

INTERCONNECTION AGREEMENT

BETWEEN

APPALACHIAN POWER COMPANY

KENTUCKY POWER COMPANY

OHIO POWER COMPANY

COLUMBUS AND SOUTHERN OHIO ELECTRIC COMPANY *

INDIANA & MICHIGAN ELECTRIC COMPANY

AND WITH

AMERICAN ELECTRIC POWER SERVICE CORPORATION,

AS AGENT

Dated: July 6, 1951, as modified and supplemented by:
Modification No. 1, August 1, 1951
Modification No. 2, September 20, 1962
Modification No. 3, April 1, 1975
Supplement No. 1 to
Modification No. 3, August 1, 1979
Supplement No. 2 to
Modification No. 3, August 27, 1979
Modification No. 4, November 1, 1980*
Compliance Filing (FERC ordered), Opinion 266,
Docket Nos. ER84-579-006 and EL86-10-001

- Pursuant to Modification No. 4 the terms "Member" and "Members", whenever said terms appear in the 1951 Agreement, shall, on and after the time when Modification No. 4 shall become effective, include Columbus Company.

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0.1 THIS AGREEMENT, made and entered into as of the 6th day of July, 1951 by and between APPALACHIAN POWER COMPANY (Appalachian Company), a Virginia corporation, KENTUCKY POWER COMPANY (Kentucky Company), a Kentucky corporation, OHIO POWER COMPANY (Ohio Company), an Ohio corporation, COLUMBUS AND SOUTHERN OHIO ELECTRIC COMPANY (Columbus Company), an Ohio corporation, INDIANA & MICHIGAN ELECTRIC COMPANY (Indiana Company), an Indiana corporation, said companies (herein sometimes called 'Members' when referred to collectively and 'Member' when referred to individually), being affiliated companies of an integrated public utility electric system, and AMERICAN ELECTRIC POWER SERVICE CORPORATION (Agent), a New York corporation, being a service company engaged solely in the business of furnishing essential services to the aforesaid companies and to other affiliated electric utility companies.

The term "affiliate" shall include American Electric Power Company, Inc., Appalachian Power Company, Columbus and Southern Ohio Electric Company, Indiana & Michigan Electric Company, Kentucky Power Company, Ohio Power Company, Kingsport Power Company, Michigan Power Company, Wheeling Electric Company, and any subsidiaries, direct or indirect, of the foregoing.

W I T N E S S E T H ,

THAT:

0.2 WHEREAS, the Members own and operate electric facilities in the states herein indicated: (i) Appalachian Company in Tennessee, Virginia, and West Virginia, (ii) Kentucky Company in Kentucky, (iii) Ohio Company in Ohio and West Virginia, and (iv) Indiana Company in Indiana and Michigan, and (v) Columbus Company in Ohio, and

0.3 WHEREAS, the Members' electric facilities are now and have been for many years interconnected through their respective transmission facilities at a number of points (hereby designated and hereinafter called "Interconnection Points"), such facilities and the transmission facilities of other affiliated electric utility companies forming an integrated transmission network; and

0.4 WHEREAS, the transmission facilities of each Member are interconnected at a number of points with the transmission facilities of various non-affiliated electric utility companies, and those of Appalachian Company are interconnected with those of Tennessee Valley Authority, (said companies and Tennessee Valley Authority hereinafter sometimes called "Foreign Companies" when referred to collectively and "Foreign Company" when referred to individually; and

0.5 WHEREAS, the Members through cooperation with each other have been successful for some years in achieving substantial economies in the conduct of their business by coordinating the expansion and operation of their power supply facilities; and

0.6 WHEREAS, the Members believe that a fuller realization of the benefits and advantages through coordinated operation of their electric supply facilities will be better assured and more efficiently and economically achieved by having such operation directed and supervised by a centrally located organization skilled in the technique of system operation on a large scale and thoroughly familiar with the power supply facilities of the Members, and that their participation in the coordinated expansion and operation of their facilities will be simplified and facilitated by having such procedures conducted by a single clearing agent; and

0.7 WHEREAS, the Members believe that the Agent designated herein for such purpose is qualified to perform

such services for them.

0.8 NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements hereinafter contained, the parties hereto agree as follows:

ARTICLE I
PROVISIONS FOR, AND CONTINUITY
OF INTERCONNECTED OPERATION

1.1 Throughout the duration of this agreement the systems of the Members shall be operated in continuous synchronism through each of the various lines interconnecting their respective systems; provided, however, if synchronous operation of the systems through a particular line or lines becomes interrupted because of reasons beyond the control of any Member or because of scheduled maintenance that has been agreed to by the Members, the Members shall cooperate so as to remove the cause of such interruption as soon as practicable and restore the affected line or lines to normal operating condition.

1.2 Each Member shall keep the portions of the lines interconnecting their respective systems, together with all associated facilities and appurtenances, that are located on their respective sides of the Interconnection Points in a suitable condition of repair at all times in order that said lines will operate in a reliable and satisfactory manner and that reduction in their capacity will be avoided.

ARTICLE 2
OPERATING COMMITTEE

2.1 The parties herein shall appoint representatives to act as the "Operating Committee" in cooperation with each other and the Agent in the coordination and operation and/or use

of the electric power sources of or available to the Members and of their transmission and distribution and substation facilities to the end that the advantages to be derived thereunder may be realized to the fullest practicable extent.

