

1939 - 1974

1939

WHOLESALE POWER RATE SCHEDULES

BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF INTERIOR

UNITED STATES OF AMERICA

DEPARTMENT OF INTERIOR - BONNEVILLE ADMINISTRATOR

Portland, Oregon

AT SITE PRIME POWER
WHOLESALE POWER RATE SCHEDULE A-2AVAILABILITY:

This schedule covers Prime Power delivered at the bus bars of the Bonneville Project power plant, or at such point or points adjacent thereto, as may be designated by the Administrator, available either for resale or direct consumption, to public bodies, cooperatives, and private agencies and persons; provided, however, that power sold to any private person or agency other than a privately owned public utility engaged in selling electric energy to the general public shall not be resold to any private utility engaged in selling electric energy to the general public.

Power under this schedule made available for direct consumption shall be consumed within fifteen miles of the Bonneville Project power plant, and power under this schedule made available for resale shall remain available only to a purchaser the principal part of whose load is consumed within fifteen miles of the Bonneville Project power plant.

CHARACTER OF SERVICE:

Power delivered hereunder shall be 3-phase, standard 60 cycle power at a nominal voltage of 13,800 volts, or such other type of service as may be available.

RATE:

Power sold under this schedule shall be at the rate of fourteen and one-half dollars (\$14.50) net per year per kilowatt of billing demand.

Wholesale Power Rate Schedule A-2

MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12th) of fourteen and one-half dollars (\$14.50) per kilowatt of contract demand.

CONTRACT DEMAND:

Each contract for the sale of power under this schedule shall specify the amount of power in kilowatts that the Administrator is obligated to deliver to the purchaser. This amount of power in kilowatts shall be termed the contract demand.

Delivery of power in excess of the contract demand, either with or without the consent of the Administrator, shall not obligate the Administrator to make future deliveries of power in excess of the contract demand.

BILLING DEMAND:

The billing demand shall be the contract demand or the actual demand as determined in the following paragraph, whichever is higher; provided, however, that the billing demand for any month shall not be less than the highest actual demand which occurred during the immediately preceding eleven months.

Whenever power is delivered to the purchaser at a weighted monthly average power factor of .85, or more, the actual demand for the month shall be defined as the average kilowatt delivery during the 30-minute interval in which the consumption of energy is the greatest during the month. Whenever such monthly weighted average power factor is less than .85, then the actual demand shall be determined by taking .85 of the average kilowatt delivery for the 30-minute interval in which the consumption of energy is greatest during the month, and dividing this amount by the weighted monthly average power factor. However, the Administrator shall not be obligated under the terms of this schedule to deliver power to the purchaser at any time at a power factor below .80.

BILLING:

Bills shall be rendered monthly on the basis of one-twelfth (1/12th) of the annual rate.

Wholesale Power Rate Schedule A-2

GENERAL PROVISIONS:

Sales of power under this schedule shall be pursuant to contracts which shall be subject to the provisions of the Bonneville Act and the General Terms and Conditions, as applicable at the time of execution of the contract.

Frank A. Banks
Acting Bonneville Administrator

This schedule cancels Wholesale
Power Rate Schedules A-1 and B-1
confirmed and approved June 8, 1938.

Confirmed and approved by order
of the Federal Power Commission
effective September 18, 1939.

UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR - BONNEVILLE ADMINISTRATOR

Portland, Oregon

TRANSMISSION SYSTEM PRIME POWER
WHOLESALE POWER RATE SCHEDULE C-2AVAILABILITY:

This schedule covers Prime Power delivered from the Bonneville transmission system at points to be designated by the Administrator, available, either for resale or direct consumption, to public bodies, cooperatives, and private agencies and persons; provided, however, that power sold to any private persons or agency other than a privately owned public utility engaged in selling electric energy to the general public shall not be resold to any private utility engaged in selling electric energy to the general public.

CHARACTER OF SERVICE:

Power delivered hereunder shall be three-phase, standard 60 cycles, or such other type of service as may be available.

Power shall be delivered hereunder at such locations and voltages as the Administrator may deem advisable in view of the prospective loads and other pertinent conditions.

RATE:

Power sold under this schedule shall be at the rate of seventeen and one-half dollars (\$17.50) net per year per kilowatt of billing demand. Provided that public bodies or cooperatives to whom this schedule is available, purchasing their entire energy requirements from the Bonneville Administrator, will be permitted a developmental period of two years commencing with the date service is first rendered, during which period monthly bills rendered shall not exceed five (5) mills multiplied by the number of kilowatt-hours delivered for the month.

MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12) of seventeen and one-half dollars (\$17.50)

(Wholesale Power Rate Schedule C-2)

per kilowatt of contract demand, except in the case of customers entitled to the five mill developmental rate referred to above.

CONTRACT DEMAND:

Each contract for the sale of power under this schedule shall specify the amount of power in kilowatts that the Administrator is obligated to deliver to the purchaser. This amount of power in kilowatts shall be termed the contract demand.

Delivery of power in excess of the contract demand, either with or without the consent of the Administrator, shall not obligate the Administrator to make future deliveries of power in excess of the contract demand.

BILLING DEMAND:

The billing demand shall be the contract demand or the actual demand as determined in the following paragraph, whichever is higher; provided, however, that the billing demand for any month shall not be less than the highest actual demand which occurred during the immediately preceding eleven months.

Whenever power is delivered to the purchaser at a weighted monthly average power factor of .85 or more, the actual demand for the month shall be defined as the average kilowatt delivery during the 30-minute interval in which the consumption of energy is the greatest during the month. Whenever such monthly weighted average power factor is less than .85, then the actual demand shall be determined by taking .85 of the average kilowatt delivery for the 30-minute interval in which the consumption of energy is greatest during the month, and dividing this amount by the weighted monthly average power factor. However, the Administrator shall not be obligated under the terms of this schedule to deliver power to the purchaser at any time at a power factor below .80.

BILLING:

Bills shall be rendered monthly on the basis of one-twelfth (1/12) of the annual rate.

GENERAL PROVISIONS:

Sales of power under this schedule shall be pursuant to contracts

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(Wholesale Power Rate Schedule C-2)

which shall be subject to the provisions of the Bonneville Act and the General Terms and Conditions, as applicable at the time of execution of the contract.

Frank A. Banks,
Acting Bonneville Administrator

This schedule cancels Wholesale Power Rate Schedules C-1 and D-1 confirmed and approved June 8, 1938.

Confirmed and approved by order of
the Federal Power Commission
effective September 18, 1939.

UNITED STATES OF AMERICA

DEPARTMENT OF INTERIOR - BONNEVILLE ADMINISTRATOR

Portland, Oregon

PRIME POWER
OPTIONAL WHOLESALE POWER RATE SCHEDULE F-1AVAILABILITY:

This schedule covers prime power, delivered at points to be designated by the Administrator, available, either for resale or direct consumption, to public bodies, cooperatives, and private agencies and persons; provided, however, that power sold to any private person or agency other than a privately-owned public utility engaged in selling electric energy to the general public shall not be resold to any private utility engaged in selling electric energy to the general public.

CHARACTER OF SERVICE:

Power delivered hereunder shall be 3-phase, standard 60 cycles, or such other type of service as may be available.

Power shall be delivered hereunder at such locations and voltages as the Administrator may deem advisable in view of the prospective loads and other pertinent conditions.

RATE:

Power shall be sold under this schedule at the following rate:

Demand Charge: 75¢ net per month per kilowatt of billing demand.

Energy Charge: 2.5 mills net per kilowatt-hour delivered.

Provided that public bodies or cooperatives to whom this schedule is available, purchasing their entire energy requirements from the Bonneville Administrator, will be permitted a developmental period of two years commencing with the date service is first rendered, during which period monthly bills rendered shall not exceed five (5) mills multiplied by the number of kilowatt-hours delivered for the month.

Department of the Interior

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Portland, Oregon

(Wholesale Power Rate Schedule F-1)

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MINIMUM CHARGE:

Except in the case of customers entitled to the five mill developmental rate referred to above, the total net minimum monthly charge for service under this schedule shall be 75¢ per month per kilowatt of contract demand, but not less than 75% of the highest demand charge billed during the preceding eleven months. The Administrator may also require a minimum guaranteed load factor except in the case of public bodies and cooperatives taking all their requirements under this rate schedule.

CONTRACT DEMAND:

Each contract for the sale of power under this schedule shall specify the amount of power in kilowatts that the Administrator is obligated to deliver to the purchaser. This amount of power in kilowatts shall be termed the contract demand.

Delivery of power in excess of the contract demand, either with or without the consent of the Administrator, shall not obligate the Administrator to make future deliveries of power in excess of the contract demand.

BILLING DEMAND:

The billing demand shall be the contract demand or the actual demand as determined in the following paragraph, whichever is higher; provided, however, that in the case of public bodies and cooperatives taking all their power requirements under this rate schedule the billing demand shall be the actual demand.

Whenever power is delivered to the purchaser at a weighted monthly average power factor of .85, or more, the actual demand for the month shall be defined as the average kilowatt delivery during the 30-minute interval in which the consumption of energy is the greatest during the month. Whenever such monthly weighted average power factor is less than .85, then the actual demand shall be determined by taking .85 of the average kilowatt delivery for the 30-minute interval in which the consumption of energy is greatest during the month, and dividing this amount by the weighted monthly average power factor. However, the Administrator shall not be obligated under the terms of this schedule to deliver power to the purchaser at any time at a power factor below .80.

(Wholesale Power Rate Schedule F-1)

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BILLING:

Bills shall be rendered monthly.

