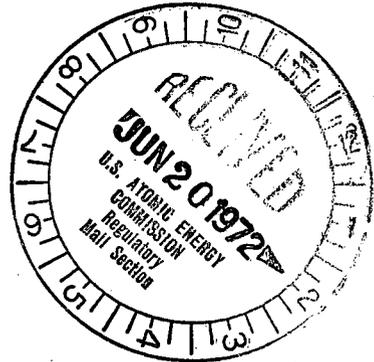


TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

June 16, 1972



Mr. Lyall Johnson, Director
Division of State and Licensee Relations
United States Atomic Energy Commission
Washington, DC 20545

Dear Mr. Johnson:

In the Matter of the Application of) Docket Nos. 50-390A
Tennessee Valley Authority) 50-391A

Enclosed herewith are three signed originals and 17 copies of Amendment 8 to the application for the Watts Bar Nuclear Plant. This amendment consists of information concerning the required antitrust review.

Although the Tennessee Valley Authority is not subject to the antitrust laws listed in Section 105a of the Atomic Energy Act of 1954, as amended, we are pleased to cooperate with the Commission by supplying the data requested.

If you have any questions or need any further information, please let us know.

Very truly yours,

J. E. Gilleland

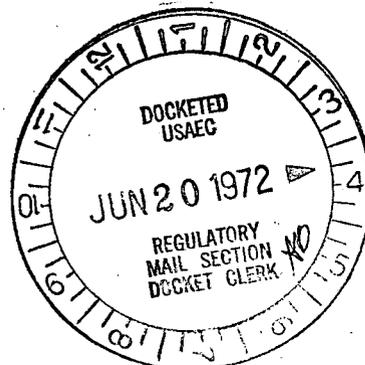
J. E. Gilleland
Assistant to the Manager of Power

Subscribed and sworn to before me this 16 day of June 1972

Arthur B. Pickett
Notary Public

My Commission Expires 12-3-72

Enclosure



3389

LB

Regulatory

File Cy.

Received w/ Ltr Dated 6/16/72

TENNESSEE VALLEY AUTHORITY

RETURN TO REGULATORY CENTRAL FILES

ROOM 016 Units 1 and 2

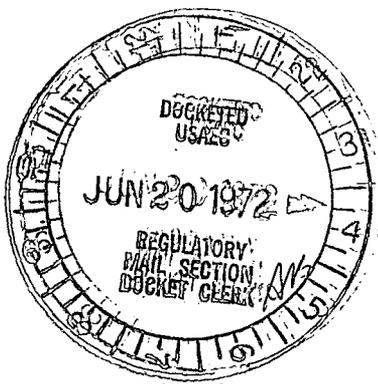
Watts Bar Nuclear Plant

Rhea County, Tennessee



50-390 50-391

ANTITRUST INFORMATION
FURNISHED PURSUANT TO
AEC LETTER OF JULY 22, 1971



**RETURN TO REGULATORY CENTRAL FILES
ROOM 016**

Question No. 1

State separately for hydroelectric and thermal generating resources applicant's most recent peak load and dependable capacity for the same time period. State applicant's dependable capacity at time of system peak for each of the next ten years for which information is available. Identify each new unit or resource. For hydroelectric generating capacity, indicate the number of kilowatt hours of use associated with each kilowatt of capacity during the "adverse water year" upon which dependable capacity is based. Indicate average annual kilowatt hour loads per kilowatt, associated with each system peak shown (exclusive of interchange arrangements).

Answer

(a) 1972 Peak Load: 16,664,000 kilowatts - February 4, 1972, 8 a.m.

System Dependable Capacity at time of February 4, 1972, peak:

Thermal: 14,671,000 kilowatts
Hydro : 3,924,000 kilowatts^{a,b}
Total : 18,595,000 kilowatts^a

(b) System Dependable Capacity at time of system peak load period:

<u>Period</u>	<u>Dependable Capacity megawatts^b</u>
Winter 1971-72	18,595
Winter 1972-73	20,540
Winter 1973-74	23,940
Winter 1974-75	26,480
Winter 1975-76	28,595
Winter 1976-77	28,595
Winter 1977-78	30,935
Winter 1978-79	33,275
Winter 1979-80	33,275
Winter 1980-81	35,675

a. Includes Alcoa plants and Corps of Engineers plant on the Cumberland River.

b. Reflects power retained from Cumberland hydro projects by Southeastern Power Administration for sale to other customers.

(c) Unit Additions:

<u>Units</u>	<u>Type^a</u>	<u>Expected Dependable Capacity-MW</u>	<u>Expected Commercial Operation</u>
Tims Ford	H	40	March 1972
Allen GT	GT	220	May 1972 ^b
Colbert GT 1-8	GT	440	May 1972 ^b
Cumberland 1	F	1,275	July 1972
Browns Ferry 1	N	1,065	April 1973
Cumberland 2	F	1,275	April 1973
Browns Ferry 2	N	1,065	January 1974
Browns Ferry 3	N	1,065	August 1974
Sequoyah 1	N	1,125	November 1974
Raccoon Mountain 1	P	325	November 1974
Raccoon Mountain 2	P	325	February 1975
Raccoon Mountain 3	P	325	May 1975
Sequoyah 2	N	1,125	July 1975
Raccoon Mountain 4	P	325	August 1975
Watts Bar 1	N	1,170	May 1977
Watts Bar 2	N	1,170	February 1978
New Unit	N	1,170	July 1977 ^c
New Unit	N	1,170	April 1978 ^c
Additional Capacity	-	2,400	1980
Additional Capacity	-	1,200	1981

(d) Kilowatt hours of use associated with each kilowatt of dependable hydro capacity during "adverse water year."

Per Schedule 2 of TVA's FPC Form 12 Report, 1968, hydro generation during adverse year is 12.2 billion kWh.

$$\frac{12,200,000,000 \text{ kWh}}{3,929,000 \text{ kW}} = 3,105 \text{ kWh/kW}$$

(e) Calendar Year Average Annual kWh per kW of Peak Load

1972	6,132
1973	5,977
1974	5,931
1975	5,862
1976	5,913
1977	5,823
1978	5,789
1979	5,763
1980	5,749
1981	5,696

- a. GT = Gas Turbines; H = Hydro; F = Fossil; N = Nuclear; P = Pumped Storage
 b. These units are in operation. The actual commercial operating date is dependent on the completion of tests and some equipment modifications.
 c. Because of revisions of the Atomic Energy Commission's licensing regulations and other factors which have arisen, it is now apparent that commercial operation of these units will be delayed from the dates shown. At this time the amount of the delay is still being studied, as are also ways to lessen the delays.

Question No. 2

State applicant's estimated annual load growth for each of the next 20 years or for the period applicant utilizes in system planning. Indicate growth both in kilowatt requirements and kilowatt-hour requirements.

Answer

Applicant utilizes 10 years in system planning.

(a) Peak Load Requirements:

<u>Period</u>	<u>Estimated TVA Requirements</u>	<u>Seasonal Capacity Exchange</u>	<u>Load Served by TVA-MW</u>
Summer 1972	15,650	+1,800	17,450
Winter 1972-73	19,400	-2,660	16,740
Summer 1973	17,020	+2,060	19,080
Winter 1973-74	22,050	-2,060	19,990
Summer 1974	19,410	+2,060	21,470
Winter 1974-75	23,400	-2,060	21,340
Summer 1975	20,320	+2,060	22,380
Winter 1975-76	24,550	-2,060	22,490
Summer 1976	21,590	+2,060	23,650
Winter 1976-77	26,050	-2,060	23,990
Summer 1977	22,700	+2,060	24,760
Winter 1977-78	27,400	-2,060	25,340
Summer 1978	23,830	+2,060	25,890
Winter 1978-79	28,800	-2,060	26,740
Summer 1979	25,020	+2,060	27,080
Winter 1979-80	30,300	-2,060	28,240
Summer 1980	26,270	+2,060	28,330
Winter 1980-81	31,850	-2,060	29,790
Summer 1981	27,520	+2,060	29,580

(b) Energy Requirements:

<u>Calendar Year</u>	<u>Estimated Energy Requirements Millions of kWh</u>
1972	102,178
1973	115,950
1974	130,770
1975	137,170
1976	145,170
1977	151,680
1978	158,620
1979	165,970
1980	174,190
1981	181,412

Question No. 3

State estimated annual load growth in kilowatts and kilowatt hours of companies or pools upon which the economic justification of the subject unit is based for each of the next 20 years or for the period applicant utilizes in system planning. Identify each company or pool member.

Answer

TVA is not a member of any coordinating group or pool in the context used herein.

Question No. 4

For the year the subject unit would first come on line, state estimated annual load growth in kilowatts and kilowatt hours of any coordinating group or pool of which the applicant is a member (other than the coordinating group or pool referred to in the applicant's response to Item 3) which has generating and/or transmission planning functions. Identify each company or pool member whose loads are indicated in the response thereto.

Answer

TVA is not a member of any coordinating group or pool in the context used herein.

Question No. 5

State applicant's minimum installed reserve criterion (as a percentage of load)* for the period when the subject unit will first come on line. If the applicant shares reserves with other systems, identify the other systems and provide minimum installed reserve criterion (as a percentage of load)* by contracting parties or pool for the period when the proposed unit will first come on line.

*Indicate whether loads other than peak loads are considered.

Answer

While a minimum required reserve criterion for a specific power system or pool in itself has limited significance and may vary widely from year to year, it can be expressed in terms of percent of load. For the TVA system, minimum reserve requirements during the winter of 1977-78 when Watts Bar Unit 1 will first be online are expected to be 20.8 percent of peak load.

Question No. 6

Describe methods used as a basis to establish, or as a guide in establishing the criteria for applicant's and/or applicant's pool's minimum amount of installed reserves. [e.g., (a) single largest unit down, (b) probability methods such as loss of load one day in 20 years, loss of capacity once in 5 years, (c) other methods and/or (d) judgment. List contingencies other than risk of forced outage that enter into the determination.]

Answer

TVA uses the loss of load probability method, with a desired level of one day in 10 years, to establish system installed reserve requirements. Among the contingencies considered are:

Unit reliability

Mix of generating resources

Largest unit installed with respect to size of total system load

Load characteristics, including factors such as: annual, seasonal, monthly load factor; forecast errors; interruptible load

Preventive maintenance schedule

Interconnections with other power systems

The above factors are under constant review, and reserve requirements may change as these parameters are revised.

Question No. 7

Indicate whether applicant's system interconnections are credited explicitly or implicitly in establishing applicant's installed reserves.

Answer

The reserve benefits available to TVA from neighboring power systems are determined using probability methods. These expected benefits are considered in establishing TVA's reserve requirements for particular peak load seasons.

The reserve benefits available at any given time from another interconnected system are a function of that system's load and supply relationship as well as the interconnection capability between that system and TVA.

Question No. 8

List rights to receive emergency power and obligations to deliver emergency power, rights or obligations to receive or deliver deficiency power or unit power, or other coordinating arrangements, by reference to applicant's Federal Power Commission (FPC) rate schedules (i.e., ABC Power & Light Co., FPC Rate Schedule No. 15 including supplement 1-5)**, and also by reference to applicant's state commission filings. Where documents are not on file with the FPC, supply copies, or where not reduced to writing describe arrangements. Identify for each such arrangement the participating parties other than applicant. Provide one line electrical and geographic diagrams of coordinating groups or power pools (with generation or transmission planning functions) of which applicant's generation and transmission facilities constitute a part.

**List separately and identify certificates of concurrence.

Answer

Contracts for emergency power, deficiency power, or unit power, or coordinating arrangements are not filed by applicant with FPC or state commissions; however, the other party usually files such agreements with FPC. Those filed with FPC are as follows:

<u>Filed by</u>	<u>Rate Schedules - FPC No.</u>
Appalachian Power Company	52, 52.1, 52.2, 52.3, 52.4
Carolina Power & Light Company	95, 95.1, 95.2, 95.3
Louisville Gas & Electric Company	9, 9.4.1
Mississippi Power & Light Company	35, 35.10, 35.11, 35.15
Southern Services, Inc.	33, 33.1, 33.2, 33.6, 33.7, 33.8
Union Electric Company	76.1, 76.2, 76.3, 76.4

Those not filed with FPC are Kentucky Utilities Company, Big Rivers Rural Electric Cooperative Corporation, and East Kentucky Rural Electric Cooperative Corporation; therefore, copies of these contracts are attached.

Attached is a summary sheet entitled "CURRENT AGREEMENTS WITH OTHER UTILITIES" identifying the participating parties and the service arrangements that applicant has with each participating party.

Applicant's system is not a part of a coordinating group or power pool. Consequently, there are no electrical and geographic diagrams of such a pool.

INTERCONNECTION AGREEMENT
Between
TENNESSEE VALLEY AUTHORITY
And
KENTUCKY UTILITIES COMPANY

THIS AGREEMENT, made and entered into as of the 22 day of March, 1951, by and between TENNESSEE VALLEY AUTHORITY (hereinafter called "Authority"), a corporation created and existing under and by virtue of the Tennessee Valley Authority Act of 1933 as amended, and KENTUCKY UTILITIES COMPANY (hereinafter called "Company"), a corporation duly created, organized and existing under and by virtue of the laws of the Commonwealth of Kentucky.

W I T N E S S E T H :

WHEREAS, Company and Authority are parties to certain agreements entered into heretofore which, among other things, provide for interconnections, transfer, interchange and sale of power as provided under the terms and conditions specified in said agreements; and

WHEREAS, Authority has received requests from its wholesale customers, Warren Rural Electric Cooperative Corporation and Hickman-Fulton Rural Electric Cooperative Corporation, for additional points of delivery to the former at Rosine and Leitchfield and increased capacity at existing points of delivery to the latter at Clinton and Hickman, Kentucky, in order to permit said cooperatives to serve customers now being supplied by them and to serve new customers in their respective service areas who are not now receiving electric service; and

WHEREAS, Company and Authority desire to execute a new agreement to provide for the expansion of certain interconnection facilities, the establishment of certain new delivery points, and the interchange, delivery and exchange of power between their respective systems and to that end to consolidate, combine and supersede as stated herein the various provisions with respect to these matters contained in said agreements heretofore entered into:

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

ARTICLE I

Interconnections

1. Interchange Points. Company and Authority will operate and maintain interconnections between their respective systems for the interchange, transfer and sale of power between them at the following points:

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- (a) The existing point of interconnection (hereinafter called "Pineville Interconnection") at Pineville, Kentucky, as provided for in Agreement TV-84885 dated September 1, 1944, as amended and supplemented.
 - (b) The existing point of interconnection (hereinafter called "Kentucky Dam Interconnection") at Kentucky Dam, as expanded in accordance with this agreement;
 - (c) The existing point of interconnection (hereinafter called "Martin Interconnection") at Authority's primary substation at Martin, Tennessee;
 - (d) The existing point of interconnection (hereinafter called "Fulton Interconnection") at Fulton, Kentucky; and
 - (e) A new point of interconnection (hereinafter called "Glasgow Interconnection") to be established as hereinafter provided in this agreement.

The systems of the parties shall be and remain interconnected at said interchange points insofar as this can be done in the opinion of each party without injury to its system or to service to its customers.

2. Expansion of Kentucky Dam Interconnection. Authority shall at its own expense furnish all materials and equipment for and perform all work necessary in (a) the construction, maintenance and operation of approximately 0.75 mile of transmission line which will loop circuit No. 2 of Company's 69 kv Earlington-Paducah transmission lines to Authority's Kentucky Dam switchyard, and (b) the installation, maintenance and operation at Kentucky Dam of an oil circuit breaker terminal and associated equipment and speedomax-type telemetering facilities for Authority's own use. The load impulses that are used to operate said telemetering equipment shall be available to Company for operation of similar telemetering equipment. Company shall furnish and install, and thereafter maintain, at its own expense a suitable take-off structure at the point where the line to be constructed by Authority will connect to Company's Earlington-Paducah transmission line. Authority shall also install, and thereafter maintain and operate, at its own expense at Kentucky Dam suitable equipment to provide carrier communication with Company at Company's Green River plant. Company shall install, and shall thereafter own, maintain and operate, at its own expense on its system such facilities as are necessary to complete said carrier communication system.