2.2 Each Member shall designate in writing delivered to the other Members and Agent, the person who is to act as its representative on said committee and the person or persons who may serve as alternate whenever such representative is unable to act. Agent shall designate in writing delivered to the Members the person who is to act as its representative on said committee. Such person shall act as chairman of the Operating Committee and shall be known as the "Pool Manager". All such representatives or alternates so designated shall be fully authorized to cooperate with the other representatives or alternates in all matters described in this agreement as responsibilities of the Operating Committee.

ARTICLE 3

AGENT'S RESPONSIBILITIES

3.1 For the purpose of carrying out the coordinated operation of the generating and transmission facilities of Members and the most efficient use of the energy produced by them and of other energy available to them, the Members hereby delegate to Agent and Agent hereby accepts the responsibility of supervising and directing such operation and use, and in furtherance thereof Agent agrees as follows; viz:

3.11 To coordinate the operation of the electric power sources of or available to the Members, which include their own generating stations and electric power available to them through interconnection with affiliated companies other than Members and Foreign Companies.

3.12 To arrange for and conduct such meetings of the Operating Committee as may be required to insure the effective and efficient carrying out of all matters of procedure essential to the complete performance of the provisions of this agreement.

3.13 To prepare and collect such log sheets and other records as may be needed to afford a clear history of the electric power and energy supplied under this agreement. Preparation and collection of such log sheets and other record shall be coordinated with similar responsibilities of the Members as provided for under Article 9.

3.14 To render to each Member as promptly as possible after the end of each calendar month a statement setting forth the electric power and energy transactions carried out during such month pursuant to the provisions of this agreement in such detail and with such segregations as may be needed for operating records or for settlements hereunder.

3.15 To make arrangements with Foreign Companies on behalf of the Members for the purchase, sale, or interchange of power and energy between such companies and the Members, such arrangements to be made in addition to similar arrangements to be made under agreements between an individual Member and a Foreign Company and to be made whenever in the judgment of the Members the effecting of matters of operation and contract related thereto can be simplified and their performance facilitated.

3.16 To carry out cash settlements for electric power and energy supplied under this agreement. Settlements by the Members shall be made for each calendar month through an account (hereby designated and hereinafter called "SYSTEM ACCOUNT") to be administered by Agent. Payments to or from such account shall be made to or by Agent as clearing agent of the account. The total of the payments made by Members to the SYSTEM ACCOUNT for a particular month shall be equal to the payments made to the Members from the SYSTEM ACCOUNT for such month.

ARTICLE 4

MEMBERS' OBLIGATIONS AND RIGHTS

4.1 For the purpose of obtaining the most efficient coordinated expansion and operation of their electric power supply facilities the Members hereby agree to operate and utilize their electric power sources under the direction of the Pool Manager in such manner that each Member shall receive at all times sufficient electric power and energy from such sources to meet its specific load obligations.

Each member shall, to the extent practicable, install or have available to it under contract such capacity as is necessary to supply all of the requirements of its own customers.

4.2 The Members agree that their electric power sources, which shall include all the generating stations owned by the Members and all electric power available to them through interconnection with affiliated companies other than Members and Foreign Companies, shall be used as needed to carry the combined load obligations of the Member under the direction of the Pool Manager. Each Member in return shall receive at all times sufficient electric power and energy from such sources to meet the specific load obligations of such Member.

4.3 The Members recognize that in carrying out the interconnected operation of their respective transmission systems as herein provided, electric energy being received by a portion of a particular Member's transmission system from another portion of such system or from the system of another interconnected company, or electric energy being delivered by a portion of a particular Member's transmission system to another portion of such system or to the system of another interconnected company, may flow over the transmission system of another Member. In respect of such flow of electric energy (hereinafter called "Energy Transfer") the Members agree that such Energy Transfer over their respective transmission facilities shall be permitted whenever it occurs, and, except as may be specifically agreed to otherwise by the Members, no Member shall make a charge at any time to another Member to permit such Energy Transfer. Electric power and energy associated with such Energy Transfer, including electrical losses associated therewith, shall be accounted for each clock hour. Proper consideration shall be given to such electrical losses in accordance with the manner determined and agreed upon by the Operating Committee, and such consideration shall be fully in accord with the provisions of LINE LOSS FACTOR as defined under subdivision 5.15 of Article 5.

ARTICLE 5

DEFINITIONS OF LOAD, CAPACITY, AND ENERGY CLASSES AND RELATED FACTORS ASSOCIATED WITH SETTLEMENTS FOR POWER SUPPLIED FROM MEMBER'S ELECTRIC POWER SOURCES

5.1 Load, capacity, and energy shall be designated and allocated to various classes for the purposes of effecting settlements under this agreement. Load, capacity, and energy

classes and related factors associated with the settlement for electric power and energy supplied from electric power sources of the Members are defined as follows; viz:

Load

5.2 MEMBER LOAD OBLIGATION - A Member's internal load plus any firm power sales to Foreign Companies and to affiliated companies other than Members. Principally characterized by the Member assuming the load obligation as its own firm power commitment and by the Member retaining advantages accruing from meeting the load.

5.3 SYSTEM LOAD OBLIGATION - Load obligation shared proportionately by the Members where one Member or Agent will act as Agent of the Members in meeting the commitment; principally characterized by the load not being considered as a part of any MEMBER LOAD OBLIGATION.

(Examples of SYSTEM LOAD OBLIGATIONS are electric power and energy deliveries made to Foreign Companies under emergency and storage power arrangements with such companies.)