GENERAL PROVISIONS:

Sales of power under this schedule shall be pursuant to contracts which shall be subject to the provisions of the Bonneville Act and the General Terms and Conditions, as applicable at the time of execution of the contract.

Frank A. Banks
Acting Bonneville Administrator

Confirmed and approved by order
of the Federal Power Commission
effective September 18, 1939.

UNITED STATES OF AMERICA

DEPARTMENT OF INTERIOR - BONNEVILLE ADMINISTRATOR

Portland, Oregon

DUMP ENERGY
WHOLESALE ENERGY RATE SCHEDULE H-1AVAILABILITY

This schedule covers Dump Energy delivered at points to be designated by the Administrator, available, either for resale or direct consumption, to public bodies, cooperatives, and private agencies and persons; provided, however, that energy sold to any private person or agency other than a privately owned public utility engaged in selling electric energy to the general public shall not be resold to any private utility engaged in selling electric energy to the general public; provided further, that energy will be available under this schedule only in cases where the Administrator determines that the purchaser maintains available generating facilities or has firm standby contracts or other sources of energy satisfactory to the Administrator ample to supply its requirements when dump energy is not available.

CHARACTER OF SERVICE:

Power delivered hereunder shall be 3-phase, standard 60 cycles, or such other type of service as may be available.

Power shall be delivered hereunder at such locations and voltages as the Administrator may deem advisable in view of the prospective loads and other pertinent conditions.

Delivery of Dump Energy is not assured. The Administrator shall be the sole judge of whether and when Dump Energy will be delivered, and, if delivered, the amount thereof.

In the event that the Dump Energy to be delivered is insufficient to supply the requirements of all purchasers thereof, the Administrator shall, in his sole discretion, designate the purchasers to whom such Dump Energy shall be delivered and the amount thereof to be delivered to each such purchaser.

RATE:

Energy shall be sold under this schedule at two and one-half (2.5) mills net per kilowatt-hour delivered.

(Wholesale Energy Rate Schedule H-1)

MINIMUM CHARGE:

If it is necessary for the Government to install extra equipment or extra capacity for the purpose of delivering dump energy, the contract for the sale thereof shall provide a minimum charge sufficient, in the judgment of the Administrator, to protect the Government from loss due to the installation of such extra equipment or extra capacity.

ENERGY DELIVERED:

Whenever energy is delivered to the purchaser at a weighted monthly average power factor of .85, or more, billing shall be based upon the number of kilowatt-hours registered by the metering equipment. Whenever the monthly weighted average power factor is less than .85, then the energy shall be determined by taking .85 of the kilowatt hours delivered and dividing this amount by the monthly weighted average power factor. However, the Administrator shall not be obligated under the terms of this schedule to deliver power to the purchaser at any time at a power factor below .80.

BILLING:

Bills for energy shall be rendered monthly.

GENERAL PROVISIONS:

Sales of power under this schedule shall be pursuant to contracts which shall be subject to the provisions of the Bonneville Act and the General Terms and Conditions, as applicable at the time of execution of the contract.

Frank A. Banks
Acting Bonneville Administrator

Confirmed and approved by
order of the Federal Power
Commission effective
September 18, 1939.



1942

WHOLESALE POWER RATE SCHEDULES
AND
GENERAL RATE SCHEDULE PROVISIONS

BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF INTERIOR

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UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR - BONNEVILLE POWER ADMINISTRATOR

AT-SITE PRIME POWER
WHOLESALE POWER RATE SCHEDULE A-3

AVAILABILITY:

This schedule covers prime power delivered at the bus bars of the Bonneville Project power plant, or at a point or points adjacent thereto and at voltages to be designated by the Administrator.

This schedule applies to prime power delivered to public bodies, cooperatives and private agencies and persons.

Power sold under this schedule for direct consumption shall be consumed within fifteen miles of the Bonneville Project power plant, and power sold under this schedule for resale shall remain available only to a purchaser the principal part of whose load is consumed within fifteen miles of the Bonneville Project power plant.

RATE:

Power sold under this schedule shall be at the rate of fourteen and one-half dollars (\$14.50) net per year per kilowatt of billing demand.

MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12th) of fourteen and one-half dollars (\$14.50) per kilowatt of contract demand.

BILLING DEMAND:

The billing demand shall be the highest of the following demands, as defined in the General Rate Schedule Provisions:

- (1) The contract demand,
- (2) The measured demand,
- (3) The computed demand,

Note: Computed demand does not apply in cases where the purchaser has no generating capacity, and purchases its entire power requirements from the Bonneville Power Administration.

Wholesale Power Rate Schedule A-3

- (4) The highest measured or computed demand during the preceding eleven months, before adjustment for power factor;

Provided that if the contract demand has been exceeded, and if the Administrator subsequently notifies the purchaser that future deliveries of power will be restricted, or restricts power deliveries, to a specified amount which he determines can be made available (not including temporary restrictions made necessary by emergency conditions), such diminished demand shall be substituted for the amounts determined in accordance with above provisions (3) and (4); but in no case shall this provision operate to reduce the billing demand to less than the contract demand or the measured demand for the current month.

GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the General Rate Schedule Provisions.

This schedule cancels Wholesale Power Rate Schedule A-2 confirmed and approved effective September 18, 1939.

Paul J. Raver
Bonneville Power Administrator

Confirmed and approved by order of the Federal Power Commission to be effective on and after January 1, 1942.

UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR - BONNEVILLE POWER ADMINISTRATOR

TRANSMISSION SYSTEM PRIME POWER
WHOLESALE POWER RATE SCHEDULE C-3

AVAILABILITY:

This schedule covers prime power delivered from the Bonneville transmission system at points and at voltages to be designated by the Administrator.

This schedule applies to prime power delivered to public bodies, cooperatives, and private agencies and persons.

RATE:

Power sold under this schedule shall be at the rate of seventeen and one-half dollars (\$17.50) net per year per kilowatt of billing demand; provided that public bodies or cooperatives purchasing their entire power requirements for a separate electric system from the Bonneville Power Administrator, will be permitted a developmental period of two years commencing with the date service is first rendered, during which period monthly bills rendered shall not exceed five (5) mills multiplied by the number of kilowatt-hours for the month.

MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12th) of seventeen and one-half dollars (\$17.50) per kilowatt of contract demand; provided that the minimum charge shall not apply during the two-year developmental period to customers entitled to the five mill rate.

BILLING DEMAND:

The billing demand shall be the highest of the following demands, as defined in the General Rate Schedule Provisions:

- (1) The contract demand,
- (2) The measured demand,

Wholesale Power Rate Schedule C-3

(3) The computed demand,

Note: Computed demand does not apply in cases where the purchaser has no generating capacity and purchases its entire power requirements from the Bonneville Power Administration.

(4) The highest measured or computed demand during the preceding eleven months, before adjustment for power factor;

Provided that if the contract demand has been exceeded, and if the Administrator subsequently notifies the purchaser that future deliveries of power will be restricted, or restricts power deliveries, to a specified amount which he determines can be made available (not including temporary restrictions made necessary by emergency conditions), such diminished demand shall be substituted for the amounts determined in accordance with above provisions (3) and (4); but in no case shall this provision operate to reduce the billing demand to less than the contract demand or the measured demand for the current month.

GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the General Rate Schedule Provisions.

This schedule cancels Wholesale
Power Rate Schedule C-2
confirmed and approved effective
September 18, 1939

Paul J. Raver
Bonneville Power Administrator

Confirmed and approved by
order of the Federal Power
Commission to be effective
on and after January 1, 1942.

UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR - BONNEVILLE POWER ADMINISTRATOR

PRIME POWER
OPTIONAL WHOLESALE POWER RATE SCHEDULE F-2

AVAILABILITY:

This schedule covers prime power delivered at points and at voltages to be designated by the Administrator.

This schedule applies to prime power delivered to public bodies, cooperatives, and private agencies and persons.

RATE:

Power shall be sold under this schedule at the following rate:

Demand Charge: 75¢ net per month per kilowatt of billing demand.

Energy Charge:

Kilowatt-hours per month up to 50% load factor (360 times the billing demand) @ 2.5 mills net per kilowatt-hour delivered.
Additional kilowatt-hours @ 1.0 mill net per kilowatt-hour delivered.

If the number of kilowatt-hours billed at 1.0 mill per kilowatt-hour during any billing period is less than the number of kilowatt-hours resold by the purchaser to its customers during such period, for use in excess of 50% load factor or for off-peak use, at 2.5 mills or less per kilowatt-hour under rate schedules agreed to by the Administrator, the purchaser shall be entitled to a credit of 1.5 mills times the amount by which the kilowatt-hours so sold exceed the kilowatt-hours billed at 1.0 mill.

Public bodies or cooperatives purchasing their entire power requirements for a separate electric system from the Bonneville Power Administrator, will be permitted for such system a developmental period of two years commencing with the date service is first rendered, during which period monthly bills rendered shall not exceed five (5) mills multiplied by the number of kilowatt-hours delivered for the month.

Department of the Interior

Wholesale Power Rate Schedule F-2

MINIMUM CHARGE:

The total net minimum monthly charge for service under this schedule shall be the higher of (1) 75¢ per kilowatt of contract demand, or (2) 75% of the highest demand charge billed during the preceding eleven months, except as modified below in the case of customers contracting for power for irrigation and drainage pumping service. The minimum charge shall not apply during the two-year developmental period to customers entitled to the five mill rate. The Administrator may include in contracts for the sale of power under this rate schedule a provision requiring a higher minimum charge based on load factor, except in the case of public bodies and cooperatives taking their entire power requirements for a separate electric system under this schedule.

