units with such trend continuing, the Survey states,"The increase in unit size appears to be accompanied by some increase in forced outage rates. . ." and "The larger units do have more complex maintenance requirements that result in longer down times". However, the Survey expresses optimism that with respect to forced outage rates ". . . it is expected that as these units mature and experience is gained with them, they and the second and third generation units will show substantial improvements". With respect to maintenance the Survey states "such problems with larger units will decrease as

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38/ The 1970 Survey states:

> ". . . . the larger, more complex facilities, on which the economics of modern power generation so importantly depend, have tended to date to have higher-than-average forced outage rates and/or to require longer-than-average maintenance shutdowns. Whether this will continue to be the case cannot be predicted with any degree of certainty. There is yet too little experience, especially with large nuclear units, to say whether large unit size inherently means some degree of reduced reliability. What is certain is that unit sizes are increasing rapidly and will continue to increase." (National Power Survey Part I, p. I-1-17)

experience is gained and design improvements are made." The time when adequate experience will be achieved or design improvements accomplished is most frequently stated in the Survey as the 1980-1990 period. (National Power Survey Part IV p. IV-1-1). 39/

AEP earnestly urges it has been a pioneer in the development of large scale steam generators and that it has 5 units completed in the 800 mw range. Newer construction involves generators in the range of 1,100 to 1300 mw. The finding that AEP has been and is utilizing large scale generating units; and it's ability to continue to increase the size of its units to the maximum size in the future, finds ample support in the record.

The increase in the size of generating units was made possible by development of new technology with respect to the various components of a complete generating unit. One of AEP's electrical engineering experts, Professor Herbert H. Woodson (Woodson), testified concerning the technological progress in the industry and the constant improvement in generating design which makes possible greater economies of scale. These technological improvements include steam turbine generators, techniques of cooling, the feasibility of super-conducting field windings with respect to higher voltages, and

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39/ The Survey also notes estimates by all Regional Advisory Committees as to the largest generating units anticipated to be in service in 1980-1990. These estimates show a maximum size of 1,500 mw for a nuclear unit and 1,300 mw for a fossil unit for 1980 and for 1990 a 2,500 mw nuclear unit and a 2,000 mw fossil unit. (Part I p. 1-18-3; Table 18.4).

new materials for use in condensors.

The history of the industry regarding developments in technology makes it evident that changes and progress do not occur at one time but rather they are the result of gradual improvement brought about through experience. When the industry moved to substantially larger size generating units or moved to higher voltage transmission it was necessary to operate such facilities over a period of time to determine the extent of the economies of scale which would be achieved and whether it was feasible to install even larger generating units. These periods were referred to by the witness as "plateaus." As to such periods Woodson admitted that with respect to the employment of superconducting technology in commercial steam turbine generators that "In the absence of actual operating experience with machines of this type, all of the results and conclusions must be interpreted as speculation." Thus, absent additional experience with known technology of steam turbines, boilers for fossil-fueled units, or nuclear reactors, no conclusion may be reached on the basis of the instant record that these technological developments will, in fact, be achieved or that it will be accomplished in the reasonably foreseeable future. So too with respect to another of AEP's engineering experts John C. Trackman (Trackman), president of Brown Boveri Corporation,[40/] who testified

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40/ Brown Boveri Corporation is the United States subsidiary of Brown Boveri Limited with headquarters in Switzerland. The Company manufacturers and sells electrical generating, transmission and distribution equipment to utility and manufacturing industries world wide.

regarding future maximum size of turbine generators for steam electric generation. Although, in general, Trackman was of the view that by extrapolation of present technology, rather than breakthrough of technology, larger generating units would be feasible because of continued research, for example in superconducting technology, he nevertheless confirmed Woodson's belief as to the speculative aspect of future larger units when he testified:

> "However, I am not in a position to speculate whether it will be technologically feasible to manufacture generators employing new techniques by 1985."

Thus, the record supports the conclusion that there is every indication that the known technological advances have apparently reached a plateau where additional experience is essential with the present large units ranging between 800 mw and 1,300 mw before the industry advances to units of larger size. This plateau, as witnesses have testified, should continue through at least the late 1970's.

However, accepting the thesis that in the past two decades significant advances have been made in such technology and that it appears likely that the movement to larger capacity generating

nevertheless, the record establishes that AEP has always been of such size as to permit the installation of generating units of increasingly greater capacity and to take advantage of whatever economies of scale were available. The record fails to establish that, absent the acquisition of CSOE, the ability of AEP to continue its past growth in size and load and its ability to exploit future available economies of scale in bulk power production will, in any manner, be impeded.

Wholly apart from the foregoing conclusion an analysis of the evidence with respect to the millions of dollars of purported savings in capital costs upon the assumption that larger generating units will be feasible by 1985 or 1990 appears to be of such highly questionable nature as to make any such estimate unreliable. Trackman predicted that a tandem compound generator of 1,600 mw could be possible by 1985 with savings in capital costs of $1.9 million; that a cross compound turbine generator of 2,800 mw would be in use by 1985, and that substantial capital savings of $4,070,000 could be expected. He further predicted that a tandem compound generator of the size of 3,500 mw utilizing nuclear steam would "be possible" by 1985. He estimated savings of $20,300,000 in 1969 dollars. Another AEP expert witness, James N. Landis, also testified as to substantial economies of scale which may be expected from the manufacture of large steam generators. Trackman was unable to testify as to the base price used to compute the savings because of a competitive secrecy factor. Landis was unable to explain how the millions of dollars of savings, to which he testified, were computed because he made no such computations but relied on figures furnished him by a reliable source and the computations were,

in fact, made by others and were "not my conclusions as to savings". Upon the basis of the record it would be hazardous to place credence upon such inconclusive testimony much less make findings of millions of dollars of savings of capital costs to the kind testified to by such witnesses.[41/]

The record supports the finding that the history of the industry demonstrates that economies of scale have been associated with larger units after such units have undergone a period of experience. Problems which have always been associated with new-design large scale units have, in time, been "ironed-out" or "shaken down". However, the record does not furnish a basis for finding that, in light of the expert's testimony of the many design and other problems which the industry is presently coping with, such larger units will, in fact, become commercially operational prior to the 1980 or 1990 time period. Nor in this case is there basis upon which a finding may be made of any particular dollar amount of savings in capital costs for the larger units,which AEP's own experts apparently do not expect to be placed in operation until ten or twenty years hence.

It is concluded that any finding of dollar savings resulting from economies of scale to be achieved by reason of technological

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41/ In addition Vassell testified that with respect to any savings which may be realized by AEP, including economies of scale described in the text, an equitable allocation of such savings would be determined in the future between CSOE and the rest of the AEP system (assuming the acquisition) basically as set forth in an intra-system operating agreement which, in substance, allocates the cost of operation among the operating companies. However, Vassell was unfamiliar with the method by which such costs would, in fact, be allocated. The record thus fails to set forth with any certainty the dollar amount or percentage of savings which would be allocated to CSOE.

advances in generation, predicted to be possibly realized in 1980 at the earliest, would be conjectural and speculative.

AEP also contends that further economies could be achieved by CSOE's utilizing the higher voltage transmission lines in the AEP system which AEP says are not specifically included in the estimated savings. Vassell testified that the continued growth of demand for electric energy coupled with future increase in size of generating units will exert a powerful stimulus toward the search for the most effective and economical means of transmitting such energy to load centers. This can be accomplished only by utilizing increasingly higher voltages. The National Power Survey notes that transmission voltage levels have increased in keeping with load growths and although there exists a variety of voltage patterns among the power systems, there has been a steady progression from the 34.5 kilovolt range to 138 or 161 kilovolts with many of the larger systems progressing to 230 and 500 kilovolts or to 345 and 765 kilovolts. Before voltages beyond 765 kilovolts will be achieved more research and development is needed. It is predicted that this will occur at the earliest in about the mid 1980's. (National Power Survey p. I-13-4).

The record discloses that AEP was a pioneer in introducing the 345 kilovolt transmission in this country and was the first to install a 765 kilovolt line ln 1969. Using AEP as an example, Vassell testified as to the relative economies represented by higher voltage transmission lines. He stated that although the cost per mile of a 138 kv line was $40,000 compared to $150,000 for a 765 kv line, the investment per 100 kv was $50 for the 138 kv line and $4 for the 765 kv line. Vassell also testified that a large integrated power system under

one ownership can most readily realize the maximum benefits of economies of scale in ultra-high voltage transmission. Nevertheless, he concedes that systems of smaller size could realize such economies by coordinating their planning and operation through various pooling arrangements, albeit, he was of the view that most power tools fall short of the level of planning achievable under one ownership.

AEP claims that CSOE could achieve economies in transmission by utilizing AEP's higher voltage transmission lines. The record is barren of any evidence as to whether CSOE, with its primarily metropolitan load, could or has need to utilize such higher voltage lines in the future; the extent to which any particular high voltage line currently used in the AEP system would be made available; whether additional interconnection would be required to accomplish such use; whether additional equipment would be required together with the estimated cost thereof to CSOE; and whether any additional environmental problems are involved in bringing higher voltage lines to urban areas.

The record establishes that with respect to transmission, AEP has always been large enough to achieve whatever economies of scale became available from technological progress in and the evolution of higher voltage transmission lines. The record further establishes that the proposed acquisition would neither improve nor impede its ability to continue such progress. In addition, accepting Vassell's opinion that systems of smaller size could realize economies of scale in ultra-high voltage transmission by coordinating their planning and operations through pooling arrangements, there is a strong possibility that CSOE's continuation in the CCD pool should permit it to achieve whatever economies

of scale may be realized from higher voltage transmission lines.

Conclusions Under Section 10(c)(2)

As noted earlier under Section 10(c)(2) of the Act an acquisition may not be approved unless it is found that it will serve the public interest by tending towards the economical and efficient development of an integrated public-utility system. Within the standards under this Section, as viewed by the Commission, one of the relevant issues to determine is whether an acquisition will produce substantial savings. The evidence in the instant case demonstrates that the savings which AEP urges will be realized, if the proposed acquisition were effectuated are, for the most part, premised upon estimates and forecasts by AEP employees, whose optimism is understandable, but whose opinions and conclusions, in light of the environment in which they are made, must of necessity be questioned. As noted above, the estimates are not always supported by the evidence. Inherent in any finding of savings claimed to be achievable if the acquisition is accomplished, must be some reasonable assurance to stockholders and consumers alike that the savings which, in the instant case, purport to total millions of dollars annually, will be realized; and that there is every reason to believe they will be attained within the reasonably foreseeable future.

The evidence shows that the most substantial part of the claimed savings, because they are dependent upon future technological improvements in generation and transmission will, in all probability, not come to maturity until at least the 1980's. While some savings may well be possible, certain savings as noted above, have been found to be premised

upon assumptions of future technological perfection of equipment which may be achieved in the next ten to twenty years, that is if research development and experience prove successful. Other savings were found to be speculative and not reliable; while still others were found to be overly optimistic in terms of dollar amounts ascribed to savings characterized as potential. There are some savings which the record shows are not solely attainable by acquisition but could also be realized by other means.

Moreover the record establishes that AEP over the past three decades has substantially increased in size in terms of utility plant, gross revenues and plant capacity. From 1946, when AEP first sought to acquire CSOE to 1970 its amount of gross utility plant at original cost has increased approximately ten times, its amount of gross revenues have increased approximately seven times, its plant capacity has increased approximately seven times and its energy sales have increased approximately eight times. The record further establishes that AEP has been a forerunner in utilizing larger and more sophisticated types of equipment and has demonstrated its ability to exploit whatever economies of scale became available. In other words the record supports the finding that since 1946, and without integrating CSOE into its system, AEP has, in terms of the standards under Section 10(c)(2), demonstrated its ability to achieve economical and efficient development of an integrated public-utility system and there appears to be every basis for believing it will continue to do so in the future.