It is recognized that Company has been paying Authority a monthly charge of \$660.84, representing one-half of one percent per month of the total installed costs of the existing Kentucky Dam Interconnection,

as Company's share of the cost of the existing interconnection facilities. Company shall continue to pay this monthly charge to Authority during the term of this agreement. When, in Authority's opinion, improvements or expansion of the existing Kentucky Dam interconnection facilities becomes necessary, such improvements or expansion shall be made by Authority and Company shall thereafter pay to Authority, in addition to the above-mentioned monthly charge, one-half of one percent of the net cost, including applicable overheads, of such improvements or expansion in facilities.

3. Glasgow Interconnection. Company shall construct or cause to be constructed at no expense to Authority a 69 kv transmission line from Authority's Summer Shade-Bowling Green 69 kv line to Glasgow, Kentucky, and an air break switch at the point of connection and a delta-delta 66-33 kv substation at Glasgow protected by an oil circuit breaker on the 33 kv side and fuses on the 69 kv side. In the event that during the term of this agreement Company replaces the transformer bank in said substation with a Y-connected bank of transformers, Company shall install a high side 69 kv oil circuit breaker. Company shall install in connection with the construction of said substation necessary facilities for coordination with Authority's system and settings on protective devices will be coordinated with Authority. Company shall own, maintain and operate or cause to be maintained and operated said transmission line and substation.

ARTICLE II

Delivery Points

1. Present Delivery Points. Company and Authority will maintain present delivery points at Clinton and Hickman, Kentucky, for service to Hickman Fulton Rural Electric Cooperative Corporation and at Pruden, Tennessee, for service to LaFollette, Tennessee.

2. Installation of Facilities for Delivery Point at Rosine. In consideration of the facilities to be installed by the Authority pursuant to sections 2 and 3 of Article I of this agreement, Company shall at its own expense construct, maintain and operate a 66 kv suspension insulator ground wire type transmission line of at least 266.800 circular mill ACSR conductor from a point in the vicinity of Beaver Dam, Kentucky, to a substation site to be selected and acquired by Authority near Rosine, Kentucky. Authority shall at its own expense construct a substation for service to Warren Rural Electric Cooperative Corporation at Rosine (hereinafter called "Rosine Substation") which will be suitable for 33 or 66 kv operation. Said substation shall be owned, maintained and operated by Authority.

3. Installation of Facilities for Delivery Point at Leitchfield. Authority shall construct at its own expense a 33 kv substation for service to Warren Rural Electric Cooperative Corporation on a site to be selected and acquired by Authority at or near Leitchfield, Kentucky (hereinafter called "Leitchfield Substation"). Said substation shall be connected to

the Company's Elizabethton-Leitchfield 33 kv line and shall be constructed in such manner that it may be converted to 66 kv operation if and when the Company converts said transmission line to operation at 66 kv. Company will provide, install and maintain, at its own expense, suitable take-off facilities for this tap connection. Said substation shall be owned, maintained and operated by Authority.

4. Additional Points of Delivery. Additional points of delivery may be established by agreement of the parties.

ARTICLE III

Exchange and Emergency Transactions

1. Delivery to Authority. During the term of this agreement Company shall deliver power at approximately sixty (60) cycles per second to Authority at the delivery points designated below up to the maximum demands, and at the normal delivery voltages specified below, for each delivery point, as follows:

<u>Delivery Point</u>	<u>Maximum Demand</u>	<u>Present Delivery Voltage</u>	<u>Future Delivery Voltage</u>
Milburn Substation	2,500 kva	66,000	66,000
*High side of Company's Pruden Substation	1,500 kva	33,000	33,000
High side of Authority's Clinton Substation	2,500 kva	66,000	66,000
High side of Authority's Hickman Substation	1,500 kva	33,000	66,000
**High side of Authority's Rosine Substation	2,500 kva	33,000	66,000
**High side of Authority's Leitchfield Substation	2,500 kva	33,000	66,000

* It is recognized that Authority has been paying Company the sume of \$500 per month as compensation for the establishment of this delivery point. Authority shall continue to pay said monthly charge until the elimination by either party of said delivery point upon eighteen months' written notice.

** The delivery of power at these points shall commence as soon as practicable after execution of this agreement.

Power and energy as measured by metering equipment on the low voltage sides of the above designated substations shall be adjusted for transformer losses to reflect delivery at the respective delivery voltages specified above.

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2. Compensatory Deliveries. Authority shall deliver to Company at the Fulton Interconnection, and the Glasgow Interconnection, as nearly concurrently as practicable with deliveries to Authority under section 1 of this Article III, amounts of power and energy the sum of which shall equal the sum of the amounts of power and energy delivered to Authority at the delivery points specified in said section 1. In order to facilitate the exchange transactions contemplated in sections 1 and 2 of this Article III, the load at the delivery points specified in said section 1, the Glasgow Interconnection, and the Fulton Interconnection shall be segregated for radial feed so that the amounts of power and energy delivered to Company under this section 2 will be approximately equal to the deliveries to Authority under section 1 of this Article III. Differences between the deliveries under said section 1 and the deliveries under said section 2 will be compensated for by return of power and energy in kind by the party in whose favor the difference occurs to the other at interconnection points other than those specified in this section 2 in amounts equivalent to said differences; provided, however that, in compensating for such differences, (a) the energy will be returned at times when the load conditions of the party which supplied the energy are similar to conditions on its system at the time when the difference occurred or if said party elects to have the energy returned under different conditions, it shall be returned in such amounts as will compensate for the difference in conditions, and (b) there shall be no compensation for any difference in demands resulting from the supply by one party of the on-peak demands of the other unless such difference exceeds 1,000 kw, in which event the difference shall be settled for by appropriate deliveries at the Kentucky Dam Interconnection and at the interconnection maintained by the parties at Pineville, Kentucky, or at such other interconnections as may be established by the parties.

3. Reciprocal Emergency Transactions. If an emergency due to the imminent failure, failure, or breakdown of facilities or any emergency resulting from any cause referred to in section 5 of Article V, should occur on the system of one of the parties, the other will, so far as practicable in its sole judgment without hazard to its property or operations and within the limitations of capacity available on its system in excess of that required for supplying its other load, supply power to the party suffering such emergency. Such power shall, at the option of the supplying party, be paid for at the rate of five (5) mills per kilowatt-hour or be returned in kind. If such power is returned in kind it shall be returned under conditions similar to the conditions under which it was supplied, or, if the 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.

ARTICLE IV

Economy Interchange Transactions

1. Interchange of Surplus Energy. In order to promote economy of power supply and to achieve efficient utilization of production capacity, Authority and Company shall each offer to the other in accordance with the

provisions of this Article IV any surplus energy which is available in the sole judgment of the supplying party. Each party shall promptly inform the other of the extent to which it desires to use such surplus energy and schedules shall be mutually agreed upon. Neither party shall be under any obligation to deliver surplus energy under this Article IV in amounts such that after giving effect to any other transactions between the systems of the parties the total deliveries at the points of interconnection would exceed the capacity of the interconnected transmission facilities. The points of delivery for interchange transactions under this Article IV shall be the interchange points specified in section 1 of Article I of this agreement, and such other points of interconnection as may be established by the parties from time to time during the term of this agreement.

It is understood, in connection with all deliveries of surplus energy under this Article IV, that each party shall retain for its own loads and prior commitments the lowest cost energy available to it which, in its judgment, it would utilize if it were supplying only said loads and commitments and that any surplus energy supplied by either party to the other shall be delivered from the most economically available sources of surplus energy for which the supplying party does not have a better market. Neither party shall be obligated to receive, deliver, or transmit surplus power and energy which, in its sole judgment, is in excess of the capacity of its own system, having due regard for its other customers.

2. Basis of Settlement. Except as otherwise agreed surplus energy supplied by one party to the other under this Article IV shall be settled for as follows:

- (a) Surplus energy supplied by Company to Authority shall be paid for on the following basis:

Nonreplacement Energy. The incremental generating cost, or cost of obtaining such energy from third parties, as the case may be, plus losses plus seven (7) percent for handling costs.

Replacement Energy. One-half (1/2) of the sum of the incremental operating expense of the plant or units from which energy is supplied (which shall include the cost of placing said plant or units in operation if such cost is incurred) and the incremental operating expense of the plant or units replaced (which shall include the cost which would have been incurred in placing said plant or units in operation, if such cost is avoided).

- (b) Surplus energy supplied by Authority to Company shall be paid for on the following basis:

Hydro Energy. One-half (1/2) mill per kilowatt-hour plus one-half (1/2) of the incremental operating expense of the plant or units replaced (which shall include

the cost which would have been incurred in placing said plant or units in operation, if such cost is avoided).

Steam Energy. One-half (1/2) of the sum of the incremental operating expense of the plant or units from which energy is supplied (which shall include the cost of placing said plant or units in operation, if such cost is incurred) and the incremental operating expense of the plant or units replaced (which shall include the cost which would have been incurred in placing said plant or units in operation, if such cost is avoided).

Equivalent Steam Energy. One-half (1/2) of the sum of the incremental operating expense of the steam plant or steam units capable of generating energy in the amounts and at the rate supplied (which shall include the cost of placing said plant or units in operation, if such cost would have been incurred had such energy been supplied from such plants or units) and the incremental operating expense of the plant or units replaced (which shall include the cost which would have been incurred in placing said plant or units in operation, if such cost is avoided).

For purposes of this subsection (b) the term "hydro energy" shall mean energy which the Authority obtains exclusively by generation from excess flows which would otherwise be wasted or from storage waters in anticipation of flows which in Authority's judgment would be wasted, and the term "equivalent steam energy" shall mean energy which Authority obtains simultaneously with its deliveries to Company either by increasing its receipts of energy from a third party or by temporarily increasing its hydro generation from ponded water which Authority plans to replenish or impound at other hours by increasing its generation at its own fuel plants or its receipts of energy from third parties.

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- (c) Company and Authority shall each provide the other at intervals of not more than six (6) months with a statement based upon the records for the latest periods for which records are available of the incremental operating expense of each of its steam plants and of the cost of placing the respective units of such plants in operation.
 - (d) For the purposes of this section, whether or not the cost of placing a plant or units in operation is incurred, or would have been incurred, shall be determined in the judgment of the party controlling said plant or units and the incremental expenses normally incurred as a result of

starting and stopping operation of the plant or units shall be used as said cost of placing the plant or units in operation.

ARTICLE V

Miscellaneous Provisions

1. Nominal Voltages. Except as varied by mutual agreement, the nominal delivery voltages at the interchange points provided for in section 1 of Article I of this agreement are specified as follows:

Pineville Interconnection	69,000 volts
Kentucky Dam Interconnection	69,000 volts
Martin Interconnection	69,000 volts
Fulton Interconnection	69,000 volts
Glasgow Interconnection	69,000 volts

2. Metering, Testing and Inspection. Each party at its expense shall own, maintain, and operate metering equipment at the respective interchange points specified in section 1 of Article I and the delivery points specified in section 1 of Article III of this agreement, at which it owns the substation facilities. Except as otherwise expressly provided in this agreement all power and energy delivered hereunder shall be accounted for as of the locations of said metering equipment. Each party shall have the right to install and maintain at its expense metering equipment adjacent to any of the meters of the other party as a check on such meters. All of the above-mentioned metering equipment shall be subject to the metering and testing provisions of this section.

The party owning the metering equipment shall at its expense make quarter-yearly tests and inspections of its metering equipment in order to maintain a high standard of accuracy. The owning party shall make additional tests and inspections of its meters if requested by the other party to do so. Either party shall give the other party reasonable advance notice of such tests and inspections of its meters so that its representatives may be present. If any such additional tests or inspections show any meter to be inaccurate by more than two percent (2%) fast or slow, an adjustment in deliveries between the parties shall be made during the following month to adjust for the amounts by which the meters are shown to have been in error for a preceding period of not more than thirty (30) days, and the metering equipment found to be inaccurate or defective shall promptly be repaired, adjusted, or replaced by the owning party. If as a result of a test requested by the non-owning party, the metering equipment shall be found to be accurate within two percent (2%), the non-owning party shall reimburse the owning party upon request for the cost of the testing. Should either party's metering equipment fail at any time to register, the consumption during the period of failure shall be determined from the best information available.

3. Liability. Either party shall save the other party unharmed from any loss, injury or damage to persons or property arising out of the

operation and maintenance of, and the transmission of any electric power over, its transmission lines and equipment leading to or from the interchange points and points of delivery herein designated unless such loss, injury, or damage is caused by the sole negligence of the other party, its agents, servants, or employees.

4. Operation to Minimize Disturbances. The systems of the parties shall be maintained and operated so as to minimize, in accordance with good practice, the likelihood of disturbance originating in the system of either party causing impairment of the service on the system of the other party or on any other system interconnected with the system of either party.

5. Service. The parties shall supply electricity as agreed upon hereunder, but neither party, its officers, agents, or employees, shall be liable for damages or breach of contract when service is interrupted or suspended by reason of injunction, strike, riot, invasion, fire, accident, floods, back-water caused by floods, act of God, or from any other like causes beyond its control or by reason of necessary maintenance outages. Either party shall notify the other immediately should the service for which the other party is responsible be unsatisfactory for any reason or should there be any difficulties, trouble, or accidents affecting the supply or receipt of electricity. Such notices, if oral, shall be confirmed in writing.

6. Notice. Any notice, demand, or request, required or authorized by this agreement, shall be deemed properly given if mailed postage prepaid to the Manager of Power, Tennessee Valley Authority, Chattanooga, Tennessee, in the case of Authority, and to the Vice President, Kentucky Utilities Company, Lexington, Kentucky, in the case of Company. The designation of the person to be so notified may be changed by Authority or Company at any time or from time to time by similar notice.

7. Enforcement of Rights. 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 and without losing or waiving any right to maintain suit for subsequent losses occurring during the term of this agreement, and recovery in such suit shall not be deemed as splitting the cause of action.

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

9. Governmental Approvals. This agreement is subject to the approval of all governmental authorities having jurisdiction.

10. Successors of Parties. This contract shall inure to the benefit of and be binding upon the successors of the respective parties hereto.

11. Persons Not to Benefit. No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this

agreement or to any benefit to arise therefrom. Nothing, however, herein contained in this paragraph shall be construed to extend to any incorporated company if the agreement be for the general benefit of such corporation or company.

12. Superseded Agreements. This agreement upon becoming effective shall supersede and cancel the following agreements between Authority and Company:

TV-48298 (January 11, 1940)
TV-70383 (March 13, 1942)
TV-75502 (September 1, 1942)
TV-80771 (December 1, 1943)
TV-80771, Supplement #3 (July 17, 1946)
TV-80771, Supplement #4 (May 20, 1947)
TV-80771, Supplement #7 (May 11, 1948)
TV-95877 (December 19, 1946)
TV-95877, Supplement #1 (January 13, 1947)
TV-96042 (January 8, 1947)
TV-96042, Supplement #1 (January 29, 1947)
TV-4025A (August 5, 1948)
TV-7616A (August 25, 1949)

13. Term. This agreement shall become effective as of the date first above written and shall remain in effect for an initial term of ten (10) years and from year to year thereafter until terminated by either party upon at least one (1) year's written notice in advance of the expiration of said initial term or any then current yearly-extension thereof.

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

Attest:
(SEAL)

/s/ Leona LeRoy
Assistant Secretary

Attest:
(SEAL)

/s/ G. M. Kilgus
(Title) Assistant Secretary

TENNESSEE VALLEY AUTHORITY

By /s/ George F. Cant
General Manager

KENTUCKY UTILITIES COMPANY

/s/ E. W. Brown
(Title) Vice President

CAR
Division
of Law

APPROVED BY TVA
BOARD OF DIRECTORS
MAR 22 1951

/s/ LI
Assistant Secretary

Chattanooga, Tennessee 37401

September 25, 1968

Mr. W. W. Rumans, Manager
Big Rivers Rural Electric
Cooperative Corporation
Henderson, Kentucky 42420

Dear Mr. Rumans:

This will confirm the arrangements made between our representatives for the sale to Tennessee Valley Authority (hereinafter called "TVA") of surplus energy by Big Rivers Rural Electric Cooperative Corporation (hereinafter called "Big Rivers").

It is understood and agreed that:

1. Big Rivers will deliver to TVA at the existing points of interconnection surplus energy in the amounts agreed to and scheduled from time to time by the operating representatives of Big Rivers and TVA.
2. Settlement for the power deliveries so scheduled shall be made by payment to Big Rivers at a rate per kwh determined by Big Rivers as its out-of-pocket cost of generating or obtaining the energy from other sources plus transmission losses to the points of interconnection plus 0.25 mill per kwh.
3. This agreement shall become effective as of August 22, 1968, and shall continue in effect until terminated by either party on 30 days' written notice to the other party.