5.4 MEMBER DEMAND - MEMBER LOAD OBLIGATION determined on a clock-hour integrated kilowatt basis.

5.5 MEMBER MAXIMUM DEMAND - The MEMBER MAXIMUM DEMAND in effect for a calendar month for a particular Member shall be equal to the maximum MEMBER DEMAND experienced by said Member during the twelve consecutive calendar months next preceding such calendar month.

5.6 MEMBER LOAD RATIO - The ratio of a particular Member's MEMBER MAXIMUM DEMAND in effect for a calendar month to the sum of the five MEMBER MAXIMUM DEMANDS in effect for such month.

Capacity

5.7 MEMBER PRIMARY CAPACITY - The aggregate capacity of the electric power sources of a particular Member, in Kilowatts, that is normally expected to be available to carry load. Such capacity shall include (i) the capacity installed at the generating stations owned by the Member and (ii) the capacity available to that Member through interconnection arrangements with affiliated companies or Foreign Companies, if so designated by the Operating Committee with the approval of the Members.

5.7.1 All determinations by the Operating Committee pursuant to (ii) of Section 5.7 with respect to purchases of capacity from non-affiliated companies shall take into account, but shall not be limited to, the following circumstances and considerations: (1) the term during which such capacity will be available, a commitment from a reliable source of power and energy for at least five years being normally regarded as appropriate for inclusion as a capacity source of a particular Member, with purchases of a short or intermediate duration being normally regarded as System purchases under Article 7; (2) whether the availability of the purchased capacity will be comparable to the availability of the installed primary capacity of the Members, although the Operating Committee may make adjustments in the quantity of purchased capacity to be included as Member Primary Capacity to give effect to any disparity in the availability of such purchased capacity; (3) the need on the part of a Member with a Member Primary Capacity deficit of an extended nature to

rectify or alleviate such deficit and the interest of all Members in maintaining an equalization among the Members of capacity resources over a period of time.

5.7.2 In the event that arrangements are made hereunder for any Member to make capacity available to an affiliated company or to a Foreign Company through the sale by such Member, for its own account, of unit capacity or other non-firm capacity, the amount of the capacity so sold shall be excluded from the Primary Capacity of such Member.

5.8 SYSTEM PRIMARY CAPACITY - The sum of the MEMBER PRIMARY CAPACITY of all the Members.

5.9 MEMBER PRIMARY CAPACITY RESERVATION - SYSTEM PRIMARY CAPACITY multiplied by the MEMBER LOAD RATIO of a particular Member.

5.10 MEMBER PRIMARY CAPACITY SURPLUS - Difference between the MEMBER PRIMARY CAPACITY and MEMBER PRIMARY CAPACITY RESERVATION of a particular Member, when such MEMBER PRIMARY CAPACITY exceeds such MEMBER PRIMARY CAPACITY RESERVATION.

5.11 MEMBER PRIMARY CAPACITY DEFICIT - Difference between the MEMBER PRIMARY CAPACITY and MEMBER PRIMARY CAPACITY RESERVATION of a particular Member, when such MEMBER PRIMARY CAPACITY is less than such MEMBER PRIMARY CAPACITY RESERVATION.

Energy

5.12 POOL - Electric energy delivered by one Member, from its MEMBER PRIMARY CAPACITY, to another Member shall be considered to be energy delivered to the POOL by the former Member and received from the POOL by the latter Member.

Electric energy delivered by a Foreign Company to a Member, other than energy associated with a Member's MEMBER PRIMARY CAPACITY, shall be considered to be energy delivered to the POOL. Electric energy delivered by a Member to a Foreign Company to meet a SYSTEM LOAD OBLIGATION shall be considered to be energy delivered by the POOL to the Foreign Company.

5.13 PRIMARY ENERGY - Electric energy delivered to the POOL from the MEMBER PRIMARY CAPACITY of a particular Member to meet another Member's deficiency in capacity. The deficiency may be caused by one or both of two reasons, the total MEMBER PRIMARY CAPACITY of a particular Member may not be great enough to meet its MEMBER LOAD OBLIGATION or a Member may have a portion of its MEMBER PRIMARY CAPACITY out of service for maintenance and the remainder may not be great enough to meet its MEMBER LOAD OBLIGATION.

5.14 ECONOMY ENERGY - Electric energy delivered to the POOL from the MEMBER PRIMARY CAPACITY of a particular Member to displace energy that otherwise would be supplied by less efficient MEMBER PRIMARY CAPACITY of another Member to meet its MEMBER LOAD OBLIGATION.

5.15 LINE LOSS FACTOR - The transmission electrical loss factor to be applied for settlement purposes to a particular metered quantity of energy delivered to the POOL by a Member. The Operating Committee shall determine and agree upon the LINE LOSS FACTOR required, such determinations to be governed by the understanding that the Member receiving such energy shall bear the entire loss caused in transmitting such energy over the facilities of the delivering Member and over the facilities of any other party whose system may be used for such delivery.

ARTICLE 6

SETTLEMENTS FOR POWER AND ENERGY
SUPPLIED FROM MEMBER'S ELECTRIC POWER SOURCES

6.1 As promptly as practicable following the end of each month (all references to month mean calendar month), for electric power and energy supplied under this agreement during such month from SYSTEM PRIMARY CAPACITY, the Members shall carry out cash settlements through the SYSTEM ACCOUNT in accordance with the following; viz:

Primary Capacity Equalization Charge

6.2 For each kilowatt of MEMBER PRIMARY CAPACITY SURPLUS each Member having such surplus during any month shall receive payment from the SYSTEM ACCOUNT at a rate per kilowatt per month equal to the MEMBER PRIMARY CAPACITY INVESTMENT RATE plus the MEMBER PRIMARY CAPACITY FIXED OPERATING RATE, as herein below defined, applicable to the particular surplus.