AEP contends that the proposed acquisition will "contribute significantly to the development and growth of AEP as an integrated

electric utility system" and that CSOE is ideally suited and a "natural" for affiliation. A "contribution" to development and growth of a system or an acquisition "ideally suited" for affiliation are not the criteria by which acquisitions meet the standards of Section 10(c)(2). If AEP's argument were to prevail the test for acquisition would be instant growth per se, not the required tendency towards the economical and efficient development of a system. Such a precedent would permit every large system to acquire a smaller system at will by simply contending that the acquisition would contribute to its growth or is ideally suited for affiliation. Under the standards of the Section, proof is required that "the acquisition" will serve the public interest by tending towards the economical and efficient development of an integrated public-utility system. Thus, it is "the acquisition" being sought which must directly effectuate the economies and efficiencies. This can best be established by demonstrating that savings of a substantial nature to investors or consumers, both, will be achieved, not in the distant future, but in the reasonably foreseeable future if the public interest is to be served. The record in the instant case does not establish with any degree of certainty that savings of the magnitude of those claimed by AEP will be so achieved.

AEP further argues that the acquisition will enable it to "strengthen its East Central Region transmission grid and to take advantage, at an earlier date than might otherwise be possible, of technological improvements in generating facilities". The record fails to support the argument. Cook, when asked if the inclusion of CSOE

within the system would accelerate AEP's ability to build larger units more rapidly, replied:

> "I think I indicated to a very small degree because their capacity is approximately one million kilowatts and ours is approximately ten times that size."

Moreover, the ability to take advantage, at an earlier date than might otherwise be possible, of technological improvements in generating facilities is not a standard under Section 10(c)(2) for finding that the acquisition will tend towards the economical and efficient development of an integrated public-utility system. The record establishes that AEP has experienced no difficulty in its ability to exploit technological improvements in generating facilities, absent the proposed acquisition.

In light of all of the foregoing it is concluded that the necessary finding cannot be made under Section 10(c)(2) of the Act to permit the proposed acquisition.

VI. The Standards and Criteria Under Section 10(b)(1)

Reference has previously been made to the requirements of Section 10(b)(1) of the Act which provides that the Commission shall approve an acquisition unless it finds that such acquisition will tend towards interlocking relations or the concentration of control of public-utility companies, of a kind or to an extent detrimental to the public interest or the interest of investors or consumers. The effects of the proposed acquisition of CSOE within the framework of Section 10(c)(2) has been shown above. In that connection note was taken of the increase in the size of the AEP system which would result from such acquisition. The Commission's views with respect to the size of holding company systems and concentration of control as used in the

Act are well worth repeating.

> "We cannot emphasize too strongly an essential part of the spirit pervading the initiation and adoption of this legislation was the desire to arrest the process of concentration of power characterizing the growth of holding company systems. The concentration of control per se, ... and the tendency of large aggregates -- by reason of their very size alone -- to become unamendable to effective regulation and essentially local management are stressed and repeated in the documents constituting the legislative history of the Act. . . ." American Gas and Electric Company, 22 SEC at 817-818.

AEP's increase in size resulting from the acquisition is demonstrative of economic power as well as indicative of a tendency towards concentration. Section 10(b)(1) was included in the Act in an attempt to curb the developing concentration of power in the electric utility industry, a concentration which the Congress believed was not in the public interest.

It has also been noted that there has been a trend towards concentration in the electric utility industry as manifested by the decline in the number of private systems. Along with increased energy requirements of electric systems and the advances in generation large scale and transmission technology, economies of scale resulted and brought about a decrease in the number of companies engaged in generation and transmission. Mergers and consolidations in the electric utility industry have increased in the past decade. From 1964 through 1970 the Commission approved ten acquisitions of private companies by other private systems, and the acquisition of 7 municipal systems by investor owned companies. The proposed acquisition would obviously continue the trend.

However, this decision does not rest solely on the ground concentration of economic power and concentration of control which the proposed acquisition will accomplish by reason of AEP's increased size. The anti-competitive effects of the proposed acquisition are also pertinent to the issue of concentration under Section 10(b)(1). Notwithstanding AEP's argument that the specific policies of the antitrust laws have limited relevance to regulatory statutes incorporating a public interest standard, and that because the electric utility industry is comprehensively regulated, competition is not essential to the public interest, it has been noted earlier that the Courts have clearly stated that antitrust laws bear upon the public interest or the interest of investors or consumers, terms included in Section 10(b)(1) of the Act. In deciding whether to approve an acquisition under the said Section the Commission is required to give full consideration to the policies underlying the Clayton Act. Municipal Electric Association v. S.E.C. supra.

With respect to the contention relating to competition in regulated industries the same Court which decided the Municipal Electric case considered the purposes of both the antitrust regulation and utility regulation and held not only that these forms of economic regulation complement each other, but pointed out that the Supreme Court decided that regulated industries must, to some degree at least, accommodate the antitrust laws. Northern Natural Gas Co. v. F.P.C. supra. Indeed the Commission in Hawaiian Electric Co. after noting the provisions of Section 10(b)(1) stated: "This provision requires us to consider the proposed acquisition in light of Federal antitrust policies." (Holding

Company Act Release No. 16592 - January 26, 1970). In this latter connection the Supreme Court has held that among the goals which Section 7 of the Clayton Act was designed to achieve was to arrest acquisitions and mergers when the trend to lessen competition was still in its incipiency and to arrest the rising tide of economic concentration. United States v. Von's Grocery Co., 384 U.S. 270. It should also be noted that Congress has never exempted the electric power industry from the application of the antrtrust laws.

At the outset it is thus essential to consider the evidence in the record to determine whether competition, actual or potential, exists and if so, the nature or areas of such competition. AEP and CSOE contend there is no substantial competition, actual or potential in any relevant market between Ohio Power and CSOE, CGE or DPL. The Division, the Department, CGE and DPL assert that the record establishes the existence of such competition and delineate the particular areas in which there is actual and potential competition. If AEP were permitted to acquire CSOE it is claimed by the said parties and amici that it would have serious adverse effects upon competition and would be contrary to the policies underlying Section 7 of the Clayton Act.

In general, competition is viewed in terms of its effect upon a defined product and geographic market. With respect to the latter, it is clear that CSOE's service area is in Ohio where AEP's subsidiary, Ohio Power, also conducts operations. Thus the State of Ohio is an obvious appropriate geographic market. The service areas of the subsidiaries comprising the AEP system runs through six neighboring states within the

East Central Region of the country. To the extent the acquisition of CSOE will affect the competitive position of the operating subsidiaries and the competition in the East Central Region, that area may also be considered an appropriate geographic market in which to measure the effects of competition. With respect to the product market it seems apparent that there are two principal markets in which the AEP system and CSOE sell electric energy, namely, the retail energy market consisting of purchasers of energy for their own consumption and the wholesale market in which Ohio Power, CSOE, DPL and CGE participate, consisting of customers who sell and distribute power to retail energy customers.

Within these markets the question arises as to the particular areas in which it can be said competition exists or potential competition may be expected to develop. The record establishes that in Ohio there is a substantial wholesale market for bulk power supply. Small distribution systems are constantly alert to attempt to purchase reliable bulk power at the lowest prices from any available source to meet their increasing demands.

A second area in which competition arises is marked by the efforts of electric utilities to seek those industries which, though minor in number, are large customers of electric power. Because their power requirements are so enormous the level of electric power rates is of extreme importance in their decision to locate in a particular section of the country. The load characteristics of such industrial concerns make them attractive customers to a power system. Such large loads make possible the addition of economies, thus permitting such a system to compete for future loads.

A third area in which competition may be considered to arise is commonly referred to as yardstick competition, or the ability to measure performance of one electric utility system with another. Although yardstick competition is of greater use to regulatory authorities it also serves to assert consumer pressure on a system to meet the better performance of another system and affects its ability to attract new loads.

The fourth area, and of lesser importance than wholesale competition, is known as interface competition or that which arises in the border portion of the service areas of two or more utilities and makes it possible for large retail loads to make a choice as to which power system can best serve such loads.

One of the vital issues raised under Section 10(b)(1) is the effects which the proposed acquisition of CSOE would have upon competition The first consequence is the direct elimination of competition between CSOE and the AEP system. The evidence shows that because AEP's bulk power costs have been lower than those of CSOE there was little competition between the systems. Nevertheless, the record also reflects that the CCD pool, with CSOE's active participation, has given every indication of an ability to achieve economies of scale for its members. In addition there existed the real possibility of achieving greater economies of sale as evidenced by the pool's planning for the installation of larger generating units. On the other hand it is evident from the record that, by reason of its size, AEP has taken advantage of advances in technology in large scale generation and transmission and its ability to continue does not appear to be dependent upon acquiring CSOE.

It is significant that the elimination of CSOE from the CCD pool will result not only in increasing AEP's dominant position in Ohio, but more importantly effectively impair the ability of the said pool to develop as a competitor and thus bring about an industry structure with far less opportunity for wholesale and industrial competition. We turn to an examination of the manner in which competition in the indicated areas has functioned and may be expected to function; and the manner in which the proposed acquisition would effect such competition.

Wholesale Sales - Intramodal Competition

Wholesale sales may be defined as sales of electric power by one utility to another utility system for resale by the latter. As appears from the record, utility systems, such as one the size of AEP, having been able to achieve economies of sale by the construction and installation of large generation and transmission facilities are able to generate power in bulk and transmit it economically over long distances. Many small systems without ability to make capital expenditures for such facilities, purchase from bulk suppliers and achieve economies not obtainable from their own generation. Most wholesale customers appear to be municipally owned or rural electric cooperative systems though some small or medium sized investor- owned utilities also purchase power for resale. The importance of such sales to the AEP system, and perhaps a vital factor in its efforts to eliminate or stifle development of sources of future competition such as power pools, is demonstrated by the enormous increase in wholesale sales by the said system in the past decade. From 1963 through 1972 AEP's energy sales to other electric

utilities rose from about 4 billion kwh sales to about 16 billion kwh sales or an increase of 297.7%. The AEP system experienced a compounded annual growth in sales of power to other utilities of about 18%.

There is evidence in the record of a number of municipal electric systems served by either Ohio Edison, Toledo Edison and DPL which sought to switch from their wholesale suppliers and requested Ohio Power to supply them with wholesale power.[42/] Ohio Power constantly refused to offer wholesale power to any municipal systems receiving such power from another privately owned utility, stating that the area encompassed by the request was not in the territory served by Ohio Power. Competition for wholesale sales was also experienced between CSOE and South Central in connection with wholesale sales to the City of Columbus municipal electric system. The ultimate result of the competition between CSOE and South Central was a lower wholesale rate in awarding the bid to CSOE and substantial savings to the City. The effect of such lower rate to the Columbus System prompted three other municipal wholesale customers to negotiate with CSOE and obtain lower wholesale rates. In 1969 Georgetown, which was served by CGE, requested CSOE to supply wholesale power offering to construct necessary transmission facilities to connect with CSOE's facilities. Thus, the record evidences that wholesale purchasers in Ohio are constantly seeking to have competitive alternatives and that where transmission lines are

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42/ These systems include Beech City, Pemberville, Bradner, Woodville, Bowling Green, Huntsville, Hakeview, Wagensfield and Bellefontaine. Additionally other municipals generating power considered purchasing power from Ohio Power including Norwalk, Orville, Deshler and Shelby.

no obstacle there is frequently more than one supplier in a position feasibly to supply wholesale power. Most often requests of such nature have been turned down by Ohio Power and CSOE on grounds the requesting system was outside the service area of the wholesale supplier even though it was economically feasible to furnish such power. Thus the record suggests the possible existence of some tacit understanding among utilities in Ohio not to offer wholesale power outside their service areas despite the fact that it may be economically feasible.[43/] Notwithstanding refusals by private utilities to engage in competition for wholesale sales, the record reflects that such competition has resulted in reduction of wholesale rates to a number of municipal systems.