If this letter satisfactorily states the agreement between us, please have three copies executed on behalf of Big Rivers and return them to me. Upon completion by TVA, a fully executed copy will be returned to you.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

s/ G. O. Wessenauer

G. O. Wessenauer,
Manager of Power

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

BIG RIVERS RURAL ELECTRIC
COOPERATIVE CORPORATION

By s/ William W. Rumans
(Title) General Manager

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INTERCONNECTION AGREEMENT

Between

TENNESSEE VALLEY AUTHORITY

And

EAST KENTUCKY RURAL ELECTRIC COOPERATIVE CORPORATION

THIS AGREEMENT, made as of the 22 day of January,
 1964, between TENNESSEE VALLEY AUTHORITY (hereinafter called "TVA"), a
 corporation created by and existing under the Tennessee Valley Authority
 Act of 1933, as amended, and EAST KENTUCKY RURAL ELECTRIC COOPERATIVE
 CORPORATION (hereinafter called "Cooperative"), a cooperative created,
 organized, and existing under and by virtue of the laws of the Commonwealth
 of Kentucky, the members of which are all electric distribution cooperatives
 organized under the laws of the Commonwealth of Kentucky, and selling elec-
 tricity at retail in various rural areas of Kentucky;

W I T N E S S E T H:

WHEREAS, the power facilities of TVA and Cooperative have a
 direct transmission interconnection and are indirectly interconnected
 through the transmission facilities of others; and

WHEREAS, Cooperative, under separate arrangements with others,
 desires to provide an additional interconnection between the systems of
 TVA and Cooperative at the Wolf Creek Hydroelectric Plant; and

WHEREAS, such additional interconnection will require certain
 modifications in TVA's telemetering and communications facilities; and

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WHEREAS, it will be of mutual benefit to the parties hereto if the interconnections are maintained between the TVA system and Cooperative's system; and

WHEREAS, TVA and Cooperative are parties to an agreement dated May 4, 1951, as amended, which expires January 31, 1964, and now desire to enter into a new agreement;

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

ARTICLE I

TERM OF AGREEMENT

1.1 Term.

This agreement shall become effective on February 1, 1964, and shall continue in effect until terminated on February 1 of any year by either party upon written notice given to the other not less than 5 years in advance of the date of termination specified therein; provided, that no such termination shall be effective prior to February 1, 1974.

ARTICLE II

INTERCONNECTION POINTS AND FACILITIES

2.1 Interconnection Points.

The system interconnection points for purposes hereof shall be as follows:

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The 69-kv interconnection between TVA and Cooperative at the point where Cooperative's 69-kv transmission system is connected to TVA's 69-kv bus at TVA's Summer Shade Substation.

Upon completion of interconnection facilities contemplated under separate arrangements between Cooperative and others, the 161-kv interconnection between TVA and Cooperative at the terminal of Cooperative's Cooper Plant-Wolf Creek Plant 161-kv transmission line at the Wolf Creek Plant.

The 69-kv interconnection between TVA and Cooperative at the point where TVA's 69-kv tapline is connected to Cooperative's system near Monticello, Kentucky.

The 69-kv interconnection between Cooperative and the Electric Plant Board of the City of Glasgow near Glasgow, Kentucky.

Indirect interconnections through other systems by existing or new interconnection routes, to the extent that from time to time arrangements may be made for the use of such interconnections.

2.2 Accessory Facilities.

If Cooperative establishes the aforesaid interconnection at Wolf Creek, Cooperative shall, at no expense to TVA (directly or indirectly),

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provide, install, operate, maintain, and replace or cause to be provided, installed, operated, maintained, and replaced all facilities required for the Wolf Creek interconnection. Such facilities shall be suitable for coordinated operation with similar facilities on TVA's system.

To facilitate the transactions herein contemplated, the parties will provide communication, telemetering, relaying, and load control equipment adequate for 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, TVA, at its expense, shall install, own, operate, maintain, and replace such of the aforesaid equipment as will be used predominantly for Cooperative. Notwithstanding the foregoing, if Cooperative establishes the aforesaid interconnection point at Wolf Creek and, in TVA's judgment, such action would require that TVA make, at locations on its system other than at Wolf Creek, modifications in or additions to its telemetering, communication, relaying, and load control equipment for continued coordinated operation of the systems of TVA and Cooperative, TVA shall make such modifications or additions as it deems necessary and Cooperative shall reimburse TVA for all costs thereof, including applicable overheads. The amount of such reimbursement is estimated to be \$10,000.

2.3 Maintenance of Interconnections.

Except as otherwise provided in this agreement, 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 purposes herein provided.

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ARTICLE III
SERVICE CONDITIONS

3.1 Operation of Systems in Parallel.

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The systems of the parties shall be operated in parallel with all direct interconnections closed, except as otherwise agreed; provided, however, that either party may open any or all interconnections whenever in its judgement its own facilities or operations would otherwise be endangered, and in such case as much advance notice as practicable will be given. If an increase in capacity at TVA's Summer Shade Substation is required to permit continuous use of the Summer Shade interconnection point for interchange purposes other than concurrent exchange for TVA loads and if Cooperative desires such continuous use, TVA shall provide or cause to be provided an increase in the capacity at TVA's Summer Shade Substation. The cost of any such increase in capacity shall be borne by Cooperative and it shall reimburse TVA therefor promptly upon receipt of statement of such cost. In the event of cancellation of this contract by TVA, the parties shall endeavor to reach an equitable settlement with respect to any cost so borne by Cooperative.

3.2 System Reserves.

Insofar as practicable each system shall provide such amounts of spinning reserve capacity that neither the TVA system nor the Cooperative's system will impose disproportionate load swings or voltage variations upon the other system.

If at any time the record over a reasonable prior period shows that either of the parties has been unable to provide the emergency service provided for under Article IV hereof or has imposed disproportionate load

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swings or voltage variations because of inadequacy of spinning reserve, generating capacity, or transmission capacity, either party, by written notice given to the other party, may request a joint system study by the parties. Such study shall determine the adequacy or inadequacy of reserve generating capacity and transmission facilities being provided to meet the requirement of the parties' respective systems and the extent, if any, of the burden that one party may be placing upon the other. If it should be found that one party is placing a burden upon the other, the party causing such burden shall promptly take such measures as are necessary to remove the burden from the other party or the parties shall enter into such arrangements as will provide for equitable compensation to the party being burdened.

3.3 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 representatives shall establish from time to time mutually satisfactory voltage schedules and kilovar supply arrangements.

3.4 Determination of Amounts of Power Supplied.

The amounts of power being supplied hereunder by one party to the other shall be the amounts scheduled by the parties' load dispatchers. 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 and actual net deliveries shall be handled as inadvertent power flows, and such differences shall be settled for by appropriate compensatory deliveries.

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Such inadvertent power flows may be accounted for according to generally accepted procedures for loop operation as approved by the operating representatives.

ARTICLE IV

RECIPROCAL EMERGENCY STANDBY

4.1 Definition of an Emergency Condition.

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An "emergency condition" is hereby defined as any temporary condition due to the failure or eminent failure of facilities on the system of the party affected arising from causes beyond its control which interferes with or jeopardizes its ability to meet adequately the requirements of its system.

4.2 Conditions of Delivery.

If an emergency condition should occur on the system of one of the parties, the other will, so far as practicable in its judgment without jeopardy to its properties or operations, supply 25 mw of emergency power to the party suffering from the emergency for a period not to exceed 48 consecutive hours during any single emergency. Upon request, additional emergency power may be supplied if in the judgment of the supplying party such additional power can be supplied without jeopardy to the supplying party's property or operations.

4.3 Basis of Settlement.

Emergency power supplied hereunder shall be settled for by the return of equivalent power or, at the option of the party which supplied the emergency power, by payment of the out-of-pocket costs incurred by the

supplying party in supplying the emergency power at the points of system interconnection, plus 10 percent of said cost. If equivalent power is returned, it shall be returned at times when the load conditions of the party which furnished the emergency power are similar to conditions on its system at the time the emergency power was delivered or, if such party elects to have equivalent power returned under different conditions, it shall be returned in such amounts as will compensate for the differences in conditions.

ARTICLE V

ECONOMY INTERCHANGE TRANSACTIONS

5.1 Interchange of Energy.

In order to promote economy of power supply and to achieve efficient utilization of production capacity, TVA and Cooperative shall each offer to the other in accordance with the provisions of this Article V any energy which, in the sole judgment of the offering party, is available for economy interchange transactions hereunder (hereinafter called "surplus energy"). The party to whom any such offer is made shall promptly inform the offering party of the extent to which it desires to use such surplus energy and schedules shall be mutually agreed upon. Neither party shall be under any obligation to deliver surplus energy under this Article V in amounts that, together with any other transactions between the systems of the parties, would cause the total deliveries at any points of interconnection to exceed the capacity of the interconnected transmission facilities. The points of delivery for interchange transactions under this Article V

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shall be the interconnection points specified in section 2.1 of Article II of this agreement.

5.2 Basis of Settlement.

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The standard basis of settlement for economy energy hereunder shall be agreed upon by the operating representatives of the parties prior to commencement of delivery of such economy energy at the rate deemed by them to be one-half the sum of (a) the supplying party's base cost at the points of system interconnection, as defined in section 5.3 of this Article V, and (b) the applicable base value to the receiving party at the points of system interconnection, as defined in section 5.4 of this Article V.

In lieu of the aforesaid basis of settlement, the parties may from time to time by agreement of their operating representatives make money settlements for any economy interchange transactions at a rate per kilowatt-hour equal to the supplying party's base cost, as defined in section 5.3 of this Article V, for the surplus energy supplied plus (a) 1/4 mill per kilowatt-hour or (b) 10 percent of said base cost, whichever is lower.

5.3 Base Cost at Points of System Interconnection.

"Base cost at the points of system interconnection" shall mean the incremental expense per kilowatt-hour as determined by the supplying party to be the expense it would incur in supplying and delivering surplus energy hereunder to the points of system interconnection. Such incremental expense shall include unit startup costs if such costs are incurred by the supplying party in order to supply the surplus energy.

5.4 Base Value at Points of System Interconnection.

"Base value at the points of system interconnection" shall mean the incremental expense per kilowatt-hour at the points of system interconnection as determined by the receiving party to be the expense that it would incur if no surplus energy were to be received hereunder. Such incremental expense shall include unit startup costs if such costs would be avoided by the receiving party because of receipt of the surplus energy.

5.5 Review of Base Costs and Base Values.

From time to time, but not less than once a year, authorized representatives will review the method and bases used by each party to determine such base costs and base values.

ARTICLE VI

CONCURRENT EXCHANGE

6.1 Exchange Transactions.

(a) During the term of this agreement, Cooperative shall deliver to TVA at the Monticello interconnection point the power and energy requirements of Monticello, Kentucky. The power and energy shall be measured on the low sides of the substation or substations serving Monticello, and the readings shall be increased by one and one-half percent (1.5%) to reflect substation losses, or as mutually agreed upon from time to time, to represent deliveries to TVA at the Monticello interconnection point and shall be increased further by an amount agreed to be equivalent to the transmission losses incurred by Cooperative in making such deliveries. Initially such transmission losses shall be three and one-half percent (3.5%) of such deliveries.

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TVA shall advise Cooperative at intervals not exceeding a year (more often if substantial changes develop) of the peak load forecasts of the Monticello load for the next three years. In the event the capacity of Cooperative's facilities in excess of the capacity needed to serve its own customers becomes inadequate to supply the power requirements of Monticello, the parties will endeavor to agree upon arrangements for any additional facilities that may be required, it being fully understood that such additional facilities so required will be at TVA's expense. If the parties cannot agree upon such arrangements, Cooperative may, upon notice adequate for TVA to provide its own facilities, open the Monticello interconnection.

(b) If TVA's normal source of power supply to the City of Glasgow, Kentucky, is interrupted, Cooperative shall deliver, to the extent it has excess capacity on its system not needed for its customers or prior commitments, to TVA at the Glasgow interconnection point power and energy to Glasgow, Kentucky, for the account of TVA. The methods of determining the amounts of power and energy supplied by Cooperative and the losses associated therewith shall be determined and agreed to by the operating representatives of the parties hereto.

6.2 Basis of Settlement.

As nearly concurrently as practicable with deliveries made by Cooperative in accordance with this Article VI, TVA shall deliver to Cooperative at other system interconnection points amounts of power and energy equivalent to power and energy delivered by Cooperative as adjusted for losses in accordance with section 6.1 above.

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ARTICLE VII

METERING

7.1 Metering and Metering Facilities

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The power and energy transactions over the system interconnection points hereunder shall be measured and accounted for as of the interconnection points. Unless otherwise agreed, each party shall at its own expense, maintain its existing meters used for measuring transactions over the existing system interconnection points and may provide, install, own, and maintain any additional meters on its system necessary in its judgment to determine the amounts of power and energy delivered through any system interconnection point; provided, however, that Cooperative shall be obligated to provide, install, own, and maintain the meters and metering facilities for the interconnection point which will be established at the Wolf Creek Plant, or to arrange therefor, at its own expense. 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.

7.2 Inspecting and Testing of Meters.

Each party shall, at its own expense, make periodic tests and inspections of its metering equipment 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

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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 tests so that it may have a representative present if it wishes.

If any tests or inspections show either party's measurements to be inaccurate by more than one percent, an offsetting adjustment shall be made in the parties' billings or statements for any known or agreed period of inaccuracy; in the absence of such knowledge or agreement, the adjustment shall be limited to 30 days 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 VIII

RECORDS AND STATEMENTS

8.1 Records.

Each party shall keep such records as may be needed to afford 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 in connection with settlements under this agreement. All such records shall

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be retained for a period of 8 years. Upon and to the extent requested, copies of the records shall be delivered promptly to the other party.

8.2 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 IX

BILLINGS AND PAYMENTS

9.1 Billings 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 20th day of the month next following the monthly or other period to which such bills are applicable or on the 10th day following the receipt of the bill, whichever is later. To any amount due and unpaid after the due date there shall be added a penalty of one percent, and an additional one percent of the then unpaid amount shall be added for each succeeding 30-day period until the amount is paid in full.

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ARTICLE X

MISCELLANEOUS PROVISIONS

10.1 Continuity of Service.

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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 to be 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 disturbances, strike, labor distrubances, restraint by court or public authority, or other similar or dissimilar 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 anby obligation by reason of uncontrollable forces shall exercise all diligence to remove such disability with reasonable dispatch.

10.2 Access to Property and Facilities.

For the purpose of operation, maintenance, 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.

10.3 Expiration Settlement for Energy Balance.

Any balances of energy for which there have been no settlement under agreements between the parties hereto which expire January 31, 1964,

shall be settled for as if such energy had been delivered under this agreement.

10.4 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 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.

10.5 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.

10.6 Notices.

Any written notice or demand required by this agreement shall be properly given if mailed, postage prepaid, to the Manager of Power, Tennessee Valley Authority, Chattanooga, Tennessee, on behalf of TVA, or to the Manager, East Kentucky Rural Electric Cooperative Corporation, Winchester, Kentucky, on behalf of Cooperative. 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. Each party shall notify the other from time to time of the name, address, and telephone number of its designated operating representative and authorized representative empowered to handle the routine operations called for in this agreement.

10.7 Regulatory Authorities.

This agreement is made subject to the jurisdiction of any governmental authority or authorities (excluding TVA) having jurisdiction in the premises.

10.8 Restrictions 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 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.

10.9 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.