BILLING DEMAND:

The billing demand for public bodies and cooperatives taking their entire power requirements for a separate electric system under this rate schedule shall be the measured demand, as defined in the General Rate Schedule Provisions. For all other customers served under this rate schedule the billing demand shall be the highest of the following demands, as defined by the General Rate Schedule Provisions:

- (1) The contract demand,
- (2) The measured demand,
- (3) The computed demand,

Note: Computed demand does not apply in cases where the purchaser has no generating capacity and purchases its entire power requirements from the Bonneville Power Administration.

Provided that if the contract demand has been exceeded, and if the Administrator subsequently notifies the purchaser that future deliveries of power will be restricted, or restricts power deliveries, to a specified amount which he determines can be made available (not including temporary restrictions made necessary by emergency conditions), such diminished demand shall be substituted for the amounts determined in accordance with above provision (3); but in no case shall this provision operate to reduce the billing demand to less than the contract demand or the measured demand for the current month.

POWER FOR IRRIGATION AND DRAINAGE PUMPING SERVICE:

The rates stated in this schedule shall be applied on a monthly basis to power for irrigation and drainage pumping service, subject to a maximum annual demand charge of \$4.50 per kilowatt of the maximum irrigation and drainage pumping demand during the calendar year. The demand charge will be billed monthly at the rate of 75¢ per kilowatt of billing demand until the maximum annual demand charge has been

Wholesale Power Rate Schedule F-2

paid, after which no further demand charges shall apply during the calendar year to demands caused by irrigation and drainage pumping loads. The demands caused by irrigation and drainage pumping shall be metered, if reasonably practicable; where metering is impracticable, such demands shall be estimated from the connected load and method of operation of the pumping equipment on the basis of suitable field tests.

Notwithstanding any other provisions of this schedule, the Administrator may include in contracts with customers served with irrigation and drainage pumping power a provision requiring a higher minimum charge based on load factor. At the end of the irrigation season, or the calendar year for drainage pumping customers, the customer shall be billed for the amount by which the total previous billings for the year fail to equal the required minimum annual charge.

The minimum charge provision for regular power service, as stated in this rate schedule under the heading Minimum Charge, when applied to customers also taking irrigation and drainage pumping service, will be based upon the demands exclusive of irrigation and drainage pumping.

Irrigation and drainage pumping power will be available on a prime power basis from April to September, inclusive, and for the balance of the year may be interrupted at the discretion of the Administrator for periods of not to exceed four hours in any one day. The Administrator will designate in advance the hours of the day in which service to purchasers of irrigation and drainage pumping power is subject to interruption, and will give such advance notice of interruptions as is practicable. The amount of irrigation and drainage pumping power which will be contracted will be limited to the amount of such power, which, in the judgment of the Administrator, will be available from the seasonal reduction in the Government's monthly system peak demands for prime power during the months of April to September, inclusive.

GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the General Rate Schedule Provisions.

This schedule cancels Wholesale
Power Rate Schedule F-1
confirmed and approved effective
September 18, 1939

Paul J. Raver
Bonneville Power Administrator

Confirmed and approved by
order of the Federal Power
Commission to be effective
on and after January 1, 1942.

UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR - BONNEVILLE POWER ADMINISTRATOR

DUMP ENERGY
WHOLESALE ENERGY RATE SCHEDULE H-2

AVAILABILITY:

This schedule covers dump energy delivered at points and at voltages to be designated by the Administrator.

The schedule applies to dump energy delivered to public bodies, cooperatives, and private agencies and persons.

Energy may be purchased under this schedule only in cases where the Administrator determines that the purchaser normally maintains generating facilities or has firm standby contracts or other sources of energy satisfactory to the Administrator sufficient to supply its requirements when dump energy is not available. This schedule is applicable to service used in case of emergency conditions or breakdown occurring in the customer's regular energy supply.

CHARACTER OF SERVICE:

Delivery of dump energy is not assured. Dump energy is energy which may be generated by the Government from water which otherwise would be wasted. The Administrator shall be the sole judge of whether and when dump energy will be delivered, and, if delivered, the amount thereof.

In the event that the dump energy to be delivered is insufficient to supply the requirements of all purchasers thereof, the Administrator shall, in his sole discretion, designate the purchasers to whom such dump energy shall be delivered and the amount thereof to be delivered to each such purchaser.

RATE:

Energy shall be sold under this schedule at two and one-half (2.5) mills net per kilowatt-hour delivered, adjusted for power factor, if necessary, in accordance with the provisions below.

Wholesale Power Rate Schedule H-2

MINIMUM CHARGE:

If it is necessary for the Government to install extra equipment or extra capacity for the purpose of delivering dump energy, the contract for the sale thereof shall provide a minimum charge sufficient, in the judgment of the Administrator, to protect the Government from loss due to the installation of such extra equipment or extra capacity.

POWER FACTOR ADJUSTMENT:

If energy is delivered to the purchaser at an average power factor of .85, or more, billing shall be based upon the number of kilowatt-hours registered by the metering equipment. If the average power factor is less than .85, then the billing shall be based on the registered kilowatt-hours adjusted by multiplying by .85 and dividing the result by the average power factor. However, unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75.

GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the General Rate Schedule Provisions.

This schedule cancels Wholesale
Power Rate Schedule H-1
confirmed and approved effective
September 18, 1939

Paul J. Ravcr
Bonneville Power Administrator

Confirmed and approved by
order of the Federal Power
Commission to be effective
on and after January 1, 1942.

UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR - BONNEVILLE POWER ADMINISTRATOR

GENERAL RATE SCHEDULE PROVISIONS

Sale of power by the Government under all rate schedules shall be subject to the following general provisions:

1. Character of Service: Power delivered shall be 3-phase, standard 60-cycle power, or such other type of service as may be available.
2. Prime Power: Prime power is the kilowatt output capacity that is estimated by the Administrator to be available to purchasers contracting with the Bonneville Power Administration, whenever the flow in the Columbia River at the Bonneville Project power plant site is less than 800,000 c.f.s.
3. Point of Delivery: Power shall be delivered to each purchaser at a point or points to be agreed upon by the Administrator and the purchaser. If service is rendered to a purchaser from more than one substation, or if power is delivered at more than one voltage at the same substation, the purchaser shall be billed separately for each power delivery, unless otherwise specifically provided in the contract in cases where delivery at more than one point or voltage, or both, is advantageous to the Government.
4. Billing: Bills for power shall be rendered monthly. In the event that the billing is for a fraction of a month, the Administrator shall make an appropriate adjustment of the charges against the purchaser for such period. All bills shall be due and payable at the office of the Administrator within thirty days from the date of the bill; provided, however, that if the thirtieth day be a Sunday or a holiday, the following business day shall then become the due date.

Failure to receive a bill shall not release the purchaser from liability for payment. If payment is not made on or before the close of business on the due date a penalty of two percent (2%) of the bill rendered will be added, except in the case of contracts with other agencies of the United States. The Administrator may, at any time thereafter, and after giving ten days' advance notice in writing, discontinue service until all past due bills are paid. Remittances received by mail after the due date will be accepted by the Government, without penalty, provided payment was mailed on or before the due date as evidenced by the postmark.

Discontinuance of service, as herein provided, shall not relieve the purchaser of its liability for the agreed monthly payment during the period of time service is so discontinued.

5. Contract Demand: The amount of power that the Administrator is obligated to deliver to the purchaser shall be termed the contract demand.

Power may be delivered in excess of the contract demand, but such delivery shall not obligate the Administrator to make future deliveries of power in excess of the contract demand.

6. Measured Demand: The measured demand shall be the purchaser's maximum 30-minute registered demand on the Government's system during the billing period (exclusive of any authorized taking of Dump Energy and of any abnormal non-recurring demand due to emergency conditions), adjusted for power factor, if necessary, in accordance with provisions below. Demands due to faulty operation of, or excessive or fluctuating voltage on the Government's system shall not be included as part of the purchaser's measured demand.

7. Computed Demand: The computed demand shall be the largest difference during the billing period between the purchaser's 30-minute system load and the load which would have been carried by the purchaser's generating capacity (including assured capacity purchased or leased from others), assuming (1) maintenance of reserve generating capacity sufficient to protect adequately the purchaser's load requirements, (2) normal and reasonable utilization, with reference to current load requirements, of the capacity which would have been available under the most adverse water or fuel conditions known or estimated for the month, or months, concerned. The load which would have been carried by the purchaser's generating capacity in accordance with the foregoing provision will be stated in each contract for the sale of power, and on request of either party to the contract, will be subject to redetermination in case conditions occur which change the factors upon which the determination was based. The Administrator will publish an interpretation of the methods and factors to be used in the determination of the computed demand under this provision.

8. Power Factor Adjustment: If the average power factor at which power is delivered to the purchaser during the billing period is .85 or more, no adjustment will be made in the registered kilowatt demand. If such average power factor is less than .85, then the registered kilowatt demand shall be adjusted by multiplying by .85 and dividing the result by the average power factor. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 would in any particular case be advantageous to the Government.

Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75. The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive kilovolt-ampere-hours})^2}}$$

In applying the above formula the meter for measurement of reactive kilovolt-ampere-hours will be ratcheted to prevent reverse registration.

9. Optional Rates: Upon written application to the Administrator, any purchaser who has contracted for service under Rate Schedule F-2 shall have the option of being served, under an appropriate new contract for the remainder of the original contract term, under either Rate Schedule C-3 or A-3, whichever is applicable. In case the purchaser exercises this option, the "contract demand" shall remain the same as under the original contract, unless the purchaser and Administrator otherwise agree, and the "actual demands" established under the F-2 rate shall be used in the determination of "billing demands" under the newly elected rate, in the same manner that they would have been used had the purchaser created them under the newly elected rate schedule.