Moreover, while in the past a limiting factor in competition for wholesale sales has been the costs of long distance transmission, recent technological innovations and improvements in high voltage transmission has lowered the cost of such transmission enabling a bulk power supplier to serve wholesale customers which could not be reached because of the high transmission costs. It is not unreasonable to expect that the 765 kv lines will make transmission less costly and will open up the wholesale market even more to bulk power suppliers. This is particularly important to the entire East Central Region in which AEP operates and where it has installed the first 765 kv transmission line. The East Central Region is perhaps the most highly interconnected area in the world. (The National Power Survey I-18-16). The fact that

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43/ There is a serious question as to whether understanding or agreements among electric utility companies allocating territories for wholesale sales or allocating customers may constitute violations of Section 1 of the Sherman Act. (See U.S. v. Topco Associates, 405 U.S. 596, 612 (1972); U.S. v. Addystone Pipe & Steel Co., 85 F.27 (6th Cir. 1898). The record shows that in 1962 AEP officials expressed grave concern of possible "violation of the Sherman Antitrust Act."

a wholesale customer is not adjacent to a potential supplier does not inhibit such customers from obtaining power, since a utility located between the two can, by virtue of interconnections, be required to "wheel" wholesale power across their service areas to the customer.[44/] The Supreme Court recently upheld a District Court decree enjoining a utility from refusing to sell electric power at wholesale to existing or proposed municipal power systems in the areas served by the utility and from refusing to "wheel" power over its lines from the electric power supplier to the said municipal systems. The Court stated that Otter Tail, the utility enjoined, used its monopoly power in the cities of its service area to foreclose competition or gain a competitive advantage or to destroy a competitor, all in violation of the antitrust laws. The Court further held that use of monopoly power "to destroy threatened competition" is a violation of the "attempt to monopolize" clause in Section 2 of the Sherman Act as are agreements not to compete with the aim of preserving or extending a monopoly. (Citation omitted) (Otter Tail Power Company v. United States, ___ U.S. ___ 41 LW 4292 (February 22, 1973). The impact of this decision makes possible the ability of municipal systems, as well as privately owned smaller systems, to seek capacity on favorable terms from a number of efficient bulk power suppliers thereby increasing competition for wholesale sales.

AEP's argument as it relates to competition for wholesale sales, that the electric power industry is a natural monopoly and that intramodal competition results in wasteful duplication of facilities cannot be

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44/ "Wheeling" power occurs when a utility, for a fee, transmits on its lines, power generated by another utility to a customer of the generating company.

accepted. An analysis of the testimony of the expert economic witnesses shows that the natural monopoly concept and wasteful duplication of facilities applies to competition in the local market at the distribution level, but is not applicable to all levels of production and wholesale distribution. In general, it appears that as early as 1935 it was recognized that to avoid wasteful duplication of facilities there was need for a local monopoly at the distribution level. 45/ Two expert economists who testified on behalf of AEP stated that interutility competition leads to wasteful competition and that the electric utility is a "natural monopoly." It is apparent from their testimony that such a theory is particularly applicable to the distribution of power to retail customers where duplication of lines would indeed be wasteful. But the theory of "natural monopoly" has no application to production of electricity. Dr. Schwartz the economic expert for the Division also agreed as to the wasteful competition and loss of scale economies in the local market, but added significantly, "encouraging competition in the industrial market sectors as well as the wholesale market for resale" should be encouraged.

Utilities can compete for loads of industries seeking to expand plants or locate new plants in a particular service area which does not necessarily involve duplication of facilities. Utility systems whose transmission lines are interconnected afford a wholesale customer a choice among alternate suppliers thereby avoiding the need to install duplicate facilities. This is particularly true if, as noted above, utilities are

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45/ See FTC Report on Utility Corporations Part 73-A, 47-56 (1935). See also FPC 1964 Power Survey (p. 13) referring to "local monopoly."

required to "wheel" power. Hence, AEP's argument relating to wasteful duplication of facilities, insofar as it is intended to apply to transmission costs connected with wholesale sales, has no validity. The public interest is best served in preserving and encouraging competition for wholesale customers and thereby pave the way for lower rates to retail customers in the service areas of the competing utilities.

Another area of competition for wholesale sales is exemplified in the record by the operations of the CCD pool, in its potential for achieving greater economies of scale from larger generating units installed or planned for the future. The evidence shows that all three companies comprising the pool were approximately of similar size and about at an equal level in exploitation of scale in generation and transmission. Since their bulk power costs were higher than those of Ohio Power they were unable to compete with the latter company. In the years following the formation of the pool the three companies developed a joint program to develop generation and transmission to provide for their bulk power through 1975. Their efforts were directed to achieving greater economies of scale by coordinated planning so as to be able to compete in the bulk power market. The participant agreed to build larger generating units to accommodate expected load growth within their areas. All the participants regarded the pool as long-term. The record demonstrates their efforts were not in vain and that the pool achieved greater economies than was possible if each had continued alone. Although for all practical purposes, continued planning for the future development of the CCD pool ceased with the offer of AEP to acquire CSOE, the record demonstrates that if it were to continue there is a good likelihood it could achieve the economies associated with

large scale generating units and it has the potential for becoming a viable competitor of AEP in bulk power supply market. On the basis of the record the finding may be made that the public interest requires that the participants in the CCD pool be afforded the ability to continue to have the opportunity to achieve maximum efficiencies which is, in essence, the basis on which customers may expect reliable and adequate power at lowest possible costs. In this manner the companies could become suppliers of bulk power, and competition for wholesale sales can be preserved.

AEP further urges that competition for wholesale and industrial customers (and retail as well) "would greatly increase the need for reserve capacity of individual utilities and simultaneously reduce their ability to provide reliable service because of uncertainty as to size and nature of future loads". The record does not support such a broad conclusion. The evidence in the record establishes that the participants in the CCD pool were making plans to install larger generating units and there appears to be no reason to believe the participants would be unable to provide sufficient additional reserve capacity to effectively compete for wholesale loads.

Intramodal Competition - Industrial Loads

AEP further contends that an analysis of the economic evidence clearly proves that there is no substantial competition to attract industrial customers. Its conclusions are premised primarily on the testimony of its employee Robert L. Wolf (Wolf) who is AEP's Area Development Director and John C. Russell (Russell) a graduate metallurgical

engineer.[46] The Department, the Division, DPL and CGE in essence contend the record shows there is significant opportunity for electric utilities in Ohio to compete for industrial customers seeking new plants or expanding existing facilities and that the record shows that intra-modal competition to attract large industrial loads constitutes an important and valuable aspect of competition in the electric utility industry in Ohio and its neighboring states. Support for such views were offered by two economic experts on behalf of the Department and two for the Division.[47] In light of the divergent views of the experts, upon which the above conflicting conclusions are drawn by each side, it is essential to determine whether there exists competition for large industrial loads and, if so, the types of industrial customers involved, whether such competition relates to comparatively few industrial concerns or is of a substantial nature, and whether there is a reasonable probability of future competition for large industrial customers.

In essence AEP's expert Wolf testified that differences in electric power rates are of no importance in determining plant location in all but a few cases and that the important factors in industrial location are availability of labor, proximity to markets and availability and cost of raw material. The few instances which Wolf conceded that the cost of electric energy is a significant factor are aluminum reduction, ferroalloys, electric furnace steel and caustic chlorine. With respect to this limited number he and Russell were of the opinion that

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46 / Russell testified his field is nonferrous metallurgy, including electrometallurgical plants such as aluminum reduction plants. He has acted as consultant to firms in nonferrous extraction metallurgical projects and has evaluated factors concerned with the selection of plant sites.

47 / The Department's witnesses were Leonard W. Weiss (Weiss) a professor of economics at the University of Wisconsin who served from September 1969 to August 1970 as special economics assistant to the Assistant Attorney General for Antitrust and Dr. John W. Wilson an assistant professor of (Cont'd)

there were other factors which would be more important in plant location. However Wolf admitted there are other industries which he believed the cost of electric power is or "may be" one of the significant plant locational factors if such cost constitutes three percent or more of the value of the product shipped. Wolf in his prepared direct examination listed 17 additional industries in the above category and testified to additional industries which could also be included in the said category. AEP admits there are some industrial process in which the cost of electric energy is significant and that the 3% analysis is a useful mode of analysis but was not an absolute rule.

The documentary evidence from the files of AEP and CSOE demonstrate that the level of electric rates is significant to a number of industries other than aluminum, ferroalloys and caustic chlorine and the other industries mentioned by Wolf in his testimony. AEP urges that Wolf's characterization that electric power costs is or may be significant in plant location "should be understood in the sense of statistically significant". If, of course, AEP is speaking of the number of possible industrial plants which Wolf listed as 17 out of several hundred industries where electric power costs account for more than 3% of value of shipment and might be considered "significant" in plant location, the statement would be correct. However, the vital factor is not the statistical number of industries which is significant, rather the measure of potential competition lies in the magnitude of their demand. Weiss testified that Wolf's study of the 17 industries accounts for a larger share of demand for energy than their numbers suggest. Thus the

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(Cont'd)

47/ economics at West Point. For the Division - Dr. Schwartz previously identified, and Dr. James R. Nelson, an economics professor at Amherst College.

evidence shows that although Ohio Power had 17 more industrial customers at the end of 1968 than 1967 as compared to CGE which had 98 additional electric industrial customers at the end of 1968, Ohio Power sold some 1.2 billion kwh more energy to industrial customers in 1968 than in 1967 as contrasted with sales of 350 million more by CGE.

The existence of competition for industrial loads is amply demonstrated in the documentary and testimonial evidence. Such competition is not restricted to Ohio but includes the Ohio Valley and other areas in which the AEP system operating subsidiaries furnish power. An AEP memorandum outlining the problem with respect to competition for industrial customers between AEP's subsidiary (Appalachian Power) and neighboring electric utilities in Virginia and North Carolina clearly evinces not only AEP's concerns for attracting industrial customers, above and beyond the few cases noted by Wolf where power costs is significant in plant location, but also bears out Weiss' theory that if such factors as closeness to markets, raw material and labor costs are comparable in a particular region, the electric power costs can become the determinative factor in plant location. The memorandum states:

> "Mr. R.E. Hodges proposed on February 12, 1962, at a meeting with Messrs. D.C. Cook, G.V. Patterson, Dorman Miller and S.W. Andrews, that Appalachian reduce its industrial rates in the state of Virginia so as to make these rates more competitive with the rates of its neighbors to the south, namely Carolina Power & Light and Duke Power companies. He based his proposal principally on the fact that Appalachian is at a great advantage in competing with these two companies for new industries. He cited eight cases with estimated revenue of some $1,800,000 per year where industries, with which Appalachian had been negotiating, finally decided to locate in Carolina rather than in Virginia. He also cited cases of four existing customers with revenue of some $700,000 where he feels the customers may move to Carolina. Mr. Hodges thinks that other costs which influence the choice of location by new industries, such as closeness to markets and raw materials, labor rates and local taxes, are comparable in
> (Cont'd.)