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

Attest:
(SEAL)

s/ Leona L. Malkemus
Assistant Secretary

TENNESSEE VALLEY AUTHORITY

By s/ L. J. Van Mol
General Manager CAR
s/LAW

Attest:
(SEAL)

s/ James S. Patterson
(Title)

EAST KENTUCKY RURAL ELECTRIC
COOPERATIVE CORPORATION

By s/ Alex B. Veech
(Title)

APPROVED BY TVA
BOARD OF DIRECTORS
Feb 13 1964
s/LIM
Assistant Secretary

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CURRENT AGREEMENTS WITH OTHER UTILITIES

<u>Contractor</u>	<u>Services</u>
Appalachian Power Company Roanoke, Virginia	CE, DCE, EA, EI, SA
Big Rivers Rural Electric Cooperative Corporation Henderson, Kentucky	ST
Carolina Power & Light Company Raleigh, North Carolina	EA, EI
The Cincinnati Gas & Electric Company Cincinnati, Ohio	EA, EI, SA
East Kentucky Rural Electric Cooperative Corporation Winchester, Kentucky	CE, EA, EI
Electric Energy, Inc. Joppa, Illinois	EA
Indianapolis Power and Light Company Indianapolis, Indiana	ST
Kentucky Utilities Company Lexington, Kentucky	CE, EA, EI, SA
Louisville Gas & Electric Louisville, Kentucky	EA, EI, SA, UF
Mississippi Power & Light Company*: Jackson, Mississippi	DCE, EA, EI
Arkansas Power & Light Company	ST
Louisiana Power & Light Company	--
Mississippi Power & Light Company	CE
Southern Services, Inc.: Birmingham, Alabama	DCE, EA, EI
Alabama Power Company	CE
Georgia Power Company	CE
Gulf Power Company	--
Mississippi Power Company	--
Union Electric and Illinois Cos. (Effective Oct. 1972) St. Louis, Missouri	DCE, EA, EI, ME

Notes: CE - Concurrent exchange
DCE - Diversity Capacity Exchange
EA - Emergency Assistance
EI - Economy Interchange
ME - Maintenance Energy
SA - Short-Term Power and Energy Sales
ST - Surplus Energy to TVA
UF - Use of Facilities for Access to Other Systems

*Mississippi Power & Light Company represents the South Central Electric Companies (SCEC) in arrangements for seasonal diversity capacity exchange of up to 1.5 million kW.

Question No. 9

List non-affiliated*** electric utility systems with peak loads smaller than applicant's which serve either at wholesale or at retail adjacent to areas served by applicant. Provide a geographic one line diagram of applicant's generating and transmission facilities (including subtransmission), indicating the location of adjacent systems and as to such systems indicate (if available) their load, their annual load growth, their generating capacity, their largest thermal generating unit size, and their minimum reserve criteria.

***Systems not in the same holding company system.

Answer

Below is a list of non-affiliated electric utility systems with peak loads smaller than applicant's which serve either at wholesale or retail adjacent to the applicant's system.

Alabama Power Company
Appalachian Power Company
Arkansas Power & Light Company
Big Rivers Rural Electric Cooperative Corporation
Carolina Power & Light Company
Central Illinois Public Service Company
Cincinnati Gas & Electric Company (1)
East Kentucky Rural Electric Cooperative Corporation
Georgia Power Company
Jackson Purchase Rural Electric Cooperative Corporation
Kentucky Utilities Company
Louisville Gas & Electric Company (2)
Mississippi Power Company
Mississippi Power & Light Company
Nantahala Power & Light Company
Southern Illinois Power Cooperative
Union Electric Company

- (1) Not adjacent to TVA's system; has agreement with TVA. (See Answer 8).
(2) Not adjacent to TVA's system; has direct interconnection with TVA.
(See Answer 8).

A geographic one-line diagram (s3 dated July 1970) of applicant's generation and transmission system indicating the location of interconnections with adjacent systems is attached.

Question No. 9
Page 2

Information with respect to loads, generation, and reserve criteria of adjacent systems is not available to applicant.

Question No. 10

List separately those systems in Item 9 which purchase from applicant (a) all bulk power supply and (b) systems which purchase partial bulk power supply requirements. Where information is available to applicant, identify those Item 9 systems purchasing part or all of their bulk power supply requirements from suppliers other than applicant.

Answer

Nantahala Power and Light Company's total power requirements are supplied by TVA, part as payment in kind for power supplied to TVA from hydroelectric resources owned by Nantahala Power and Light Company and others and the remainder under a TVA wholesale power contract. None of the other systems listed under Item 9 purchase bulk power supply from applicant.

Information with respect to sources of bulk power supply for other systems listed under Item 9 is not available to applicant.

POWER CONTRACT

Between

TENNESSEE VALLEY AUTHORITY

And

NANTAHALA POWER AND LIGHT COMPANY

THIS CONTRACT, made and entered into as of June 1, 1971, by and between the 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 (hereinafter called the "TVA Act"), and NANTAHALA POWER AND LIGHT COMPANY (hereinafter called "Nantahala"), a corporation duly created, organized, and existing under and by virtue of the laws of the State of North Carolina;

W I T N E S S E T H:

WHEREAS, the TVA Act authorizes TVA to sell power to states, counties, municipalities, partnerships, or individuals, according to the policies therein set forth; and

WHEREAS, the TVA Act provides that the sale of such power shall be primarily for the benefit of the people of the section as a whole and particularly for the domestic and rural consumers; and

WHEREAS, Nantahala owns and operates an electric distribution system in North Carolina serving, among other customers, many domestic and rural consumers in western North Carolina; and

WHEREAS, pursuant to various agreements, including one dated December 27, 1962 (TV-23701A), as amended (hereinafter called the "Fontana Agreement"), between TVA and Nantahala, Aluminum Company of America, and

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Tapco, Inc., all of the power requirements of the aforesaid distribution system for many years have been supplied by TVA as a part of payments in kind for the power supplied to TVA from hydroelectric resources of Nantahala and Tapoco, Inc.; and

WHEREAS, Nantahala's total power requirements for its distribution system are expected to exceed the power available to it from TVA under the Fontana Agreement as established by an agreement among Nantahala, Aluminum Company of America, and Tapoco, Inc., pursuant to Article II of said Fontana Agreement; and

WHEREAS, the parties hereto wish to agree upon the terms and conditions under which TVA will sell and supply and Nantahala will purchase and take its power and energy requirements in excess of that available to it under the Fontana Agreement;

NOW, THEREFORE, in consideration of the mutual promises herein contained and subject to the provisions of the TVA Act, the parties agree as follows:

1. Term. This agreement shall become effective as of _____ June 1 _____, 1971, and shall continue in effect through December 31, 1982; provided, however, that this agreement may be terminated by either party (a) upon five years' written notice, or (b) upon disposition by Nantahala of its distribution system to a party or parties acceptable to TVA, effective as of the date of transfer of ownership to said party or parties.

2. Power Supply. TVA shall supply and Nantahala shall purchase Nantahala's power and energy requirements in excess of that available to Nantahala under the Fontana Agreement. The monthly amounts supplied by TVA

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**THIS PAGE IS AN
OVERSIZED DRAWING OR
FIGURE,
THAT CAN BE VIEWED AT THE
RECORD TITLED:**

**“TVA POWER
SYSTEM, MAP S3.”**

**WITHIN THIS PACKAGE... OR
BY SEARCHING USING THE
DOCUMENT/REPORT NO.**

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and purchased by Nantahala under this contract shall be determined in accordance with section 3 below.

3. Determination of the Amounts of Power and Energy Purchased from TVA and the Amounts of Surplus Energy Disposed of to TVA. Demand measurements will be made at each delivery point, and Nantahala's "system demand" for any 60-consecutive-minute interval of the month shall be the higher of (1) the sum of the demands in kilowatts at all delivery points or (2) 90 percent of the sum of the kVA demands at all delivery points. The billing demand for power purchased hereunder from TVA for any month shall be the maximum amount, expressed in kilowatts, by which Nantahala's system demand for any 60-consecutive-minute interval of that month exceeds the amount of power available to Nantahala under the Fontana Agreement which for purposes of this agreement is deemed to be power up to 54,300 kW (41,100 kW "normal power" and 13,200 kW "peaking deviation").

Energy measurements shall be made monthly at each delivery point and for purposes hereof, such measurements combined shall be Nantahala's "system energy requirement." For any month, the amount of energy purchased hereunder from TVA shall be Nantahala's system energy requirement less the energy available to Nantahala under the Fontana Agreement which is an amount equal to the product of 41,100 kW and the hours in such month.

For any month, the amount, if any, by which the energy available to Nantahala under the Fontana Agreement exceeds Nantahala's system energy requirement for such month shall be deemed to be surplus energy during such month and shall be disposed of to TVA to replace, within TVA's ability to do so, generation at TVA's steam-electric generating plants. As settlement for such surplus energy so used by TVA, TVA will share equally with Nantahala the savings to TVA effected by such steam replacement. The settlement will

be made by crediting such amount on the bill for the next month in which power and energy are supplied hereunder.

4. Use of Power.

(a) Nantahala shall furnish TVA in March each year its estimated monthly system peak and average load requirements over the next ensuing 60 months.

(b) Nantahala shall be entitled to use the power purchased from TVA to serve all consumers to whom the resale rate schedules specified in section 9 hereof are applicable except those TVA is entitled to serve directly, as provided below. TVA shall be entitled to serve directly any consumer to whom said resale rate schedules are not applicable, and any consumer whose energy requirements in any month are more than 10 million kWh plus the amount of energy, if any, delivered by Nantahala to residential consumers under billings for the preceding June and received from TVA at the delivery point through which Nantahala would receive the energy for such consumer if it were served by Nantahala. The supply of power by TVA to Nantahala for resale to any consumer which has a supply of 5,000 kW or more of power other than that furnished by Nantahala under said resale rate schedules, and the contract for such resale between Nantahala and such consumer, shall be subject to such special arrangements as TVA may reasonably require. Nothing herein shall be construed as preventing Nantahala and TVA from agreeing upon special arrangements for service to any consumer. Notwithstanding any provision of this contract that may be construed to the contrary, for purposes of determining the size of a consumer's load which Nantahala is entitled to serve under and subject to this section, the delivery points, except Marble, specified in section 5 hereof shall be considered as a single delivery point.

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(c) It is recognized that from time to time there may be a consumer served by one party hereto which, because of changed conditions, may become a consumer which the other party is entitled to serve under the provisions of subsection (b) of this section. In any such case the parties hereto, unless otherwise agreed, shall make such arrangements (including making appropriate allowance for any otherwise unrecoverable investment made to serve such consumer) as may be necessary to transfer as soon as practicable such consumer to the party entitled to serve the consumer hereunder, and the party originally serving said consumer shall cooperate in every way with the party entitled to serve the consumer in making arrangements for the latter to undertake such service including, without limitation, releasing the consumer from any then existing power contract from and after the effective date for initiating service under any contract between such consumer and the party entitled to serve it.

(d) Nantahala shall keep TVA informed of any prospective developments affecting any individual load which uses or will use 5,000 kW or more. As soon as practicable after receipt of information from Nantahala regarding the prospective addition of, or increase in, any load of 5,000 kW or larger which Nantahala would be entitled to serve hereunder, TVA shall notify Nantahala of the time schedule upon which the additional power required for such service could be made available to Nantahala at the wholesale rates then in effect hereunder and, upon request, of any terms under which it could supply any power in advance of said schedule. Nantahala shall not take and deliver such additional power for said load in advance of or in amounts larger than specified in said schedule except to the extent that it has made special arrangements to do so.

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(e) The service area limitations in the first three paragraphs of subsection (a) of section 15d of the TVA Act are incorporated herein by reference as fully as though set out herein, and this contract shall not be construed as permitting any arrangements by Nantahala which would be inconsistent with those limitations.

(f) Notwithstanding any other provision of this section, TVA may, as a condition precedent to TVA's obligation to make power available, require Nantahala to provide such assurances of revenue to TVA as in TVA's judgment may be necessary to justify the reservation, alteration, or installation by TVA of additional generation, transmission, or transformation facilities for the purpose of supplying power to Nantahala.

5. Delivery and Receipt of Power. The power to be supplied by TVA hereunder shall be delivered at the delivery points designated below:

(a) A point on the 13.2-kV circuit at the Nantahala Hydro Plant switchyard suitable to measure the power flow into Nantahala's 13.2/34.5-kV transformer bank supplying the Andrews and Robbinsville 34.5-kV circuits and the 13-kV supply to the rural feeder;

(b) A point in the Thorpe Hydro Plant switchyard suitable to measure power flows on Nantahala's 69-kV lines;

(c) A point in the Thorpe Hydro Plant switchyard suitable to measure power flows on Nantahala's 13-kV lines;

(d) The 2.3-kV generator bus at Nantahala's Mission Hydro plant;

(e) The 69-kV side of Nantahala's 161-69-kV Oak Grove Substation;

(f) A point in the Cheoah Hydro Plant switchyard suitable to measure power flows into Nantahala's distribution system;

(g) A point in the Santeetlah Hydro Plant switchyard suitable to measure power flows into Nantahala's distribution system;

(h) The terminal of Nantahala's 13-kV connection to TVA's Marble Substation; and

(i) Such additional points as may be mutually agreed upon from time to time.

Since Nantahala and Tapoco own all the transmission facilities extending from their 161-kV system to the delivery points listed in (a) through (g) above, the delivery voltage for those delivery points shall be deemed to be 161,000 volts. The delivery voltage for delivery point (h) above shall be 13,000 volts.

Unless otherwise agreed, the deliveries to Nantahala at the delivery point at TVA's Marble Substation shall not exceed 10,000 kW. While it is contemplated that Nantahala's Mission Plant will, from time to time, be operated in parallel with TVA's facilities at Marble Substation, Nantahala's distribution system supplied from TVA's Marble Substation shall not be operated in parallel with other generating, transmission, or distribution facilities of Nantahala.

Neither party shall be responsible for installing at any delivery point equipment for the protection of the other's facilities, or for damages to the other's system resulting from the failure of its own protective devices, but each party agrees so to design, construct, and operate its system as not to cause undue hazards to the other's system.

Nantahala shall provide or continue to provide metering equipment at the delivery points on its system in accordance with the Fontana Agreement. The accuracy and standards of such equipment shall be acceptable to TVA. In the event that any such equipment is not acceptable to TVA, Nantahala shall promptly replace it with equipment satisfactory to TVA.

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All equipment furnished by each party shall be and remain its property. Each party shall exercise proper care to protect any property of the other on its premises, and shall bear the cost of any necessary repairs or replacements arising from its neglect to exercise such proper care. The authorized employees of each party shall have access at all reasonable times to any of its facilities on the other's premises for such purposes as reading its meters and testing, repairing, or replacing its equipment.

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6. Facilities. The power and energy supplied to Nantahala hereunder shall be supplied over the transmission facilities of Nantahala, Tapoco, Inc., and TVA. Nantahala shall cause to be made all necessary arrangements for the use by TVA of the transmission facilities of Tapoco, Inc., and Nantahala for the transmission of the power to be supplied hereunder to Nantahala's distribution system and for the maintenance, replacement, and operation thereof in accordance with good utility practice for such purpose. TVA's obligation to supply power and energy hereunder shall be subject to the availability to it at all times during the term hereof of capacity in the aforesaid transmission facilities of Tapoco, Inc., and Nantahala adequate for purposes of supplying Nantahala's distribution system requirements hereunder, and TVA shall not be liable for breach of contract or for damages in the event that the supply of power to Nantahala's distribution system hereunder is interrupted, curtailed, or interfered with because of failure of, or inadequate capacity in, said transmission facilities, or in the course of maintenance, operation, repair, or replacement of such transmission facilities.

7. Wholesale Rate. Nantahala shall, subject to other provisions of this contract, pay for the power and energy supplied by TVA hereunder in accordance with the following rates and charges:

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Demand Charge:

One dollar and seventy-five cents per month per kilowatt of demand

Energy Charge:

First	100,000	kilowatt-hours	per	month	at	4.8	mills	per	kWh
Next	200,000	"	"	"	"	4.3	"	"	"
Next	700,000	"	"	"	"	3.8	"	"	"
Excess over	1,000,000	"	"	"	"	3.3	"	"	"

Adjustment

The bill for each month will be increased or decreased in the same amount as adjustments applicable to TVA Wholesale Rate A in accordance with the current Adjustment Addendum published by TVA. Any such adjustment shall be effective beginning with bill rendered from meter readings taken on and after the effective date of such Adjustment Addendum.

Facilities Rental

Nantahala will pay to TVA, in addition to other rates and charges, including minimum charges, a facilities rental charge of 20 cents per kW per month for the first 10,000 kW of the highest demand established at the delivery point at TVA's Marble Substation during the latest 12-consecutive-month period and 5 cents per kW per month for the portion of such demand which is in excess of 10,000 kW. Section 6 of Supplement No. 2 to the Fontana Agreement is being deleted as of the effective date hereof by the contemporaneous execution of a letter agreement by the parties to the Fontana Agreement.

Minimum Bill

The minimum bill for demand and energy for any month, exclusive of Adjustments, shall equal 70 percent of the highest demand charge during

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the previous 36 months. For purposes hereof, minimum bill payments shall be deemed to be demand charges.

