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Interconnection Agreement

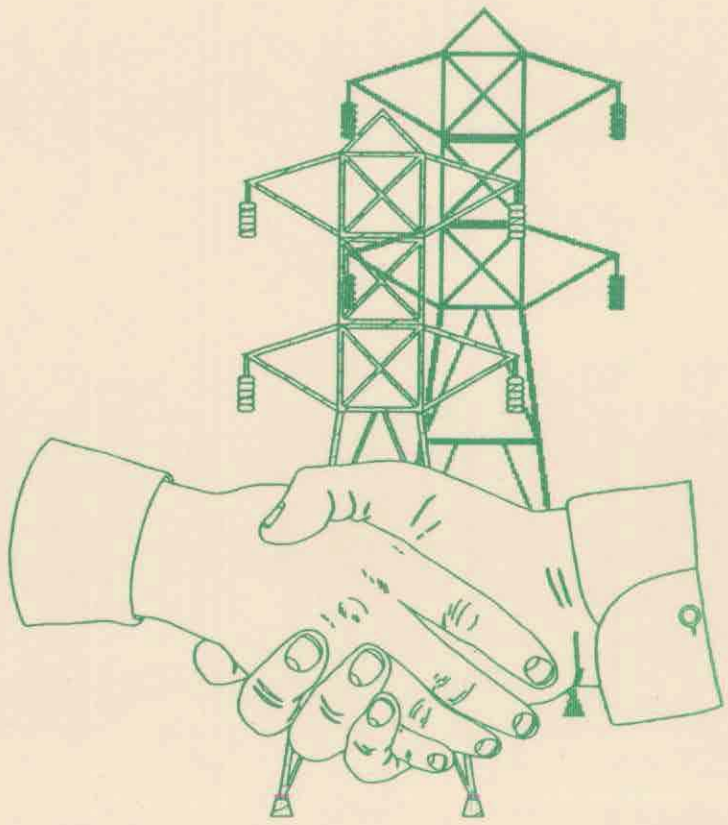
Between

Louisville Gas and Electric

and

Tennessee Valley Authority

July 1, 1977



CONFORMED COPIES ISSUED APRIL 12, 1996

BY THE

LOUISVILLE GAS AND ELECTRIC CO.

RESOURCE AND ELECTRIC SYSTEM PLANNING DEPARTMENT

502 627-2300



INTERCONNECTION AGREEMENT

between

LOUISVILLE GAS AND ELECTRIC COMPANY

and

TENNESSEE VALLEY AUTHORITY

Dated July 1, 1977

(Conformed Copy Issued April 14, 1993)



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THIS AGREEMENT, dated as of July 1, 1977, between TENNESSEE VALLEY AUTHORITY (hereinafter called "TVA"), a corporation created and existing under and by virtue of the Tennessee Valley Authority Act of 1933, as amended, and LOUISVILLE GAS AND ELECTRIC COMPANY (hereinafter called "Company"), a Kentucky corporation;

WITNESSETH:

WHEREAS, Company owns electric facilities and is engaged in the generation, transmission, distribution, and sale of electric power and energy in the State of Kentucky; and TVA owns and operates electric facilities in Kentucky, Tennessee, Georgia, Alabama, Mississippi, North Carolina, and Virginia; and

WHEREAS, the electric systems of the two parties have been and are physically interconnected at a point on the Green River near Canmer, Kentucky, where 161-kV double circuit transmission lines owned and operated by the respective parties are connected; and

WHEREAS, power and energy transactions have been made between Company and TVA to their mutual advantage and to the advantage of their respective customers; and

WHEREAS, benefits for the customers served by TVA and Company may be continued if the interconnection is maintained between the systems of TVA and Company; and

WHEREAS, Company and TVA are parties to an interconnection agreement dated February 12, 1942, as amended, and desire to enter into a new agreement which will supersede the aforesaid interconnection agreement;

NOW, THEREFORE, in consideration of the premises and of the mutual covenants herein set forth, and subject to the Tennessee Valley Authority Act of 1933, as amended, the parties hereto agree as follows:

ARTICLE 1

TERM OF AGREEMENT

1.1 Term. The agreement shall become effective as of July 1, 1977, and shall continue in effect for an initial term ending with December 31, 1986, and from year to year thereafter unless canceled by either party at the end of the initial term or any yearly renewal thereof upon not less than two years' written notice.

ARTICLE 2

INTERCONNECTION POINTS AND FACILITIES

2.1 Interconnection Points. The system Interconnection Points for purpose hereof shall be as follows:

- (a) The 161-kV point of interconnection of the double circuit transmission lines of TVA and Company at the Green River near Canmer, Kentucky (hereinafter called the "Green River 161-kV Interconnection Point");
- (b) Such additional interconnection points, if any, as may hereafter be established and included by agreement of the parties;
- (c) Indirect interconnections through other systems by existing or new interconnection routes.

Interconnections (a) and (b) hereinabove shall hereinafter be referred to as "Direct Interconnection Points."

2.2 Elimination of Direct Interconnection Points. If, in the judgment of either party hereto, it appears desirable to discontinue any Direct Interconnection Point specified in Section 2.1 hereof, the parties hereto shall consult with each other with respect thereto, and may, by mutual agreement, discontinue such Interconnection Point.

2.3 Accessory Facilities. For each Direct Interconnection Point, the parties will provide communication, telemetering, relaying, and load control equipment adequate for voice communications, load dispatching, system protection, and control of power flow; the extent and character of such equipment will be in accordance with good engineering practice. Unless otherwise agreed, each party shall install, own, operate, maintain, and replace such of the aforesaid equipment as may be located on its system; provided, however, that any such equipment installed by one party that is predominantly for the benefit of the other party shall be provided, installed, maintained, operated, and replaced at the expense of such other party.

2.4 Maintenance of Interconnections. Each of the parties, at its expense shall maintain in operable condition its facilities required for the effective use of the aforesaid interconnections for the purpose herein provided.

ARTICLE 3

SERVICES TO BE RENDERED

3.1 Service Schedules. The power to be supplied by each party to the other hereunder, the terms and conditions of such supply, and settlement therefor, shall be in accordance with arrangements agreed upon from time to time between the parties. Such arrangements shall be made in the form of service schedules, each of which when signed by authorized officials of the parties hereto, shall become a part of this agreement for the term hereof or for such shorter term as may be provided in the service schedule. The following service schedules are hereby agreed to initially and attached as parts hereof:

Service Schedule A - Emergency Assistance

Service Schedule B - Energy Interchange

Service Schedule C - Short-Term Power

3.2 Wherever the term "out-of-pocket cost" is used in this agreement, or in any of the service schedules which are or may be made a part hereof, in connection with the furnishing of energy by either party hereto, it shall have the following meaning: Out-of-pocket cost of generating energy in the generating stations of the system of either party will be those costs which are incurred by the supplying system by reasons of its generation of such energy and which otherwise would not have been incurred by such system. Such costs, under usual circumstances, will include the incremental production expenses associated with the stations or units used in the production of the energy so furnished, including start-up costs, incremental fuel, incremental maintenance, incremental operating labor, and any tax or in-lieu-of-tax expense in connection with the sale or production of such energy. Out-of-pocket cost of energy purchased from a source outside of the system of the supplying party will be the total amount paid therefor by the supplying party which otherwise would not have been paid by such party. Out-of-pocket cost shall also include, where applicable and not otherwise provided for, an adjustment to reflect the increase or decrease in the cost of transmission losses attributable to the transaction.

Incremental fuel costs used in determining out-of-pocket cost for energy generated on the system of the supplying party may be based on the estimated replacement cost of the incremental fuel used in supplying the energy, including storage and handling costs as applicable.

In accordance with practices established from time to time by the Operating Committee formed pursuant to section 8.1 hereof (hereinafter called "the Operating Committee"), the parties may, at the time of each transaction, agree on estimates of out-of-pocket costs applicable to the transaction, or on the basis upon which such estimates will be determined. Such mutual agreement, when arrived at by authorized representatives of the parties, shall be conclusive with respect to the transaction under consideration.

ARTICLE 4SERVICE CONDITIONS

4.1 Interconnected Operation of Systems. Company's system and the TVA system shall be and shall remain interconnected at the Direct Interconnection Points described in section 2.1 hereof, and said systems, subject to the provisions of this section, shall be operated in continuous synchronism through the interconnected facilities used to establish such Interconnection Points. If synchronous operation of the systems through a particular line is interrupted either manually or automatically because of reasons beyond the control of either party, or because of scheduled maintenance that has been agreed to by both parties, the parties shall cooperate so as to remove the cause of such interruption as soon as practicable and restore such line to normal operating conditions. Further, should conditions arise from disturbances on the interconnected network of which the systems of the parties are a part or from other causes that would jeopardize reliability of service on either or both systems, the parties may jointly or separately take necessary action to interrupt synchronous operation through the appropriate line or lines. Neither party shall be responsible to the other party for any damage or loss of revenue caused by any such interruption.

4.2 Inadvertent Flows of Energy. The parties recognize that unscheduled energy may flow over their respective systems as an indirect, unavoidable and unintentional consequence of the physical and electrical characteristics of the interconnection network of transmission lines of which the transmission systems of the parties are a part. Each party shall permit such flows to occur on its transmission system; subject, however, to the understanding that such flows shall not be of such magnitude or duration as to jeopardize or adversely affect the ability of said party to render proper service to its customers and to render or accept service to or from companies with which it now has, or at any time hereafter may have, contractual arrangements to furnish, take, or interchange power.