6.21 The MEMBER PRIMARY CAPACITY INVESTMENT RATE chargeable against the SYSTEM ACCOUNT for any calendar month by a particular Member shall be equal to the product of (A) the MEMBER WEIGHTED AVERAGE INVESTMENT COST, determined pursuant to subdivision 6.211 below, and (B) the MONTHLY CARRYING CHARGE FACTOR, determined pursuant to subdivision 6.212 below.

6.211 The MEMBER WEIGHTED AVERAGE INVESTMENT COST shall be equal to the ratio of (i) the total installed cost of production plant of the generation stations, other than hydro, classified as part of a particular Member's MEMBER PRIMARY CAPACITY to (ii) the total kilowatt capability of such generating stations. The total installed cost of production plant used in the

determination of the MEMBER WEIGHTED AVERAGE INVESTMENT COST, as described above, shall be the total cost of such plant for the aforesaid generating stations included, as of the end of the next preceding year, in Accounts 310 to 316, inclusive, Accounts 320 to 325, inclusive and Accounts 340 to 346, inclusive, of the Uniform System of Accounts prescribed by the Federal Energy Regulatory Commission for Public Utilities and Licensees, as in effect on January 1, 1975.

6.212 The MONTHLY CARRYING CHARGE FACTOR shall be 0.0137, or such larger amount as shall be established by order of the Federal Energy Regulatory Commission issued upon rehearing or reconsideration of its Opinion No. 50, issued July 27, 1979 in Docket No. E-9408.

6.22 The MEMBER PRIMARY CAPACITY FIXED OPERATING RATE chargeable against the SYSTEM ACCOUNT for any calendar month by a particular Member shall be equal to the weighted average fixed operating cost as herein below defined, incurred by said Member during such month. Such weighted average fixed operating cost for purposes hereof shall be equal to the ratio of the fixed operating expense, i.e., the total production expenses minus the fuel and one-half of the maintenance expenses, incurred by a particular Member during a month at the generating stations other than hydro, classified as a part of its MEMBER PRIMARY CAPACITY to the total kilowatt capability of such generating stations.

6.3 For each kilowatt of MEMBER PRIMARY CAPACITY DEFICIT, any Member having such deficit during any month shall make payment into the SYSTEM ACCOUNT at a rate per kilowatt per month equal to the total payments from the SYSTEM ACCOUNT during any such month, determined pursuant to subdivision 6.2 above, divided

by the total kilowatts of MEMBER PRIMARY CAPACITY DEFICITS for such month.

Primary Energy Charge

6.4 For PRIMARY ENERGY delivered to the POOL during any month by any Member, the Member so delivering such energy shall receive payment from the SYSTEM ACCOUNT at a rate per kilowatt-hour equal to said Member's MEMBER PRIMARY ENERGY RATE, as herein below defined, for such month. The MEMBER PRIMARY ENERGY RATE chargeable against the SYSTEM ACCOUNT for any month by said Member shall be equal to the Member's weighted average variable production cost, as herein below defined, for such month. Such weighted average variable production cost for purposes hereof shall be equal to the ratio of the sum of the fuel and one-half of the maintenance expenses incurred by said Member during a month at the generating stations other than hydro, classified as part of such Member's MEMBER PRIMARY CAPACITY to the total kilowatt-hours of net generation at said generating stations during such month.

6.5 For PRIMARY ENERGY received from the POOL during any month by any Member, said Member shall make payment into the SYSTEM ACCOUNT for energy so received at a rate per kilowatt-hour equal to the MEMBER PRIMARY ENERGY RATE payable from the SYSTEM ACCOUNT to the other Members for such month for such PRIMARY ENERGY. The rate applicable to such PRIMARY ENERGY shall be determined from clock-hour records to be kept by Agent as provided under Article 3. Such records shall indicate the receiving Member and supplying Member for each kilowatt-hour classified as PRIMARY ENERGY.

Economy Energy Charge

6.6 For ECONOMY ENERGY delivered to the POOL during any

month the Member delivering such energy shall receive payment from and the Member receiving such energy shall make payment to the SYSTEM ACCOUNT at the ECONOMY ENERGY RATE, as herein below defined, applicable to the energy so delivered and received. The ECONOMY ENERGY RATE applicable to a particular kilowatt-hour of ECONOMY ENERGY shall be equal to the out-of-pocket cost of delivering said kilowatt-hour to the POOL plus one-half the difference between such cost and the out-of-pocket cost of generation avoided by the Member receiving such energy. Said kilowatt-hour shall be considered to be supplied from the highest cost source carrying load to meet MEMBER LOAD OBLIGATIONS of the supplying Member, excluding sources operated for minimum operating requirements, and its out-of-pocket cost shall include fuel expense and an appropriate portion of maintenance expense of generating facilities. The cost of generation avoided by the Member receiving said kilowatt-hour of ECONOMY ENERGY shall be considered to be the out-of-pocket cost that would be experienced if said kilowatt-hour were not delivered and its equivalent generated upon the most efficient operable unloaded generation of the receiving Member. Such out-of-pocket cost shall include cost of fuel and an appropriate portion of maintenance expense of generating facilities. The appropriate portion of maintenance expense allocable to the out-of-pocket cost of the supplying Member and to the avoided cost of the receiving Member shall be determined and agreed upon by the Operating Committee.