It is recognized that the above rates and charges are basic rates and charges of TVA applicable to wholesale customers of TVA. It is understood and agreed that any revisions in basic rates, including Facilities Rental and Minimum Bill, applicable to wholesale customers shall be applicable equally to Nantahala hereunder, and TVA agrees that it will notify Nantahala immediately of such revisions, specifying in said notice the effective date thereof.

8. Billing. TVA will bill Nantahala hereunder as soon as practicable after the end of each month as defined herein. Nantahala will pay such bill within 20 days after the date of bill. Any amount so billed and remaining unpaid 20 days after the date of bill shall be increased by one percent and an additional one percent of the then unpaid amount shall be added for each succeeding 30-day period until the amount is paid in full. All payment shall be made to TVA at its offices at Chattanooga, Tennessee, or at such other place as TVA may from time to time designate by notice to Nantahala.

Upon failure of Nantahala to pay TVA as contracted for within 30 days after due date, TVA shall have the right, upon reasonable notice, to discontinue the supply of power, and may refuse to resume delivery so long as any such past due account remains unpaid. Discontinuance of supply under this section shall not relieve Nantahala of its liability for the amounts then due and the monthly charges hereunder for the then unexpired term of this contract.

In the event Nantahala voluntarily or involuntarily fails to pay in full any monthly bill by the expiration of 60 days from the due date,

TVA shall have the right to consider this contract breached and to cancel the same upon written notice that, if payment in full is not received within 10 days (or such longer period as may be specified) after the date of said notice, this contract shall be deemed permanently breached and canceled; and such cancellation by TVA shall be without waiver of any amounts which may be due or of any of its rights, including the right to damages for such breach.

For purposes of this contract, the term "month" shall mean a calendar month, except as otherwise agreed in writing by the representatives of the parties.

9. Resale Rates. In order that the electric power and energy supplied by TVA to Nantahala hereunder may be resold to the ultimate consumer at prices deemed by TVA's Board of Directors (herinafter called "Board") to be reasonable, just, and fair in conformity with the TVA Act, Nantahala agrees to serve consumers, including all municipal and governmental customers and departments, at and in accordance with the rates, charges, and provisions set forth for the several classes thereof in Schedules R, SC, LC, RS, PL, PS, SL, and YL attached hereto and not to depart therefrom except by agreement of the parties hereto. Additional resale schedules for special classes of consumers or special uses of electric energy may be added from time to time by agreement of the parties. Upon violation of this provision, this contract shall be voidable at the election of TVA, and TVA may void the contract without incurring any obligation or liability to Nantahala whatsoever.

It is understood by the parties hereto that the resale rates herein provided for have been accepted for filing by the Federal Power Commission where required and approved by all regulatory bodies having

jurisdiction for approval of such rates, and Nantahala agrees to prosecute with diligence a petition to any state or other regulatory body having jurisdiction for approval or filing of such additional or substituted resale rates as may from time to time be agreed upon pursuant hereto.

Nantahala agrees that the power and energy purchased hereunder shall be sold and distributed to the ultimate consumer without discrimination among consumer of the same class, and that no discriminatory rate, rebate, or other special concession will be made or given to any consumer, directly or indirectly.

10. Compensation for Additional Tax or in Lieu of Tax Payments.

It is recognized that among the costs which the rates specified in section 7 above were designed to cover are annual payments in lieu of taxes by TVA in an aggregate sum equivalent to 5 percent of its gross proceeds from sales of power exclusive of sales to agencies of the Government of the United States. If at any time TVA is compelled by law to pay during any fiscal year ending June 30 taxes and payments in lieu of taxes in an aggregate amount which shall exceed 5 percent of such proceeds, TVA may, if it so elects, increase the billing amounts during the succeeding fiscal year by the number of percentage points (to the nearest 0.1 point) by which said aggregate amount exceeded 5 percent of said proceeds.

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

12. Transfer of Contract. Neither this contract nor any interest herein shall be transferred or assigned.

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13. Restriction of Benefits. No member of or delegate to Congress or resident commissioner or any agent or employee of TVA shall be admitted to any share or part of this contract or to any benefit to arise therefrom. However, nothing contained in this section shall be construed to extend to any corporation if the contract be for the general benefit of such corporation.

14. Interference with Availability or Use of Power. Neither TVA nor Nantahala shall be liable for damages or breach of contract when and to the extent that the availability or use of power, respectively, is interrupted, curtailed, or interfered with or the performance of any other obligation hereunder is prevented by circumstances reasonably beyond the control of the party affected, such as (without limiting the generality of the foregoing) acts of God, strikes, accidents, laws of the United States or any State, regulations or orders of governmental agencies, judicial decrees, inability to obtain or install equipment, lack by TVA of necessary congressional appropriations or legislative authorizations, or other inability of either party to obtain necessary financing. Acts of God shall be deemed to include the effects of drought if the drought is of such severity as to have a probability of occurrence of less than once in 40 years. Each party shall advise the other at the earliest practicable date of any circumstances which are likely to result in the interruption, curtailment, or interference with the performance of any obligation hereunder.

TVA will furnish electric service hereunder continuously so far as reasonable diligence will permit, but TVA may interrupt, curtail, or otherwise interfere with service to Nantahala hereunder in the course of installation, operation, or maintenance of TVA's facilities, or for the purpose of safeguarding life or property, and in such event shall not be liable for damages or breach of contract. TVA, as far as reasonably possible, shall

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avoid such interruptions, curtailment, or interference for routine operating purposes or repairs and shall give such prior notice of those it deems necessary as may be reasonable under the circumstances.

15. Accounting and Reports. Nantahala shall keep its accounts of all electrical operations in accordance with the uniform system of accounts prescribed by the Federal Power Commission for public utilities and licensees, as such uniform system may from time to time be amended by appropriate orders of the Federal Power Commission. Nantahala shall supply TVA with monthly statistics, in such form as may be requested, concerning the number and classification of customers, the amount of electric power and energy sold, operating expenses and charges, and such other information as will demonstrate fully and completely the results of Nantahala's operations. Nantahala shall allow the duly authorized agents of TVA to have free access at all reasonable times to all books and records relating to electrical operations in order that TVA may verify the monthly statistical information to be provided by Nantahala. Nantahala shall supply TVA not later than August 15 of each year with an annual financial report, in such form as may be requested, of electric system transactions for the preceding year ending June 30 and of electric system assets and liabilities as of June 30. In the event of failure to furnish promptly such statements, TVA, following written notification to Nantahala of intention so to do, may with its own staff perform at Nantahala's expense all work necessary to collect such data.

16. Coordination of Agreements. Nantahala shall make such arrangements as may be necessary and which are satisfactory to TVA,

with Tapoco, Inc., and the Aluminum Company of America for handling deliveries of power hereunder as may be necessary to avoid conflict between this agreement and the Fontana Agreement.

17. Equal Opportunity. It is the policy of the Federal Government to provide equal employment opportunity, and in furtherance of that policy, it is the policy of TVA, as an agency of the Federal Government, to encourage equal employment opportunity in the various aspects of its programs, including the sale and distribution of TVA power. Accordingly, during the term of this power contract:

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(a) Nantahala will not discriminate against any employee or applicant for employment with its electric distribution system because of race, color, religion, sex, or national origin. Nantahala will take such affirmative action as is necessary to insure that all applicants are considered for employment and that all employees are treated in all aspects of employment without regard to their race, color, religion, sex, or national origin.

(b) Nantahala will, in all solicitations or advertisements for employees placed by or on behalf of the electric distribution system, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(c) Nantahala will cooperate and participate with TVA in the development of training and apprenticeship programs which will provide opportunities for applicants and prospective applicants for employment with the electric distribution system to become qualified for such employment, and such cooperation will include access by authorized TVA representatives to its electric distribution system's books, records, and accounts pertaining to training, apprenticeship, recruitment, and employment practices and procedures.

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18. Rules and Regulations. Nantahala's Rules and Regulations are attached hereto. Such Rules and Regulations may be amended, supplemented, or repealed by Nantahala at any time upon thirty days' written notice to TVA setting forth the nature of and reason for the proposed change. No change shall be made in said Rules and Regulations, however, which is in violation of or inconsistent with any of the provisions of this contract.

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

(SEAL)
Attest:

TENNESSEE VALLEY AUTHORITY

s/ Madge Evans
Assistant Secretary

By s/Lynn Seeber
General Manager

s/ EHD
LAW

(SEAL)
Attest:

NANTAHALA POWER AND LIGHT COMPANY

s/ W. W. Sloan
Title: Secretary

By s/ W. T. Walker
Title: President

APPROVED BY TVA
BOARD OF DIRECTORS
MAY 13 1971

s/ M.E.
Assistant Secretary

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NANTAHALA POWER AND LIGHT COMPANY

SCHEDULE "R"

RESIDENTIAL SERVICE

AVAILABILITY

This Schedule is applicable for all domestic use to residential customers. Service hereunder shall apply only to electric service in a private dwelling and its appurtenances.

CHARACTER OF SERVICE

A.C. service at approximately 60 cycles, 115 and/or 230 volts, single phase, to all electric consuming devices where capacity is within limits of Company standards.

MONTHLY RATE

First	15 Kwh	\$1.40
Next	25 Kwh @ 5.5¢ per Kwh	
Next	40 Kwh @ 3.3¢ per Kwh	
Next	60 Kwh @ 2.2¢ per Kwh	
Next	\$60 Kwh @ 1.1¢ per Kwh	
Excess over 1000 Kwh	@ 0.8¢ per Kwh	

MINIMUM MONTHLY BILL

\$1.40 per meter for 2 wire 115 volt service.
\$2.50 per meter for 3 wire 230 volt service.

Above rates are net and bills are due and payable within 10 days from date of bill.

This schedule applies to service for a period of not less than one year, provided that, in the opinion of the Company, contracts of shorter duration are justified by particular circumstances.

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NANTAHALA POWER AND LIGHT COMPANY

SCHEDULE "SC"

SMALL COMMERCIAL SERVICE

APPLICABILITY

This schedule is applicable to the entire requirements on a commercial customer's premises for electric service of one standard character delivered at one point from Company's existing facilities of suitable capacity and character. Service will be metered through a single watt-hour meter at the delivered voltage.

CHARACTER OF SERVICE

Alternating current, approximately 60 cycles, single phase, three phase or combined single and three phase at one standard voltage described in Company's Rules and Regulations.

MONTHLY RATE

\$1.80 including the first 20 kwh
4.0¢ per kwh for the next 480 kwh*
2.0¢ per kwh for the next 1900 kwh
1.0¢ per kwh for each additional kwh

* Add 40 kwh for each kw over 10 kw of Demand

Minimum-Single Phase- \$1.80 plus \$1.20 per kw of Demand over 10 kw
Three Phase - \$5.00 plus \$1.20 per kw of Demand over 10 kw

DEMAND

Demand is the average kilowatts during the fifteen minute period of greatest use during the month as determined by Company's meter. Demand will be determined when monthly consumption exceeds 3,000 kwh or demand established by test exceeds 10 kw.

CONTRACT TERM

Service hereunder shall be for an initial term of one year or such longer term as may be required by the Company.

PAYMENT

Bills are payable within 10 days of date of bill.

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NANTAHALA POWER AND LIGHT COMPANY

SCHEDULE "LC"

LARGE COMMERCIAL SERVICE

APPLICABILITY

This schedule is applicable to the entire requirements on a commercial customer's premises for electric service of one standard character delivered at one point from Company's existing facilities of suitable capacity and character. Service will be metered through a single watt-hour meter at the delivered voltage.

CHARACTER OF SERVICE

Alternating current, approximately 60 cycles, single phase, three phase or combined single and three phase at one standard voltage described in Company's Rules and Regulations.

MONTHLY RATE

SERVICE CHARGE

\$33.00 including the first 10 kw or less of Demand
\$ 0.95 per kw for the next 1490 kw of Demand
\$ 0.75 per kw for each additional kw of Demand

ENERGY CHARGE

1.00¢ per kwh for the first 14,000 kwh
0.65¢ per kwh for the next 186,000 kwh
0.50¢ per kwh for the next 400 kwh per kw of Demand
0.25¢ per kwh for each additional kwh

MINIMUM CHARGE

The Service Charge

DEMAND

Demand is the average kilowatts during the fifteen minute period of greatest use during the month as determined by Company's meter but not less than 60% of the greatest Demand similarly determined during the preceding eleven months nor in any event less than 10 kw or such higher minimum Demand as may be stipulated by contract.

CONTRACT TERM

Service hereunder shall be for an initial term of one year or such longer term as may be required by the Company.

PAYMENT

Bills are payable within 10 days of date of bill.

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NANTAHALA POWER AND LIGHT COMPANY

SCHEDULE "RS"

RESALE SERVICE

NONPROFIT RURAL ELECTRIC MEMBERSHIP CORPORATIONS

APPLICABILITY

This schedule is available for electricity which is to be sold to a nonprofit rural electric membership corporation for resale to ultimate consumers. Service is to be delivered at one of the Company's standard primary distribution or transmission voltages with the customer owning the substation where required. Electricity sold at each point of delivery shall be metered and billed separately.

MONTHLY RATE

Service Charge

\$22.50 for the first 15 Kw of demand or less
1.20 per Kw for the next 35 Kw of demand
0.65 per Kw for each additional Kw of demand

Energy Charge

0.9 ¢ per Kwh for the first	10,000 Kwh per month
0.8 ¢ " " " " next	20,000 " " "
0.65¢ " " " " "	100,000 " " "
0.60¢ " " " " "	200,000 " " "
0.50¢ " " " " "	300,000 " " "
0.45¢ " " " " "	500,000 " " "
0.40¢ " " For the excess Kwh per month	

Minimum Charge

The Service Charge

DEMAND

Demand is the average kilowatts during the fifteen minute period of greatest use during the month as determined by Company's meter but not less than 70% of the greatest Demand similarly determined during the preceding eleven months nor in any event less than 15 Kw or such higher minimum Demand as may be stipulated by contract.

CONTRACT TERM

Service hereunder shall be for an initial term of one year or such longer term as may be required by the Company.

PAYMENT

Bills are payable within 10 days of date of bill.

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NANTAHALA POWER AND LIGHT COMPANY

SCHEDULE "PL"

INDUSTRIAL AND RESALE SERVICE

AVAILABILITY

This Schedule is applicable to customers using electric service for industrial purposes or for resale who contract for not less than 15 KW. Energy for lighting in connection with energy used under this Schedule will be measured through same meter. Service hereunder will be supplied in accordance with the Rules and Regulations.

MONTHLY RATE

Service Charge:

- \$22.50 for the first 15 KW of Demand
- \$ 1.20 per KW for the next 35 KW of Demand
- \$ 0.65 per KW for each additional KW of Demand

Energy Charge:

1.0¢	per Kwh for the first	10,000 Kwh
0.85¢	" " " " next	25,000 "
0.75¢	" " " " "	100,000 "
0.65¢	" " " " "	200,000 "
0.60¢	" " " " "	300,000 "
0.50¢	" " " " "	500,000 "
0.47¢	" " " " "	1,000,000 "
0.45¢	" " " " "	3,000,000 "
0.43¢	" " " " "	4,000,000 "
0.31¢	" " " " "	4,000,000 "
0.25¢	" " " " "	4,000,000 "
0.22¢	" " " " "	4,000,000 "
0.18¢	" " " " " Excess Kwh	

Monthly Minimum: The Service Charge

DETERMINATION OF DEMAND:

- (1) The billing demand is the average KW during the fifteen minutes of maximum use during the month.
- (2) The billing demand shall not be less than
 - (a) 15 KW, or
 - (b) 60% of maximum KW of Demand established for billing purpose during the preceding 11 months, or
 - (c) 60% of the contract KW Demand, whichever is greater.
- (3) The monthly billing in any month for energy sold to Alcoa under this Schedule, shall be the historical average monthly net generation which

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has been established as 36,583,333 Kwh less (1) sales to North Carolina customers, (2) Company use and (3) transmission and distribution losses. The monthly KW Demand for billing purposes shall be established from the number of Kwh so determined at 90% load factor.

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NANTAHALA POWER AND LIGHT COMPANY

SCHEDULE "PS"

SMALL MISCELLANEOUS POWER

AVAILABILITY

This service is applicable to customers using electric service for small power and appliances totaling 5 HP or more. Incidental lighting, of not more than 10% of the rating of other equipment connected, may be used under this schedule.

CHARACTER OF SERVICE

Service will be supplied and measured, at the option of the Company, at either 3 phase or single phase, 230 or 460 volts.