> the two states, and therefore he concludes that the principal reason that the prospective industries have settled in Carolina rather than in Virginia, and the existing customers may move to Carolina, is the difference in electric rates."

Another memorandum contains a list of industrial concerns including general manufacturing companies, glass companies, a fiberglass plant and textile companies which either located in the Carolinas or might leave Virginia because "power rates" were the determining factor. Additional exhibits show examples of various industries which considered electric power significant or that competition exists for various types of industrial loads. These examples include a rubber and plastic hose manufacturer which considered relocating its plant from Ohio to Mississippi "to take advantage of low electric rates"; a chemical firm seeking a location "that could provide low cost power", and an oil company considering the feasibility of construction a petrochemical plant stated,in connection with plant location,"one major contributing factor, of course, is electric energy" and in the same memorandum was AEP's own recognition of competition which then existed ". . . I believe that insofar as the electric and steam requirements are concerned we are in a good competitive position."

Thus there is ample evidence in the record to support the conclusion that there are a substantial number of industries where electric power is an important factor in determining plant location and although the record reflects that a majority of industries do not find electric power costs a vital factor in determining plant location those industries which do, are enormous consumers of electric power. Wolf asserted that Ohio Power is less successful in attracting new

industries notwithstanding it has the lowest industrial rate in Ohio. However, of greater significance is the evidence which shows that although in 1968 Ohio Power served 13.3% of the industrial firms in Ohio it supplied 41.9% of the total electric energy used by such firms. In addition, the evidence shows that during the period 1960-1968 Ohio Power ranked second in industrial sales although it ranked last among the seven major Ohio investor-owned utilities in growth in the number of industrial customers. On the other hand, CGE and DPL served 17.1% of industrial customers but furnished only about 13% of the total energy sales in Ohio. In 1969 Ohio Power's industrial sales accounted for 64% of its total energy sales. Industrial sales for the AEP system in the same year accounted for 53% of total sales.

AEP urges that even if competition were economically possible for industrial customers it would result in an undesirable tendency towards discriminatory rates and cross subsidization of customers. AEP notes, however, that public utilities may not legally charge different rates to different industrial customers in the same class and that rates must be related to the cost of service. It is these factors which prevent discrimination among different classes of customers as well. Moreover, since power - intensive industries are particularly responsive to rate competition the attraction for such industries is understandable in terms of increased revenues which they bring as well as increased efficiency resulting from high load factors which in turn make a system more competitive and benefit all classes of consumers with respect to rates and reliability. In this connection Weiss pointed to additional

factors which make competition to attract industrial loads important to an electric system. He testified:

> "Utilities have strong incentives to make rate concessions to industrial users in hopes of atrracting them to the locality because of the additional residential and commercial load that will be generated by additional load employment. This makes competition to attract new industrial plants more vigorous than if the industrial demand itself were the only consideration."

Consideration has been given to Cook's testimony relating to rate reduction and competition and the opinion expressed by Philip Sporn, a former president of AEP, concerning competition for industrial loads in the electric utility industry. Cook testified:

> "The operating companies are very aggressive in selling, and indeed we cultivate a very aggressive attitude in the service corporation. In the operating companies, therefore, they are always anxious to have various rates of the companies reduced to give us a still further competitive advantage."

Sporn wrote:

> "In the industrial field there are a host of applications where the cost of electric energy determines whether the application will be made electrically at all or whether, even though it is made electrically, it will be made in a specific service area. Among these items are electric heating, electric welding and and foregoing, metallurgical operations such as production of electric steel, ferroalloys, the melting of brass, titanium, iron, and many of the nonferrous metals, all of which are determined in large measure by the cost of electric energy. In the areas of heavy application of electric energy, there is not only competition as between adjoining or even nonadjoining utility systems, that is between companies in the Ohio Valley, the Southeast, and the Northwest, but there is also competition between the investor-owned and governmentally owned and/or financed utilities." Technology, Engineering, and Economics, by Philip Sporn, MIT Press, pp. 39-40 (1969).

Thus the present and past chief executive officers of AEP have recognized not only the existence of competition in the entire service area in which AEP operates but, as evident from Cook's testimony, a "very aggressive" campaign to seek "a still further competitive advantage."

A preponderance of the evidence amply supports the conclusion that in Ohio, the Ohio Valley and the other service areas in which the AEP system operates, substantial intramodal competition for large industrial loads exists. Permitting AEP to acquire CSOE would substantially lessen such competition.

Intramodal Competition - Yardstick Competition

Yardstick competition in general relates to the opportunity of comparing performance of one utility as against another or others with respect to rates, service and operations. While such comparisions in the electric utility industry are made by regulatory agencies they are also made by the utilities themselves for purposes of determining efficiency of operations and for operational or marketing approaches and made by utility customers as to rates and service rendered. Thus, for yardstick comparisions to be meaningful and effective as a competitive tool, it is essential that a sufficient number of utilities be available for comparison purposes, and that the privately owned utilities be within one state since they would be subject to the same regulatory agency having knowledge of this operation. AEP urges that, because of its size and performance record, it and Ohio Power are looked to as yardsticks by regulators and other utilities. This does not mean that other systems should be utterly disregarded by regulators and others seeking to determine comparability of rate and service. The entire concept of meaningful

comparisons would be emasculated if the largest system in a region were to be the sole criterion for determining rates and performance. The record contains evidence that the AEP subsidiaries have compared their rates with those of municipal electric systems, privately-owned utilities in other States and with rural electric utilities. The evidence further shows AEP has compared Ohio Power's rates with other private utilities in the state including CSOE. The evidence also reflects the pressures which are brought by consumers on a utility to lower its rates to make them competitive not only with the rates of other utilities in the area, but also to serve as an incentive to atrract new industries as well as retain those already being served. In fact, an internal AEP memorandum illustrates that AEP, in promoting electric heating, succeeded in applying pressure on another utility to reduce its rates. Similarly CSOE on the occasion of filing an application to reduce its rates issued a release stating

> "The new General Service rates will not only mean a reduction in cost to present major industry and encourage their expansion in the twenty-five county area but will be a healthy factor in attracting new industry to the area."

It is thus evident that a reduction in the number of independent utilities in Ohio would reduce the ability to make yardstick competition meaningful by reducing the pressure on the remaining systems to maintain the lowest rates possible and furnish efficient services.

AEP's argument that there are enough large electric systems in Ohio and the surrounding areas to set adequate yardsticks in the region affected by the proposed acquisition is hardly a sufficient reason to support a finding that yardstick competition will not be impaired. CSOE is by no means an insignificant or ailing system whose operations may be

said to be so inconsequential as to eliminate it as a source of comparision to regulators, other electric systems or consumers. The record supports the conclusion that the elimination of CSOE as an independent system would impair yardstick competition in Ohio and the surrounding region.

Intramodal Competition - Interface Competition

The term "interface" relates to the areas between the ends of existing distribution systems of two utilities. The problem presented is whether there are interface areas in Ohio between the service area of CSOE, DPL, CGE and the AEP system at which it may be said competition exists or potential competition is probable. AEP's witnesses assert that competition at the interfaces in Ohio was de minimis and it contends that, among the systems noted above, there is no subsantial interface competition which could be affected by the proposed acquisition. The record does not support such contention. Though Ohio has an "anti-pirating" statute, which prohibits utilities subject to state commission jurisdiction from furnishing utility service to a customer, who, within a 90 day period, has been receiving adequate service from another supplier, the State of Ohio does not allocate or design exclusive retail service areas for electric suppliers in the State. Hence, new retail customers have the right to receive service from any available supplier. In reality, and recognizing that within the boundaries of incorporated municipalities a franchise is necessary which is ordinarily granted to one system to avoid duplication of facilities, competition of two or more suppliers occurs in interface areas where no supplier has constructed substantial distribution lines. Urban growth extending to undeveloped areas has been taking place in Ohio as elsewhere in the country. Competition for large industrial loads to locate

in these interfaces has existed as does competition for loads for residential subdivisions.

AEP concedes that some interface competition does exist between municipal electric systems and investor-owned utilities in Ohio and between rural electric cooperatives and investor-owned utilities in Ohio. It urges that no such competition exists among the systems noted above. The evidence discloses instances of such competition. An official of AEP and its service company (George V. Patterson) and the president of CSOE (John L. McNealey) testified that interfaces exist between Ohio Power and CSOE along nearly 200 miles of boundary line between the systems. McNealey identified 18 such interfaces. He testified that while he believed there was little or no competition at these interfaces he recognized that substantial competition could develop at the eastern side of the growing Columbus Metropolitan area, noting the Reynoldsburg interface with Ohio power, as one example. Thus the record supports the finding that competition for customers at interfaces exists and that potential competition for large loads in such areas will continue as urban growth continues to expand.

Intermodal Competition

AEP contends that after the acquisition, both Ohio Power and CSOE will continue to experience vigorous competition from suppliers of other fuels, primarily gas, and that such inter-fuel competition is more important than competition among electric companies. AEP points out that residential customers of both companies have natural gas available to them which they must substitute for some of their electrical energy

and that prospective customers may receive natural gas or electricity. The hypothetical nature of argument with respect to existing customers is apparent. No evidence is in the record as to the conditions under which a residential customer can feasibly substitute gas for electric powers once such form of energy has been installed, nor does it reflect whether any portion of such energy change is economically feasible. Nor is there evidence as to whether prospective customers truely have a choice between gas and electric service. Such choice may exist with respect to residential developments. There is evidence in the record as to promotional activities by AEP for the installation of all electric energy systems. If, as AEP urges, intramodal competition is wasteful because of the high capital cost of facilities it is equally true that intermodal competition similarly interferes with the most intensive use of electric facilities. Though it is recognized that competition from gas suppliers is benefical, it does not follow that intramodal competition in the electric utility is not equally beneficial and in some instances essential. Competition between electric systems and competition between gas and electric companies are basically complementary. Within the State of Ohio and surrounding areas the need for both sources of energy exists. There appears to be no basis in the instant record for concluding that intermodal competition is an acceptable or adequate substitute for competition among electric companies.

With respect to certain aspects of competition such as the benefits of competition in the wholssale power market, intermodal competition has little or no impact. Nor does inter-fuel competition

have significant impact upon yardstick competition. Consumers can, of course, compare quality of service but there can be no meaningful comparison as to price between the level of gas rates and the level of electric power rates. In the industrial arena and particularly as to those concerns which are large users of electric power not having the capability of using gas, competition for location appears to be solely intramodal.

Insofar as potential intermodal competition in the foreseeable future is concerned it is recognized that there is a severe shortage in the abilability of new supplies of gas and that gas suppliers have recently attempted to resolve their gas shortage by a system of equitable rationing among existing customers. In the Ohio area one large gas supplier, The Columbia Gas System imposed restrictions on adding new customers and imposed a freeze on new industrial loads. This is not to say that the Federal Power Commission will not formate regulatory policies in a manner which will assure future suppliers of natural gas nor that the current shortage eliminates intermodal competition. The record does not support the requested finding by AEP that competition from suppliers of gas is far more important than competition among electric companies. In fact, with respect to large industrial consumers of electric energy the opposite appears to be true.