Should such flows of energy become of such magnitude or duration, in the judgment of the party over whose transmission facilities they occur, as to jeopardize or adversely affect its ability to render proper service as set forth above, the party whose system is causing such flows shall, upon being notified by the other party to such effect, promptly undertake such action or actions as are necessary, practicable, and prudent to reduce such energy flows to a level acceptable to the affected party. In the event that the party so notified advises the other party that it cannot in its judgment undertake such action or actions without jeopardizing reliability of service on its system, the affected party may interrupt synchronous operation through the appropriate line or lines as may be necessary.

Each party hereto further recognizes that such flows may result in an increase in loading or losses on the transmission system of the other party, which may be unduly burdensome to such other party. When requested by either party, the Operating Committee shall consider the factors involved, giving weight to the frequency, magnitude

and duration of such indicated increases, and shall endeavor to arrive at a mutually agreeable solution to relieve such burden or to equitably compensate the affected party.

Accounting for energy flows and losses as described in this section 4.2 shall be in accordance with methods and procedures agreed on by the Operating Committee.

4.3 Control of System Disturbances. Insofar as practicable, TVA and Company shall protect, operate, and maintain their respective systems so as to avoid or minimize the likelihood of disturbances which might cause impairment of service in the other's system or in any system interconnected therewith.

4.4 Spinning Reserves. Insofar as practicable, each system shall provide amounts of spinning reserve capacity so that neither the TVA system nor the Company's system will impose disproportionate load swings upon the other or make disproportionate demands upon the other for assistance in meeting the normal contingencies of power system operation.

4.5 Kilovar Supply. It is intended that neither party shall impose an undue burden on the other with respect to the flow of kilovars. The Operating Committee shall establish from time to time mutually satisfactory voltage schedules and kilovar supply arrangements.

4.6 Determination of Amounts of Power Supplied. The amounts of power being supplied hereunder by one party to the other under each service schedule, and under any other transaction between the TVA system and Company's system from time to time arranged, shall be the amounts scheduled by the parties' operating representatives. The parties shall operate their respective systems in such a manner as to make the net deliveries of power and energy as nearly equal as practicable to the net scheduled deliveries. Any differences between net scheduled deliveries and actual net deliveries shall be accounted for according to procedures for loop operation as approved by the Operating Committee. It shall be the responsibility of the Operating Committee to establish practices with respect to holding deviations from scheduled deliveries to a minimum.

4.7 Interconnections With Third parties. The parties hereto will cooperate with each other and with other interconnected systems in the development of arrangements designed to insure the continued delivery of power and energy herein contemplated and to provide a basis for accounting for power flows between the parties through the systems involved.

ARTICLE 5

DELIVERY POINTS AND METERING

5.1 Delivery Points. Unless otherwise agreed, the delivery points for power and

energy hereunder shall be the Interconnection Points described in Section 2.1 hereof.

5.2 Metering and Metering Facilities. The power and energy supplied over the Direct Interconnection Points hereunder shall be measured at the metering points now and hereafter established for the respective Direct Interconnection Points. Company shall, at its own expense, maintain its existing meters for the Green River 161-kV Interconnection Point which now exists and shall provide, install, own, and maintain loss compensators on said meters necessary to determine the amounts of power and energy delivered to each party at the Green River 161-kV Interconnection Point. Each party shall have the right to install, at its own expense, check-metering equipment in suitable space provided without charge by the party owning the metering equipment. Should either party's meters fail to register for any period, the deliveries during such period shall be determined from the other party's meters or from the best information available.

5.3 Inspecting and Testing of Meters. Each party shall, at its own expense make periodic tests and inspections of its metering equipment at intervals agreed upon by the Operating Committee to maintain a high standard of accuracy. If requested by either party, the other party shall make additional tests and inspections of its metering equipment; if such additional tests show that the measurements are accurate within one percent fast or slow, the cost of making such additional tests or inspections shall be paid by the party requesting such additional tests or inspections. Each party shall give the other party reasonable notice of test so that it may have a representative present if it wishes.

5.4 Accounting Adjustments. If any test or inspections under section 5.3 of this agreement show either party's measurements to be inaccurate by more than one percent, an offsetting adjustment shall be made in the parties' statements for any known or agreed period of inaccuracy; in the absence of such knowledge or agreement, the adjustment shall be limited to the 30-day period prior to the date of such tests. Any metering equipment found to be inaccurate by more than one percent shall be promptly replaced, repaired, or readjusted by the party owning such defective metering equipment.

ARTICLE 6

RECORDS AND STATEMENTS

6.1 Records. Each party shall keep such records as will provide a clear history of the various deliveries of electric energy made by one party to the other and of the hourly integrated demands in kilowatts delivered by one party to the other. In maintaining such records, the parties shall effect such segregations and allocations of capacity and energy into classes representing the various services and conditions as may be needed to effect settlements under this Agreement. Upon request, copies of any or all pertinent records shall be delivered promptly to the other party.

6.2 Statements. As promptly as practicable after the first day of each calendar month, the parties shall cause to be prepared a statement setting forth the capacity and energy transactions between the parties during the preceding month in such detail and with such segregations as may be needed for operating records or for settlements under the provisions of this Agreement. Any such statement prepared by one party shall be made available to the other party.

ARTICLE 7

MONETARY SETTLEMENTS

7.1 Billing and Payments. Monthly bills for amounts owed by one party to the other shall be rendered by the party to whom a net payment is due, and such bills 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 tenth day following receipt of the bill, whichever date is later. To any amount due and unpaid after the due date there shall be added a charge of one percent, and an additional one percent of the then unpaid amount shall be added for each full succeeding thirty-day period until the amount is paid in full.

ARTICLE 8

OPERATING COMMITTEE

8.1 Appointment of Operating Committee. In order that the advantages to be derived hereunder may be realized by the parties to the fullest practicable extent, the parties shall establish a committee of authorized representatives to be known as the Operating Committee which shall coordinate the operations between the systems. Each of the parties shall designate, in writing delivered to the other party, 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). Such representatives and alternates shall be persons familiar with the generating, transmission, and substation facilities of the system of the party by which they have been so designated, and each shall be fully authorized to cooperate with the other representatives (or alternate) from time to time as the need arises, subject to the declared intentions of the parties herein set forth and to the terms hereof and the terms of any other agreements then in effect between the parties. The operating matters subject to coordination under this section shall include the following:

- (a) Matters pertaining to the maintenance of the generating and transmission facilities of the parties;

- (b) Matters pertaining to the control of energy flow, kilovar flow, voltage, and other similar matters bearing upon the satisfactory synchronous operation of the systems of the parties;
- (c) Such other matters not specifically provided for herein upon which cooperation are necessary in order to carry out the purpose and provisions of this agreement and the transaction herein contemplated.

ARTICLE 9

MISCELLANEOUS PROVISIONS

9.1 Continuity of Service. Each party shall exercise due diligence and reasonable care and foresight to maintain continuity of service in the delivery and receipt of energy as provided under this agreement, but neither party shall be considered in default with respect to any obligation hereunder if prevented from fulfilling such obligation by reason of Uncontrollable Forces. The term "uncontrollable forces" shall be deemed, for the purposes of this agreement, to mean earthquake, storm, lightning, flood, backwater caused by flood, fire, epidemic, accident, failure of facilities, war, riot, civil disturbance, strike, labor disturbance, restraint by court or public authority or, other force or event reasonably beyond the control of the party affected which such party could not have avoided by exercise of reasonable diligence and care. Any party unable to fulfill any obligation by reason of uncontrollable forces shall exercise all reasonable diligence to eliminate or overcome such disability with reasonable dispatch.

9.2 Access to Property and Facilities. For the purpose of inspection and reading of meters, checking of records, and all other pertinent matters, duly authorized representatives of each party shall have access to all property and facilities of the other party used in connection with the performance of this agreement.

9.3 Right to Maintain Suit. Either party shall have the right to maintain suit at any time for any loss or claim that may previously have occurred or arisen hereunder without waiting until expiration of the term of this agreement or of any service schedule hereunder and without losing or waiving any right to maintain suit for subsequent losses or claims occurring or arising during the term of this agreement, and recovery in any such suit shall not be deemed as splitting the cause of action.

9.4 Waivers. Any waiver at any time by either party hereto of its rights with respect to the other party or with respect to any other matter arising in connection with this agreement shall not be considered a waiver with respect to any subsequent default or matter.

9.5 Notices. Any written notice or demand required or authorized by this

agreement shall be properly given if mailed, postage prepaid, to the Manager of Power, Tennessee Valley Authority, Chattanooga, Tennessee 37401, on behalf of TVA, or to the President, Louisville Gas and Electric company, P. O. box 354, Louisville, Kentucky 40201, on behalf of Company. The designation of the person to be so notified or the address of such person may be changed at any time and from time to time by either party by similar notice.

9.6 Regulatory Authorities. This agreement is made subject to the regulatory jurisdiction of any governmental authority or authorities which may have jurisdiction in the premises.

9.7 Restriction of Benefits. No member of or delegate to Congress or resident commissioner or agent or employee of TVA shall be admitted to any share or part of this agreement or to any benefit to arise therefrom. Nothing, however, contained in this section 9.7 shall be construed to extend to holders of securities of any of the parties or to any incorporated company if the agreement be for the general benefit of such corporation or company.

9.8 Successors and Assigns. This agreement shall inure to the benefit of and be binding upon, the successors and assigns of the respective parties hereto, but it shall not be assignable by either party without the written consent of the other party.

ARTICLE 10

EXISTING AGREEMENTS

10.1 Agreements Superseded. This agreement, upon becoming effective shall supersede and cancel any and all other agreements relating to the purchase, sale or interchange of power in effect between TVA and Company except the Tri-party Agreement referred to in section 10.2 hereof; provided, however, that such cancellation shall not in any manner affect any amounts due one party by the other, or any right or claim to damages which either party may have against the other, arising out of such agreements due to actions or transactions thereunder prior to the time of termination.