Service under this schedule will be supplied in accordance with the Rules and Regulations.

MONTHLY RATE:

\$1.10 per month for each Contract HP, which \$1.10 entitles customer to 20 KWH.

3.3¢ per KWH for the next 500 KWH used per month.

2.2¢ per KWH for the additional KWH used.

Monthly Minimum:

\$1.10 for each Contract HP, but not less than \$5.50.

CONTRACT HP:

The contract HP for billing purposes is based on the sum of the manufacturer's ratings of the motors and appliances installed as follows:

1 motor or appliance	100% of total rating
2 motors or appliances	90% of total rating
3 motors or appliances	80% of total rating
4 or more motors or appliances	70% of total rating

However, the Contract HP shall not be less than 5 HP or 100% of the rating of the largest motor, 90% of the combined ratings of the two largest motors or 80% of the combined ratings of the three largest motors. In calculating contract HP for X-Ray machines and electric welders, rating shall be considered as the equivalent of one HP per KVA.

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NANTAHALA POWER AND LIGHT COMPANY

SCHEDULE "SL"

STREET LIGHTING AND TRAFFIC SIGNAL RATE

AVAILABILITY

This schedule is applicable for service supplied for traffic signal lights and for the lighting of thoroughfares or other public areas by means of incandescent, mercury vapor, or fluorescent lamps and fixtures attached to Company-owned poles.

CHARACTER OF SERVICE

The service supplied by Company will include the installation of a traffic or street lighting system according to Company's standards and requirements. All equipment will be owned, maintained and operated by Company, except that the original and replacement lamps and all traffic signals and controllers will be furnished by Customer. Customer may, at his election, furnish special mercury vapor or fluorescent lamp luminaires. Company will furnish the electricity required to illuminate the street lighting lamps from dusk to dawn (averaging approximately 4,000 hours' operation per year) and for illuminating the traffic lights for 24 hours per day or as specified by Customer.

MONTHLY RATE PER UNIT

Luminaire on bracket arm on distribution system pole:

1000 lumen open incandescent in service at effective date hereof	\$1.00
2500 lumen open incandescent	\$1.75
2500 lumen enclosed incandescent	\$2.00
6000 lumen enclosed incandescent	\$3.40
21000 lumen mercury vapor	\$4.95
(if customer furnishes fluorescent luminaire with ballast	\$4.00)
21000 lumen fluorescent	\$6.25
(if customer furnishes fluorescent luminaire with ballast	\$4.60)

Mast arm or center suspension instead of bracket arm for any luminaire \$0.20

Special street lighting poles used only for support of street lighting circuit and luminaire:

Steel or aluminum (customer to contribute on non-refundable basis cost in excess of \$110)	\$1.35
Wood	\$0.45

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TRAFFIC SIGNALS

Energy for Traffic Signals 3¢ per metered Kwh.

PAYMENTS

Bill are due and payable within 10 days from date of bill.

CONTRACT PERIOD

Contracts shall be for not less than ten (10) years.

UNDERGROUND CIRCUITS

Customer shall reimburse Company on a nonrecoverable basis for all costs incurred in the installation or replacement of underground circuits for the operation of street lighting systems.

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NANTAHALA POWER AND LIGHT COMPANY

SCHEDULE "YL"

YARD LIGHTING SERVICE

APPLICABILITY

This schedule is applicable to unmetered service supplied for the lighting of private areas by luminaires of the type designated below.

CHARACTER OF SERVICE

Company will install, own, maintain and furnish electric service for the operation of a luminaire from dusk to dawn. Customer will furnish original and replacement lamps.

MONTHLY RATE PER UNIT

- 7000 lumen mercury vapor yard light, attached to existing company secondary pole \$2.50
- 7000 lumen mercury vapor yard light requiring a special yard lighting pole located within one span of company secondary distribution system \$3.00

CONTRACT TERM

Service hereunder shall be for an initial term of one year.

PAYMENT

Bills are payable within 10 days of date of bill.

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RULES AND REGULATIONS

GOVERNING THE RENDITION OF ELECTRIC SERVICE BY
NANTAHALA POWER AND LIGHT COMPANY TO ITS CUSTOMERS

1. Service Contracts:

(a) Description--A Contract for electric service between the Nantahala Power and Light Company (hereinafter called the "Company") and a Customer shall consist of (1) Company's form of application for supply of electricity when signed by Customer and accepted by the Company; (2) the applicable Rate Schedule; and (3) these Rules and Regulations and all changes, revisions, alterations therein or substitutions therefor lawfully made.

(b) Application of Rules and Regulations--All Service Contracts in effect at the time of the approval hereof or that may be entered into in the future are made expressly subject to these Rules and Regulations and any changes therein, substitutions therefor, or additions thereto lawfully made.

(c) Conflicts--In case of conflict between any provision of a Rate Schedule and of these Rules and Regulations, the provisions of the Rate Schedule shall prevail.

(d) Transfer of Contract--A Contract between the Company and Customer may not be assigned or transferred by the Customer.

(e) Suspension of Contract at Request of Customer--In the event a Customer is prevented from using service on account of a complete disability of Customer's plant, Company will maintain service facilities ready for immediate resumption of service for a period of not to exceed six (6) months without charge to the Customer, provided Customer agrees to an extension of the Contract in force for a period equal to the length of disability but not to exceed (6) months. If during the period of suspension of Contract the Customer desires to use electricity in a lesser amount than the minimum provided under the Contract, it will be supplied and billed under Company's Rate Schedule applicable to such use.

(f) Cancellation of Contract at Customer's Request--If the property of a Customer shall have become disabled so as to prevent the use of any service or energy under the Contract, the Customer shall have the privilege of cancelling the Contract upon written notice to the Company if given within sixty (60) days of such disability, provided Customer shall pay to the Company (1) all unpaid charges under the applicable Rate Schedule accrued to the time the cancellation was requested; (2) the pro rata irrecoverable cost incurred by the Company in the initial installation and subsequent removal of all facilities in connection therewith. If for reasons other than plant disability the Customer desires to terminate the Contract before the expiration of the initial term, Company will agree to such termination, provided the Customer pays the monthly minimum service charge under the applicable Rate Schedule for the remaining period of the Contract. Company may waive this provision if Company has secured from a new occupant or

operator of the premises a Contract satisfactory to Company for the supply of electricity for a term not less than the unexpired portion of the Customer's Contract.

(g) Termination or Suspension of Contract by Company--The Company, in addition to all other legal remedies, may either terminate the Contract or suspend delivery of electricity to Customer for (1) any default or breach of Contract by Customer; (2) fraudulent or unauthorized use of electricity or use in such manner as to bypass Company's meter; (3) failure to pay bills when due and payable or failure to restore deposit within the specified time. A dispute as to the amount of the bill shall not justify Customer in refusing to pay the bill when due. If within a ten (10) day period following payment of a disputed bill written notice is received at Company's office that bill is in dispute, stating the amount and reasons for dispute, the Company will forthwith investigate such complaint and if the investigation shall disclose that Customer has a just claim, the Company will make proper refund or credit upon the next monthly bill of any such amount so found in error; (4) (a) in case of a condition on Customer's side of the point of delivery actually known by Company to be or which Company reasonably anticipates may be dangerous to life or property, or (b) may cause impairment of Company's service to other customers. No such termination or suspension, however, will be made by Company without two (2) days' written notice delivered to Customer personally or by mail to the last address known to the Company, stating in what particular the Contract has been violated. No notice shall be given in instances set forth in (2) and (4) (a) above.

Failure of Company to terminate the Contract or to suspend the delivery of electricity at any time after the occurrence of grounds therefor, or to resort to any other legal remedy or to exercise any one or more of such alternative remedies, shall not waive or in any manner affect Company's right later to resort to any one or more of such rights or remedies on account of any such ground then existing or which may subsequently occur.

Any suspension of the delivery of electricity by Company or termination of the Contract upon any authorized grounds shall in nowise operate to relieve Customer of his liability to pay for electricity supplied, nor shall it relieve Customer (1) of his liability for the payment of minimum monthly charges during the period of suspension, nor (2) of his liability for the payment of the minimum monthly charges which would have been payable during the unexpired term of the Contract had the Contract not been terminated.

(h) Reconnection Fee--The charge for restoring service within the contract term after suspension by Customer shall be the sum of elapsed minimum charges during the period of disconnection.

In addition, a charge of \$5.00 will be made for restoring service after the cause for any suspension of service by Company has been corrected.

2. Conditions of Service

(a) Requirements of Customer--Company is not obligated to supply electricity to Customer unless and until (1) Company's form of application for supply of electricity is signed by Customer and accepted by Company; (2) in cases

where it is necessary to cross property of Customer or others to deliver electricity to Customer, the Customer conveys or causes to be conveyed to Company, without cost to Company, a right-of-way or easement satisfactory to Company across such property for the construction, maintenance and operation of Company's lines and facilities necessary to the delivery of electricity by Company to Customer, provided, however, in the absence of formal conveyance Company nevertheless shall be vested with an easement over Customer's premises, authorizing it to do all things necessary to the construction, maintenance and operations of its lines and facilities for such purposes; (3) any inspection certificates or permits that may be required by law in the local area are furnished to Company.

(b) Customer Request for Relocation of Equipment--Should Customer elect to have the Company change any lines or apparatus, the location of which was originally made with consent of Customer, the Customer shall defray the expense of such changes. All privileges incident to the original location shall apply to the new location.

(c) Indebtedness--Company may refuse to furnish electric service to any applicant or Customer who at the time is indebted to Company for service previously supplied to such applicant or Customer or any other member of his household or business in any area served by Company, except that an applicant for residential service shall not be denied service for failure to pay such indebtedness for classes of non-residential service.

(d) Electric Line Extensions--The Company will make overhead extensions to existing lines and install transformers, meters, materials, etc., to render service to Customer beyond the existing lines of the Company to such points as will provide sufficient continuing revenue to justify such extensions, or in lieu of sufficient continuing revenue, Customer may be required to advance the cost of such service connections, which advance may be refunded to Customer in whole or in part as determined by the extent to which in the opinion of the Company the earnings from the service so performed and the length of the term of service may justify; or the Company may require non-refundable contributions in aid of construction or guarantees of revenue from a Customer or a group of Customers, in addition to any minimum payments required by the Rate Schedules, as may be necessary to justify such overhead line extension. Terms of payment by Customer to cover costs of service connections or revenue guarantees shall be made in accordance with specific agreements in writing to be entered into prior to acceptance by the Company of Customer's application. The Company shall not be obligated to construct or own any overhead line extensions or other facilities to provide any Customer with electricity, the cost of which shall exceed four times the continuing annual revenue reasonably to be expected by the Company for any such overhead line extension unless the Customer contracts to cover a part of the costs of service, in accordance with one of the methods contained herein.

(e) Residential Electric Line Extensions--Normally, notwithstanding the provisions specified in (d) above, the Company will make single phase overhead line extensions to the "permanent residence" of any "permanent resident" located on property owned by the Customer under the following conditions:

A "permanent resident" is defined as a Customer who dwells in the connected residence not less than ten months in each calendar year and who continues receiving electric service as a Customer twelve months of each calendar year.

A "permanent residence" is defined as the dwelling house of a "permanent resident." An individual trailer which has the wheels removed, is set on a permanent masonry foundation with permanent underpinning, has a connection to sewer or septic tank and is used as the dwelling place of a "permanent resident" will be considered a "permanent residence." Trailers which do not meet all of the above requirements will be considered temporary.

If the "permanent residence" is located within 1,000 feet (airline distance) of a hard top, gravel or stone surfaced road maintained by the State of North Carolina or the Bureau of Indian Affairs or within 1,000 feet of a previously constructed overhead primary distribution line (not covered by an effective revenue guarantee contract) without cost to such Customer except that the Customer may be required to secure rights-of-way on property of Customer or others without cost to the Company or to assist the Company in obtaining rights-of-way.

If the location of the "permanent residence" is more than 1,000 feet (airline distance) from such a road and more than 1,000 feet (airline distance) from a previously constructed overhead primary distribution line, the Company may require each Customer to be served by the line extension to execute a minimum revenue guarantee contract to remain in effect for ten years from the date service is tendered. However, the Company may terminate such contracts earlier if it finds that the total revenue from the line extension is sufficient to justify the extension cost. The Company may also establish a minimum amount of guarantee under which it may waive its right to require a contract to be executed.

The total minimum revenue guarantee for such a line extension for each complete year shall be one-tenth of the total "construction cost" of the actual line extension in excess of the first 1,000 feet. However, if the permanent residence is located within 2,000 feet (airline distance) of such a road, the length of line extension in excess of 1,000 feet to be used in determining the minimum revenue guarantee shall be understood to mean the airline distance from the road less 1,000 feet or the actual line extension distance from the nearest previously constructed primary distribution line on which no minimum guarantee revenue contract is effective, less 1,000 feet, if this would result in a lower guarantee. Total "construction cost" shall be understood to mean the actual cost to the Company of surveying, easements for rights-of-way, tree trimming rights, U. S. Forest Service permits, initial right-of-way clearing and tree trimming, payments to contractors for service performed, all cost of labor (including average fringe benefits), construction equipment, materials and other equipment chargeable to and necessary to construct the line extension, and all other costs properly chargeable to and against the line extension, excluding transformers, service drops and meters. The Company may, for the purpose of standardization, establish standard construction costs which shall not exceed, in any event, the most recent average cost of constructing such lines in similar territory, in which case the term "construction cost" as used herein will be understood to mean the standard cost thus established.

Customers to be served by such extensions shall guarantee payments to the Company at the end of each calendar year equal to the amount, if any, by

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which each Customer's share of the total minimum revenue guarantee exceeds the total of his monthly payments for service billed in accordance with the Company's service regulations and rate schedules or any revisions thereof approved or ordered by properly constituted authorities. If service is available for less than 12 months in any calendar year, the guarantees for that year-end payment shall be reduced proportionally.

Nothing herein contained shall, however, preclude one or more Customers from assuming more than his pro rata share of such guarantee if agreeable to the Company.

Each Customer initially contracting for service from such a line extension shall guarantee, from the date service is tendered, his pro rata share of the total minimum revenue guarantee applicable to each section of the line extension to be jointly used with other Customers plus one hundred per cent of said guarantee applicable to each section of said extension required for serving the Customer alone. The total minimum revenue guarantee to be allocated to each section of said extension shall be in the ratio of the length of that section to the total length of said extension (excluding the first 1,000 feet) times the total "construction cost" of the entire extension (excluding the first 1,000 feet).

Additional Customers will be connected to such an extension or to further extensions thereof only under the same terms and conditions as would apply were the extensions being constructed for all Customers then being served and including each new Customer to be served, except the minimum revenue guarantee from each new Customer applicable to jointly used sections previously constructed would terminate simultaneously with the termination date of the first contract covering construction of the original extensions. Prior contract guarantees still in effect on such jointly used sections would be reduced to reflect each additional guarantee of revenue.

The Company will make overhead line extensions to residences which meet all of the requirements stipulated above for "permanent residences," other than the ten months per year occupancy and twelve months per year service requirements, under the same terms and conditions as those for "permanent residences" except that a minimum revenue guarantee agreement may be required if the residence is located more than 500 feet from a previously constructed primary distribution line and the total "construction cost" used in computing the minimum revenue guarantee shall be understood to include the total cost of the line extension from a previously constructed primary distribution line.

Temporary or Emergency Service:

The Company will furnish temporary or emergency service only when the Customer pays to the Company in advance an amount sufficient to cover the entire irrecoverable cost of making such service available and the subsequent removal thereof. The cost will be \$25.00 for a one span temporary single phase service connection. The cost of longer extensions or three phase service connections will be individually estimated. After twelve months of service, Customer will receive credit toward a refund of temporary service costs at a rate of 25% of charges paid each month for electric service under the applicable rate schedule. Refunds of accumulated credits

will be made at the end of each subsequent calendar year until the entire amount is refunded or until the service is discontinued. Company may refund the temporary service charges earlier if it determines the service is permanent.

4. Deposits:

The Company may, at any time, require of any Customer or applicant a cash deposit to secure the payment of charges for power used under the applicable Rate Schedule.

Company rules for collection of Customer deposits shall be as provided in Chapter 11 of the rules and regulations of the State Regulatory Authority establishing uniform rules for all public utilities for the collection of Customers' deposits. Company, upon request, shall furnish a copy of such rules to the applicant or Customer from whom a deposit is required and such copy will contain the name, address and telephone number of the State Regulatory Authority having jurisdiction.