10. Application of Rates During Initial Operating Period: In order to promote the development of new industries within the market area of the project, the Administrator, during the initial six months operating period of a new plant or major addition to an existing plant will, upon request, establish the billing demand applicable to such load on a daily basis, waiving during this period such rate schedule provisions regarding contract demand, billing demand and minimum monthly charge as are in conflict therewith.

11. Emergency and Breakdown Relief: In the event of a breakdown or emergency on the system of a purchaser which obtains part of its power supply from other sources, and which maintains reserve generating capacity which is available to the Bonneville system for emergency and breakdown relief on a reciprocal basis, the Administrator will make every effort to supply, during the period of the emergency, all necessary power so far as it is possible to do so consistently with the Administrator's obligations to prime power customers, but the Administrator shall be the sole judge of his ability to supply such power. Such power supplied from the Bonneville power plant shall be paid for in accordance with the rate named in Wholesale Energy Rate Schedule II-2.

12. Definitions: In the "Wholesale Power Rate Schedules" and in the "General Rate Schedule Provisions" the following terms shall have the following meanings:

Cooperative and Cooperatives: Any form of non-profit-making organization or organizations of citizens supplying, or which may be created to supply, members with any kind of goods, commodities, or services, as nearly as possible at cost.

Public Bodies: States, public power districts, counties, and municipalities, including agencies or subdivisions of any thereof.

Administrator: The Bonneville Power Administrator, or such other department, agency or official authorized by law to perform functions now performed by the Administrator, or any of their authorized agents.

13. Federal Power Commission: Schedules of rates and charges for electric energy produced at the Bonneville Project and sold to purchasers shall become effective only after confirmation and approval by the Federal Power Commission. Subject to confirmation and approval by the Federal Power Commission such rate schedules may be modified from time to time by the Administrator.



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WHOLESALE POWER RATE SCHEDULES
AND
GENERAL RATE SCHEDULE PROVISIONS

BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF INTERIOR

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

AT-SITE FIRM POWER
WHOLESALE POWER RATE SCHEDULE A-4
(Effective March 1, 1946)

AVAILABILITY:

This schedule applies to firm power delivered by the Administrator under appropriate contracts at the power plants, or at a point or points adjacent thereto to be designated by the Administrator.

Power sold under this schedule for direct consumption shall be consumed within fifteen miles of the power plant, and power sold under this schedule for resale shall remain available only to a purchaser the principal part of whose load is consumed within fifteen miles of the power plant.

RATE:

Power sold under this schedule shall be at the rate of fourteen and one-half dollars (\$14.50) net per year per kilowatt of billing demand.

MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12th) of fourteen and one-half dollars (\$14.50) per kilowatt of contract demand.

BILLING DEMAND:

The billing demand shall be the highest of the following demands:

- (1) The contract demand,
- (2) The measured demand for the month, adjusted for power factor,
- (3) The computed demand for the month (Note: Applies only when part of the load is supplied from other sources. See section 2.3 of General Rate Schedule Provisions),
- (4) The highest measured or computed demand during the preceding eleven months, before adjustment for power factor.

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Wholesale Power Rate Schedule A-4

POWER FACTOR ADJUSTMENT:

If the average power factor at which power is delivered to the purchaser during the billing period is .85 or more, no adjustment will be made in the registered kilowatt demand. If such average power factor is less than .85, then the registered kilowatt demand shall be adjusted by multiplying by .85 and dividing the result by the average power factor. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75. The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive kilovolt-ampere-hours})^2}}$$

In applying the above formula the meter for measurement of reactive kilovolt-ampere-hours will be ratcheted to prevent reverse registration.

GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Act and the General Rate Schedule Provisions effective March 1, 1946.

This schedule cancels
Wholesale Power Rate Schedule A-3
except where such schedule is
incorporated in existing contracts.

Paul J. Raver
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION

UNITED STATES DEPARTMENT OF THE INTERIOR

TRANSMISSION SYSTEM FIRM POWER
WHOLESALE POWER RATE SCHEDULE C-4
(Effective March 1, 1946)

AVAILABILITY:

This schedule applies to transmission system firm power delivered by the Administrator under appropriate contracts.

RATE:

Power sold under this schedule shall be at the rate of seventeen and one-half dollars (\$17.50) net per year per kilowatt of billing demand.

MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12th) of seventeen and one-half dollars (\$17.50) per kilowatt of contract demand.

BILLING DEMAND:

The billing demand shall be the highest of the following demands:

- (1) The contract demand,
- (2) The measured demand for the month, adjusted for power factor,
- (3) The computed demand for the month (Note: Applies only when part of the load is supplied from other sources. See section 2.3 of General Rate Schedule Provisions),
- (4) The highest measured or computed demand during the preceding eleven months, before adjustment for power factor.

POWER FACTOR ADJUSTMENT:

If the average power factor at which power is delivered to the purchaser during the billing period is .85 or more, no adjustment will be made in the registered kilowatt demand. If such average power factor is less than .85, then the registered kilowatt demand shall be adjusted by multiplying by .85 and dividing the result by the average power factor.

Wholesale Power Rate Schedule C-4

This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75. The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive kilovolt-ampere-hours})^2}}$$

In applying the above formula the meter for measurement of reactive kilovolt-ampere-hours will be ratcheted to prevent reverse registration.

GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Act and the General Rate Schedule Provisions effective March 1, 1946.

This schedule cancels
Wholesale Power Rate Schedule C-3
except where such schedule is
incorporated in existing contracts.

Paul J. Raver
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION

UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE E-3
(Effective March 1, 1946)

AVAILABILITY:

This schedule applies to at-site and transmission system firm power delivered to purchasers for resale by purchaser to ultimate consumers and for irrigation and drainage pumping service.

RATE:

Power shall be sold under this schedule at the following monthly rate applied separately to each separate electric system served, and within each system, separately to (1) power other than for irrigation and drainage pumping and (2) power for irrigation and drainage pumping:

Demand Charge: 75¢ net per kilowatt of billing demand.

Energy Charge:

First 200 kilowatt-hours per kilowatt of billing demand
@ 2 mills net per kilowatt-hour
Additional kilowatt-hours @ 1 mill net per kilowatt-hour

PROVIDED, that any separate billing shall not be less than 90% of the amount resulting from the application of the above charges to the entire requirements for the system or use to which the billing applies, and

PROVIDED, further, that, for a developmental period extending until (1) four years after cessation of present hostilities between the United States and Germany and Japan, or (2) three years after the date service is first rendered by the Administrator to a separate system, whichever is the later date, bills for power supplied to public bodies and cooperatives for other than irrigation and drainage pumping shall not exceed the higher of (1) 3.5 mills times the number of kilowatt-hours supplied or (2) 3.5 mills times 90% of the entire energy requirements of the system other than for irrigation and drainage pumping plus, in each case, any increase in demand charge due to power factor adjustment.

Wholesale Power Rate Schedule E-3

The 90% in each of the above provisos shall be subject to an appropriate adjustment in any case in which a purchaser is compelled to generate or purchase energy because of inability to obtain it from the Administrator.

BILLING DEMAND:

I. For power other than for irrigation and drainage pumping the billing demand under this rate schedule shall be the higher of the following demands:

- (1) The measured demand for the billing period adjusted for power factor;
- (2) 80% of the highest measured demand after adjustment for power factor during the preceding eleven months.

II. For power for irrigation and drainage pumping the billing demand under this schedule shall be the measured demand for the month, adjusted for power factor, subject to a maximum annual demand charge of \$4.50 per kilowatt of the maximum irrigation and drainage pumping demand during the calendar year before adjustment for power factor.

The demands caused by irrigation and drainage pumping shall be metered if reasonably practicable; where metering is impracticable, such demands shall be estimated from the connected load and method of operation of the pumping equipment on the basis of suitable field tests. The demand charge will be billed monthly at the rate of 75¢ per kilowatt of billing demand until the maximum annual demand charge has been paid, after which no further demand charges shall apply during the calendar year to demands caused by irrigation and drainage pumping loads.

Notwithstanding any other provisions of this schedule, the Administrator may include in contracts with customers served with irrigation and drainage pumping power a provision requiring a higher minimum charge based on load factor. At the end of the irrigation season, or the calendar year for drainage pumping customers, the customers shall be billed for the amount by which the total previous billings for the year fail to equal the required minimum annual charge.

Irrigation and drainage pumping power will be available on a firm power basis from April to September, inclusive, and for the balance of the year may be interrupted at the discretion of the Administrator for periods of not to exceed four hours in any one day. The Administrator will designate in advance the hours of the day in which service to purchasers of irrigation and drainage pumping power is subject to interruption, and will give such advance notice of interruption as is practicable. The amount of irrigation and drainage pumping power which will be contracted will be limited to the amount of such power, which, in the judgment of the Administrator, will be available from the seasonal reduction in the Government's monthly system peak demands for firm power during the months of April to September, inclusive.

Wholesale Power Rate Schedule E-3

POWER FACTOR ADJUSTMENT:

The measured demand, before adjustment for power factor, will be increased 1% for each 1% or major fraction thereof by which the average power factor is less than .95 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .95 would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75. The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive kilovolt-ampere-hours})^2}}$$

In applying the above formula the meter for measurement of reactive kilovolt-ampere-hours will be ratcheted to prevent reverse registration.

CHANGE TO KILOWATT-YEAR RATE SCHEDULE:

Upon written application to the Administrator, any purchaser who has contacted for service under this rate schedule may change, under an appropriate new contract for the remainder of the original contract term, to the kilowatt-year schedule which is applicable subject to provisions of section 10.1 of the General Rate Schedule Provisions effective March 1, 1946.

GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Act and the General Rate Schedule Provisions effective March 1, 1946.

This schedule cancels
Wholesale Power Rate Schedule E-2
except where such schedule is
incorporated in existing contracts.

Paul J. Raver
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION

UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE F-3
(Effective March 1, 1946)

AVAILABILITY:

This schedule applies to at-site and transmission system firm power delivered by the Administrator under appropriate contracts.

RATE:

Power shall be sold under this schedule at the following monthly rate applied separately to each separate electric system served, and within each system, separately to (1) power other than for irrigation and drainage pumping, and (2) power for irrigation and drainage pumping.

Demand Charge: 75¢ net per month per kilowatt of billing demand.

Energy Charge:

First 360 kilowatt-hours per kilowatt of billing demand
@ 2.5 mills net per kilowatt-hour.

Additional kilowatt-hours @ 1.0 mill net per kilowatt-hour.

If the number of kilowatt-hours billed at 1.0 mill per kilowatt-hour during any billing period is less than the number of kilowatt-hours resold by the purchaser to its customers during such period, for use in excess of 50% load factor or for off-peak use, at 2.5 mills or less per kilowatt-hour under rate schedules agreed to by the Administrator, the purchaser shall be entitled to a credit of 1.5 mills times the amount by which the kilowatt-hours so sold exceed the kilowatt-hours billed at 1.0 mill.

MINIMUM CHARGE:

The total net minimum monthly charge for service under this schedule shall be the higher of (1) 75¢ per kilowatt of contract demand, or (2) 75% of the highest demand charge billed during the preceding eleven months. The Administrator may include in contracts for the sale of power under this rate schedule a provision requiring a higher minimum charge based on load factor. The minimum charge for regular power service, when applied to customers also taking irrigation and drainage pumping service will be based upon the demands exclusive of irrigation and drainage pumping.

Wholesale Power Rate Schedule F-3

BILLING DEMAND:

1. For power other than for irrigation and drainage pumping the billing demand under this rate schedule shall be the highest of the following demands:

- (1) The contract demand,
- (2) The measured demand for the billing period, adjusted for power factor,
- (3) The computed demand for the billing period.

(Note: Applies only when part of the load is supplied from other sources. See section 2.3 of General Rate Schedule Provisions.)

II. For power for irrigation and drainage pumping the billing demand under this schedule shall be the measured demand for the month, adjusted for power factor, subject to a maximum annual demand charge of \$4.50 per kilowatt of the maximum irrigation and drainage pumping demand during the calendar year before adjustment for power factor.

The demands caused by irrigation and drainage pumping shall be metered if reasonably practicable; where metering is impracticable, such demands shall be estimated from the connected load and method of operation of the pumping equipment on the basis of suitable field tests. The demand charge will be billed monthly at the rate of 75¢ per kilowatt of billing demand until the maximum annual demand charge has been paid, after which no further demand charges shall apply during the calendar year to demands caused by irrigation and drainage pumping loads.

Irrigation and drainage pumping power will be available on a firm power basis from April to September, inclusive, and for the balance of the year may be interrupted at the discretion of the Administrator for periods of not to exceed four hours in any one day. The Administrator will designate in advance the hours of the day in which service to purchasers of irrigation and drainage pumping power is subject to interruption, and will give such advance notice of interruption as is practicable. The amount of irrigation and drainage pumping power which will be contracted will be limited to the amount of such power, which, in the judgment of the Administrator, will be available from the seasonal reduction in the Government's monthly system peak demands for firm power during the months of April to September, inclusive.

POWER FACTOR ADJUSTMENT:

If the average power factor at which power is delivered to the purchaser during the billing period is .85 or more, no adjustment will be made in the registered kilowatt demand. If such average power factor is less than .85, then the registered kilowatt demand shall be adjusted by multiplying by .85 and dividing the result by the average power factor.

Wholesale Power Rate Schedule F-3

This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75. The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive kilovolt-ampere-hours})^2}}$$

In applying the above formula the meter for measurement of reactive kilovolt-ampere-hours will be ratcheted to prevent reverse registration.

CHANGE TO KILOWATT-YEAR RATE SCHEDULE:

Upon written application to the Administrator, any purchaser who has contracted for service under this rate schedule may change, under an appropriate new contract for the remainder of the original contract term, to the kilowatt-year schedule which is applicable subject to provisions of section 10.1 of the General Rate Schedule Provisions effective March 1, 1946.

GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Act and the General Rate Schedule Provisions effective March 1, 1946.

This schedule cancels
Wholesale Power Rate Schedule F-2
except where such schedule is
incorporated in existing contracts.

Paul J. Raver
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

DUMP ENERGY
WHOLESALE ENERGY RATE SCHEDULE H-3
(Effective March 1, 1946)

AVAILABILITY:

This schedule applies to at-site and transmission system dump energy delivered by the Administrator under appropriate contracts in cases in which the Administrator determines that the purchaser normally maintains electric generating facilities or has firm stand-by contract or other sources of energy satisfactory to the Administrator sufficient to supply the purchaser's requirements when dump energy is not delivered; this schedule also applies to energy delivered for experimental purposes and for emergency and breakdown use under the conditions set forth in Sections 7.1 and 8.1, respectively, of the General Rate Schedule Provisions effective March 1, 1946.

DELIVERY:

Delivery of dump energy is not assured. The Administrator shall be the sole judge of whether and when dump energy will be delivered, and, if delivered, the amount thereof.

In the event that the dump energy to be delivered is insufficient to supply the requirements of all purchasers thereof, the Administrator shall, in his sole discretion, designate the purchasers to whom such dump energy shall be delivered and the amount thereof to be delivered to each such purchaser.

RATE:

Energy shall be sold under this schedule at two and one-half (2.5) mills net per kilowatt-hour delivered.

MINIMUM CHARGE:

If it is necessary for the Government to install extra equipment or extra capacity for the purpose of delivering energy under this schedule, the contract for the sale thereof shall provide a minimum charge sufficient, in the judgment of the Administrator, to protect the Government from loss due to the installation of such extra equipment or extra capacity.

Wholesale Energy Rate Schedule H-3

GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Act and the General Rate Schedule Provisions effective March 1, 1946.

This schedule cancels
Wholesale Power Rate Schedule H-2
except where such schedule is
incorporated in existing contracts.

Paul J. Raver
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION

UNITED STATES DEPARTMENT OF THE INTERIOR

GENERAL RATE SCHEDULE PROVISIONS

(Effective March 1, 1946)

1.1. FIRM POWER: Firm power is power which is always available except when operation of the facilities used by the Government to serve the purchaser is suspended, interrupted, interfered with, or curtailed due to strikes or to failure, damage, or destruction of such facilities from causes reasonably beyond the control of the party having jurisdiction thereof, which by the exercise of reasonable diligence such parties could not reasonably have been expected to avoid.

2.1. CONTRACT DEMAND: The contract demand shall be the amount of firm power that the Administrator agrees to have available for delivery to the purchaser. The delivery of power in excess of contract demand shall in no event obligate the Administrator to continue to deliver power in excess of the contract demand. If the contract demand has been exceeded, and if at any time the Administrator notifies the purchaser that future delivery of power will be restricted, or restricts power delivery to a specific amount which he determines can be made available (not including temporary restrictions made necessary by emergency conditions) then, in determining subsequent bills such restricted demand shall be substituted for any higher ratcheted demand or current computed demand which would otherwise be applicable. This provision shall not be deemed to give the Administrator the right to restrict deliveries below contract demand.

2.2. MEASURED DEMAND: The measured demand shall be the purchaser's maximum 30-minute registered demand as of the point of delivery during the billing period, exclusive of any authorized takings of dump energy and of any abnormal non-recurring demands due to emergency conditions or causes reasonably beyond the purchaser's control; provided, however, if the amount of firm power requested by the purchaser's dispatcher and scheduled for delivery by the Administrator exceeds the maximum registered demand during billing period, then the maximum amount of such scheduled power shall be the measured demand during billing period.

If service is rendered to a purchaser at more than one point of delivery, the measured demand shall be determined separately for each point of delivery subject to the provisions of section 5.1 hereof.

In cases where power deliveries by the Administrator involve conditions under which the flow of power at the point or points of delivery cannot be adequately controlled by reason of interconnections with other systems which are in turn interconnected, directly or indirectly, with the Administrator's system, the monthly measured demand will be determined as a single amount based on hourly schedules as mutually agreed upon between the respective dispatchers covering all points of delivery.

The dispatchers shall hold deviations from schedule to a minimum and shall correct therefor as promptly as possible under conditions approximately equivalent to the conditions under which the deviation occurred.

2.3 COMPUTED DEMAND: The computed demand shall be the largest difference during the billing period between the purchaser's 30-minute system load and the load which could have been carried by the purchaser's generating capacity (including assured capacity purchased or leased from others), assuming (1) normal and reasonable utilization, with reference to current load requirements, of the capacity and energy which would have been available based upon the most adverse water conditions of record (or estimated, if adequate records are not available covering a period of twenty years or more) for any period of twelve consecutive months and the most adverse fuel conditions reasonably to be anticipated, and (2) maintenance of reserve generating capacity sufficient to protect adequately the load which could have been carried by the purchaser's generating capacity. The Administrator will publish an interpretation of the methods and factors to be used in the determination of the computed demand under this provision. Each contract in which computed demand may be a factor in determining the billing demand shall incorporate a provision with respect to the principles and procedures to be followed in the calculations of computed demand, and shall also have attached to it as an exhibit a calculation of the computed demand of the purchaser for the period having the highest computed demand during the twelve months immediately preceding the effective date of the contract.