10.2 Tri-party Agreement. Agreement TV-20513A, dated September 23, 1957, among TVA, Company, and the Cincinnati Gas & Electric Company, shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective duly authorized officers.

ATTEST:

TENNESSEE VALLEY AUTHORITY

By _____
Assistant Secretary

By _____
General Manager

ATTEST:

LOUISVILLE GAS AND ELECTRIC
COMPANY

By _____
Title: Secretary

By _____
Title: President

SERVICE SCHEDULE A

EMERGENCY ASSISTANCE

Under Agreement dated as of July 1, 1977
(as supplemented and amended)

Between

Tennessee Valley Authority

And

Louisville Gas and Electric Company

0.1 This Service Schedule A is established under and as a part of the Interconnection Agreement dated July 1, 1977, between Tennessee Valley Authority (TVA) and Louisville Gas and Electric Company (Company) as supplemented and amended by the First Supplemental Agreement dated as of January 15, 1980, and the Second Supplemental Agreement dated as of July 2, 1981.

ARTICLE 1 - PURPOSE

1.1 The purpose of this Service Schedule A is to provide for emergency assistance between the TVA system and Company's system and to establish the terms and conditions of such emergency assistance.

ARTICLE 2 - TERM

2.1 This Service Schedule A shall become effective as of July 2, 1981, and shall continue throughout the remaining term of the Interconnection Agreement unless superseded on any earlier date by a new service schedule or unless terminated by either party giving at least 3 months' prior written notice to the other party of the designated date of such termination.

ARTICLE 3 - SUPPLY OF EMERGENCY ASSISTANCE

3.1 It is the intent of the parties that the emergency conditions under which one party is entitled to call for emergency assistance and the other party is obligated, to the extent hereinafter provided, to supply emergency assistance, are any temporary conditions on the system of the party affected arising from causes beyond its control

which interfere with or jeopardize its ability to meet adequately the requirements of its system.

3.2 If an emergency condition should occur on the system of one of the parties hereto (affected party), the other party (supplying party) shall, upon request, supply energy (hereinafter called "emergency energy") to the affected party in the amount requested, subject, however, to the following provisions of this Article 3:

- (a) Neither party shall be obligated to deliver emergency energy to the other party if, in its sole judgment, it cannot deliver such energy without interposing a hazard to its operations or without impairing or jeopardizing its ability to meet its other obligations to supply power or energy.
- (b) If at the time of any such request the supplying party is furnishing or has outstanding any request to furnish contractual emergency assistance to a third party, its commitment to supply emergency energy hereunder shall be limited to such amount of energy as in its judgment it can supply without jeopardizing its ability to meet its other obligations to supply power or energy and any obligation it has to continue or commence such emergency assistance to the third party; provided, however, that, if the affected party hereunder so requests, the supplying party shall undertake to discontinue or curtail, as soon as and to the extent practicable in its judgment, such emergency assistance to such third party except to the extent that it is precluded from doing so by the terms of any arrangements under which such emergency assistance is being furnished.
- (c) Neither party shall be obligated to supply any emergency energy hereunder for a period in excess of 48 consecutive hours during any single emergency.
- (d) If either party hereto obligates itself in any contract or other arrangement entered into after the effective date of this Service Schedule A to supply emergency energy to a third party for a period longer than 48 consecutive hours during any single emergency, any emergency energy delivered thereunder after the first 48 hours for any one emergency shall not be deemed to be "emergency assistance to a third party" within the meaning of that phrase as used in subsection (b) above.

ARTICLE 4 - SETTLEMENT

4.1 Emergency energy supplied hereunder shall be settled for either by the return of equivalent energy or, at the option of the supplying party (which option shall be exercised at the time of the request), by payment to the supplying party.

4.11 Energy Return: If equivalent energy is returned, it shall be returned at times when the load conditions of the party which furnished the emergency energy are similar to conditions on its system at the time the emergency energy was delivered, or if such party elects to have equivalent energy returned under different conditions, it shall be returned in mutually satisfactory amounts which will compensate for the difference in conditions. Notwithstanding the foregoing, the affected party shall, upon request of the supplying party, make payment to the supplying party for energy originally designated to be returned if such energy is not returned as herein provided within one year. For accounting and payment purposes, each kilowatt-hour which has been returned shall be deemed to have been returned in the order in which it was supplied.

4.12 Payment:

- (a) For energy generated on the supplying party's system, the out-of-pocket cost (as defined in section 3.2 of Article 3 of the Interconnection Agreement) to the supplying party of generating such energy on its own system plus 10 percent of such cost or a price otherwise mutually agreed upon for such energy.
- (b) For energy purchased by the supplying party from a third party, the out-of-pocket cost (as defined in section 3.2 of Article 3 of the Interconnection Agreement) to the supplying party such energy plus 2.0 mills per kilowatt-hour if Company is the supplying party. If TVA is the supplying party, Company shall pay to TVA TVA's cost of the power purchased from another system plus (1) 2.9 mills per kilowatt-hour to cover transmission system expenses, (2) unless transmission system losses are settled for by deducting 3 percent of the power purchased by TVA for delivery to Company, an amount for transmission system losses determined by multiplying (i) 3 percent of the energy supplied by TVA to Company by (ii) the highest cost source of power, in mills per kilowatt-hour, being utilized by TVA in supplying its system requirements contemporaneously with the supply of power to Company, and (3) one mill per kilowatt-hour for unquantifiable expenses.

Either party may upon 60 days' written notice to the other

party adjust the above charges for transmission system expenses and losses to reflect changes in its transmission system expense or losses.

4.2 Monthly statements for energy transactions hereunder, except those settled by the return of equivalent energy, shall be rendered by the party to whom net settlement for the month is due and shall show the gross emergency assistance transactions in each direction and the respective bases for settlement. It shall be a responsibility of the Operating Committee to establish procedures for current exchange of data adequate to enable independent computation of the monthly statements simultaneously by each party. Such statements shall otherwise be subject to section 6.2 and 7.1 of the Interconnection Agreement.

ATTEST:

TENNESSEE VALLEY AUTHORITY

By _____
Assistant Secretary

By _____
General Manager

ATTEST:

LOUISVILLE GAS AND ELECTRIC COMPANY

By _____
Title: Secretary

By _____
Title: President

[End of Schedule]

SERVICE SCHEDULE B

ENERGY INTERCHANGE

Under Agreement dated as of July 1, 1977
(as supplemented and amended)

Between

Tennessee Valley Authority

And

Louisville Gas and Electric Company

ARTICLE 1 - TERM

1.1 This Service Schedule B, established under and as a part of the Interconnection Agreement dated July 1, 1977, between Tennessee Valley Authority (TVA) and Louisville Gas and Electric Company (Company), as supplemented and amended by the First Supplemental Agreement dated as of January 15, 1980, and the Second Supplemental Agreement dated as of July 2, 1981, shall become effective as of July 2, 1981, and shall continue throughout the remaining term of the Interconnection Agreement unless superseded on any earlier date by a new service schedule or unless terminated by either party giving at least 3 months' prior written notice to the other party of the designated date of such termination.

ARTICLE 2 - PURPOSE

2.1 This schedule provides for and establishes the terms and conditions of energy interchange between the TVA system and Company's system to promote the economy of electric power supply or to achieve efficient utilization of production capacity.

2.2 Each party will undertake, upon the request of the other party, to supply energy hereunder to such other party as scheduled by the operating representatives up to the capacity of the power sources the supplying party determines it has available for such supply, and to the extent that, in the judgment of the supplying party, (a) such supply will not be burdensome to the supplying party and will not result in impairment of or jeopardy to service in its system, (b) adequate transmission capacity is available in system interconnections after allowing for other transactions simultaneously scheduled, and (c) no opportunities are available for interchange with other systems which offer the supplying party a better market for the output of the available power sources. Each party shall be the judge of the capacity available for energy interchange supply from its system and of commitments to other systems which may have priority over energy supply

hereunder. The Operating Committee shall, periodically or upon request of either party, review the methods and bases used by each party to determine costs and values of energy hereunder.

ARTICLE 3 - ECONOMY INTERCHANGE

3.1 "Economy energy" shall mean electric energy which the supplying party can produce and deliver to or for the account of the receiving party at an incremental cost which is lower than the incremental expense the receiving party would incur by generating or obtaining equivalent energy from other available sources.

3.2 A party is entitled to receive economy energy hereunder only to the extent that such party has an alternative source of capacity concurrently available to it that would otherwise be used. In order that the advantages to be derived hereunder may be realized by the parties to the fullest extent practicable, the operating representatives of each party will, from time to time upon request of the other party, furnish information with respect to (a) the cost, as hereinafter defined, of economy energy it is willing to make available and (b) the value, as hereinafter defined, of economy energy it can utilize.

3.3 The cost of economy energy hereunder shall mean the incremental expense that the supplying party would incur in supplying economy energy, which would be the supplying party's out-of-pocket cost of generating and supplying the energy, as determined in accordance with section 3.2 of Article 3 of the Interconnection Agreement. Similarly, the value of economy energy hereunder shall mean the incremental expense which the receiving party would incur if the economy energy were not to be received, which would be the receiving party's out-of-pocket cost of generating and supplying the energy, or of purchasing and supplying it from another source, said out-of-pocket cost to be determined in accordance with section 3.2 of Article 3 of the Interconnection Agreement.

3.4 Insofar as practicable, the supplying party in supplying economy energy hereunder will utilize for such purpose those power sources available at the time which have the lowest out-of-pocket cost and which are not otherwise needed in supplying its other load obligations.

3.5 Each party will, insofar as is consistent with satisfactory and convenient operation of its system, avail itself of opportunities to utilize economy energy available from the other party whenever and to the extent that mutual savings may be effected thereby, provided, that each party shall be the judge as to the conditions under which it is practicable and economical for it to supply or receive such energy.