System Primary Energy Rate

6.7 Settlements for various classes of electric power and energy delivered under transactions with Foreign Companies shall

include the use of a rate referred to as SYSTEM PRIMARY ENERGY RATE. For purposes of this agreement, the SYSTEM PRIMARY ENERGY RATE chargeable for any month shall be equal to the weighted average variable operating cost, as herein below defined, incurred during such month at the generating stations, other than hydro, classified as part of the SYSTEM PRIMARY CAPACITY. Such weighted average variable operating cost for purposes hereof shall be equal to the ratio of the variable production expenses, i.e., the fuel and one-half of the maintenance expenses, incurred during a month at the generating stations, other than hydro, classified as part of the SYSTEM PRIMARY CAPACITY to the total kilowatt-hours of net generation generated at said generating stations during such month.

ARTICLE 7

TRANSACTIONS WITH FOREIGN COMPANIES

7.1 As promptly as practicable following the end of each month, cash settlements by the Members through the SYSTEM ACCOUNT for power transactions carried out in their behalf with Foreign Companies during such month shall be effected in accordance with the principles and procedures provided therefor under this Article 7. Any sale of power included in a Member's MEMBER LOAD OBLIGATION and any purchase of power included in a Member's MEMBER PRIMARY CAPACITY shall be excluded from such transactions. All other types of transactions carried out by any Member or on behalf of the Members with any Foreign Company shall be considered a transaction made on behalf of the collective interest of the Members. Costs and benefits associated with such transactions shall be shared proportionately as herein below provided.

Settlement For Power And Energy
Purchases From Foreign Companies

Power and Energy Purchases
other than Economy Energy

7.2 Definitions of billing factors required for settlements by the Members through the SYSTEM ACCOUNT for electric power and energy, other than ECONOMY ENERGY PURCHASE from any Foreign Company shall be as follows; viz:

7.21 SYSTEM PURCHASE FROM FOREIGN COMPANY - All energy purchased from a Foreign Company either by a particular Member or by the Members collectively through arrangements made on their behalf by Agent, except ECONOMY ENERGY or such energy as may be purchased to meet a SYSTEM LOAD OBLIGATION (settlement for energy so purchased that is supplied to another Foreign Company is provided for under subdivisions 7.5 and 7.7 below.)

7.22 MEMBER RESERVATION OF SYSTEM PURCHASE FROM FOREIGN COMPANY - For a month, the SYSTEM PURCHASE FROM FOREIGN COMPANY multiplied by the MEMBER LOAD RATIO of a particular Member.

7.23 MEMBER ENTITLEMENT OF SYSTEM PURCHASE FROM FOREIGN COMPANY - For a month, when the quantity of the MEMBER RESERVATION OF SYSTEM PURCHASE FROM FOREIGN COMPANY for a particular Member exceeds such quantity of energy delivered to said Member by the Foreign Company, the difference between such quantities is the MEMBER ENTITLEMENT OF SYSTEM PURCHASE FROM FOREIGN COMPANY of

said Member for such month.

7.24 MEMBER OBLIGATION OF SYSTEM PURCHASE FROM FOREIGN COMPANY - For a month, when the quantity of the MEMBER RESERVATION OF SYSTEM PURCHASE FROM FOREIGN COMPANY for a particular Member is less than such quantity of energy delivered to said Member by the Foreign Company, the difference between such quantities is the MEMBER OBLIGATION OF SYSTEM PURCHASE FROM FOREIGN COMPANY of said Member for such month.

7.25 MEMBER DEFICIT OF SYSTEM PURCHASE FROM FOREIGN COMPANY - For a month, when the quantity of the MEMBER OBLIGATION OF SYSTEM PURCHASE FROM FOREIGN COMPANY for a particular Member exceeds the quantity of kilowatt-hours of SYSTEM PURCHASE from FOREIGN COMPANY delivered to the POOL by the Member, the difference between such quantities is the MEMBER DEFICIT OF SYSTEM PURCHASE FROM FOREIGN COMPANY of said Member for such month.

7.26 MEMBER SURPLUS OF SYSTEM PURCHASE FROM FOREIGN COMPANY - For a month, when the quantity of the MEMBER ENTITLEMENT OF SYSTEM PURCHASE FROM FOREIGN COMPANY for a particular Member exceeds the quantity of kilowatt-hours of SYSTEM PURCHASE FROM FOREIGN COMPANY received from the POOL by said Member, the difference between such quantities is the MEMBER SURPLUS OF SYSTEM PURCHASE FROM FOREIGN COMPANY of said Member for such month.

7.3 To effect a proportionate sharing of the cost of any SYSTEM PURCHASE FROM FOREIGN COMPANY, purchases so made from each Foreign Company shall be treated separately as follows:

7.31 At the end of each month, from data supplied by the Members, Agent shall determine the cost of SYSTEM PURCHASE FROM FOREIGN COMPANY.

7.32 The total cost so determined multiplied by the [MEMBER] LOAD RATIO of a particular Member shall be the gross amount chargeable to said Member.

7.33 If a particular Member has established a MEMBER DEFICIT OF SYSTEM PURCHASE FROM FOREIGN COMPANY, the adjusted gross amount chargeable to the Member shall equal the sum of the gross amount determined under subdivision 7.32 above plus the amount chargeable to the Member for the MEMBER DEFICIT OF SYSTEM PURCHASE FROM FOREIGN COMPANY. The rate applicable to such deficit shall be the SYSTEM PRIMARY ENERGY RATE determined for the particular month.