3.1 COOPERATIVE: The term Cooperative means any form of non-profit-making organization of citizens supplying, or which may be created to supply, members with any kind of goods, commodities, or services, as nearly as possible at cost.

3.2 PUBLIC BODY: The term Public Body means any state, public power district, county, or municipality, including agencies or subdivisions of any thereof.

3.3 ADMINISTRATOR: The term Administrator means the Bonneville Power Administrator or such other department, agency or official authorized by law to perform functions now performed by the Administrator, or any of their authorized agents.

4.1 CHARACTER OF SERVICE: Power and energy supplied hereunder shall be 3-phase alternating current at approximately 60 cycles per second, or such other type of service as may be available.

5.1 POINT OF DELIVERY AND DELIVERY VOLTAGE: Power and energy shall be delivered to each purchaser at such point or points and such voltage or voltages as are agreed upon by the Administrator and the purchaser. If service is rendered to a purchaser at more than one point of delivery, the amount of the charge for each power delivery shall be computed separately under the applicable rate schedule unless otherwise specifically provided in the contract in cases where

- (1) delivery at more than one point is advantageous to the Government, or
- (2) the flow of power at the several points of delivery is reasonably beyond the control of the purchaser.

TECHNICAL LIBRARY
BONNEVILLE POWER ADMINISTRATION

Delivery at more than one voltage shall constitute delivery at more than one point.

6.1 APPLICATION OF RATES DURING INITIAL OPERATING PERIOD: In order to promote the development of new industries, the Administrator, for an initial operating period beginning with the commencement of operation of a new plant or major addition to an existing plant, and extending for such period as may be reasonably required by the character of the operation but not to exceed three (3) months, may agree (1) to establish the billing demand for service to such new plant or major addition on a daily basis or (2), if such new plant or major addition is served by a public body or cooperative purchasing power therefor from the Administrator, to establish that portion of such public body's or cooperative's billing demand which results from service to such new plant or major addition on a daily basis. The initial operating period may, with approval of the Federal Power Commission, be extended beyond the initial three (3) months' period for such additional time as the character of operations may reasonably require. During such initial operating period such rate schedule provisions regarding contract demand, billing demand, and minimum monthly charge as are inconsistent with this section will be inoperative.

7.1 ENERGY USED FOR EXPERIMENTAL PURPOSES: In order to promote experimentation in new processing methods and in the development of new types of load within the market area of the project, the Administrator, for such time as may be reasonably required by the character of the experimentation, but not to exceed six months unless approval of the Federal Power Commission is first obtained, may sell the energy used solely for such experimentation at the rate named in Wholesale Energy Rate Schedule H-3.

8.1 ENERGY SUPPLIED FOR EMERGENCY AND BREAKDOWN USE: Energy supplied for an emergency or breakdown use to a purchaser taking firm power shall be paid for at the rate named in Wholesale Energy Rate Schedule H-3.

9.1 BILLING: Bills for power shall be rendered monthly and shall be payable at the office of the Administrator. In the event that the billing is for a fraction of a month the Administrator shall make an appropriate adjustment of the charges against the purchaser for such period. Failure to receive a bill shall not release the purchaser from liability for payment. If payment in full is not made on or before the close of business of the thirtieth day after the date of the bill, a delayed payment charge of two per cent (2%) of the unpaid amount of the bill will be made except in the case of bills rendered under contracts with other agencies of the United States.

The Administrator may, whenever a power bill or a portion thereof remains unpaid subsequent to the thirtieth day after the date of the bill, and after giving thirty days' advance notice in writing, cancel the contract for service to the purchaser, but such cancellation shall not affect the purchaser's liability for any charges accrued prior thereto.

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Portland, Oregon

Remittances received by airmail will be accepted without assessment of the two per cent (2%) delayed payment charge provided the postmark indicates the payment was mailed on or before the thirtieth day after the date of the bill. If the thirtieth day after the date of the bill is a Sunday or a holiday, the next following business day shall be the last day on which payment may be made without the addition of the delayed payment charge.

10.1 CHANGE FROM ONE RATE SCHEDULE TO ANOTHER: When a purchaser changes from one rate schedule to another rate schedule, the demands established under the superseded rate schedule shall be considered in computing bills under the newly elected rate schedule, in the same manner as if they had been established under the newly elected rate schedule.

11.1 APPROVAL OF RATES: Schedules of rates and charges for electric energy produced at the Bonneville Project and sold to purchasers shall become effective only after confirmation and approval by the Federal Power Commission. Such rate schedules may be modified from time to time by the Administrator subject to confirmation and approval by the Federal Power Commission.

BONNEVILLE POWER ADMINISTRATION

UNITED STATES DEPARTMENT OF THE INTERIOR

PRINCIPLES AND PROCEDURES TO BE FOLLOWED
IN THE CALCULATION OF COMPUTED DEMAND
(Effective March 1, 1946)

The use of computed demand as one of the alternatives in determining billing demand is intended to assure that each purchaser who purchases Bonneville power to supplement his own facilities will take a block of power substantially equivalent to the additional capacity which the purchaser would otherwise have to provide on the basis of normal and prudent operation, viz. sufficient capacity to carry the load through the most critical water or other conditions reasonably to be anticipated, with an adequate operating reserve.

The determination of computed demand is made in several steps as follows:

- (1) Determine for the billing month the capability of the purchaser's hydro generating facilities, both in terms of 30-minute peaking and of energy, under the water conditions which existed during the same month in the critical year of record. The capability of hydro generating facilities depending essentially on daily stream flow will be determined on the basis of the average daily stream flow in the critical year calculated separately for the first ten days, the second ten days, and the remainder of the month, respectively.

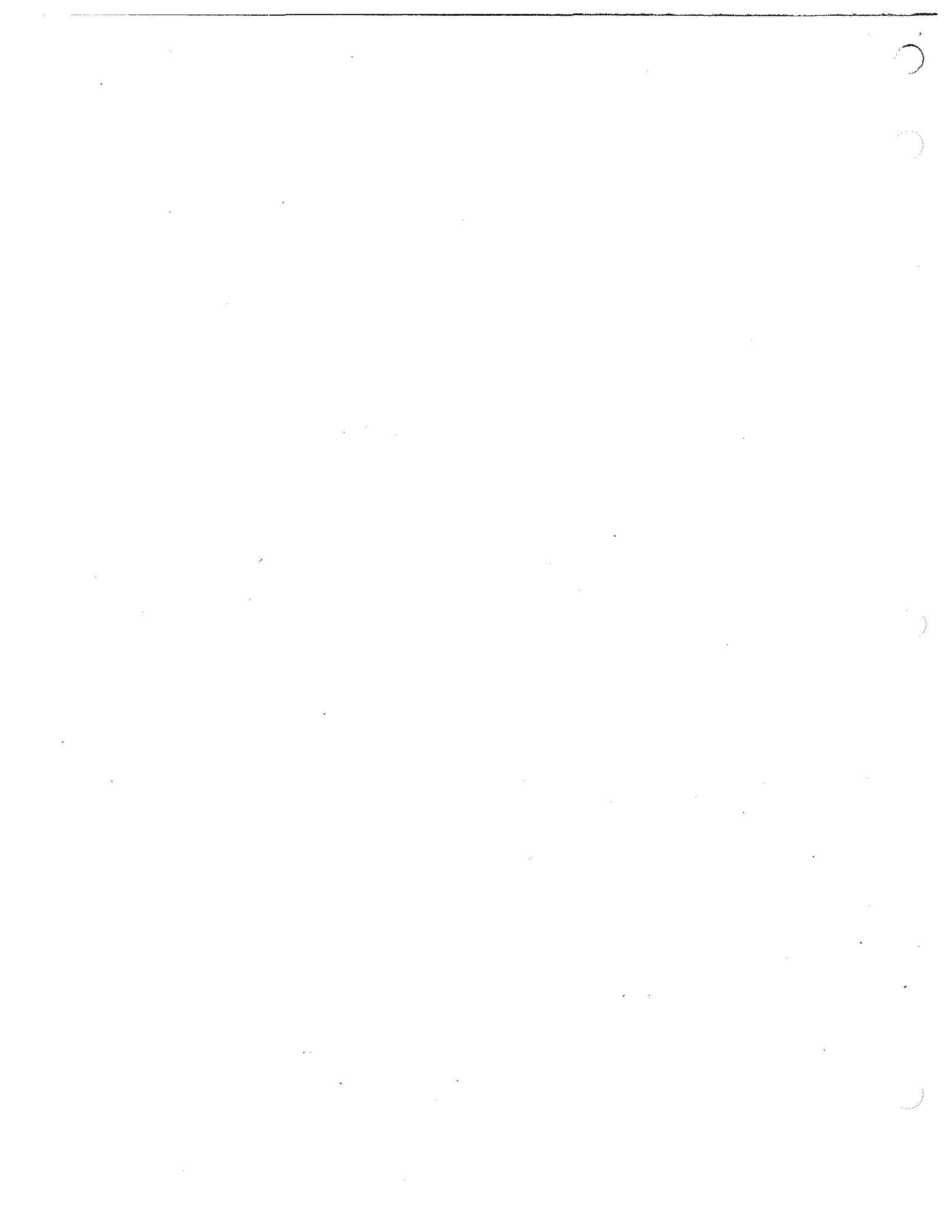
The energy capability of hydro generating facilities having seasonal storage will be determined in terms of the total kilowatt-hours available during the drawdown period, assuming the stream flow conditions of the critical year of record. The purchaser will, within ten days after the end of the month during the drawdown period, notify the Administrator in writing of the proportion of such total energy available to be applied to the past month.