ARTICLE 4 - NONREPLACEMENT ENERGY

4.1 "Nonreplacement energy" shall mean energy which the supplying party may be able to make available from its own generation or from other available sources but which would not displace generation or other energy sources of the receiving party.

4.2 It shall be the responsibility of the party desiring to receive nonreplacement energy to initiate the delivery and receipt thereof. Insofar as practicable, the party supplying nonreplacement energy shall utilize the available sources that have the lowest out-of-pocket cost for energy as defined in section 3.3 hereof and which are not otherwise needed in supplying its other load obligations.

ARTICLE 5 - BASIS OF SETTLEMENT

5.1 For each transaction hereunder, the settlement shall be agreed upon by the operating representatives at the time of scheduling.

5.2 The basis of settlement for economy energy hereunder shall be one-half the sum of the cost incurred by the supplying party in delivering economy energy and the value to the receiving party of the economy energy (each determined in accordance with section 3.3 hereof).

5.3 The basis of settlement for nonreplacement energy hereunder shall be:

- (1) for energy generated on the supplying party's own system,
 - (a) 110 percent of the supplying party's out-of-pocket cost of generating and supplying such energy as determined in accordance with section 3.2 of Article 3 of the Interconnection Agreement or a price otherwise mutually agreed upon for such energy, or
 - (b) at the option of the supplying party, the return of such energy; and
- (2) for all such energy purchased by the supplying party from a third party, the out-of-pocket cost (as defined in section 3.2 of Article 3 of the Interconnection Agreement) to the supplying party of such energy plus 2.0 mills per kilowatt-hour if Company is the supplying party. If TVA is the supplying party, Company shall pay to TVA TVA's cost of the power purchased from another system plus,

- (a) 2.9 mills per kilowatt-hour to cover transmission system expenses,
- (b) unless transmission system losses are settled for by deducting 3 percent of the power purchased by TVA for delivery to Company, an amount for transmission system losses determined by multiplying (i) 3 percent of the energy supplied by TVA to Company by (ii) the highest cost source of power, in mills per kilowatt-hour, being utilized by TVA in supplying its system requirements contemporaneously with the supply of power to Company,
- (c) one mill per kilowatt-hour for unquantifiable expenses.

Either party may upon 60 days' written notice to the other party adjust the above charges for transmission system expenses and losses to reflect changes in its transmission system expenses or losses.

If settlement is to be made by return of energy, the operating representatives shall work out arrangements for such form of settlement.

5.4 Statements, billings, and payments for transactions under the terms of this Service Schedule B shall be made in accordance with sections 6.2 and 7.1 of the Interconnection Agreement.

ATTEST:

TENNESSEE VALLEY AUTHORITY

By _____
Assistant Secretary

By _____
General Manager

ATTEST:

LOUISVILLE GAS AND ELECTRIC
COMPANY

By _____
Title: Secretary

By _____
Title: President

[End of Schedule]

SERVICE SCHEDULE C

SHORT TERM POWER

Under Agreement dated as of July 1, 1977
(as supplemented and amended)

Between

Tennessee Valley Authority

And

Louisville Gas and Electric Company

0.1 This Service Schedule C is established under and as a part of the Interconnection Agreement dated July 1, 1977, between Louisville Gas and Electric Company (Company) and Tennessee Valley Authority (TVA), as supplemented and amended by the First Supplemental Agreement dated as of July 2, 1981.

ARTICLE 1 - PURPOSE

1.1 The purpose of this Service Schedule C is to provide arrangements for Short Term Power transactions between the parties.

ARTICLE 2 - TERM

2.1 This Service Schedule C shall become effective as of July 2, 1981, and shall continue throughout the remaining term of the Interconnection Agreement unless superseded on any earlier date by a new service schedule or unless terminated by either party giving at least 3 months' prior written notice to the other party of the designated date of such termination.

ARTICLE 3 - SERVICES TO BE RENDERED

3.1 Either party may, by giving the other party notice, reserve from the other such electric power (herein called "Short Term Power") as the other party may at such time have and is willing to make available as Short Term Power. Such reservation shall not extend for more than 26 weeks, nor for less than one calendar week if such reservation begins with Sunday, nor for less than the remainder of the calendar week if it begins on a day other than Sunday; provided, however, the parties may mutually agree

upon a reservation of Short Term Power for a less number of days. In all cases the party asked to supply Short Term Power shall be the sole judge as to the amounts and periods that it has electric power available that may be reserved by the other party as Short Term Power.

3.2 The party desiring Short Term Power shall notify the other party (supplying party) of the amount of power it wishes to reserve, the period for which it wants to reserve such power, and the schedule for delivery of the energy associated with such power. The supplying party shall promptly advise the other party as to the extent to which the supplying party would be willing to reserve and deliver the power so requested and as to the terms and conditions that would apply to the power and energy which it would be willing to reserve and deliver hereunder. Representatives of the parties may make initial arrangements orally as to the amount of Short Term Power reserved, the schedules of availability, use, and delivery of such power, and the rates and charges applicable thereto, but such arrangements shall be confirmed in writing within three working days, if requested by either party, by authorized representatives of the parties hereto.

3.3 In the event conditions arise during the period that Short Term Power has been reserved as above provided which could not have been reasonably foreseen at the time said power was reserved and such conditions would cause the delivery of Short Term Power to be burdensome to the supplying party, said party has the right to request the other party to reduce its take of such power to any amount specified and for any portion of such period. The party so requested shall promptly comply with the request of the other party.

ARTICLE 4 - COMPENSATION

4.1 Payments for the supply of Short Term Power and associated energy shall be predicated upon the following rates:

4.11 Demand Charge: Such price as conditions warrant and as is mutually agreed upon but in no case less than \$1.05 per kilowatt of billing demand for each calendar week of Short Term Power reservations and/or one-fifth of the weekly demand charge per kilowatt of billing demand per day for each day of Short Term Power reservation (or portion thereof) of less than a full calendar week. In the event the amount of Short Term Power is reduced upon request of the supplying party, the demand charge for the period during which such reduction is made shall be reduced by one-fifth of the weekly demand charge per kilowatt of reduction for each day or portion thereof during which any reduction is in effect; provided, however, such reduction shall not exceed the weekly demand charge per kilowatt for that particular weekly period.

The Short Term Power billing demand for any period shall be the number of kilowatts reserved for such period as Short Term Power.

In the event the supplying party, with the consent of or at the request of the other party, obtains capacity from a third party specifically for the purpose of supplying Short Term Power hereunder, the demand charge for such Short Term Power supplied shall be equivalent to the demand charge which the supplying party must pay to obtain such capacity from the third party.

4.12 Energy Charge:

- (1) For energy generated on the supplying party's system, the out-of-pocket cost, as determined in accordance with Section 3.2 of Article 3 of the Interconnection Agreement, to the supplying party of generating such energy on its own system plus 10 percent of such cost or a price otherwise mutually agreed upon for such energy.
- (2) For energy purchased by the supplying party from a third party, the out-of-pocket cost (as determined in accordance with section 3.2 of Article 3 of the Interconnection Agreement) to the supplying party of such energy plus 2.0 mills per kilowatt-hour if Company is the supplying party. If TVA is the supplying party, Company shall pay to TVA TVA's cost of the power purchased from another system plus (a) 2.9 mills per kilowatt-hour to cover transmission system expenses, (b) unless transmission system losses are settled for by deducting 3 percent of the power purchased for TVA for delivery to Company, an amount for transmission system losses determined by multiplying (i) 3 percent of the energy supplied by TVA to Company by (ii) the highest cost source of power, in mills per kilowatt-hour, being utilized by TVA in supplying its system requirements contemporaneously with the supply of power to Company, (c) the amount of TVA payments in lieu of taxes attributable to the transaction, and (d) one mill per kilowatt-hour for unquantifiable expenses.

Either party may upon 60 days' written notice to the other party adjust the above charges for transmission system expenses and losses to reflect changes in its transmission system losses or expenses.

- (3) The energy charges in (1) and (2) shall be applied to the kilowatt-hours scheduled for delivery and delivered by the

TENNESSEE VALLEY AUTHORITY (TVA)

BACKGROUND

TVA is a unique federal corporation established by Congress in 1933. It has a service area that covers Tennessee and parts of Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Virginia.

TVA supplies electricity through its 160 municipal and cooperative power distributors to more than 7 million people in an 80,000-square-mile region.