Power Pools - General - Economies in Bulk Power Production

It has been generally recognized that there has been a growing acceptance of the power pool concept in which companies and systems, by means of arrangements and agreements, coordinate and plan and/or operate generation and transmission facilities as a single system. This enables individual utilities to achieve many of the economies of scale and other advantages available to larger systems while retaining their separate identities. It is also recognized that power pools are a viable alternative to corporate merger. (See National Power Survey I-17-2, 29, 30) There is evidence in the instant record as to the foregoing. Lewis H. Roddis, Jr. (Roddis), president of Consolidated Edison of New York, testified he considered the power pool concept to be a viable alternative to a single management in a holding company system. Based on Consolidated Edison's experience as a member of the New York State Power Pool, he stated that a well run power pool could obtain all the benefits of a single company. Schwartz testified that power pooling provides a means whereby planning and operation on a coordinated basis can achieve optimum economy and provide a predicate for future innovation. Nelson testified that since 1960 power pools have quadrupled and have enabled participants to achieve economies of scale that could not be individually achieved.

On the other hand, AEP through Vassell, claims that power pooling as a method of achieving bulk power production is inadequate and that throughout the country some power pools are being broken up. Vassell contends that when a power system has a large part of its facilities

under the control of others, the management of such a system is unable to perform its fiduciary duty to shareholders in managerial decisions affecting their systems. The record does not support such a conclusion and it is rejected. There is no basis for concluding that a single management eliminates conflicts of the interests of the various subsidiary companies which comprise the holding company system. The AEP system itself is an example. It operates in seven states subject to regulatory authority in each state. The decision relating to location of bulk power generation and transmission which the system determines is essential, will obviously have an impact upon rate base, reserve levels, regulatory treatment and the environmental problems. It would be naive to believe that the decision reached will not have dissimilar effects upon each of the operating subsidiaries. Nor can it be assumed that such a decision is always in the best interest of consumers and communities served by each operating company. While it may be true that decision making under such circumstances will be more expeditious when made by one individual, there is no concrete evidence in the record that shows that speed in making decisions necessarily means it is economically more efficient. The CCD pool, for example, gave full consideration to the interests of its participants and arrived at results satisfactory to each participant.

Similarly there is no basis in the record for concluding that directors of companies participating in a pool cannot perform their fiduciary obligations to shareholders because a portion of the company's generating capacity is being operated by a pooling partner. With

respect to Vassell's testimony concerning the break up of some power pools the record discloses he had no knowledge of the reasons except those formally stated in one agreement which indicated the continuation was superfluous in view of other agreements.

The record supports the finding that the achievement of economies of scale in bulk power production can be achieved by power pools without the necessity for consolidating the companies. Regional power pool arrangements have the capability of providing the benefits which technological progress in the areas of generation and transmission make possible, while reserving to each of the participants full scope for competition in wholesale and retail marketing.[48/]

48/ The conclusions reached in the National Power Survey relating to power pooling versus corporate consolidation are most relevant:

> Power pools can accomplish somewhat the same result as holding companies by enabling individual utilities to achieve many of the economies and other advantages of a much larger system while still maintaining their own separate identities. The attainment of these objectives requires the same careful coordination of planning and operation performed by the holding company system, but the process is more complicated by separate management of the various parts of the integrated network and the necessity of working through committees. A major advantage is that power pools can more easily be expended into large, more efficient coordinating units comprising utilities from all industry segments. Several holding company systems have improved their bulk power supply economy through membership and active participation in formal power pools.
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> As power pools become larger and more effectively coordinated, opportunities for reducing the duplication of various management and engineering functions may continue to encourage the formation of larger utilities through corporate merger and consolidation. Certainly the decision-making process by an area-wide coordinating group would be simplified by

Continued on Page 126

The CCD Pool - Competitive Harm to CGE and DPL

CGE and DPL contend that the proposed acquisition would injure CGE and DPL competitively both by destroying the CCD pool and by increasing AEP's size and market power. The Department and the Division urge that CGE and DPL would be harmed if the acquisition is effected, that none of the alternatives suggested by AEP would offset that harm, and that competition in Ohio would be lessened by the proposed acquisition. AEP and CSOE claim no harm will befall CGE and DPL if AEP acquires CSOE, that CSOE has determined that the CCD pool is not an adequate solution for its bulk power supply problems and would seek other alternatives if the acquisition is not effected, that there is no need to dissolve the pool since AEP has offered to substitute itself in place of CSOE, and that CGE and DPL have other alternatives open by joining with other utilities to replace CSOE as a pooling partner. Basically AEP and CSOE take the position that the CCD pool has failed to achieve sufficient economies of scale to permit it to compete in the bulk power supply market.

All three participants in the CCD pool recognized in the early

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Footnote 48 - continued

> a reduction in the number of participating systems. However, the impact on competition, the responsiveness to local area needs by utility management, the treatment of combination electric and gas utilities, and the possible further concentration of economic power will provide provocative issues in testing whether the broad public interest would best be served by the formation of large holding company systems. (1-17-30)

1960's that they were lagging behind Ohio Power in bulk power production costs; and were unable to effectively compete with the latter company. The small generating units and their distance from low cost coal supplies added to their burdens. Each of the companies studied the possible formation of the CCD pool and determined that such an arrangement was a "natural" solution to their problems. The companies were roughly of similar size, they served their metropolitan areas, were at approximately similar levels in development of generation and transmission facilities and their principal load centers provided communication among them. They began to develop joint generation and transmission projects which they felt over the years would permit them to achieve their bulk power requirements.

The testimony of the chief executive officers of CGE, DPL and CSOE, during the initial phase of the hearings, makes it clear that prior to AEP's offer to CSOE they believed that continuation of the pool was desirable and that the plans of the three members were becoming a reality. The evidence shows that in the six or so years of its existence the CCD pool attained many economies of scale by coordinated planning and development. Thus, the record shows that a 450 mw generating unit at Beckjord and the three 600 mw units at the Stuart Station were placed in commercial operation. An 800 mw unit is scheduled for operation at Conesville this year and an additional 600 mw unit next year. Due to environmental problems the 800 mw nuclear unit at the Zimmer Station has been postponed to 1977. A 500 mw unit at Miami Fort Station has been contracted for and scheduled to be operational

in 1975. With respect to transmission, 419 miles of commonly owned 345 kv lines have been placed in service and an additional 247 miles have been committed. The record makes it evident that AEP's offer to acquire CSOE interrupted the program of CCD toward continuing the joint projects undertaken by the three participants. These included installation of CCD joint dispatch, additional common construction of generating facilities beyond 1975 and possibly eventual merger of the companies into a fully integrated bulk power supplier.[49/] In this latter connection the evidence discloses that a study by Arthur Andersen & Co. reflected a preliminary conclusion that there were no insurmountable obstacles to eventual merger or other corporate affiliation of the CCD companies. In 1967 an engineering firm, Sargent and Lundy, was hired by the three companies to make a study of their capacity and EHV requirements through 1979 based on common ownership. The AEP offer suspended all these plans for future development of the CCD pool.

It has been noted earlier that AEP has been able to take advantage of economies of scale by the installation of larger generating units. So too have the CCD participants attained some measure of economies of scale from the large commonly-owned generating units thus far installed. In 1971 each commonly-owned plant in operation was more economical than the solely-owned units of DPL, CGE and CSOE. On the basis of the instant record it is reasonable to assume that CCD was well on its way to attaining the maximum efficiency associated with large scale generation, and

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49/ McNealey testified that until the AEP offer was made he considered corporate affiliation of the participants in CCD to be "likely."

to competing more effectively with the AEP system for new customers in the industrial and wholesale market in Ohio.

The record thus supports the finding that prior to the AEP offer the CCD pool was a viable venture which had developed and installed larger generating units making it possible to begin realizing economies of scale associated with the larger units. The record further supports the finding that as additional large units are added and older units used for peaking purposes, the CCD pool can approach a capability of generating bulk power at lower rates. The CCD pool has shown the potential to become a fully integrated bulk power supplier by the installation of central dispatch and further common construction of larger generating units and higher voltage transmission lines.

It is recognized that CSOE's chief executive officer McNealey testified that the best interests of CSOE cannot be served through continued pooling with DPL and CGE and that his belief that the CCD pool would not realize the economies which CSOE expected, was based on the rising price of coal. The pool planned that all jointly owned units would be base loaded. McNealey believed that because of the rise in coal prices, CSOE's individually owned units with lower coal costs could be operated more cheaply to meet CSOE's minimum loads. McNealey's concern is understandable. However, CSOE admittedly never studied the problem. Any excess base load capacity over minimum loads does not mean that capacity in the CCD units need be reduced. There appears to be no reason why such excess capacity could not be sold to wholesale customers. CGE and DPL with higher coal costs than the CCD

units could cut back on the use of their own generating units and purchase CSOE's share of the CCD units. At any rate alternatives appear to be available to CSOE assuming it has a "problem" as McNealy believed.

McNealy also admitted that "central dispatch could achieve the most economical operation" of the CCD system. His primary concern was the equitable allocation or distribution of savings among the companies. It is clear that these problems are not incapable of solution; however, the AEP offer and the pendency of these proceedings has impeded efforts to solve them.

It is clear that the CCD pool developed to a point where it has demonstrated opportunities for competition with Ohio Power and the AEP system for the attraction of large loads and wholesale sales. If, in fact, it turns out that the CCD pool will be broken up because of the AEP offer to CSOE, then it is evident that the pool will be reduced one third in size, will be precluded from offering effective competition due to their inability to achieve lower bulk power costs, and the competitive process in at least a large part of Ohio will be impaired, as will competition for wholesale customers and large industrial loads. It is evident that the acquisition of CSOE by AEP would deprive CGE and DPL of the ability to achieve greater economies of scale and to become viable competitors to AEP and Ohio Power in the industrial and wholesale markets. The elimination of potential competition in its incipiency has been condemned by the Supreme Court in Ford Motor Co. v. United States, (405 U.S. 562 (1972)) in which the Court held that the effect of Ford's acquisition of Autolite eliminated the establishment

of a viable additional competitor in the spark plug market and ordered divestiture. In FTC v. Procter & Gamble Co. (386 U.S. 568, 575, 581 (1967)) the Court in ordering divestiture by Procter of Clorox Chemical Co. held "the merger would seriously diminish potential competition by eliminating Procter as a potential entrant into the industry. . . If Procter had actually entered, Clorox's dominant position would have been eroded and the concentration of the industry reduced". The Court also held ". . . the number of potential entrants was not so large that the elimination of one would be insignificant." See also United States v. Von's Grocery Co. supra where the Court held that the antitrust laws look to the effect of a merger upon future competition not merely to the actual present effect.

By reason of the high capital requirements for construction of bulk power supply facilities which makes it difficlut for a new entry into the market, the need to preserve potential competition in the electric utility industry is vital. It appears from the record that in light of the necessity for long-term planning, which is a benchmark of the electric utility industry, particularly in the bulk power market, the AEP offer to acquire CSOE has interrupted plans which CCD was formulating for larger generating units beyond 1975. It also delayed development of central dispatch by CCD with the probable result that AEP has already achieved a competitive advantage and strengthened its dominant position in the market. There is no evidence that its own long-term system planning has been affected by the pendency of these proceedings.