- (2) Determine the capability, both in terms of 30-minute peaking and of energy, of the purchaser's fuel burning generating facilities based on the most adverse fuel conditions reasonably to be anticipated and for which prudent operation would require provision to be made.

Limitation of fuel supply due to war or other extraordinary emergency will receive special treatment as required to conform to the basic purposes of the computed demand as stated above.

- (3) Determine, by relating the capability of all the purchaser's generating facilities to purchaser's load for the month, what portion of the maximum demand on the critical day of the month (or of each ten-day period in the month, if required) could have been carried by the purchaser's generating facilities after first deducting an appropriate operating reserve. Either peaking capability or energy may in any specific instance be the limiting factor in this determination.
- (4) The difference between the maximum demand which could have been carried by the purchaser's own generating facilities, as thus determined, and the system maximum demand on the critical day will be the computed demand, unless the purchaser has firm power available from other sources under a valid contract, in which case an appropriate allowance will be made for such power.

The capability, in terms of 30-minute peaking and of energy, is a factor which will not ordinarily be changed, unless a more critical year occurs, or some physical change is made in generating facilities. On the other hand the maximum demand and shape of the load curve are constantly changing factors. Since the computed demand depends on the relationship of capability to load, the computed demand for any month cannot be determined until after the end of the month. As each purchaser must estimate his own load, and is in the best position to follow its development from day to day, it will be his responsibility to request scheduling of firm power, including any increase over previously established demands, on the basis estimated by him to result in the most advantageous purchase of the power to be billed at the end of the month.



1959
(WITH AMENDMENT 1960)

WHOLESALE POWER RATE SCHEDULES
AND
GENERAL RATE SCHEDULE PROVISIONS

BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF INTERIOR

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BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

AT-SITE FIRM POWER
WHOLESALE POWER RATE SCHEDULE A-4
(Effective March 1, 1946)
(Amended December 20, 1954,
and December 20, 1959)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts at the power plants, or at a point or points adjacent thereto to be designated by the Administrator.

The amount of power sold from any power plant under this rate schedule shall not exceed the at-site firm power determined by the Administrator to be available.

Power sold under this schedule for direct consumption shall be consumed within fifteen miles of the power plant, and power sold under this schedule for resale shall remain available only to a purchaser the principal part of whose load is consumed within fifteen miles of the power plant.

Section 2. RATE:

Power sold under this schedule shall be at the rate of fourteen and one-half dollars (\$14.50) net per year per kilowatt of billing demand, and shall be billed each month at one-twelfth ($1/12$) of the yearly rate.

Section 3. MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth ($1/12$) of fourteen and one-half dollars (\$14.50) per kilowatt of contract demand.

Section 4. BILLING DEMAND:

The billing demand shall be the highest of the following demands:

- (1) The contract demand,
- (2) The measured demand for the month, adjusted for power power factor,
- (3) The computed demand for the month, if part of the load is supplied from other sources (see Section 2.3 of the General Rate Schedule Provisions),
- (4) The highest measured or computed demand during the preceding eleven months, before adjustment for power factor.

Section 5. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 4 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which electric energy is supplied during such month is less than .85 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 6. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule A-4 as amended December 20, 1954.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

TRANSMISSION SYSTEM FIRM POWER
WHOLESALE POWER RATE SCHEDULE C-4
(Effective March 1, 1946)
(Amended December 20, 1954,
and December 20, 1959)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts.

Section 2. RATE:

Power sold under this schedule shall be at the rate of seventeen and one-half dollars (\$17.50) net per year per kilowatt of billing demand and shall be billed each month at one-twelfth (1/12) of the yearly rate.

Section 3. MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12) of seventeen and one-half dollars (\$17.50) per kilowatt of contract demand.

Section 4. BILLING DEMAND:

The billing demand shall be the highest of the following demands:

- (1) The contract demand,
- (2) The measured demand for the month, adjusted for power factor,
- (3) The computed demand for the month, if part of the load is supplied from other sources (see Section 2.3 of General Rate Schedule Provisions),
- (4) The highest measured or computed demand during the

preceding eleven months, before adjustment for power factor.

Section 5. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 4 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which electric energy is supplied during such month is less than .85 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 6. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule C-4 as amended December 20, 1954.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE E-4

(Effective April 1, 1948)

(Amended January 26, 1951, July 1, 1952,
December 20, 1954, and December 20, 1959)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts for resale, and for irrigation or drainage pumping use, including incidental use for other purposes in either case.

Section 2. RATE:

Subject to the provisions of Sections 4 and 5, the monthly rate for power sold under this schedule shall be as follows:

Demand Charge: 75¢ net per kilowatt of billing demand.

Energy Charge: First 200 kilowatt-hours per kilowatt of billing demand at 2.0 mills net per kilowatt-hour.

Additional kilowatt-hours at 1.0 mill net per kilowatt-hour.

Section 3. BILLING DEMAND:

The billing demand under this rate schedule shall be the higher of the following demands:

- (1) The measured demand for the month, adjusted for power factor,
- (2) 70% of the highest measured demand, after adjustment for power factor, during the preceding eleven months exclusive of measured demands for the period from May 1 through September 30. This subsection (2) shall not apply to purchasers who use the power purchased

under this rate schedule solely for irrigation or drainage pumping, and for uses incidental thereto, and who do not resell any of the power so purchased.

Section 4. LIMITATIONS:

- (1) The amount payable under any billing shall not be less than 90% of the amount resulting from the application of the above charges and provisions in this schedule to the entire requirements of the separate system to which the billing applies.
- (2) For a period extending until five years after the date service is first rendered by the Administrator to a newly developed separate system, the net amount, after applying any applicable irrigation and drainage pumping discounts, payable for such system shall not exceed the higher of (1) 3.5 mills multiplied by the number of kilowatt-hours supplied, plus any increase in demand charge due to power factor adjustment, or (2) 3.5 mills multiplied by 90% of the entire energy requirements of the separate system to which the billing applies, plus any increase in demand charge due to power factor adjustment.
- (3) The 90% specified in limitations (1) and (2) above shall be subject to an appropriate adjustment if the purchaser is unable to obtain his full requirements from the Administrator.

Section 5. IRRIGATION AND DRAINAGE PUMPING PROVISIONS:

During the period from May 1 through September 30 each year, a discount of four-tenths mill (\$.0004) per kilowatt-hour will be applied to energy purchased from the Administrator under this rate schedule and resold by the purchaser to customers for strictly irrigation or drainage pumping and uses incidental thereto. Such discount also will be applied during the five-month period to energy purchased under this rate schedule by purchasers organized for and using such electric energy solely for irrigation or drainage pumping and uses incidental thereto.

Where irrigation or drainage pumping energy is purchased for resale by the purchaser:

- (1) The kilowatt-hours to which the discount is applied will be the irrigation or drainage pumping kilowatt-hours metered for resale by the purchaser increased by 10% for losses.
- (2) The discount will apply only to such irrigation or drainage pumping energy as is separately metered by the purchaser. In order to have such discount applied, the purchaser, except as provided in (3) below, shall supply within 10 days after the close of the Administrator's monthly billing period a record of the kilowatt-hours for each irrigation or drainage pumping customer so metered, and also such other data as are reasonably requested by the Administrator.
- (3) Purchasers may supply such data to the Administrator on other than a monthly basis if the data correspond to the purchasers' regular billing periods that may be in effect for billing such irrigation or drainage pumping deliveries to its customers. In such instances the discount will be applied to the Administrator's monthly bill most nearly corresponding to the purchaser's regular billing period for such customers.

Notwithstanding any other provisions of this schedule, the Administrator may include in contracts with purchasers of irrigation or drainage pumping power a minimum annual charge for such power in an amount which shall return the annual costs on special facilities, if any, required to be installed by the Administrator to supply such service. At the end of the calendar year the purchaser will be billed for any amount by which said required minimum annual charge exceeds the total amounts previously billed for the year.

Section 6. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 3 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which energy is supplied during such month is less than .95 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .95 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be

obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 7. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule E-4, as amended December 20, 1954.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE F-4
(Effective April 1, 1948)
(Amended December 20, 1954,
and December 20, 1959)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts.

Section 2. RATE:

Power shall be sold under this schedule at the following monthly rate:

Demand Charge: 75¢ net per kilowatt of billing demand.

Energy Charge: First 360 kilowatt-hours per kilowatt of billing demand at 2.5 mills net per kilowatt-hour.

Additional kilowatt-hours at 1.0 mill net per kilowatt-hour.

Section 3. MINIMUM CHARGE:

The total net minimum monthly charge for service under this schedule shall be the higher of (1) 75¢ per kilowatt of contract demand, or (2) 75% of the highest demand charge billed during the preceding eleven months. The Administrator may include in contracts for the sale of power under this rate schedule a provision requiring a higher minimum charge based on load factor.

Section 4. BILLING DEMAND:

The billing demand under this rate schedule shall be the highest of the following demands:

- (1) The contract demand,

- (2) The measured demand for the month, adjusted for power factor,
- (3) The computed demand for the month, if part of the load is supplied from other sources (see Section 2.3 of General Rate Schedule Provisions).

Section 5. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 4 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which electric energy is supplied during such month is less than .85 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 6. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule F-4 as amended December 20, 1954.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

DUMP ENERGY
WHOLESALE ENERGY RATE SCHEDULE H-3
(Effective March 1, 1946)
(Amended December 20, 1954,
and December 20, 1959)

Section 1. AVAILABILITY:

This schedule is available to purchasers of dump energy delivered by the Administrator under appropriate contracts in cases in which the Administrator determines that the purchaser normally maintains electric generating facilities or has firm standby contracts or other sources of energy satisfactory to the Administrator sufficient to supply the purchaser's requirements when dump energy is not delivered. This schedule also applies to energy delivered for experimental and testing purposes and for emergency and breakdown use under the conditions set forth in Sections 7.1 and 8.1, respectively, of the applicable General Rate Schedule Provisions.