7.34 If a particular Member has established a MEMBER SURPLUS OF SYSTEM PURCHASE FROM FOREIGN COMPANY, the adjusted gross amount chargeable to the Member shall equal the difference between the gross amount determined under subdivision 7.32 above and the amount to be credited to the Member for the MEMBER SURPLUS OF SYSTEM PURCHASE FROM FOREIGN COMPANY. The rate applicable to such surplus shall be the SYSTEM PRIMARY ENERGY RATE determined for the particular month.

7.35 If the adjusted gross amount chargeable to a particular Member for any month as determined under either subdivisions 7.33 or 7.34 is greater than the payment made by said Member to the Foreign Company for the SYSTEM

PURCHASE FROM FOREIGN COMPANY, said Member shall make payment into the SYSTEM ACCOUNT of the difference between such amount and payment. Conversely, if the amount so determined for a particular Member is less than the Member's aforesaid payment to the Foreign Company, such Member shall receive payment from the SYSTEM ACCOUNT of the difference between such amount and such payment to the Foreign Company.

Economy Energy Purchases

7.4 Settlement by the Members through the SYSTEM ACCOUNT for ECONOMY ENERGY PURCHASE from a Foreign Company shall be governed by the principle that the saving in production expense realized by the System (the term "System" as used in this agreement refers to the electric facilities of the Members viewed as a unit) shall be shared by the Members in proportion to their respective MEMBER LOAD RATIOS.

(The following illustrates the application of the principle and procedure for effecting such settlements:

It is assumed that Appalachian Company has purchased a block of ECONOMY ENERGY PURCHASE at a rate of 1.00 mill per kilowatt-hour which has displaced generation at Twin Branch Station of Indiana Company; the production expense saving to Indiana Company being 2.00 mills per kilowatt-hour.

Charges payable to and credits payable from the SYSTEM ACCOUNT for such energy shall be at the following rates: (1) pay Appalachian Company at a rate per kilowatt-hour equal to the sum of 1.00 mill plus the product of 2.00 mills times Appalachian Company's MEMBER LOAD RATIO, (2) pay Ohio Company at a rate per kilowatt-hour equal to the product of 2.00 mills times Ohio Company's MEMBER LOAD RATIO, and (3) charge Indiana Company at a rate per kilowatt-hour equal to the sum of 1.00 mill plus the product of 2.00 mills times the sum of Appalachian Company's and Ohio Company's MEMBER LOAD RATIOS.)

For the purpose of this agreement, the cost of generation avoided by the System in receiving a kilowatt-hour of ECONOMY ENERGY PURCHASE shall be considered to be the out-of-pocket

cost, i.e., fuel expense and an appropriate portion of maintenance expense of generating facilities that would be experienced if said kilowatt-hour were not delivered and its equivalent generated upon the most efficient operable unloaded generation of the System. The appropriate portion of maintenance expense allocable to the out-of-pocket cost of such generating facilities shall be determined and agreed upon by the Operating Committee.

Settlement for Power Sales to Foreign Companies

7.5 Settlement by the Members through the SYSTEM ACCOUNT for electric power and energy sales to Foreign Companies shall be governed by the principle that the difference between the amount charged a Foreign Company for the power and energy supplied under such a sale and the production expenses, i.e., out-of-pocket costs incurred by the System in making such supply, shall be shared by the Members in proportion to the respective MEMBER LOAD RATIOS. Electric Power and energy for such sales shall be considered to be supplied from the higher cost of the following two sources: (1) from the highest cost source carrying load on the System, excluding sources operated for minimum operating requirements, or (2) the highest cost source supplying power to the System under arrangements with Foreign Companies.

(The following illustrates the application of the principles and procedures for effecting such settlements:

It is assumed that Indiana Company has sold a block of energy at a rate of 4.00 mills per kilowatt-hour which has been supplied by carrying a block of load that would not otherwise be carried at Philo Station of Ohio Company, the out-of-pocket cost incurred by Ohio Company being 3.00 mills per kilowatt-hour.

Charges payable to and credits payable from the SYSTEM ACCOUNT for such energy would be at the following rates: (1) charge

Indiana Company at a rate per kilowatt-hour equal to the sum of 3.00 mills plus the product of 1.00 mill times the sum of Appalachian Company's and Ohio Company's MEMBER LOAD RATIOS, (2) pay Ohio company at a rate per kilowatt-hour equal to the sum of 3.00 mills and the product of 1.00 mill times Ohio Company's MEMBER LOAD RATIO, and (3) pay Appalachian Company at a rate per kilowatt hour equal to the product of 1.00 mill times Appalachian Company's MEMBER LOAD RATIO.)

Settlement For Power and Energy Received Under
Interchange Arrangements With Foreign Companies

Power and Energy Received other
than Interchange Economy Energy

7.6 Definitions of billing factors required for settlements by the Members through the SYSTEM ACCOUNT for electric power and energy received, other than INTERCHANGE ECONOMY ENERGY, from any Foreign Company under interchange arrangements which require no cash settlements shall be as follows; viz;

7.61 SYSTEM INTERCHANGE FROM FOREIGN COMPANY - All energy received from Foreign Company by either a particular Member or by the Members collectively through arrangements made on their behalf by Agent, which requires no cash settlement, except INTERCHANGE ECONOMY ENERGY.