5. Use of Electricity:

(a) Power Only for Customer's Use--The Company will furnish electricity to the Customer for use only for the Customer's own purposes specified in and in accordance with the Contract. No electricity supplied by Company may be sold directly on a metered or unmetered basis by Customer to lessees, tenants or others, and under no circumstances may Customer or other person or concern install or maintain any meter for the purpose of metering electricity supplied with the object of rendering a bill therefor, except where the Customer is a chartered public utility which purchases power solely for the purpose of re-sale. Electricity supplied to an owner may be in turn furnished to a tenant or occupant only when included as a part of the rent with no variation on account of the quantity of electricity furnished; otherwise, electricity may be supplied by the Company direct to each tenant through the Company's individual meter.

(b) Extensions by Customer--Customer shall not, without the written assent of Company, connect his installation to lines which cross over or under any public or semi-public space in order to supply electricity purchased through one meter to his adjacent properties. Such written assent may be given only in instances where such adjacent properties are operated as one integral unit under the same name and proprietorship and for carrying on parts of the same business and where a separate type of business is not involved.

(c) Multiple Points of Delivery--Should any Customer's conditions require more than one point of delivery, a separate contract and meter with corresponding billing will be required for each delivery point. The delivery point shall be the point of delivery of electric service as designated in the Service Application and Contract.

(d) Service Voltage--Unless otherwise specified in the applicable Rate Schedule the voltage supplied will be at the discretion of the Company and will be determined by the voltage available from distribution lines in the vicinity and/or other conditions.

6. Low Power Factor Adjustment:

Customer shall use the service in such manner that the power factor shall be maintained as near unity as practical, and to that end shall select, install, maintain, and operate its power-using equipment. Should Customer's power factor for any month be less than 85%, the Company will increase the demand used for billing purposes by multiplying the maximum measured demand in kilowatts for the month by 0.85 and dividing by the power factor for the month.

7. Contract Demand:

(a) Definition--The Contract Demand shall be the maximum KW of demand as from time to time determined in accordance with the provisions of the applicable Rate Schedule which composes a part of the Contract between Company and Customer, but shall not be less than the KW of demand specified in Customer's application. When the actual demand exceeds the currently effective contract demand, such actual demand will become the contract demand, unless within sixty (60) days Company requests Customer to reduce such actual demand. If Company is unable, due to inadequacy of facilities then employed for the benefit of Customer, to continue the supply of such increase, then Customer will, when requested within said sixty (60) days' period, reduce his demand to conform to the existing contract demand or to such amount in excess thereof as Company may specify in writing, which amount will then be the contract demand. If Customer desires to take service in excess of the amount so specified by Company, Company will advise Customer under what conditions such excess may be supplied.

(b) Load Increases--If Customer increases his load without adequate notice to Company, and without receiving Company's consent, and such unauthorized increase causes loss of or damage to Company's facilities, the cost of making good such loss or repairing such damage shall be paid by Customer.

8. Billing:

(a) Bills are due and payable within ten (10) days from the date thereof and normally will be rendered as nearly as practicable at monthly or bimonthly intervals for all service furnished during the previous month or 2 months as herein defined, but the Company shall have the option of rendering bills at other intervals when approved by the State Regulatory Authority having jurisdiction.

(b) The demand charges and the blocks in the energy charges set forth in the Rate Schedules are based on billing periods of approximately one month. Therefore, when bills are rendered at intervals in excess of one month the demand charges and the blocks in the energy charges will be adjusted to a basis proportionate with the period of time during which service was received. The use of service by new accounts where the period covered by the initial billing would be for less than 15 days shall be included with the use of service in the succeeding billing period without proration. Where the period covered by initial billing is 15 days but less than 45 days, billing will be on a monthly rate applicable without proration. Where the period covered by initial billing is 45 days or greater, billing will be on a bimonthly rate application without proration.

9. Meter Stoppage, Error, Tests and Adjustments:

(a) Meter Stoppage or Error--In the event a meter fails to register accurately within the allowable limits established by the State Regulatory Authority having jurisdiction, the Company will adjust the measured units from the date of the last meter reading and to the time the meter was removed or corrected so as to reflect as nearly as possible the correct usage in rendering the ensuing bill. In addition, Company shall refund or credit to Customer of Customer shall pay to Company the difference between the amount billed and the estimated amount which should have been billed for service supplied during the immediate sixty (60) day period prior to last meter reading date. If the meter has not been in service for the full sixty (60) day period, or if the date of error can be fixed to be within such period, then the estimated amount to be returned by Company or billed to Customer shall reflect these factors.

(b) Meter Tests and Adjustments--

(1) The Company shall test its meters as often as required by the State Regulatory Authority having jurisdiction, or more frequently if, in its opinion, such tests are required to assure meter accuracy within the Regulatory limits.

(2) Should the Customer question the accuracy of said meter and desire that additional tests be made, the meter shall be tested by the Company's experts or, at the Customer's option, by a competent and disinterested party in the presence of representatives of the Customer and the Company, and in the event of any error in the meter exceeding State requirements, allowance shall be made as explained in paragraph (a) above, and all expenses incurred in connection therewith shall be borne by the Company; however, if the test establishes that the error is within the tolerances set forth by the State Regulatory Authority having jurisdiction, the expenses incurred in connection therewith shall be borne by the Customer who requested the test.

10. Point of Delivery:

The point of delivery is the point where Company's service conductors are connected to the Customer's conductors or as specified below under (a), (b), (c) and (d). The Customer shall do all things necessary to bring his service conductors to such point of delivery for connection to the Company's service conductors and he shall maintain his said conductors in good order at all times. Unless otherwise stipulated in the Service Contract, the point of delivery shall be located as follows:

(a) In cases of a connection of Company's overhead service conductors to Customer's overhead service conductors, such point of delivery shall be on the outside of the wall of Customer's building where Company's service conductors may be conveniently extended and anchored.

(b) In cases of connection of Company's overhead service conductors to Customer's underground service conductors, such point of delivery shall be at a place on Company's nearest pole if such is suitable for such service. If in the opinion of the Company the Customer's conduit extending up the Company's pole might be hazardous due to special equipment owned by the Company which is located thereon, the Company may require the Customer to furnish a special pole to which Company will extend its service and make connection as in section (a) above.

(c) In cases where ground type substation is installed by Company to supply electricity to Customer, the point of delivery shall be at a place to be designated by Company on its substation structure.

(d) Where special circumstances make it impracticable for the point of delivery to be located as stated under (a), (b) and (c) above, then it shall be at a place selected or approved by the Company and when so done the Customer shall bring his service conductors toward and maintain them at such place.

11. Installations:

(a) By Company--Company shall install, own, operate, and maintain all lines and equipment located on its side of the point of delivery. It shall also furnish and install the necessary meter, and meter transformers where necessary, for measuring the electricity used, though such meter will usually be located on Customer's side of the point of delivery. However, if special conditions require it, the meter may be located on the primary side of the power transformers.

(b) By Customer--Customer shall install, own, operate, and maintain all lines, service conductors, and equipment, exclusive of Company's meter, meter transformers and meter base on Customer's side of the point of delivery, and Customer will be the owner and have exclusive control thereof as well as of all electricity after it passes the point of delivery, except as restricted under "5. Use of Electricity." Except under special circumstances, the Company's meter will be located on Customer's side of the point of delivery, and when it is to be so located the Customer must make suitable provision in his wiring for the convenient installation of the type of meter Company will use, and at a place suitable to Company. Where a socket type meter is to be used, Company, upon application from Customer, will furnish to Customer (but retaining ownership) a meter base which will be installed by Customer at his expense in his wiring to accommodate the meter.

Customer shall not utilize any equipment, appliance, or device which tends to affect adversely Company's supply of service to, or the use of service by, Customer or others. Customer shall not install gaseous discharge lighting with a power factor of less than 90% lagging. When polyphase service is supplied by Company, Customer shall control his use so that his load will be maintained in reasonable electrical balance between the phases at the point of delivery. Customer shall install and maintain devices adequate to protect his equipment against irregularities on Company's system, including devices to protect against single phasing.

(c) Access to Premises--The duly authorized agents of the Company shall have the right of ingress and egress to the premises of Customer at all reasonable hours for the purpose of reading meters, inspecting Company's wiring and apparatus, changing, exchanging, or repairing its property on the premises of Customer and to remove such property at the time of, or at any time after suspension of service or termination of Service Contract.

(d) Protection--Customer shall protect Company's wiring and apparatus on Customer's premises and shall permit no one but Company's agents to handle same. In the event of any loss of, or damage to such property of Company caused by or arising out of carelessness, neglect, or misuse by Customer, his employees or agents, the cost of making good such loss or repairing such damage shall be paid by Customer.

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12. Continuance of Service and Liability Therefor:

(a) Service Continuity--Company does not guarantee continuous service but shall use reasonable diligence to provide an uninterrupted supply of electricity and having used reasonable diligence shall not be liable to Customer for damage, for failure, or for interruptions or suspension of the same. Company reserves the right to suspend service without liability on its part at such times and for such periods and in such manner as it may deem necessary (a) for the purpose of making necessary adjustments to, changes in, or repairs on its lines, substations, and facilities and (b) in cases where, in its opinion, the continuance of service to Customer's premises would endanger persons or property.

(b) Responsibility for Customer's Installation--Customer assumes sole responsibility for and shall indemnify, defend, and save the Company harmless against all liability, claims, judgments, losses, costs, and expenses for injury, loss, or damage to persons or property including personal injury or property damage to Customer and his employees on account of defective construction, wiring, or equipment, or improper or careless use of electricity on Customer's side of the point of delivery.

(c) Interruptions--The Company shall not be liable for damages due to interruptions of service or damages to equipment resulting either directly or indirectly from strikes, labor trouble, accidents, litigation, U.S., State or municipal interference or for any cause not due to its neglect. The cause or causes producing such actions or omissions shall be removed with all reasonable diligence on the part of the Company.

13. Government Restrictions:

The delivery date, quantity, and type of electricity to be supplied by Company are subject to changes, restrictions, curtailments, or complete suspensions by Company as may be deemed by it to be necessary or advisable (a) on account of any lawful order or regulation of any municipal, State, or Federal government or agency thereof, or order of any court of competent jurisdiction, or (b) on account of any emergency or shortage due to war or catastrophe, or during the duration thereof, all without liability on the part of the Company therefor.

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Question No. 11

State as to all power generated and sold by applicant and most recent average cost of bulk power supply experienced by applicant (a) at site of generating facilities, (b) at the delivery points from the primary transmission (backbone) system, (c) at delivery points from the secondary transmission system, and (d) at delivery points from the distribution system, in terms of dollars per kilowatt per year, in mills per kilowatt-hour, and in both the kilowatt costs and kilowatt hour costs divided by the kilowatt hours. If wholesale sales are made at varying voltages, indicate average costs at each voltage.

Answer

Actual average fiscal year 1971 cost of bulk power from existing facilities:

At site of generating facilities

\$16/kW/year of average billing demand and 2.5 mills/kWh or

Total cost at 5.9×10^3 kWh/kW/year = 5.2 mills/kWh

At primary delivery point voltage

\$18/kW/year of average billing demand and 2.6 mills/kWh or

Total cost at 5.9×10^3 kWh/kW/year = 5.7 mills/kWh

At 69-46-kV delivery voltages

\$21/kW/year of average billing demand and 2.6 mills/kWh or

Total cost at 5.5×10^3 kWh/kW/year = 6.4 mills/kWh

At less than 46-kV delivery voltages

\$23/kW/year of average billing demand and 2.7 mills/kWh or

Total cost at 5.5×10^3 kWh/kW/year = 6.9 mills/kWh

TVA has no distribution system.

Question No. 12

State (a) for generating facilities and (b) for transmission sub-divided by voltage classes the most recent estimated cost of applicant's bulk power supply expansion program of which the subject unit is a part, in terms of dollar per kilowatt/per year, in mills per kilowatt hour and in both the kilowatt costs and kilowatt hour costs divided by the kilowatt hours.

Answer

For expansion program through Watts Bar

Estimated average fiscal year 1977 cost of bulk power from expansion facilities only:

At site of generating facilities

\$24/kW/year of average billing demand and 2.1 mills/kWh or

Total cost at 5.9×10^3 kWh/kW/year = 6.2 mills/kWh

At primary delivery point voltage

\$28/kW/year of average billing demand and 2.2 mills/kWh or

Total cost at 5.9×10^3 kWh/kW/year = 6.9 mills/kWh

At 69-46-kV delivery voltages

\$31/kW/year of average billing demand and 2.2 mills/kWh or

Total cost at 5.5×10^3 kWh/kW/year = 7.8 mills/kWh

At less than 46-kV delivery voltages

\$33/kW/year of average billing demand and 2.3 mills/kWh or

Total cost at 5.5×10^3 kWh/kW/year = 8.3 mills/kWh

NOTE: These costs are those estimated for fiscal year 1977 and cannot be directly compared with system cost in fiscal year 1971 since the system costs of the existing system will change by fiscal years 1977.

Question No. 13

List and describe all requests for, or indications of interest in, interconnection and/or coordination and purchases or sales of coordinating power and energy from adjacent utilities listed in Item 9 since 1960 and state applicant's response thereto. List and describe all requests for, or indications of interest in, supply of full or partial requirements of bulk power for the same period and state applicant's response thereto.

Answer

Request From Adjacent Utilities for Interconnection, Coordination, Purchases or Sales and Requests for Bulk Power Supply

Big Rivers RECC

On April 1, 1970, Hoosier Energy Division of Indiana Statewide Rural Electric Cooperative, Inc., offered surplus power to TVA from its Petersburg Plant. After further discussions, TVA and Big Rivers RECC entered into an agreement on July 25, 1970, which provided for Big Rivers, acting for itself and Hoosier, Southern Illinois Power Cooperative, and Henderson Municipal Light Department, to make available to TVA 50-75 MW of firm power for the period June 1 through September 30, 1970.

East Kentucky RECC

On June 8, 1971, East Kentucky's representative inquired if TVA could make firm power available to East Kentucky in amounts of 200 MW beginning in 1976 and increasing to 507 MW in 1980. TVA replied that it had not made provisions in its capacity plans for such blocks of power, that because of the lead time required to plan future generating capacity for such large blocks of firm power TVA could not make the power available as requested and that moreover, the furnishing of such sizeable blocks of power on a long-term basis would raise legal questions under section 15d(a) of the TVA Act.

Nantahala Power and Light Company

Nantahala Power and Light Company requested TVA to supply its power requirements in excess of its other resources. Nantahala's other power resources are supplied by TVA under agreement between TVA, Nantahala Power and Light Company and others. (See Question No. 10).

Southern Illinois Power Cooperative

On October 22, 1970, TVA and the Cooperative entered into an agreement which provided for the Cooperative to make available to TVA 25 MW of firm power beginning October 1, 1970, and continuing for an initial term of one year and from month to month thereafter.

Question No. 14

List (a) agreements to which applicant is a party (reproducing relevant paragraphs) and (b) state laws (supply citations only), which restrict or preclude coordination by, with, between, or among any electric utilities or systems identified in applicant's response to Items 8 and 9. List (a) and (b) state laws (supply citations only) which restrict or preclude substitution of service or establishment of service of full or partial bulk power supply requirements by an electric utility other than applicant to systems identified in Items 8 and 9. Where the contract provision appears in contracts or rate schedules on file with a federal agency, identify each in the same form as in previous responses. Where the contract has not been filed with a federal agency, a copy should be supplied unless it has been supplied pursuant to another item hereto. Where it is not in writing, it should be described.

Answer

The only restrictions on TVA's service arrangements with other utilities are those contained in Section 15(d) of the TVA Act (copy attached).