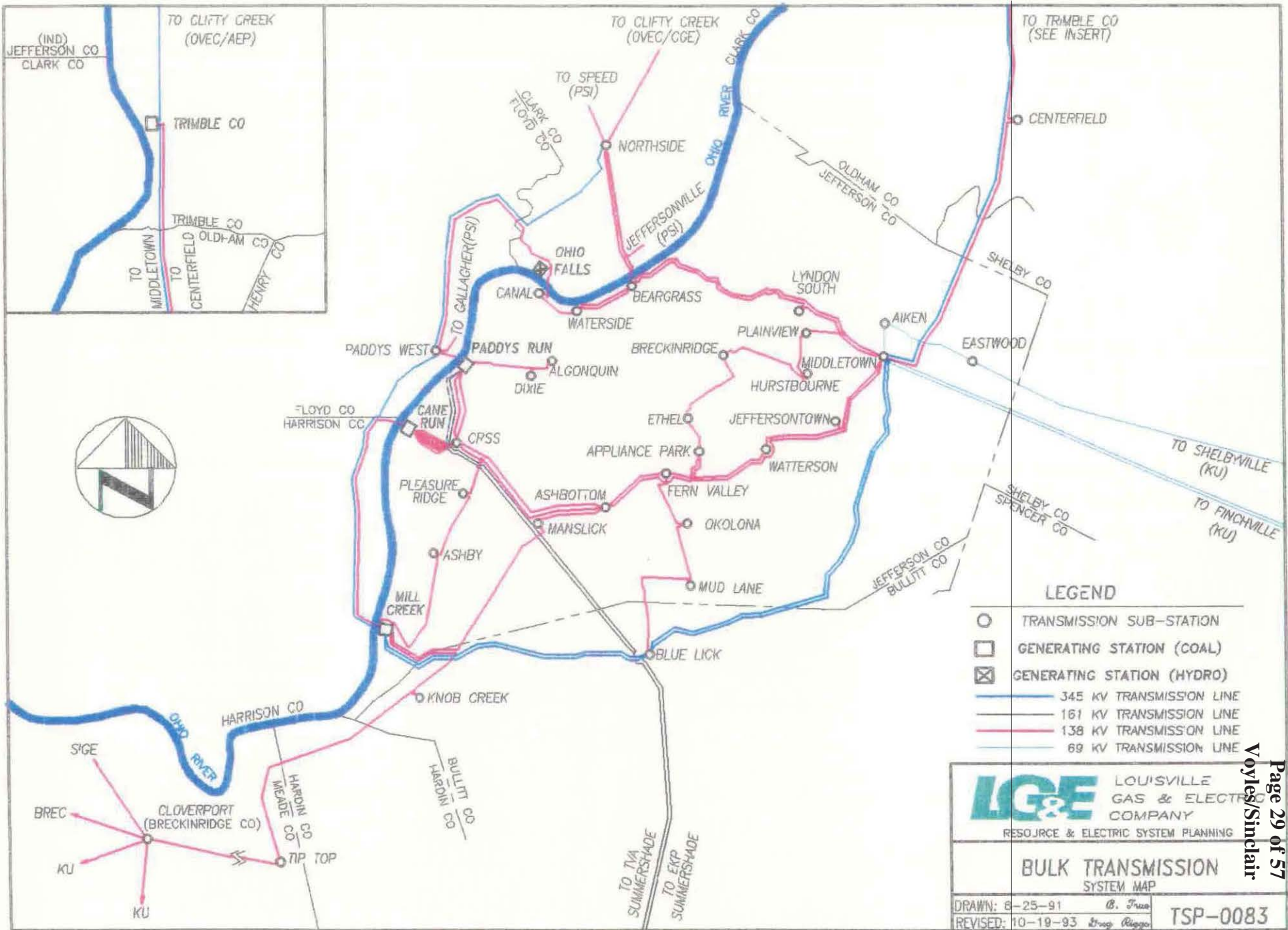
Besides generating electricity, TVA manages the Tennessee River, the nation's fifth largest river system, operates a national laboratory devoted to fertilizer and environmental research, and works with state and local governments in resource development programs.

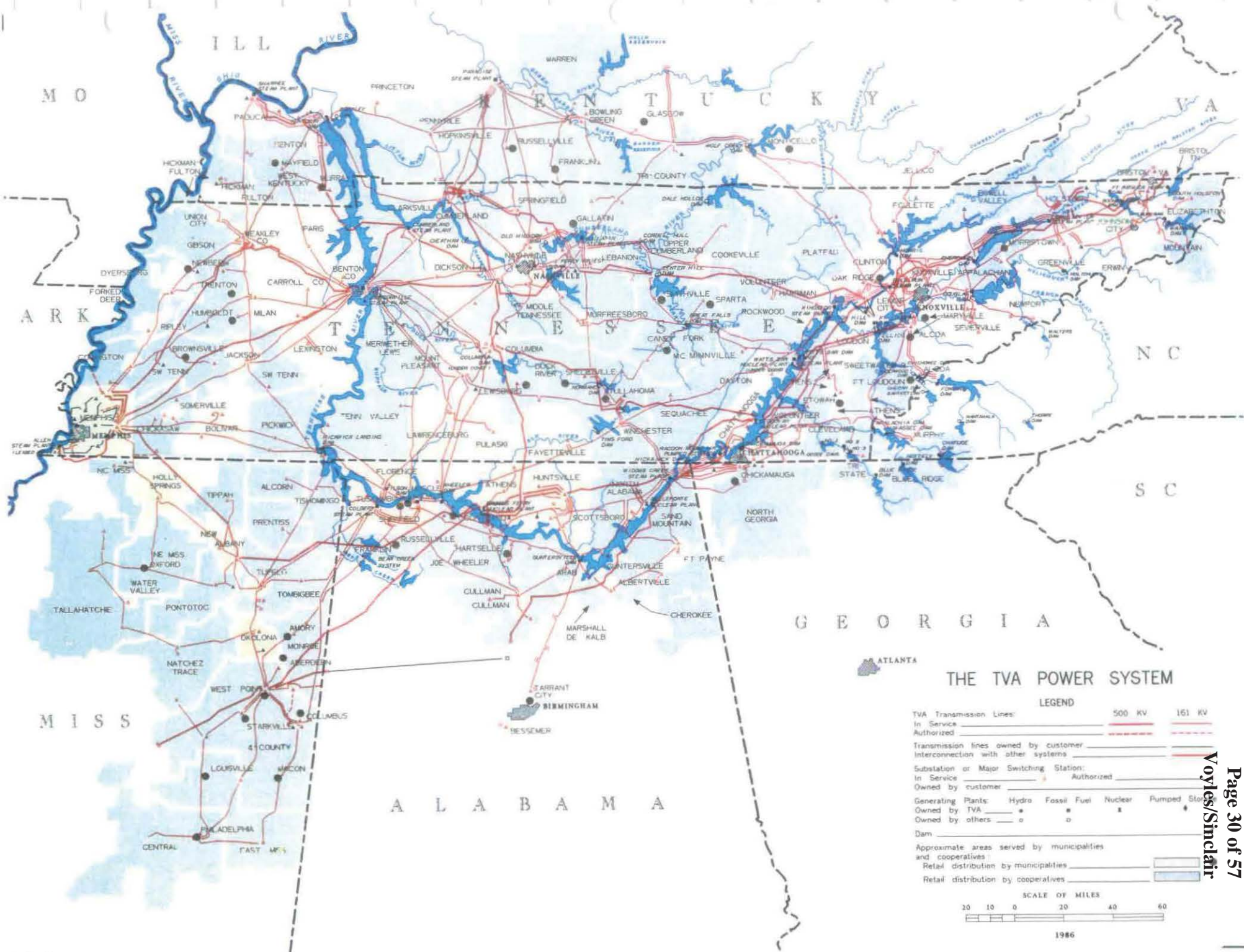
TVA is headed by a three-member Board of Directors appointed by the President and confirmed by the Senate. Directors are appointed for staggered, nine-year terms, and one Director is named Chairman by the President.

MAPS

TVA - Power System Map

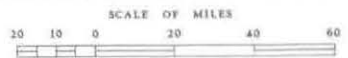
LG&E - Bulk Transmission System Map





THE TVA POWER SYSTEM

- LEGEND**
- TVA Transmission Lines:
 - In Service: ——— 500 KV - - - - 161 KV
 - Authorized: - - - -
 - Transmission lines owned by customer: ———
 - Interconnection with other systems: ———
 - Substation or Major Switching Station:
 - In Service: ●
 - Authorized: ○
 - Generating Plants:
 - Hydro: ■
 - Fossil Fuel: ●
 - Nuclear: □
 - Pumped Storage: ▲
 - Owned by TVA: ●
 - Owned by others: ○
 - Dam: ■
 - Approximate areas served by municipalities and cooperatives:
 - Retail distribution by municipalities:
 - Retail distribution by cooperatives:



1986

Attachment to Response to AG-1 Question No. 25(a)
 Page 30 of 57
 Voyles/Sinclair

INTERCHANGE AGREEMENT

Among

TENNESSEE VALLEY AUTHORITY

And

THE CINCINNATI GAS & ELECTRIC COMPANY

And

LOUISVILLE GAS AND ELECTRIC COMPANY

Dated September 23, 1957

(Conformed Copy Issued April 12, 1996)

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THIS AGREEMENT, made and entered into as of September 23, 1957, by and among TENNESSEE VALLEY AUTHORITY (herein called "TVA"), a corporation created and existing under and by virtue of the Tennessee Valley Authority Act of 1933 as amended, THE CINCINNATI GAS & ELECTRIC COMPANY (herein called "Cincinnati Company"), an Ohio corporation, and LOUISVILLE GAS AND ELECTRIC COMPANY (herein called "Louisville Company"), a Kentucky corporation;

W I T N E S S E T H :

WHEREAS, the respective generating and transmission systems of Cincinnati Company and Louisville Company, on the one hand, and of Louisville Company and TVA on the other hand are interconnected with each other at established interchange points;

WHEREAS, Cincinnati Company and TVA have been delivering to, and receiving from, each other surplus energy available for interchange purposes on their respective systems through the use of the interconnections with and over the transmission facilities of Louisville Company;

WHEREAS, Cincinnati Company and TVA, hereinafter referred to as principal parties, wish to enter into arrangements for the interchange of energy for economy, diversity, and emergency purposes to their mutual benefit in the operation of their respective systems;

WHEREAS, Louisville Company joins herein to the extent necessary to permit the contemplated interchange transactions between Cincinnati Company and TVA to be accomplished over and through the use of Louisville Company's facilities, subject to the terms and conditions hereinafter stated;

NOW, THEREFORE, for and in consideration of the mutual covenants herein contained the parties hereto mutually covenant and agree as follows:

ARTICLE I

TERM

1. This contract shall be effective as of September 23, 1957, and shall continue in effect for an initial term ending June 30, 1967, and from year to year thereafter until terminated by any Party upon at least one (1) year's written notice.