AEP urges that CGE and DPL could join with other companies to form a pool or other cooperative arrangement with consequent economies of scale at least equal to those offered by the CCD arrangement. Even apart from the implication that the CCD arrangement at the very least can achieve economies of scale, it is no answer to the detrimental effects upon competition which the elimination of CSOE as a partner in the CCD pool would accomplish. In addition, the evidence reflects that a great deal of planning over a considerable period of time was required both in the initial phase and subsequent development of the CCD pool's projects, particularly with respect to joint ownership of generating facilities. Suggesting to DPL and CGE that they start anew the long arduous process with neighboring systems to establish the kind of relationship it has enjoyed with CSOE is not a meaningful or viable alternative to the harm to the competitive position of the two companies in their efforts to achieve full economies of scale and compete with AEP in bulk power production.

The "Alternate Plan"

AEP has made certain offers to CGE and DPL contemporaneous with its offer to CSOE and during the pendency of these proceedings which it contends will permit the two companies to achieve economies of scale and allow such companies, if they so desire, to continue to participate with theAEP system in continuing the CCD pool. In essence the alternate plan involved an increase in the size of certain

of the generation and transmission facilities and a realignment of the ownership to permit CSOE to own some and for CGE and DPL jointly owning the balance. Toward the conclusion of the initial hearings AEP made an additional commitment in which it offered to substitute itself in place of CSOE as a partner in the CCD pool and participate with the other two companies in planning, constructing and operating large-scale generation and transmission facilities.

With respect to the first alternative regarding the realignment and enlargement of CCD facilities, it appears that since 1968 CSOE, CGE and DPL decided to install an 800 mw unit at the Zimmer plant rather than a larger nuclear unit, and have expended substantial sums toward construction of such unit.[50/] Under the circumstances it would appear that this part of the plan is no longer feasible and has become moot. With respect to the remainder of the plan, namely for AEP to take the place of CSOE in the CCD pool, it is most difficult to understand how a system as large as AEP could operate as a partner in a pool, the chief function of which is to achieve full economies of scale by enlarging its generation and transmission facilities. AEP has throughout its brief stated vigorously it has already achieved full economies of scale by utilization of large units which the CCD pool is attempting to emulate and is planning even larger units in the years ahead. Additionally, one of the primary concepts in an electric utility pool operation is the necessity of allocating costs

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50/ In a prospectus dated June 8, 1972 CSOE stated that through March 31, 1972 it expended $7.4 million of its share of the Zimmer plant costs, including engineering, site preparation and progress payments. The company's portion of cancellation charges would have been $1.8 million at March 31, 1972.

and benefits and the problems involved are of a complex nature. The record shows that over the years of its operation the participants of the pool, because they were approximately of equal size and development in technology, were able to arrive at decisions based on equitable principles. Although the record indicates that pools in the electric utility industry are not always composed of partners of comparatively equal size, they have demonstrated an ability to cooperate. However, when one of the partners is ten times the size of the others, the likelihood of the larger company dominating its partner is not difficult to perceive. What such a pool would lack is a mutuality of interest. The AEP system's objectives in the next decade in terms of generation and transmission appear to be vastly different from those of CGE and DPL which are seeking scale and bulk power production. It would also be quite obvious that a pool having AEP as a participant along with CGE and DPL could not emerge as a competitor to the AEP system for industrial and wholesale loads.

Assuming arguendo that the offer by AEP to take the place of CSOE in the pool with some assurances that planning and operations could be made the subject of conditions under Section 10(e) of the Act, the question arises as to whether such a procedure is realistically practicable or indeed functionally possible. In order to be certain that the AEP system effectively participates in joint planning, construction and operation of large-scale generating and transmission facilities, would involve the Commission and the staff in supervisory functions over such matters as negotiations of complex technological and economic matters and the fixing of standards for determining equitable allocations of burdens and benefits. While the Commission, under the

Act, exercises regulatory authority over public utility companies it is not authorized to exercise detailed supervision of day-to-day operating practices of such companies. Nor does the Commission have the staff required for such purposes. See City of Lafayette v. S.E.C. (454 F.2d 941, 956, (D.C. Cir. 1971)

The So-Called Eight Company Alternative

AEP urges that among the alternatives available to CGE and DPL is the so-called "Eight Company Study Group". The origin of this group, as an outgrowth of the proposed acquisition of CSOE by AEP, is described above under the heading of "Other Electric Utilities in Ohio". AEP's argument is apparently premised upon the theory that CGE and DPL will not be injured by the said acquisition since it can join other groups for the purpose of attaining the economies of scale and bulk power production they so desparately seek. However, the essential issue to be considered is the anticompetitive effects the acquisition would be likely to produce. The record shows that if, as a defensive reaction, the other seven major independent companies in Ohio find it desirable, or even necessary, to merge in order to achieve full economies of scale and bulk power production (so as to be able to effectively compete with the recognized giant in the industry in Ohio), the result will be to transform the structure of the industry in Ohio from its present form, to a market of two systems, composed of the largest holding company system, in terms of states served, electric energy sales, gross utility plant and generating

capability,[51/] and the second largest system. The record shows that the officials of CGE and DPL preferred the continuation and expansion of CCD since they believed that benefits had already been demonstrated and that, prior to the AEP proposed acquisition, the future of the pool was most promising with respect to attaining economies of scale and bulk power production. At any rate it is clear from the record that pending the outcome of these proceedings the "group" studies have been suspended.

Moreover, there is no evidence in the record that any new group which would be formed and become a new entrant into the bulk power supply market could measurably offset the lessening of competition which the proposed acquisition of CSOE would accomplish. See Crown Zellerbach Corp. v. F.T.C. (296 F.2d 800, 830 (C.A. 9 (1961)), cert. denied, 370 U.S. 937 (1962)). Particularly apt here is the Court's reference to Bok, Section 7 of the Clayton Act and The Merging of Law and Economics, (74 Harv. L. Rev. 226, 327 n. 299 (1960)) in which the author, referring to Section 7 of the Clayton Act states:

> "The loss of a substantial firm, however, may of itself induce a reduction in the vigor of competition. For even if new entrants are coming into the market or concentration is for some other reason declining, there will be one less substantial firm than would have existed but for the merger, and an adverse finding under §7 is predicated on the presumption that competition would have benefited had that firm remained independent."

If the "group" materializes into a holding company system, it would be even larger than the AEP system in the terms mentioned above.

51/ The evidence reflects that combining Ohio Power and CSOE, AEP's control over the area served will increase from 37.1% to 51.8%, gross electric utility plant will increase from 24.9% to 34.1%, electric operating revenues from 21.7% to 30.6%, energy sales from 33.7% to 40.3%, electric customers from 16.5% to 27.7% and net system capability from 28.7% to 36.1%.

With respect to the standards under the antitrust laws and Section 10 of the Act, if the acquisition of CSOE significantly increases AEP's concentration in the markets in Ohio served by the investor-owned utilities, it could well furnish an impetus toward affiliations of other independent systems. Such a result would further erode the environment for potential competition which the record shows the systems in Ohio have the capability of providing. There is ample authority for the proposition that the terms of Section 7 of the Clayton Act are addressed not only to conditions which are presently apparent but contemplates the prevention of acquisition or mergers which will lessen competition in the future. United States v. Penn - Olin Chemical Company (378 U.S. 158 (1964)). In F.T.C. v. Procter and Gamble Company, supra the Court said:

> "If the enforcement of Section 7 turned on the existence of actual competitive practices, the congressional policy of thwarting such practice in their incipiency would be frustrated."

The record in the case at bar supports the finding that if the acquisition is effected, not only would it now substantially lessen competition in the manner described above but there is a good probability it may substantially lessen competition in the future by setting in motion a wave of mergers and consolidations in Ohio and, in all likelihood, throughout the country.

Other Alleged Benefits of Acquisition Rate Reduction

AEP stated that it was sufficiently confident of the savings to be realized immediately upon the acquisition, to recommend to CSOE that it make a rate reduction of $1.5 million on an annual basis. During the course of the reopened hearings, and after a request for a

rate increase by CSOE, the form of the rate reduction was changed so that CSOE would seek either a $1.5 million annual decrease in rates or a $1.5 million reduction in any rate increase the company might make. The rate reduction is not associated with any specific saving, but as McNealy explained, represented a "confidence" he and his associates had that in some fashion CSOE, as a part of the AEP system, would realize some saving. The $1.5 million rate reduction does not appear to be a significant reduction in CSOE's electric revenues. Based on CSOE's electric revenues of approximately $136 million the commitment at best would be about 1.1%. However, in 1973 CSOE publicly stated that it had received rate increases in 1971 and 1972 in its retail rates. It also stated that had all of such increases been in effect for the full year ended December 31, 1972, it would have increased gross revenues of approximately $5.6 million. (CSOE Registration Statement File No. 2-47830). It is thus evident that in the past three years CSOE has found it necessary to seek rate increases. Recognizing the inflationary spiral of the present economy and CSOE's statement that compliance with environmental standards would substantially increase costs of plant construction and operating costs, the likelihood of a meaningful rate reduction in the near future appears remote. Hence, no weight may be given to the promise of a rate reduction as a significant benefit stemming from the proposed acquisition.

Removal of Headquarters to Columbus

Another purported significant benefit claimed by AEP to flow from the proposed acquisition is the intention expressed by Cook "to proceed with the design andconstruction of an all electric office building

in Columbus" to house the personnel of AEP's service company and possibly some additional employees currently located in New York. Apparently the benefits which AEP urges for consideration relate to the public support which it says exists in the Columbus area. The record makes it clear that the plan to move AEP service headquarters to Columbus is at best an "intention" with no assurance. The record shows that no study has been made as to the feasibility or even desirability of such a move. AEP's description in its 1969 brief is indicative of the nebulous character of the proposal. It stated

> "The consummation of the transaction herein proposed would . . . . lend substantially (sic) impetus to such a project . . . ."

Though it is understandable that Columbus residents would like to have a substantial company in their midst, the significance of the promised move pales in comparison to the substantial issues involved in these proceedings. Moreover, if AEP sincerely believes that benefits could be derived for its shareholders or consumers by moving its service corporation to Columbus (or any where in its service area) there is no rational explanation why such a project needs to be tied to the proposed acquisition. The record does not support a finding that the proposed plan to construct an office building in Columbus to house the service corporation personnel would be so significant a benefit flowing from the proposed acquisition that it would outweigh the anticompetitive effects thereof.

The National Energy Crisis

AEP vigorously asserts that unlike the situation existing in 1946 when the Commission rendered its decision denying AEP's application

to acquire CSOE, consideration must be given to the vital importance, to the general public interest, of the national energy crisis. The basis for AEP's concern is that in terms of the current state of the art, CSOE is too small to take advantage by itself of economies of scale in generation and transmission, and that the CCD pool is incapable of meeting the future needs of CSOE and its customers. The record fails to support the basis for the purported concern. Though the record could be interpreted in a manner indicating that CSOE, by itself, may be of insufficient size to achieve maximum economies of scale in generation and transmission, it is not interpreted to mean that it cannot meet its customers' future energy requirements through CCD. In fact, the evidence shows that CSOE planned for its future requirements with the other participants through 1980 and, at least prior to AEP's offer, was satisfied with the adequacy of the planning for its future requirements. As noted earlier, larger jointly-owned generating units were installed by the CCD pool and it was beginning to achieve some economies of scale. McNealey testified that CSOE had planned for sufficient base load capacity through 1980 and should meet peak load demand through installation of peaking units or "semi-peakers" which are comparatively inexpensive to construct.