7.62 MEMBER RESERVATION OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY - For a month, the SYSTEM INTERCHANGE FROM FOREIGN COMPANY multiplied by the MEMBER LOAD RATIO of a particular Member.

7.63 MEMBER ENTITLEMENT OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY - For a month, when the quantity of the MEMBER RESERVATION OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY for a particular Member exceeds the quantity of such energy delivered to the Member by the Foreign Company, the difference between such quantities is the MEMBER ENTITLEMENT OF SYSTEM

INTERCHANGE FROM FOREIGN COMPANY of such Member for such month.

7.64 MEMBER OBLIGATION OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY - For a month, when the quantity of the MEMBER RESERVATION OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY for a particular Member is less than the quantity of such energy delivered to the Member by the Foreign Company, the difference between such quantities is the MEMBER OBLIGATION OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY of said Member for such month.

7.65 MEMBER DEFICIT OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY - For a month, when the quantity of the MEMBER OBLIGATION OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY for a particular Member exceeds the quantity of kilowatt-hours of SYSTEM INTERCHANGE FROM FOREIGN COMPANY delivered to the POOL by said Member, the difference between such quantities is the MEMBER DEFICIT OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY of said Member for such month.

7.66 MEMBER SURPLUS OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY - For a month, when the quantity of the MEMBER ENTITLEMENT OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY for a particular Member exceeds the quantity of kilowatt-hours of SYSTEM INTERCHANGE FROM FOREIGN COMPANY received from the POOL by said Member, the difference between such quantities is the MEMBER SURPLUS OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY of said Member for such month.

7.7 To effect a proportionate sharing of the benefits of SYSTEM INTERCHANGE FROM FOREIGN COMPANY, electric energy so received from each Foreign Company shall be treated separately as follows:

7.71 If a particular Member has established a MEMBER DEFICIT OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY, said Member shall make payment into the SYSTEM ACCOUNT for the kilowatt-hours of such deficit at the SYSTEM PRIMARY ENERGY RATE determined for the particular month.

7.72 If a particular Member has established a MEMBER SURPLUS OF SYSTEM INTERCHANGE FROM FOREIGN COMPANY, said Member shall receive payment from the SYSTEM ACCOUNT for the kilowatt-hours of such surplus at the SYSTEM PRIMARY ENERGY RATE determined for the particular month.

Interchange Economy Energy

7.8 The principles described under subdivision 7.4 above for the settlement of ECONOMY ENERGY PURCHASE shall also govern the settlements by the Members through the SYSTEM ACCOUNT for INTERCHANGE ECONOMY ENERGY received from a Foreign Company. It shall be assumed for the purpose of such settlement that payment to the Foreign Company for INTERCHANGE ECONOMY ENERGY was made at a rate of zero mills per kilowatt-hour.

Settlements For Power Delivered Under Interchange Arrangements With Interconnected Foreign Companies

7.9 Settlement hereunder for electric power and energy (hereinafter called "SYSTEM INTERCHANGE TO FOREIGN COMPANY") delivered to any Foreign Company under interchange arrangements with either a particular Member or with the Members collectively through arrangements made on their behalf by Agent, which require no cash settlements, will be governed by the principle that the production expenses, i.e., out-of-pocket costs incurred by the System in making such deliveries, shall be shared by the

Members in proportion to their respective MEMBER LOAD RATIOS.

(The following illustrates the application of the principle and procedure for effecting such settlements:

It is assumed that Appalachian Company has delivered a block of SYSTEM INTERCHANGE TO FOREIGN COMPANY which has been supplied by carrying a block of load that would not otherwise be carried at Windsor Station of Ohio Company; the out-of-pocket cost incurred by Ohio Company being 3.50 mills per kilowatt-hour.

Charges payable to and credits payable from the SYSTEM ACCOUNT for such energy shall be at the following rates: (1) charge Appalachian Company and Indiana Company at rates per kilowatt-hour equal to the product of 3.50 mills per kilowatt-hour and their respective MEMBER LOAD RATIOS, and (2) pay Ohio Company at a rate equal to the sum of the rates charged Appalachian Company and Indiana.)

As described under subdivision 7.5 above, electric power and energy for sales to Foreign Companies shall be considered to be supplied from the higher cost of the following two sources: (1) from the highest cost source carrying load on the System, excluding sources operated for minimum operating requirements, or (2) the highest cost source supplying electric power and energy to the System under arrangements with Foreign Companies. Similarly, following the determination and designation of such source for the aforesaid sales, electric power and energy for SYSTEM INTERCHANGE TO FOREIGN COMPANY deliveries shall be considered to be supplied from the higher cost of the balance of said two sources.

ARTICLE 8

DELIVERY POINTS, METERING POINTS AND METERING

Delivery points

8.1 All electric energy delivered under this agreement shall be of the character commonly known as three-phase sixty-cycle energy, and shall be delivered at the various Interconnection

Points where the transmission systems of the Members are interconnected at the nominal unregulated voltage designated for such points, and at such other points and voltages as may be determined and agreed upon by the Members.

Metering Points

8.2 Electric power and energy supplied and delivered by one Member to another Member shall be measured by suitable metering equipment to be provided, owned, and maintained by the Members at such metering points as are determined and agreed upon by them.

Metering

8.3 Suitable metering equipment at metering points as provided under subdivision 8.2 above shall include electric meters which shall give for each direction of flow the following quantities (1) an automatic record for each clock-hour of kilowatt-hours and (2) a continuous integrating record of the kilowatt-hours.