ARTICLE II

FACILITIES

1. The systems of Cincinnati Company and TVA are interconnected with and over the transmission facilities of Louisville Company as follows: Cincinnati Company is connected to Louisville Company by a 132-kV transmission line owned and operated by Cincinnati Company and its wholly owned subsidiary, Miami Power Corporation, from Cincinnati Company's Miami Fort generating station to a point near Madison, Indiana, from which point Louisville Company, through its wholly owned subsidiary, Ohio Valley Transmission Corporation, owns and operates a 132-kV transmission line to its Paddys Run Substation. Louisville Company is connected to TVA by a 154-kV double circuit transmission line owned and operated by Louisville Company from Paddys Run to a point near Canmer, Kentucky, and by TVA from there to its South Nashville Substation (via Summer Shade).

2. The system interchange point for purposes of this agreement shall be as follows:

A. The 132-kV bus of Louisville Company at Paddys Run or

B. In lieu of the point described in A, such other point on Louisville Company's system as may hereafter be agreed upon between the parties hereto.

3. Cincinnati Company, Louisville Company and TVA will maintain and continue in operable condition the facilities on their systems required for the interconnection referred to in sections 1 and 2 above.

ARTICLE III

TOLLS APPLICABLE TO ALL ENERGY TRANSACTIONS

1. The rate of toll charged by Louisville Company on all energy transactions between TVA and Cincinnati Company shall be as follows:

a) up to 2.50 mills per kilowatthour (but the total charge in any one day shall be no more than the product of \$0.04 times the highest amount in kilowatts scheduled in any hour during the day; and the total charge in any one week

shall be no more than the product of \$0.22 times the highest amount in kilowatts scheduled in any hour during the week).

- b) 1 mill per kilowatthour for difficult to quantify energy-related costs, applicable only for transactions of less than one year.
- c) The cost of any quantifiable transmission losses that would not have been incurred if such transaction had not been made.

This toll shall be applied to the kilowatthours of energy scheduled between TVA and Cincinnati Company. Tolls on all energy transactions between TVA and Cincinnati Company shall be charged by Louisville Company to TVA, and TVA and Cincinnati Company shall arrange for appropriate reimbursement to TVA by Cincinnati Company of such tolls under procedures agreed to from time to time between the two parties.

2. Louisville Company may, upon 60 days' written notice to the other parties, and upon acceptance for filing by the Federal Energy Regulatory Commission in behalf of Louisville Company, adjust the above toll charge for transmission system expenses and losses to reflect changes in its transmission system expense or losses.

ARTICLE IV

ECONOMY INTERCHANGE ENERGY

1. "Economy Energy" shall be defined as all fuel-produced energy which (1) the supplying Party, in its sole judgment, can generate or obtain in excess of the needs of its system and for which it has no better market elsewhere, and (2) the receiving Party, in its sole judgment, can use economically to replace fuel-produced energy it could otherwise generate or obtain from other systems.

2. Each principal Party agrees to deliver and the other Party agrees to receive, as of the system interchange point, Economy Energy within the limitations of the capacity of the facilities available for such delivery and receipt of energy; provided, however, that the supplying Party shall have the right to refuse to deliver Economy Energy whenever and to the extent that, in its sole judgment, (1) it becomes necessary for it to conserve its reserves of fuel or (2) the basis of settlement for such energy, as provided below, would yield an insufficient margin.

3. The Economy Energy delivered and received hereunder shall be scheduled and accounted for as of the system interchange point. Schedules for the delivery and receipt of Economy Energy shall be established from time to time by the respective operating representatives of the principal parties, and each such Party shall endeavor to keep the other informed as to the energy that could be supplied or replaced.

4. The receiving Party shall pay the supplying Party for Economy Energy delivered and received hereunder at a rate per kilowatt-hour such that the net savings are divided as equally as practicable between the principal parties. The items to be considered and the method of computation in determining the net savings shall be mutually agreed upon by the authorized representatives of the principal parties.

ARTICLE V

DIVERSITY CAPACITY AND ENERGY

1. When diversity exists in the system loads of the principal parties, and they agree, capacity and energy will be interchanged so that the fullest practicable advantage may be taken of such diversity in the reduction of the capacity operated on their systems, and the net operating savings resulting from such interchange shall be divided between them as equally as is practicable by whatever method of division they agree upon.

ARTICLE VI

EMERGENCY ASSISTANCE

1. Cincinnati Company and TVA agree that, in the event of a breakdown or other emergency in or on the system of either of said parties involving either sources of power or transmission facilities, or both, and impairing or jeopardizing the ability of the Party suffering the emergency to meet the loads on its system, the other Party will deliver to said Party energy up to the limit of the available capacity of the transmission facilities used for transactions under this agreement; provided, however, that neither Party shall be obligated to deliver emergency energy in excess of the amount of energy which, in its sole judgment, it can deliver without interposing a hazard to its property or operations or without impairing its ability to meet the other load requirements of its system; and provided further that neither Party shall be obligated to supply emergency energy to the other for a period in excess of twenty-four (24) hours during any single emergency.

At the option of the Party who supplied the emergency energy the receiving Party shall pay for emergency energy delivered to it either (a) by returning such energy in kind or (b) at some fixed rate per kilowatt-hour plus an allowance for losses or at incremental cost plus an allowance for losses, plus 20% whichever is the greater. The fixed rate and items to be considered and method of computation in determining the incremental cost in (b) above shall be mutually agreed upon from time to time by the authorized representatives of the principal parties. If returned in kind the energy shall be returned under conditions similar to the conditions under which the power was supplied and at the ratio of 1.15 to 1 to compensate for losses, or if said supplying Party elects to have it returned under different conditions, it shall be returned in such amounts as to compensate for the difference in conditions and for losses. The Party suffering the emergency shall pay any tolls applicable to the delivery of emergency energy and to the delivery of any energy returned in making payments therefor in kind, in accordance with provisions as set forth in Article III.

ARTICLE VII

MISCELLANEOUS PROVISIONS

1. All energy to be transmitted by Louisville Company hereunder shall be scheduled with Louisville Company in advance. For reservations of one day or more duration, the scheduling of energy must be confirmed by 12:00 Noon the prior day. In order to manage the operation of its transmission system, TVA and Cincinnati Company will notify Louisville Company of interchange schedule changes. Prior to schedule changes becoming effective, the parties will be provided as much advance notice of scheduling changes as is possible. Requests for transmission service hereunder shall be queued with similar non-firm transactions on a first-come, first-served basis. Accordingly, requests for service hereunder shall be assigned a priority according to the date on which the request for such service is received by Louisville Company, with the earliest request receiving the highest priority.

2. Cincinnati Company and TVA recognize that there may be times when either of them may request from the other a short-term supply of energy other than provided for above. In the event of such request by either party, and if in the sole judgment of the other party energy is or will be available on its system for such purpose, the said parties will endeavor to agree upon the terms and conditions under which such energy will be furnished. Temporary arrangements for individual transactions may be made by the operating representatives within the limits of the authority delegated to them; provided, however, that such arrangements shall be confirmed in writing and that no commitment involved in any arrangement so made at any time by the operating representatives shall extend for a longer period than 30 days unless approved by authorized officers of both parties.

3. The Louisville Company hereby accepts and approves this agreement to the extent necessary to permit the transactions between TVA and Cincinnati Company hereunder to be carried out over and through the facilities of the Louisville Company in accordance with, and subject to, the provisions hereof.

4. No party shall be deemed to be in default or liable for failure of performance of any obligation hereunder if such failure of performance is due to uncontrollable forces, the term "uncontrollable forces" for the purposes hereof meaning causes beyond the control of the party affected which it could not reasonably have been expected to forestall by exercise of due foresight and which by exercise of due diligence it shall have been unable to overcome, including, among other causes, such causes as storm, flood, lightning, fire, accident damaging facilities or necessary outage of facilities upon which performance is dependent, failure of manufacturers to make scheduled deliveries of equipment, impact of war, mobilization, act of the public enemy, sabotage, civil disturbance, labor disturbance, strike, restraint or order of public authority, provided that nothing herein shall be construed to relieve a party from responsibility for failure of performance if such failure is due to causes arising out of its own negligence or to removable or remediable causes which it fails to remove or remedy with reasonable dispatch.

5. Unless otherwise specifically provided, the calendar month shall be the standard period for the purposes of settlement hereunder. As promptly as practicable after the end of each month, each party will render the other a statement setting forth the energy transactions during such month, with such details and with such segregations not previously furnished as may be needed for operating records and settlements for the energy transactions in the preceding month. Settlements shall be made on the basis of net monthly balances.

Bills for net balances shall be due and payable on the fifteenth day of the month following the month for which such bills are applicable or on the tenth day following receipt of bill, whichever day be later. Interest on unpaid amounts shall accrue at six percent (6%) per annum from the date due until the date upon which payment is made.

6. This agreement is subject to the approval of all governmental authorities having jurisdiction.

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

8. No member of or delegate to Congress or Resident Commissioner, or any officer, employee, special Government employee, or agent of TVA shall be admitted to any share or part of this contract or to any benefit that may arise from it unless the contract is made with a corporation for its general benefit, nor shall Louisville Company

or Cincinnati Company offer or give, directly or indirectly, to any officer, employee, special Government employee, or agent of TVA any gift, gratuity, favor, entertainment, loan, or any other thing of monetary value, except as provided in 5 C.F.R. part 2635 (as amended, supplemented, or replaced). Breach of this provision shall constitute a material breach of this contract.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be signed and attested by their respective officers thereunto duly authorized as of the day and year first above written.