If the reference in AEP's argument to the national energy crisis is intended to subtly imply that such crisis would be alleviated if it were permitted to acquire CSOE, the argument is without merit. AEP does not claim that it is seeking to acquire CSOE in order to alleviate the national energy crisis, nor does the evidence in support of the proposed acquisition establish that the energy shortage will be resolved

by such acquisition. Moreover, AEP maintains throughout its brief that it has been able to exploit technological advances in generation and transmission and has achieved full economies of scale. AEP does not claim and indeed the record does not establish that its ability to continue further additions to economies of scale are dependent upon acquiring CSOE. There appears to be no basis for finding that the proposed corporate consolidation would, by some miraculous means, solve the nation's energy crisis. Recently the Supreme Court had occasion to consider whether it should modify its prior divestiture mandate issued upon findings by the Court that El Paso Natural Gas Co. violated Section 7 of the Clayton Act, because the acquisition of stock and assets of Pacific Northwest Pipeline Corporation substantially lessened competition in the sale of natural gas in California. El Paso and Pacific Gas, supported by other parties, urged that because of the gas shortage, there is no longer any meaningful competition in the sale of natural gas and requested the Court to modify its direction for divestiture. The Department, while recognizing the seriousness of the present gas shortage, urged that the energy crisis cannot be solved by rescission of remedies to correct violations of the antitrust laws. The Court accepted the argument in its summary affirmance of the judgment of the district court with respect to the divestiture plan. California Pacific Utilities Company v. United States ___U.S.___(1973) (Nos. 72-759, 72-768, 72-779, 72-781 and 72-785). In the instant case, the issue to be resolved involves a determination of the anticompetitive effects of the proposed acquisition. The need

for vigorous competition in the electric utility industry in Ohio is as necessary as the maintenance of gas competition in California. And like the California - Pacific case the energy crisis cannot be solved by permitting an acquisition which flies in the face of the Federal antitrust policies.

Summary of Conclusions Under Section 10(b)(1)

It has been noted earlier that the standards under Section 10(b)(1) require approval of an acquisition unless the Commission finds that such acquisition, among other things, will tend towards concentation of control of a kind or to an extent detrimental to the public interest or the interest of investors or consumers. It has also been noted that the Commission and the Courts have stated that the above provision of the Act requires a consideration of the proposed acquisition in light of Federal antitrust policies. Hawaiian Electric Co., supra; Municipal Electric Association v. S.E.C., supra. Within the framework of the statutory criteria this decision has reviewed the relevant record evidence to determine whether it establishes the kind of concentration of control which would be detrimental to the public interest and whether the record establishes that the proposed acquisition is consonant with Federal antitrust policies. Below is a brief summary of the determinations reached.

An analysis of the evidence shows that the AEP system is admittedly the largest producer of electric power in the country and through its operating subsidiary, Ohio Power it is by far the largest electric system in Ohio in terms of amount of electric plant, electric revenues, total mwh sales and plant capacity. It has also been shown

that as of December 31, 1971, its acquisition of CSOE would increase the above categories in Ohio by 36.4%, 41%, 22.8% and 26.7%, respectively. The acquisition would increase the AEP system in the said categories (as of December 31, 1971) by 13.5%, 15.9%, 10.1% and 12.8%, respectively. It is evident from the record that the acquisition would result in an AEP system twice the size of the next largest utility in Ohio.

The substantial increase in the size of the AEP system which the acquisition would accomplish is illustrative of an unwarranted increase in concentration in economic power. In thus characterizing the acquisition, consideration has been given to the legislative history of Section 10(b)(1) which emphasized that it was designed "to prevent acquisition of utility assets, securities or other interests attended by the evils which have featured the past growth of holding companies." 52/ Essentially, the Section sought to make it less likely for electric utilities to "accumulate a disproportionate amount of political and economic power." 53/ The Commission emphasized in its 1946 decision (22 S.E.C. 808) that the standards of the Act relating to concentration of economic power are "specifically embodied, so far as acquisitions are concerned in Section 10(b)(1) of the Act." Having in mind that it was the Congressional desire to curb the developing concentration of power in the utility industry it is concluded that a preponderance of the evidence in the record demonstrates that the

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52/ H.R. Rep. No. 1318 on S. 2796, 74th Cong., 1st Sess., 16 (1935).

53/ S. Rep. No. 621, 74th Cong., 1st Sess. 12 (1935).

acquisition in question tends toward the concentration of control which is inimical and detrimental to the public interest.

With respect to the analysis of the proposed acquisition in light of the Federal antitrust policies, consideration has been given to effects such an acquisition would have upon competition in the electric utility industry in Ohio and the entire region in which the AEP system operates. It should be recalled that the Courts have held that with respect to acquisitions, the primary provision of concern in the antitrust field is Section 7 of the Clayton Act. In Brown Shoe v. United States, supra, the Supreme Court said that the dominant theme pervading Congressional consideration of amendments to that Section in 1950, was "a fear of what was considered to be a rising tide of economic concentration in the American economy." In later cases the Supreme Court interpreting Section 7 of the Clayton Act held it was designed to arrest, in their incipiency, mergers and consolidations which would substantially increase concentration. U.S. v. Von's Grocery supra. It is thus evident that the concerns underlying Section 7 of the Clayton Act parallel those of Section 10(b)(1).

In reviewing the evidence in the record the focus has been to evaluate the particular areas in which opportunity for competition exists as well as the impact of the acquisition upon the long-term competitive structure of the electric utility industry of Ohio. Notwithstanding, AEP's claim to the contrary, the record establishes that there is opportunity for competition in four areas. There is ample evidence that there is a substantial wholesale market for bulk power in Ohio. Many types of utility systems from time to time seek

wholesale purchases to fulfill their requirements. It is clear from the evidence that many municipal systems purchase all their bulk power. Private utilities also find it more economical to buy bulk power to supplement their own generation. The documentary evidence reflects instances in which competitive forces operated in such markets. The second area of competition relates to the attraction of large industrial loads by a number of industries which are enormous consumers of electric power and whose locational decisions are affected by the level of electric power rates. Details with respect to such competition have been stated above and will not be repeated. The third area of competition involves large retail loads at interfaces which is also noted above. The last area relates to yardstick competition, which AEP believes to be associated with effectiveness of regulation, but which may also involve competitive pressures from consumers and under certain circumstances involves the attraction for new loads.

In connection with the bulk power supply markets the record shows that developments in the state of the art in the electric utility industry have made possible the installation of larger generating units and higher voltage transmission facilities, permitting systems with the ability to exploit such technological advances to achieve maximum economies of scale and lower cost power. AEP has been one of the large systems capable of such exploitation and the record shows it has achieved scale economies. However, the record demonstrates that CSOE along with CGE and DPL, through the establishment and operation of the CCD pool has, in the past decade, installed larger jointly-owned

units and as noted above, achieved some measure of economies of scale. The record demonstrates that CCD, prior to the AEP offer to CSOE, gave every indication of the ability to become a bulk power producer and compete with AEP in the bulk power supply markets and for the attraction of large industrial loads. It is manifest from the evidence that acquisition is not the only means of achieving economies of scale. Power pooling arrangements, such as those experienced by the CCD pool, can provide the benefits of technological developments and the achievement of scale economies. The immediate impact of the proposed acquisition will be the elimination of CSOE as a competitor of AEP. More serious, as an anticompetitive effect of the acquisition, is the elimination of CSOE from CCD which as noted has shown the probability of emerging as a bulk power supplier. CGE and DPL would also be competitively harmed by the elimination of CSOE as a partner in goals set by CCD. If AEP were to acquire CSOE it would increase its already dominant position as an energy supplier in Ohio and effectively impair competition from rival systems. AEP urges that CGE and DPL would not be harmed since it would have other power pooling arrangements available. Apart from the speculative nature of the contention there is the added danger that as a defensive measure the so-called "eight company group," referred to above, could evolve into a holding company system, thus transforming the seven system industry structure in Ohio into a two-company structure. This in itself would result in a system even larger than AEP and effectively eliminate such competition as shown to exist presently.

If the antitrust policies are to be given "significant content" the necessity for preserving competition must prevail. The long-term advantages to the electric utility industry which will enure from competition substantially outweigh any short term benefits which the proposed acquisition herein involved may possibly effect. To carry out the Congressional mandate as embodied in the Clayton Act makes it essential to arrest, in its incipiency, increased concentration of economic power, and check the danger of complete monopoly by a small number of electric utility systems. The exercise of both economic and political power under the guise that estimated savings may be achieved at some distant point in time, should not be countenanced under the Clayton Act. Such savings may or may never be realized because they are dependent on future technological developments.

It is concluded that the Federal policies underlying the antitrust laws compel the finding that, under the criteria of Section 10(b)(1), the proposed acquisition will tend towards concentration of control in the electric utility industry detrimental to the public interest,and the said acquisition would substantially lessen competition, both present and potential, within the meaning of the Clayton Act.

VII. The Exchange Ratio

It will be recalled that the Commission's Order For Hearing stated that consideration should be given to whether the proposed acquisition meets the standards under Section 10(b) of the Act. Under Section 10(b)(2) of the Act it is essential to determine whether the terms of the exchange ratio are reasonable. The factors to be considered in determining the range of reasonableness include both utility

companies' earnings, dividends, growth prospects, and capitalization ratios and the book values and market values of the securities involved. The record establishes that the exchange ratio was based primarily upon the earnings of AEP and CSOE. As a result of negotiations between the companies the ratio of exchange, originally proposed by AEP, was increased from 1.25:1 to 1.3 shares of AEP common stock for each share of CSOE common stock.

Following the closing of the initial hearings in 1968 the Division filed its brief in March 1969 recommending approval of the 1.3:1 ratio of exchange. The Division now urges that in the years between 1968 and 1971 the actual operating results as reflected in CSOE's reported earnings were so substantially different from the projections and assumptions originally made by AEP as to compel the Division to presently contend that the above mentioned exchange ratio is not reasonable and not in compliance with the standards of Section 10(b)(2) of the Act. The record shows that AEP projected per share earnings of $2.15 for 1968, $2.31 for 1969 and $2.42 for 1970. CSOE's per share earnings were projected to be $2.66 for 1968, $2.89 for 1969 and $3.07 for 1970. Published reports filed by each of the companies show their actual per share earnings for those years and through 1972, as follows:

	AEP	CSOE
1968	$2.10	$2.49
1969	2.20	2.59
1970	2.30	2.42
1971	2.43	2.13
1972	2.63	2.65

When the exchange ratio of 1.3 AEP shares for 1 share of CSOE was agreed upon in the latter part of 1967, the CSOE shareholders would have received a premium of approximately 1.6%. Actual per share earnings of CSOE in the years 1968 through 1970 were less than the projected earnings. The 1971 actual per share earnings of CSOE were substantially less than the 1970 earnings. The staff contends that the premium of 42.3% which CSOE shareholders would have received on the basis of actual 1971 earnings, would be unfair and unreasonable.

However, it appears from the record that because of the peculiar features in its rate structure, CSOE was unable to pass on to its customers the enormous increases in fuel costs which CSOE, like the rest of the electric utility industry, experienced beginning in 1970. During that year the company commenced seeking rate relief. Its 1971 earnings reflected only $2 million additional revenues from rate increases effective during the last half of 1971. These increases were applicable to customers representing approximately 48% of the company's total revenues. An application for comparable rate increases to most of the company's remaining customers was pending at the close of 1971. CSOE received such rate increases effective in September and December 1972. Thus its 1972 revenues of $136 million only partially reflected these rate increases. In its prospectus effective May 16, 1973 (Registration Statement File No. 2-47830) CSOE stated that if all of the above rate increases had been in effect for the full year ended December 31, 1972, revenues would have been approximately $5.6 million more than reported, including approximately $1.7 million derived from fuel cost adjustments. The following table depicts for

the years 1967 through 1972 the gross revenues, operating ratios, and earnings per common share of AEP and CSOE. The table also shows the pro forma effects of the proposed acquisition upon shareholders of AEP and CSOE.