8.4 Measurements of electric energy for the purpose of effecting settlements under this agreement shall be made by standard types of electric meters, installed and maintained by the owner at the metering points as provided under subdivision 8.2 above. The timing devices of all meters having such devices shall be maintained in time synchronism as closely as practicable. The meters shall be sealed and the seals shall be broken only upon occasions when the meters are to be tested or adjusted. For the purpose of checking the records of the metering equipment installed by any Member as hereinabove provided, the other Members shall have the right to install check metering equipment at the aforesaid metering points. Metering equipment so installed by

one Member on the premises of another Member shall be owned and maintained by the Member installing such equipment. Upon termination of this agreement the Member owning such metering equipment shall remove it from the premises of the other Member. Authorized representatives of any Member shall have access at all reasonable hours to the premises where the meters are located and to the records made by the meters.

8.5 The aforesaid metering equipment shall be tested by the owner at suitable intervals and its accuracy of registration maintained in accordance with good practice. On request of any Member, special tests shall be made at the expense of the Member requesting such special test.

8.6 If on any test of metering equipment, an inaccuracy shall be disclosed exceeding two percent, the account between the Members for service theretofore delivered shall be adjusted to correct for the inaccuracy disclosed over the shorter of the following two periods: (1) for the thirty-day period immediately preceding the day of the test or (2) for the period that such inaccuracy may be determined to have existed. Should the metering equipment as hereinabove provided for fail to register at any time, the electric power and energy delivered shall be determined from the check meters, if installed, or otherwise shall be determined from the best available data.

ARTICLE 9

RECORDS AND STATEMENTS

9.1 In addition to meter records to be kept by the Members as provided under Article 8, the Members shall keep in duplicate such log sheets and other records as may be needed to afford a clear history of the various deliveries of electric power and energy made pursuant to the provisions of this agreement. The

originals of log sheets and other records shall be retained by the Member keeping the records and the duplicates shall be delivered as determined and agreed upon by the Operating Committee.

ARTICLE 10

TAXES

10.1 If at any time during the duration of this agreement, there should be levied and/or assessed against any Member any tax by any taxing authority in respect of the electric power and energy generated, purchased, sold, imported, transmitted, interchanged, or exchanged by said Member in addition to or different from the forms of such taxes now being levied or assessed against said Member, or there should be any increase or decrease in the rate of such existing or future taxes, and such taxes or changes in such taxes should result in increasing or decreasing the cost to said Member in carrying out the provisions of this agreement, then in such event adjustments shall be made in the rates and charges for electric power and energy furnished hereunder to make allowance for such taxes and changes in such taxes in an equitable manner.

ARTICLE 11

BILLINGS AND PAYMENTS

11.1 All bills for amounts owed hereunder shall be due and payable on the twentieth day of the month next following the monthly or other period to which such bills are applicable, or on the fifteenth day following receipt of bill, whichever date is later. Interest on unpaid amounts shall accrue at the rate of six percent per annum from the date due until the date upon which payment is made. Unless otherwise agreed upon a

calendar month shall be the standard monthly period for the purpose of settlements under this agreement.

ARTICLE 12
MODIFICATION

12.1 Any Member, by written notice given to the other Members and Agent not less than ninety days prior to the beginning of any calendar year of the duration of this agreement, may call for a reconsideration of the terms and conditions herein provided. If such reconsideration is called for, there shall be taken into account any changed conditions, any results from the application of said terms and conditions, and any other factors that might cause said terms and conditions to result in an inequitable division of the benefits of interconnected operation or in an inadequate realization of such benefits. Any modification in terms and conditions agreed to by the Members following such reconsideration shall become effective the first day of January of the calendar year next following the aforesaid ninety-day notice period.

ARTICLE 13
DURATION OF AGREEMENT

13.1 This agreement shall become effective August 1, 1951, and shall continue in effect for an initial period expiring December 31, 1971, and thereafter for successive periods of one year each until terminated as provided under subdivision 13.2 below.

13.2 Any Member upon at least three years' prior written notice to the other Members and Agent may terminate this agreement at the expiration of said initial period or at the expiration of any successive period of one year.

ARTICLE 14

TERMINATION OF EXISTING AGREEMENTS

14.1 Upon their joint execution of this agreement Appalachian Company and Ohio Company agree that the interconnection agreements between them dated November 28, 1930, and September 1, 1936, respectively, and all supplements and amendments thereto, shall terminate as of July 31, 1951, and that all further obligations between them in respect thereof shall cease and terminate as of such date, except in respect of any payments or liabilities incurred in respect thereof prior to such termination date.

14.2 Upon their joint execution of this agreement Indiana Company and Ohio Company agree that the interconnection agreements between them, dated October 15, 1930, and September 1, 1936, respectively, and all supplements and amendments thereto, shall terminate as of July 31, 1951, and that all further obligations between them in respect thereof shall cease and terminate as of such date, except in respect of any payments or liabilities incurred in respect thereof prior to such termination date.

ARTICLE 15

REGULATORY AUTHORITIES

15.1 This agreement is made subject to the jurisdiction of any governmental authority or authorities having lawful jurisdiction in the premises.

ARTICLE 16

ASSIGNMENT

16.1 This agreement shall inure to the benefit of and be binding upon the successors and assigns of the respective parties.

16.2 IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed in their respective corporate names and on their behalf by their proper officer's thereunto duly authorized as of the day and year first above written.

(The numerous pages of the various signatories to the original Agreement and subsequent modifications thereto, are omitted herein.)