ATTEST
SEAL

/s/ Leona L. Malkemus
Title: Assistant Secretary

TENNESSEE VALLEY AUTHORITY

By /s/ A. J. Wagner
Title: General Manager/s/CAR
Law

ATTEST
SEAL

/s/ M. G. Graham
Title: Assistant Secretary

THE CINCINNATI GAS & ELECTRIC COMPANY

By /s/ S. M. Hamill, Jr.
Title: Vice President

ATTEST

/s/ W. J. Glover
Title: Secretary

SEAL

LOUISVILLE GAS AND ELECTRIC COMPANY

By /s/ F. W. Russell
Title: Vice - President



LETTER AGREEMENTS

between

LOUISVILLE GAS AND ELECTRIC COMPANY

and

TENNESSEE VALLEY AUTHORITY

(Copies Issued April 14, 1993)



Renew



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

Mary Sharpe Hayes
President, Customer Group

TV-88206V

July 29, 1992

Mr. Robert E. Lyon
Director - System Planning
Louisville Gas and Electric Company
P.O. Box 32020
Louisville, Kentucky 40232

Dear Mr. Lyon:

This will confirm the arrangements agreed upon between representatives of Louisville Gas and Electric Company (hereinafter called "LG&E"), and the Tennessee Valley Authority (hereinafter called "TVA") for LG&E to deliver, or to cause to be delivered to TVA, and for TVA to accept, at the existing points of connection between the facilities of TVA and LG&E, transmit through TVA's transmission system, and deliver, nonfirm power and energy (hereinafter sometimes called "Interruptible Energy") being transmitted from the system of LG&E to the system of the Southern Company and to such other systems as may be mutually agreed upon (hereinafter individually and collectively called "Receiving System"). Such acceptance, transmission, and delivery of Interruptible Energy by TVA is hereinafter called "Transmission Service."

In consideration of the mutual agreements set forth herein and subject to the provisions of the Tennessee Valley Authority Act of 1933, as amended, it is understood and agreed that:

1. Transmission Service. For the term of this agreement, TVA will provide Transmission Service hereunder from time to time as, if, and when in TVA's judgment adequate transmission capacity is available on TVA's system, after allowances for all other demands on TVA's system, including, without limitation, other more firm transmission service transactions, to accommodate LG&E's schedule furnished in accordance with section 3 hereof.

The points of acceptance and delivery by TVA for transactions hereunder shall be at the points of connection between the facilities of TVA and those of other systems, as the parties agree, and of TVA and Receiving System, respectively. TVA shall not be responsible in any way for the acceptance by, or transmission or delivery of Interruptible Energy through, Receiving System's system or other systems. LG&E shall be solely responsible for the transmission of LG&E's power and energy,

Mr. Robert E. Lyon

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including any costs associated therewith, through any electric system through which such power and energy flows in reaching the ultimate recipient of such power and energy. Except for the discontinuance of the delivery of power and energy accepted by TVA as provided in section 4 below or the interruption or curtailment of Transmission Service as provided for in section 6 below and subject to the availability of transmission capacity as provided in this section 1, TVA shall transmit through its transmission system and deliver such transmitted power and energy on a simultaneous basis with, and only in such amounts as, the power and energy accepted by TVA for such transmission and delivery; provided, however, that the amounts of power and energy delivered shall be reduced in accordance with the provisions of section 2 below. LG&E shall notify TVA or cause TVA to be notified promptly of any interruption or curtailment in the availability of power and energy for acceptance by TVA hereunder. TVA shall not be obligated to supply power and energy from its own sources or from its purchases from other neighboring systems during interruptions or curtailments in the delivery to TVA of power and energy for Transmission Service hereunder, and nothing in this agreement or in LG&E's agreements with others shall have the effect of making, nor shall anything in this agreement or said agreements with others be construed to require TVA to take any action which would make TVA, directly or indirectly, a source of power supply to LG&E, to any Receiving System, or to any ultimate recipient.

2. Transmission Losses. The amounts of power and energy delivered from TVA's transmission system hereunder shall be the amounts accepted by TVA for transmission, less 3 percent thereof rounded to the nearest full MW as an allowance for transmission losses. Said 3 percent reflects TVA's best determination of average losses associated with Transmission Service hereunder. In the event TVA determines at any time that actual average system losses have increased, TVA shall have the right upon 30 days' notice to LG&E to adjust the percentage allowance for losses hereunder to reflect actual average system losses.
3. Scheduling. Schedules for Transmission Service for Interruptible Energy any hour during any calendar week following the effective date of this agreement shall be furnished by 12 noon CDT or CST, whichever is currently effective, on Thursday of the preceding week. LG&E may revise such weekly schedules by giving notice to TVA by 12 noon CDT or CST, whichever is currently effective, on the day preceding that on which the revision becomes effective; provided, however, LG&E will make every reasonable effort to minimize revisions to its weekly schedule. In the event of loss of generation supplying the Interruptible Energy being wheeled hereunder, LG&E shall so notify TVA, and LG&E shall supply Interruptible Energy from an alternative source until system

Mr. Robert E. Lyon

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time is on the hour or an integer of quarter hours past the hour at which time the schedule for the remainder of the day will be reduced to zero, and LG&E will revise its schedule as necessary for the remainder of the week. Schedules furnished for any calendar week shall not be otherwise changed unless TVA discontinues, curtails, or interrupts Transmission Service pursuant to sections 4 or 6 below, or other unforeseen circumstances arise for which the operating representatives of LG&E and TVA agree to change the schedules. LG&E shall furnish, or cause to be furnished, similar schedules simultaneously to Receiving System and/or others as may be necessary. Schedules for Transmission Service to be performed by TVA shall specify the hourly amounts to be accepted by TVA and the amounts, after deducting the allowance for losses, to be delivered through TVA's transmission system.

4. Power and Energy Purchased by TVA. TVA may discontinue the transmission and delivery of Interruptible Energy hereunder as, if, and when conditions on TVA's system are such that TVA's generating sources and other sources reasonably available to TVA are inadequate to supply the firm power requirements of TVA's system, and TVA may use the Interruptible Energy scheduled for acceptance by TVA hereunder to assist TVA in alleviating such conditions. TVA shall notify LG&E promptly of all such discontinuances of the transmission and delivery of Interruptible Energy for such use by TVA.

In the event that TVA notifies LG&E that TVA plans to utilize the Interruptible Energy being received from LG&E as provided for in this section 4, LG&E will inform TVA of the conditions under which the Interruptible Energy will continue to be supplied.

As consideration for the Interruptible Energy used by TVA, if any, under this section 4, TVA shall pay LG&E each month for each kilowatthour used by TVA pursuant to this section during such month. The price per kilowatthour shall be LG&E's out-of-pocket incremental energy cost plus 10 percent.

5. Facilities. Unless otherwise agreed, TVA will provide Transmission Service only through transmission facilities (including telemetering, load control, and communication facilities) utilized in supplying TVA customers' power requirements. The existing metering facilities at the points of connection between the facilities of TVA and those of other systems, as the parties agree, and of the Receiving System shall be used to measure the power and energy associated with Transmission Service hereunder.

Mr. Robert E. Lyon

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6. Interference with Availability of Transmission Service. TVA may curtail or interrupt Transmission Service hereunder as, if, and when, in TVA's judgment, continuation of such Transmission Service could (1) jeopardize service to TVA's customers; (2) interfere with transactions scheduled or to be scheduled under any of TVA's existing or future contractual arrangements with systems other than LG&E, including, without limitation, other more firm transmission service transactions and other transactions commonly referred to as "economy interchange"; or (3) reduce the reliability of TVA's system, either with respect to TVA's customers or with respect to TVA's interconnections with neighboring electric systems. TVA shall not be considered to be in default with respect to any obligation hereunder in the event of any such curtailment or interruption of Transmission Service or if TVA is prevented from fulfilling such obligation because of force majeure or otherwise. The term "force majeure" shall be deemed, for the purposes of this agreement, to be a cause reasonably beyond the control of the party affected, such as, but without limitation to, injunction, strike of the party's employees, war, invasion, fire, accident, floods, backwater caused by floods, acts of God, or inability to obtain or ship essential services, materials, or equipment because of the effect of similar causes on the party's suppliers or carriers. TVA shall notify LG&E promptly of all such curtailments or interruptions of Transmission Service under this section 6.
7. Reactive Power. LG&E will supply or cause to be supplied reactive power to the extent necessary in TVA's judgment to effect the transfer of the amount of power scheduled through the TVA system to Receiving System under this agreement.
8. Transmission Service Charge. The transmission service charge per month shall be the higher of (1) \$1,897 or (2) 3.9 mills per kilowatthour applied to the Interruptible Energy scheduled for acceptance by TVA in accordance with section 3 hereof, as said scheduled amounts are adjusted by schedule revisions as provided in said section 3.

The above charges are based on TVA's estimated transmission system costs for the fiscal year which ends September 30, 1992. TVA may adjust or modify said charges effective October 1, 1992, and October 1 of each successive year through the end of the term of this agreement to reflect changes in its transmission system costs projected for the ensuing fiscal year. The methodology being used at that time by TVA in cost of service studies for its system shall be used by TVA in calculating any such annual projected transmission system costs.

Mr. Robert E. Lyon

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9. Records. Each party shall keep such records as will provide a clear history of the transactions hereunder. Upon request, copies of any or all pertinent records shall be delivered promptly to the other party.
10. Statements. As promptly as practicable after the first day of each calendar month, the parties shall cause to be prepared a statement setting forth the transactions hereunder during the preceding month in such detail and with such segregations as may be needed for operating records or for settlements under the provisions of this agreement. Any such statement prepared by one party shall be made available to the other party.
11. Billings and Payments. Monthly bills for amounts owed by LG&E to TVA shall be rendered by TVA, and such bills shall be due and payable within 20 days after the date of the bill. To any amount due and unpaid after the due date there shall be added a charge of 1.5 percent of the unpaid amount, and an additional 1.5 percent of the then unpaid amount shall be added for each succeeding 30-day period until the amount is paid in full.
12. Restriction of Benefits. No member of or delegate to Congress or Resident Commissioner, or any officer, employee, special Government employee, or agent of TVA shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom unless the agreement be made with a corporation for its general benefit, nor shall LG&E offer or give, directly or indirectly, to any officer, employee, special Government employee, or agent of TVA any gift, gratuity, favor, entertainment, loan, or any other thing of monetary value, except as provided in 18 C.F.R. § 1300.735-12 or -34. Breach of this provision shall constitute a material breach of this agreement.
13. Regulatory Approval. This agreement is made subject to receipt by LG&E of any requisite governmental and regulatory approvals.
14. Term. This agreement shall become effective as of July 1, 1992, and shall continue in effect until terminated by either party upon at least 90 days' prior written notice to the other.