Table

AEP - CSOE

Gross Revenues, Operating Ratios, and
Earnings Per Common Share, Actual and Pro Forma

Year	Gross Revenues ($000)		Operating Ratio		Earnings per Common Share					
					Actual per Share		AEP Pro Forma			
	AEP	CSOE	AEP	CSOE	AEP	CSOE	Per Share	Dilution AEP	1.3 Sh. CSOE	Premium to CSOE
1967	523,676	83,705	65.6	65.4	2.00	2.55	1.99	0.5	2.59	1.6
1968	566,919	91,880	67.6	67.0	2.10	2.49	2.08	1.0	2.71	8.8
1969	612,515	100,401	69.9	70.0	2.20	2.59	2.18	1.0	2.83	9.3
1970	665,667	109,108	70.7	75.0	2.30	2.42	2.26	1.7	2.93	21.1
1971	748,217	118,875	72.2	76.0	2.43	2.13	2.35	3.3	3.06	43.7
1972	860,642	135,959	72.3	74.1	2.63	2.65*/	2.57	2.3	3.34	26.0

*/ In the event the proposed acquisition is approved CSOE has committed itself to call all of its outstanding preferred stock as a first step. This substitution of debt in the capital structure would increase CSOE's pro forma earnings per share to $2.87.

In support of its objection to the exchange ratio the Division points to CSOE's declining trend of earnings; and though recognizing that some premium is not objectionable per se to encourage a CSOE shareholder to exchange his shares for those of AEP, it argues vigorously that the premium to CSOE resulting from the exchange ratio applied to 1971 earnings is unwarranted. As noted above, however, CSOE's rate increases commenced in the latter part of 1971. Additional revenues from rate increases effective during a part of 1972 substantially increased CSOE's earnings that year and as indicated by the consolidated income statement in its latest registration statement (No. 2-47830) such trend appears to be continuing. In fact CSOE's reported revenues for 1972 are 62.4% greater than its 1967 revenues which compares with AEP's increase of 64.3% for the same period. The Division's claim of CSOE's steadily declining per share earnings between 1967 and 1971 was made while the rate matters were pending and revenues therefrom not yet obtained. It has been noted above that CSOE states that its 1972 revenues would have been approximately $5.6 million more than reported if its rate increases had been in effect for the full year. Such increased revenues would add approximately $2.9 million to net income after Federal income taxes and would increase CSOE's earnings per common share to approximately $3.09. The effect of such increase on AEP's pro forma net income would raise its earnings per common share to approximately $2.62. Thus on the 1.3:1 exchange basis CSOE's shareholders would receive $3.41 in earnings or a premium of 10%, with [54/]

54/ If CSOE is viewed on a pro forma basis, giving effect to the subsitution of debt for all of its preferred stock (as noted in the footnote to the above table), CSOE's annual earnings would be adjusted upwards by $1.4 million. On such basis the premium to CSOE's shareholders could decrease to 3% with negligible dilution to AEP shareholders.

negligible dilution to AEP's stockholders.

It is also noted that in a prospectus, dated March 28, 1973, (Reg. No. 2-47101) AEP states that its reported revenues for the year 1972 include approximately $11.9 million from increases in retail rates put into effect by subsidiaries, which increases AEP states are subject to possible refund with interest. An adjustment for this contingency could reduce AEP's earnings for common stock.[55/]

Future operations of both companies will necessarily be affected by various and diverse factors and developments, not the least of which are fuel costs, environmental expenditures,, labor contracts and other matters. All of these could have significant effects upon earnings. For example, both AEP and CSOE in their latest prospectuses set forth the Federal, State and local environmental legislation and regulations containing standards to which they are subject in common with other utility systems and industrial enterprises, relating to air and water quality control and other environmental matters. AEP furnishes a breakdown of the various kinds of legislation and regulation which the system faces in Ohio and four other states in which it operates. CSOE points out the environmental problems it faces in Ohio. Both systems indicate the enormity of the environmental problems confronting them in Ohio with respect to compliance with the Ohio Environmental Protection Agency (OEPA) regulations prescribing emission limitations for particulates, sulfur oxide and nitrogen oxide, and the possible effects of such regulations on existing and new generating stations.

55/ While the emphasis above shows primary concern with the earnings (because the record clearly establishes that earnings were the important factor upon which the exchange ratio was based), it is not intended to indicate that other factors such as dividends, book values and market values are not additional factors to be considered in evaluating fairness of the exchange ratio in a proposed acquisition.

Both systems also set forth their efforts to effect compliance with those regulations, as well as local requirements and Federal regulations promulgated by the Environmental Protection Agency (EPA) under the Clean Air Act of 1971 and the Water Pollution Control Act Amendments of 1972. Included in such efforts are the attempts by both systems to either contest standards deemed unreasonable or impossible of compliance, or to seek modification of certain of the regulations believed to be onerous.

Although CSOE has not publicly stated the impact of compliance with environmental requirements in terms of possible effects upon earnings, AEP has included in its latest prospectus (Reg. No. 2-47101) an indication of the magnitude of such problem to its system. AEP has stated it estimates that the cost of compliance with existing regulations in five of the states in which it operates with respect to existing generating and transmitting facilities or included in its construction programs, is of the magnitude of approximately $1 billion. It further estimates that its increase in annual operating costs would be more than $177 million.[56/] Thus environmental factors alone could have serious impact upon the earnings of both AEP and CSOE.

In light of the conclusions reached above, that the requisite findings for approval of a proposed acquisition under Section 10(b)(1) and 10(c)(2) cannot be made, it becomes unnecessary to make any determination with respect to the reasonableness of the exchange ratio.

56/ The above amounts include more than $400 million of additional construction costs and in excess of $76 million of increased annual operating costs with respect to facilities in the State of Ohio.

VIII. Other Matters

Proposed Accounting Treatment of Acquisition

It is clear from the record that if the acquisition were approved AEP proposes to record its investment in the common stock of CSOE at an amount equal to the then market value of the AEP common stock to be issued in exchange therefor. Such accounting treatment is referred to as the "purchase" method of accounting as distinguished from the method known as "pooling of interests." AEP urges that the "purchase" method is in accordance with the Uniform System of Accounts for Public Utility Holding Companies and meets the standards of the Act. It points out that the "purchase" method has been used in a number of AEP acquisitions which received Commission approval in the past, as well as in other cases. The Division contends that the purchase treatment for the proposed stock transaction is improper and not in accordance with sound accounting principles. The Division points out that under the "purchase" method of accounting, AEP's investment in the CSOE common stock would be carried on AEP's books at an amount substantially in excess of CSOE's underlying book value.

A perusal of the Commission decisions relied upon by AEP indicates that they were decided in the period 1946 through 1950 and one in 1954. A review of later Commission opinions reveals that where acquisitions were effected in stock for stock transactions approval was on the basis of pooling of interests accounting. Northeast Utilities, Holding Company Act Release No. 15825 (1967); Middle South Utilities, Inc., Holding Company Act Release No. 17116 (1971); National Fuel Gas Company, Holding Company Act Release No. 16527 (1969); and

Hawaiian Electric Company, Inc., Holding Company Act Release No. 16592 (1970). In giving consideration to the appropriate method by which acquisitions should be accounted for, the views of the accounting profession may be looked to as a guide. The American Institute of Certified Public Accountants has established accounting principles which the profession believes accurately reflects the financial effects of business combinations upon shareholders. In 1970 the Accounting Principles Board of the American Institute of Certified Public Accountants published its opinion which it states is applicable to regulated companies, among others. The Board concluded that a business combination involving all of the distinctive conditions described in paragraphs 45 to 48 of its opinion, should be accounted for by the pooling of interests method; and that all other business combinations should be treated as the acquisition of one company by another and accounted for by the purchase method. (Opinions of the Accounting Principles Board of the American Institute of Certified Public Accountants - No. 16, August 1970 pp. 282, 295-305). In that connection, the Commission recently stated that the overriding thrust of Opinion No. 16 requires that a combination represent a sharing of rights and risks among constituent stockholder groups if it is to be a pooling of interests. (Accounting Series Release No. 130, September 29, 1972; Accounting Series Release No. 135, January 5, 1973.)

The proposed stock for stock transaction between the two companies meets all of the distinctive conditions required for a pooling of interests; and is an example of a combination in which

stockholder groups exchange voting common stock in a ratio that determines their respective interests in the combined corporation.

In light of the foregoing, it is clear that the appropriate method of reflecting the proposed acquisition would be on the basis of "pooling of interests". In view of the fact, however, that the requisite findings for approval of the proposed acquisition under Sections 10(b)(1) and 10(c)(2) cannot be made, it becomes unnecessary to make any determination with respect to the proper accounting treatment therefor.

Retention of Interests in Subsidiaries of CSOE

Section 10(c)(1) of the Act, in pertinent part, provides the Commission shall not approve an acquisition of securities or of any other interest which is detrimental to carrying out of the provisions of Section 11. Under the latter section the Commission is authorized to permit a holding company to retain other businesses under certain circumstances and has held that the retention of a non-utility enterprise is permitted only on an affirmative showing of an operational or functional relationship between the operations of the retainable utility system and the non-utility business sought to be retained, and that such retention would be in the public interest. The Commission has also held that any interests whose retention would not be permitted under Section 11(b)(1) may not be acquired under Section 10(c)(1). Texas Utilities Company, 21 S.E.C. 827, 829 (1946).

The record shows that CSOE owns all of the outstanding stock of Columbus Transit Company, Midway Railroad Company, Simco Inc., and Colomet, Inc. The Transit Company operates a motor bus system for urban

transportation within the city of Columbus, Ohio. AEP concedes that its retention of the transit company is not appropriate. AEP requests that the Commission reserve jurisdiction, in the event the proposed transaction is approved, to require at a later date, after further proceedings under the 1935 Act, the disposition of the said transit company. Similar request is made with respect to the other three subsidiaries of CSOE although AEP does not concede that disposition of these companies is required.

It is concluded, however, that for the reasons stated above with respect to (i) the exchange ratio and (ii) the accounting treatment, it is unnecessary to make any determination with respect to the subsidiaries of CSOE, Accordingly,

IT IS ORDERED that the application-declaration of American Electric Power Company, Inc. for authorization to make an offer to holders of the outstanding common stock of Columbus and Southern Ohio Electric Company to exchange their shares of common stock for shares of American Electric Power Company's common stock on the basis of 1.3 shares of AEP's stock for each one share of CSOE's common stock be, and the same hereby is, denied.

Pursuant to Rule 17(b) of the Commission's Rules of Practice a party may file a petition for Commission review of this initial decision within fifteen days after service thereof on him. In accordance with the provisions of Rule 17(f) this initial decision shall become the final decision of the Commission as to each of the parties unless such parties file a petition to review pursuant to Rule 17(b) or the

Commission pursuant to Rule 17(c) determines on its own initiative to order review as to each such party. If a party timely files a petition to review or the Commission takes action to review as to a party, this decision shall not become final as to that party. 57/

Irving Schiller
Administrative Law Judge

Washington, D.C.
July 18, 1973

57/ All contentions and proposed findings and conclusions have been carefully considered. This initial decision incorporates those which have been accepted and found necessary for inclusion herein.