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Sec. 15d. (a) The Corporation is authorized to issue and sell bonds, notes, and other evidence of indebtedness (hereinafter collectively referred to as "bonds") in an amount not exceeding \$5,000,000,000 outstanding at any one time to assist in financing its power program and to refund such bonds. The Corporation may, in performing functions authorized by this Act, use the proceeds of such bonds for the construction, acquisition, enlargement, improvement, or replacement of any plant or other facility used or to be used for the generation or transmission of electric power (including the portion of any multiple-purpose structure used or to be used for power generation); as may be required in connection with the lease, lease-purchase, or any contract for the power output of any such plant or other facility; and for other purposes incidental thereto. Unless otherwise specifically authorized by Act of Congress the Corporation shall make no contracts for the sale or delivery of power which would have the effect of making the Corporation or its distributors, directly or indirectly, a source of power supply outside the area for which the Corporation or its distributors were the primary source of power supply on July 1, 1957, and such additional area extending not more than five miles around the periphery of such area as may be necessary to care for the growth of the Corporation and its distributors within said area: Provided however, That such additional area shall not in any event increase by more than 2 1/2 per centum (or two thousand square miles, whichever is the lesser) the area for which the Corporation and its distributors were the primary source of power supply on July 1, 1957: And provided further, That no part of such additional area may be in a State not now served by the Corporation or its distributors or in a municipality receiving electric service from another source on or after July 1, 1957, and no more than five hundred square miles of such additional area may be in any one State now served by the Corporation or its distributors.

Nothing in this subsection shall prevent the Corporation or its distributors from supplying electric power to any customer within any area in which the Corporation or its distributors had generally established electric service on July 1, 1957, and to which electric service was not being supplied from any other source on the effective date of this Act.

Nothing in this subsection shall prevent the Corporation, when economically feasible, from making exchange power arrangements with other power-generating organizations with which the Corporation had such arrangements on July 1, 1957, nor prevent the Corporation from continuing to supply power to Dyersburg, Tennessee, and Covington, Tennessee, or from entering into contracts to supply or from supplying power to the cities of Paducah, Kentucky; Princeton, Kentucky; Glasgow, Kentucky; Fulton, Kentucky; Monticello, Kentucky; Hickman, Kentucky; Chickamauga, Georgia; Ringgold, Georgia; Oak Ridge, Tennessee; and South Fulton, Tennessee; or agencies thereof; or from entering into contracts to supply or from supplying power for the Naval Auxiliary Air Station in Lauderdale and Kemper Counties, Mississippi, through the facilities of the East Mississippi Electric Power Association: Provided further, That nothing herein contained shall prevent the transmission of TVA power to the Atomic Energy Commission or the Department of Defense or any agency thereof, on certification by the President of the United States that an emergency defense need for such power exists. Nothing in this Act shall affect the present rights of the parties in any existing lawsuits involving efforts of towns in the same general area where TVA power is supplied to obtain TVA power.

The principal of and interest on said bonds shall be payable solely from the Corporation's net power proceeds as hereinafter defined. Net power proceeds are defined for purposes of this section as the remainder of the Corporation's

gross power revenues after deducting the costs of operating, maintaining, and administering its power properties (including costs applicable to that portion of its multiple-purpose properties allocated to power) and payments to States and counties in lieu of taxes but before deducting depreciation accruals or other charges representing the amortization of capital expenditures, plus the net proceeds of the sale or other disposition of any power facility or interest therein, and shall include reserve or other funds created from such sources. Notwithstanding the provisions of section 26 of this Act or any other provision of law, the Corporation may pledge and use its net power proceeds for payment of the principal of and interest on said bonds, for purchase or redemption thereof, and for other purposes incidental thereto, including creation of reserve funds and other funds which may be similarly pledged and used, to such extent and in such manner as it may deem necessary or desirable. The Corporation is authorized to enter into binding covenants with the holders of said bonds--and with the trustee, if any--under any indenture, resolution, or other agreement entered into in connection with the issuance thereof (any such agreement being hereinafter referred to as a "bond contract") with respect to the establishment of reserve funds and other funds, adequacy of charges for supply of power, application and use of net power proceeds, stipulations concerning the subsequent issuance of bonds or the execution of leases or lease-purchase agreements relating to power properties, and such other matters, not inconsistent with this Act, as the Corporation may deem necessary or desirable to enhance the marketability of said bonds. The issuance and sale of bonds by the Corporation and the expenditure of bond proceeds for the purposes specified herein, including the addition of generating units to existing power-producing projects and the construction of additional power-producing projects, shall not be subject to the requirements or limitations of any other law.

(b) Bonds issued by the Corporation hereunder shall not be obligations of, nor shall payment of the principal thereof or interest thereon be guaranteed by, the United States. Proceeds realized by the Corporation from issuance of such bonds and from power operations and the expenditure of such proceeds shall not be subject to apportionment under the provisions of Revised Statutes 3679, as amended (31 U.S.C. 665).

(c) Bonds issued by the Corporation under this section shall be negotiable instruments unless otherwise specified therein, shall be in such forms and denominations, shall be sold at such times and in such amounts, shall mature at such time or times not more than fifty years from their respective dates, shall be sold at such prices, shall bear such rates of interest, may be redeemable before maturity at the option of the Corporation in such manner and at such times and redemption premiums, may be entitled to such relative priorities of claim on the Corporation's net power proceeds with respect to principal and interest payments, and shall be subject to such other terms and conditions, as the Corporation may determine: Provided, That at least fifteen days before selling each issue of bonds hereunder (exclusive of any commitments shorter than one year) the Corporation shall advise the Secretary of the Treasury as to the amount, proposed date of sale, maturities, terms and conditions and expected rates of interest of the proposed issue in the fullest detail possible and, if the Secretary shall so request, shall consult with him or his designee thereon, but the sale and issuance of such bonds shall not be subject to approval by the Secretary of the Treasury except as to the time of issuance, and the maximum rates of interest to be borne by the bonds: Provided further, That if the Secretary of the Treasury does not approve a proposed issue of bonds hereunder within seven working days following the date on which he is advised of the proposed sale, the Corporation may issue to the Secretary interim obligations in the amount of the proposed issue, which the Secretary is directed to purchase. In case the Corporation determines that a proposed issue of bonds

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hereunder cannot be sold on reasonable terms, it may issue to the Secretary interim obligations which the Secretary is authorized to purchase. Notwithstanding the foregoing provisions of this subsection, obligations issued by the Corporation to the Secretary shall not exceed \$150,000,000 outstanding at any one time, shall mature on or before one year from date of issue, and shall bear interest equal to the average rate (rounded to the nearest one-eighth of a percent) on outstanding marketable obligations of the United States with maturities from dates of issue of one year or less as of the close of the month preceding the issuance of the obligations of the Corporation. If agreement is not reached within eight months concerning the issuance of any bonds which the Secretary has failed to approve, the Corporation may nevertheless proceed to sell such bonds on any date thereafter without approval by the Secretary in amount sufficient to retire the interim obligations issued to the Treasury and such interim obligations shall be retired from the proceeds of such bonds. For the purpose of any purchase of the Corporation's obligations the Secretary of the Treasury is authorized to use as a public debt transaction the proceeds from the sale of any securities issued under the Second Liberty Bond Act, as amended, and the purposes for which securities may be issued under the Second Liberty Bond Act, as the Corporation's obligations hereunder. The Corporation may sell its bonds by negotiation or on the basis of competitive bids, subject to the right, if reserved, to reject all bids; may designate trustees, registrars, and paying agents in connection with said bonds and the issuance thereof; may arrange for audits of its accounts and for reports concerning its financial condition and operations by certified public accounting firms (which audits and reports shall be in addition to those required by sections 105 and 106 of the Act of December 6, 1945 (59 Stat. 599; 31 U.S.C. 850-851), may, subject to any covenants contained in any bond contract invest the proceeds of any bonds and other funds under its control which derive from or pertain to its power program in any securities approved for investment of national bank funds and deposit said proceeds and other funds, subject to withdrawal by check or otherwise, in any Federal Reserve Bank or bank having membership in the Federal Reserve System; and may perform such other acts not prohibited by law as it deems necessary or desirable to accomplish the purposes of this section. Bonds issued by the Corporation hereunder shall contain a recital that they are issued pursuant to this section, and such recital shall be conclusive evidence of the regularity of the issuance and sale of such bonds and of their validity. The annual report of the Board filed pursuant to section 9 of this Act shall contain a detailed statement of the operation of the provisions of this section during the year.

(d) Bonds issued by the Corporation hereunder shall be lawful investments and may be accepted as security for all fiduciary, trust, and public funds, the investment or deposit of which shall be under the authority or control of any officer or agency of the United States. The Secretary of the Treasury or any other officer or agency having authority over or control of any such fiduciary, trust, or public funds, may at any time sell any of the bonds of the Corporation acquired by them under this section. Bonds issued by the Corporation hereunder shall be exempt both as to principal and interest from all taxation now or hereafter imposed by any State or local taxing authority except estate, inheritance, and gift taxes.

(e) From net power proceeds in excess of those required to meet the Corporation's obligations under the provisions of any bond or bond contract, the Corporation shall, beginning with fiscal year 1961, make payments into the Treasury as miscellaneous receipts on or before December 31 and June 30, of

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each fiscal year as a return on the appropriation investment in the Corporation's power facilities, plus a repayment sum of not less than \$10,000,000 for each of the first five fiscal years, \$15,000,000 for each of the next five years, and \$20,000,000 for each fiscal year thereafter, which repayment sum shall be applied to reduction of said appropriation investment until a total of \$1,000,000,000 of said appropriation investment shall have been repaid. The said appropriation investment shall consist, in any fiscal year, of that part of the Corporation's total investment assigned to power as of the beginning of the fiscal year (including both completed plant and construction in progress) which has been provided from appropriations or by transfers of property from other Government agencies without reimbursement by the Corporation, less repayments of such appropriation investment made under title II of the Government Corporations Appropriation Act, 1948, this Act, or other applicable legislation. The payment as a return on the appropriation investment in each fiscal year shall be equal to the computed average interest rate payable by the Treasury upon its total marketable public obligations as of the beginning of said fiscal year applied to said appropriation investment. Payments due hereunder may be deferred for not more than two years when, in the judgment of the Board of Directors of the Corporation, such payments cannot feasibly be made because of inadequacy of funds occasioned by drought, poor business conditions, emergency replacements, or other factors beyond the control of the Corporation.

(f) The Corporation shall charge rates for power which will produce gross revenues sufficient to provide funds for operation, maintenance, and administration of its power system; payments to States and counties in lieu of taxes; debt service on outstanding bonds, including provision and maintenance of reserve funds and other funds established in connection therewith; payments to the Treasury as a return on the appropriation investment pursuant to subsection (e) hereof; payment to the Treasury of the repayment sums specified in subsection (e) hereof; and such additional margin as the Board may consider desirable for investment in power system assets, retirement of outstanding bonds in advance of maturity, additional reduction of appropriation investment, and other purposes connected with the Corporation's power business, having due regard for the primary objectives of the Act, including the objective that power shall be sold at rates as low as are feasible. In order to protect the investment of holders of the Corporation's securities and the appropriation investment as defined in subsection (e) hereof, the Corporation, during each successive five-year period beginning with the five-year period which commences on July 1 of the first full fiscal year after the effective date of this section, shall apply net power proceeds either in reduction (directly or through payments into reserve or sinking funds) of its capital obligations, including bonds and the appropriation investment, or to reinvestment in power assets, at least to the extent of the combined amount of the aggregate of the depreciation accruals and other charges representing the amortization of capital expenditures applicable to its power properties plus the net proceeds realized from any disposition of power facilities in said period.

(g) Power generating and related facilities operated by the Corporation under lease and lease-purchase agreements shall constitute power property held by the Corporation within the meaning of section 13 of this Act, but that portion of the payment due for any fiscal year under said section 13 to a State where such facilities are located which is determined or estimated by the Board

to result from holding such facilities or selling electric energy generated thereby shall be reduced by the amount of any taxes or tax equivalents applicable to such fiscal year paid by the owners or others on account of said facilities to said State and to local taxing jurisdictions therein. In connection with the construction of a generating plant or other facilities under an agreement providing for lease or purchase of said facilities or any interest therein by or on behalf of the Corporation, or for the purchase of the output thereof, the Corporation may convey, in the name of the United States by deed, lease, or otherwise, any real property in its possession or control, may perform necessary engineering and construction work and other services, and may enter into any necessary contractual arrangements.

(h) It is hereby declared to be the intent of this section to aid the Corporation in discharging its responsibility for the advancement of the national defense and the physical, social and economic development of the area in which it conducts its operations by providing it with adequate authority and administrative flexibility to obtain the necessary funds with which to assure an ample supply of electric power for such purposes by issuance of bonds and as otherwise provided herein, and this section shall be construed to effectuate such intent. [73 Stat. 280, as amended by 73 Stat. 338, 80 Stat. 346, and P.L. 91-446, 16 U.S.C. sec. 831n-4.]

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Question No. 15

State, at point of delivery, average future costs of power purchased from applicant to adjacent systems identified in applicant's response to Item 9 in terms of dollars/month/kw for capacity, mill/kwh for energy and mills/kwh for both power and energy at purchaser's present load factor (a) at present load, (b) at 50% increase over present load, (c) at 100% increase over present load, and (d) at 200% increase over present load. [All costs should be determined under present rate schedules.] Where sales are made under contracts or rate schedules on file with a federal agency and not included in the response to Item 9, identify each in the same form as in previous responses. Where the contract has not been filed with a federal agency, a copy should be supplied.

Answer

The rates for the power and energy purchased by Nantahala Power and Light Company are as follows:

Demand Charge: \$1.75 per month per kilowatt

Energy Charge:

First	100,000 kWh per month	4.8 mills per kWh
Next	200,000 kWh per month	4.3 mills per kWh
Next	700,000 kWh per month	3.8 mills per kWh
Excess over 1,000,000 kWh per month		3.3 mills per kWh

The average rate in mills per kWh for both power and energy at present rates and at Nantahala's present load factor are:

10.2 mills per kWh at present load level

7.45 mills per kWh at 50 percent increase over present load level

7.17 mills per kWh at 100 percent increase over present load level

7.01 mills per kWh at 200 percent increase over present load level

Question No. 16

State whether applicant has prepared, caused to be prepared, or received engineering studies for generation and transmission expansion programs which include loads of each system in Item 9.

Answer

Applicant performs engineering studies for generation and transmission expansion programs of its own system and for expansions of interconnections with adjacent systems. Loads of adjacent systems are included only when required in the determinations associated with expansion of interconnections and/or with the expansion of existing interchange arrangements.

Question No. 17

List adjacent systems to which applicant has offered to sponsor or to conduct system surveys in contemplation of an offer by applicant to purchase, merge or consolidate with said adjacent system, subsequent to January 1, 1960.

Answer

None

Question No. 18

List applicant's offers or proposals to purchase, merge or consolidate with electric utilities, subsequent to January 1, 1960.

Answer

None

Question No. 19

List all acquisitions of or merger or consolidations with electric utilities by applicant, subsequent to January 1, 1960, including:

- (a) The name and principal place of business of the system prior to the acquisition, merger or consolidation;
- (b) The date the acquisition merger or consolidation was consummated;
- (c) Gross annual revenue and most recent peak load, dependable capacity and the largest thermal generating unit of the system, prior to the dates of consummation.

Answer

None

Answer No. 20

TVA's six lowest industrial and large commercial rates for firm power and energy and that portion of the total rate attributed to bulk power supply are shown in Table I below. TVA's six lowest residential rates for power and energy are shown in Table II below. TVA does not have any special promotional sections or rates applicable to residential service.

Table I - Lowest Industrial and Commercial Rates for Firm Power:

Based on the Federal Power Commission large industrial load size of 1,000 kW Demand and 400,000 kWh/mo.

	Rates (Mills/kWh)			Portion Attributed to Bulk Power Supply ^{1/}
	Components:		Total	
	<u>Demand</u>	<u>Energy</u>		
C-4	4.59	4.48	9.07	N.A.
C-5	4.57	4.45	9.02	N.A.
C-6	4.57	4.41	8.98	N.A.
C-7	4.56	4.39	8.95	N.A.
C-8	4.56	4.37	8.93	N.A.

Table II - Lowest Residential Rates:^{2/}

Based on all-electric home with annual use of 25,000 kWh.

<u>Schedule</u>	<u>Average Total Cost (Mills/kWh)</u>	<u>Electric Heat and Air Conditioning (Mills/kWh)^{3/}</u>	<u>Portion Attributed To Bulk Power Supply^{1/}</u>
R-4	11.26	9.0	N.A.
R-5	11.02	8.9	N.A.
R-6	10.76	8.8	N.A.
R-7	10.53	8.7	N.A.
R-8	10.29	8.7	N.A.
R-9	10.05	8.7	N.A.

^{1/} No portion of the rate is specifically attributed to bulk power supply costs; these costs are included in total system costs the rates are designed to cover.

^{2/} No special promotional sections or rates applicable to residential service.

^{3/} Assuming use above 500 kWh per month was for heating and air conditioning.