Mr. Robert E. Lyon

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JUL 29 1992

If the foregoing satisfactorily states the understandings between us, please have four counterparts of this letter executed on behalf of LG&E and return them to Elizabeth A. Creel, Manager of System Transaction Planning, 5A Missionary Ridge Place, Chattanooga, Tennessee 37402-2801. Upon completion by TVA, two fully executed copies will be returned to you.

Sincerely,



Mary Sharpe Hayes

Accepted and agreed to as of
the date first above written.

LOUISVILLE GAS AND ELECTRIC COMPANY

By 
Title: Senior Vice President
Engineering and Construction

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

6N 49B Missionary Ridge Place

May 30, 1989

TV-78208A

Mr. Fred Wright
Senior Vice President, Operations
Louisville Gas and Electric Company
P.O. Box 32010
Louisville, Kentucky 40232

Dear Mr. Wright:

This will confirm the arrangements agreed upon between representatives of Louisville Gas and Electric Company (hereinafter called "Louisville") and the Tennessee Valley Authority (hereinafter called "TVA") relative to the installation of electronic meters and other associated facilities in TVA's Summer Shade Substation to replace the present metering facilities in Louisville's Paddy's Run Substation.

It is understood and agreed that:

1. TVA will provide, install, operate, and maintain in its Summer Shade Substation electronic meters and other associated facilities which will coordinate with TVA's new Energy Management System and replace the existing metering installation in Louisville's Paddy's Run Substation. Thereafter, Louisville will be under no obligation to continue to maintain said existing metering installation. All electronic meters installed by TVA will be three-phase, three-element metering devices. Upon TVA's installation of the facilities provided for in this section 1, TVA will thereafter own, operate, and maintain said facilities (including the provision and installation of any necessary replacement facilities) at its expense to determine and account for the amounts and directions of real and reactive power and energy transfers at the Green River 161-kV Interconnection Point (as defined in the Interconnection Agreement referred to below).
2. As soon as practicable after the effective date hereof, and promptly upon receipt of a statement therefor as consideration for TVA's providing and installing the facilities provided for in section 1 hereof, Louisville shall pay TVA the sum of \$40,000.

Mr. Fred Wright

May 30, 1989

3. In addition to the work provided for in section 1 above and at no cost to Louisville, TVA will at its expense provide, install, own, operate, and maintain at its Summer Shade Substation two powerline carrier transmitters which will be compatible with two powerline carrier receivers to be provided and installed by Louisville in its Paddy's Run Substation. TVA will also, at no expense to Louisville, make such additional changes in its telemetering facilities at the Summer Shade Substation as may be mutually agreed upon by the parties hereto.
4. Notwithstanding anything contained herein which may be construed to the contrary, the electronic meters provided and installed by TVA, as provided in section 1 hereof, are subject to the provisions of Article V of Interconnection Agreement TV-45962A, dated July 1, 1977, as supplemented and amended, between Louisville and TVA (hereinafter called the "Interconnection Agreement").
5. No member of or delegate to Congress or Resident Commissioner, or any officer, employee, special Government employee, or agent of TVA shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom unless the agreement be made with a corporation for its general benefit, nor shall Louisville offer or give, directly or indirectly, to any officer, employee, special Government employee, or agent of TVA any gift, gratuity, favor, entertainment, loan, or any other thing of monetary value, except as provided in 18 C.F.R. § 1300.735-12 or -34. Breach of this provision shall constitute a material breach of this agreement.
6. TVA will endeavor to complete and have the facilities provided for in sections 1 and 3 above ready for operation by March 1, 1990, or as soon as practicable thereafter.
7. This agreement shall become effective as of the date first above written, and continue in effect until termination or expiration of the Interconnection Agreement, or any renewal, replacement, or extension thereof.
8. This agreement supersedes and replaces agreement TV-75484A, dated July 25, 1988, between TVA and Louisville which the parties agree shall have no force and effect.

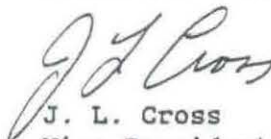
Mr. Fred Wright

May 30, 1989

If the foregoing satisfactorily states the understanding between us, please have four counterparts of this letter executed on behalf of Louisville and return them to S. G. Whitley, Manager of Power Supply, 2S 180G Lookout Place, Chattanooga, Tennessee 37402-2801. Upon completion by TVA, two fully executed copies will be returned to you.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

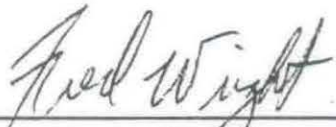


J. L. Cross
Vice President, Power
Business Operations

Accepted and agreed to as of
the date first above written.

LOUISVILLE GAS AND ELECTRIC COMPANY

By



Title: SENIOR VICE PRESIDENT-OPERATIONS

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

TV-75484A

6N 13D Signal Place

July 25, 1988

Mr. Robert L. Royer, President
Louisville Gas and Electric Company
P.O. Box 32010
Louisville, Kentucky 40232

Dear Mr. Royer:

This will confirm the arrangements agreed upon between representatives of Louisville Gas and Electric Company (hereinafter called "LG&E") and the Tennessee Valley Authority (hereinafter called "TVA") relative to the installation of electronic meters, communication facilities, and other associated facilities in LG&E's Paddy's Run Substation to coordinate with TVA's new energy management system.

It is understood and agreed that:

1. TVA will provide for installation by LG&E, and LG&E will install in its Paddy's Run Substation electronic meters, communication facilities, and other associated facilities needed by TVA to coordinate with TVA's new energy management system; however, LG&E shall be under no obligation to make any electrical connections which, in LG&E's sole judgment, would adversely affect the operation of its facilities. The mounting style and associated hardware for the above-mentioned equipment shall be specified by LG&E. All electronic meters provided by TVA will be three-phase, three-wire, two-element metering devices. Upon LG&E's installation of the facilities provided for in this section 1, said facilities will become the property of LG&E without further action of the parties, and LG&E will thereafter operate and maintain said facilities (including the provision and installation of any necessary replacement facilities) at its expense, to determine and account for the amounts and directions of real and reactive power and energy transfers at the Green River 161-kV Interconnection Point and to transmit said data to TVA; provided, however, TVA will provide LG&E a spare electronic meter, as well as spare communication parts recommended by the manufacturer, at the time of initial installation hereunder for future use at the Paddy's Run Substation should the original meters and communication equipment need to be repaired or replaced. It is further understood that TVA will provide LG&E with two sets of complete documentation on all equipment provided. In addition, TVA will provide or reimburse LG&E for any additional equipment and/or training required to test these facilities. All equipment and parts provided by TVA, including spares, will be free from any defects when inspected and tested upon delivery by TVA to LG&E's Paddy's Run Substation. Any equipment or parts found

Mr. Robert L. Royer

July 25, 1988

defective by LG&E will be replaced free of charge by TVA. To the extent feasible, TVA will cause the warranties provided TVA for the initial equipment and parts to continue for the benefit of LG&E for at least one year after delivery to LG&E. If the warranties of the manufacturers cannot be made available, TVA agrees to reimburse LG&E for the reasonable costs of replacing or repairing any of the equipment or parts provided by TVA that fail during said one-year period through no fault of LG&E.

2. Promptly upon receipt of a statement therefor, TVA shall reimburse LG&E for its actual costs, including the cost of retiring existing facilities (less salvage value of any reusable materials), materials, labor, and applicable overheads, associated with the installation of the facilities provided for in section 1 above.
3. Notwithstanding anything contained herein which may be construed to the contrary, the electronic meters provided by TVA and installed by LG&E (which meters become the property of LG&E) as provided in section 1 hereof, are subject to the provisions of Article V of Interconnection Agreement TV-45962A, dated July 1, 1977, as supplemented and amended, between LG&E and TVA (hereinafter called the "Interconnection Agreement").
4. No member of or delegate to Congress or Resident Commissioner, or any officer, employee, special Government employee, or agent of TVA shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom unless the agreement be made with a corporation for its general benefit, nor shall LG&E offer or give, directly or indirectly, to any officer, employee, special Government employee, or agent of TVA any gift, gratuity, favor, entertainment, loan, or any other thing of monetary value, except as provided in 18 C.F.R. § 1300.735-12 or -34. Breach of this provision shall constitute a material breach of this agreement.
5. LG&E will endeavor to complete and have the facilities provided for in section 1 above ready for operation by December 1, 1989, or as soon as practicable thereafter, provided the facilities described in section 1 hereof are delivered to LG&E by January 1, 1989.
6. This agreement shall become effective as of the date first above written, and continue in effect until termination or expiration of the Interconnection Agreement, or any renewal, replacement, or extension thereof.

Mr. Robert L. Royer

July 25, 1988

If the foregoing satisfactorily states the understanding between us, please have four counterparts of this letter executed on behalf of LG&E and return them to me. Upon completion by TVA, two fully executed copies will be returned to you.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

Sidney D. Reynolds for

Richard B. Davis
Director of Energy Use
and Distributor Relations

Accepted and agreed to as of
the date first above written.

LOUISVILLE GAS AND ELECTRIC COMPANY

By

Fred Wright
Title: SR. V.P. - OPERATIONS