Section 2. DELIVERY:

Delivery of dump energy is not assured. The Administrator shall be the sole judge of whether and when dump energy will be delivered, and if delivered, the amount thereof.

In the event that the dump energy available to the Administrator is insufficient to supply the requirements of all purchasers thereof, the Administrator shall, in his sole discretion, designate the purchasers to whom such dump energy shall be delivered and the amount thereof to be delivered to each such purchaser.

Section 3. RATE:

Energy shall be sold under this schedule at two and one-half (2.5) mills net per kilowatt-hour delivered.

Section 4. MINIMUM CHARGE:

If it is necessary for the Government to install extra equip-

ment or extra capacity for the purpose of delivering energy under this schedule, the contract for the sale of energy shall provide a minimum charge sufficient, in the judgment of the Administrator, to protect the Government from loss due to the installation of such extra equipment or extra capacity.

Section 5. GENERAL PROVISIONS:

Sales of Power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Energy Rate Schedule H-3 as amended December 20, 1954.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE R-1

(Effective April 1, 1948)

(Amended December 20, 1954,
and December 20, 1959)

Section 1. AVAILABILITY:

This schedule applies to at-site and transmission system firm power used by railroads primarily for traction purposes, delivered under appropriate contracts to railroads or to purchasers for resale to railroads. The points of delivery shall be so located that the capacity required for the estimated load at each point of delivery shall be not less than 7,500 kva, unless in any particular case the Administrator determines that it would be advantageous to the Government to supply a lower capacity.

Section 2. RATE:

Energy shall be sold under this schedule at four mills per kilowatt-hour of net energy supplied adjusted for power factor as set forth below. Such net energy before adjustment for power factor will be determined as the aggregate number of kilowatt-hours delivered to the purchaser's system at all points of delivery less the number of kilowatt-hours resulting from regenerative braking received by the Government for the purchaser's system. The energy flowing in both directions will be metered separately as of each point of delivery.

Section 3. MINIMUM CHARGE:

The net minimum charge under this schedule shall be \$0.50 per month times the aggregate kva capacity of all of the points of delivery.

Section 4. POWER FACTOR ADJUSTMENT:

The net energy before adjustment for power factor will be increased 1% for each 1% or major fraction thereof by which the average power factor is less than .95 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that

a power factor of less than .95 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power at any time at a power factor below .75 lagging.

Section 5. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and to the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule R-1 as amended December 20, 1954.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

GENERAL RATE SCHEDULE PROVISIONS

(Effective December 20, 1954)

(Amended May 15, 1956, and

December 20, 1959, and

December 20, 1960)

1.1 FIRM POWER: Firm power is power which the Administrator assures as being continuously available to a customer to meet his load requirements except when operation of the facilities used by the Government to serve the purchaser is suspended, interrupted, interfered with, or curtailed due to uncontrollable forces as defined herein, or because of necessary maintenance.

2.1 CONTRACT DEMAND: The contract demand shall be the number of kilowatts that the Administrator agrees to have available for delivery to the purchaser under the conditions stated in the rate schedule. Any delivery of power in excess of contract demand shall in no event obligate the Administrator to continue to deliver power in excess of the contract demand.

2.2 MEASURED DEMAND: Except where deliveries are scheduled as hereinafter provided, the measured demand for any class of power, for any point of delivery, and for any period, shall be the largest of the 30-minute integrated demands at which such class of power is delivered to the purchaser at such point during such period. The Administrator, in determining the measured demand, will exclude any abnormal 30-minute integrated demands due to or resulting from emergencies, breakdowns, or maintenance of the Government's facilities. The class of power referred to above may include but is not restricted to firm, dump, experimental, testing, emergency, breakdown, and interruptible power.

If the contractual arrangements provide for the delivery of more than one class of power to the purchaser at any point of delivery, the total 30-minute integrated demands at such point will be determined from measurements as specified in the contract, or estimated where metering or other data are not available for such determination. The portion of each of such demands assignable to each class of power will be determined according to the terms of the contract.

If the flow of electric energy to the purchaser at any point or points of delivery cannot be adequately controlled because the purchaser's system is interconnected with one or more systems which are also interconnected directly or indirectly with the Government's system, the purchaser's measured demand for each class of power, for such point or points, and for any period, shall be the largest of the hourly amounts of such class of power which are scheduled for delivery to the purchaser at such point or points during such period.

2.3 COMPUTED DEMAND:

A. The determination of computed demand for purchasers whose hydro generating facilities depend essentially upon daily usable streamflow, or for purchasers having only fuel-burning generating facilities, is made as follows:

- (1) Determine for the billing month the capability of the purchaser's hydro generating facilities, both in terms of 30-minute peaking and of energy, under the water conditions which would have occurred during the same month in the critical year of record including modifications due to upstream storage operations. The determination will be made on the basis of the average daily usable streamflow in the critical year calculated separately for the first ten days, the second ten days, and the remainder of the month, respectively.
- (2) Determine the capability, both in terms of 30-minute peaking and of energy, of the purchaser's fuel-burning generating facilities based on the most adverse fuel conditions reasonably to be anticipated and for which prudent operation would require provision to be made.

Limitation of fuel supply due to war or other extraordinary emergency will receive special treatment as required to conform to the basic purposes of the computed demand as stated above.

- (3) Determine the firm peaking and energy capability available to the purchaser from other sources

through purchase, lease, and exchange agreements.

- (4) Determine the purchaser's assured capability for either peaking or energy by adding the capabilities determined in A(1), (2), and (3) above and deducting appropriate reserves.
- (5) The computed demand for the month will be the greater of:
 - (a) The largest amount for any half hour by which the purchaser's actual system demand exceeds the purchaser's assured capability, or
 - (b) The largest amount during the month by which the purchaser's actual system average energy load for each ten-day period exceeds the purchaser's assured average energy capability for the corresponding ten-day period.

B. The determination of computed demand for purchasers having seasonal storage facilities (subsequently defined) is made as follows:

- (1) Determine the 30-minute peaking and monthly energy capabilities of all nonstorage resources described in A(1), (2), and (3) above.
- (2) Determine the monthly capabilities, both in terms of 30-minute peaking and of energy, of hydro generation facilities having seasonal storage, by relating total system resources to estimated monthly loads for the current operating year with storage utilized to provide the minimum peaking or energy requirement after deduction of adequate reserve generating capacity.

This determination will be made prior to the beginning of each operating year.

- (3) The purchaser's assured monthly capability for either peaking or energy will be the total system resources less reserves, as determined in B(1) and (2) above.

- (4) The computed demand for the month will be the greater of:
- (a) The largest amount for any half hour by which the purchaser's actual system demand exceeds the purchaser's assured capability, or
 - (b) The purchaser's actual system average energy load for the month less the purchaser's assured average energy capability for the corresponding month.

Seasonal Storage shall mean storage held over from the the annual high-water season to the following low-water season in an amount sufficient to regulate the hydro energy resources of the system to the system load requirements in a manner which would result in a uniform computed energy demand for a period of one month or more.

The use of computed demand as one of the alternatives in determining billing demand is intended to assure that each purchaser who purchases power from the Administrator to supplement his own facilities or other firm-power purchases will take a block of power substantially equivalent to the additional capacity which the purchaser would otherwise have to provide on the basis of normal and prudent operation, viz. sufficient capacity to carry the load through the most critical water or other conditions reasonably to be anticipated, with an adequate operating reserve.

Since the computed demand depends on the relationship of capability of resources to system requirements, the computed demand for any month cannot be determined until after the end of the month. As each purchaser must estimate his own load, and is in the best position to follow its development from day to day, it will be his responsibility to request scheduling of firm power, including any increase over previously established demands, on the basis estimated by him to result in the most advantageous purchase of the power to be billed at the end of the month.

Each contract in which computed demand may be a factor in determining the billing demand shall have attached to it as an exhibit a calculation of the computed demand of the purchaser for the period having the highest computed demand during the twelve months imme-

diately preceding the effective date of the contract.

2.4 RESTRICTED DEMAND: If at any time the Administrator notifies the purchaser that future delivery of power will be restricted, or restricts power delivery to a specific amount which he determines can be made available (not including temporary restrictions made necessary by emergency conditions) then, in determining subsequent bills such restricted demand shall be substituted for any higher ratcheted demand or current computed demand which would otherwise be applicable. This provision shall not be deemed to give the Administrator the right to restrict deliveries below contract demand.

3.1 ADMINISTRATOR: The term Administrator means the Bonneville Power Administrator or such other department, agency, or official authorized by law to perform functions now performed by the Administrator, or any of their authorized agents.

4.1 CHARACTER OF SERVICE: Power and energy supplied hereunder shall be 3-phase alternating current at approximately 60 cycles per second, or such other type of service as may be available.

5.1 POINT OF DELIVERY AND DELIVERY VOLTAGE: Power and energy shall be delivered to each purchaser at such point or points and such voltage or voltages as are agreed upon by the Administrator and the purchaser. Delivery at more than one voltage shall constitute delivery at more than one point.

Unless otherwise specifically provided in the rate schedule, where service is rendered to a purchaser at more than one point of delivery, the service at each point of delivery shall be billed separately under the applicable rate schedule. Provision for combined billing may be made in other cases, under conditions and terms specifically provided in the power sales contract, when: (a) delivery at more than one point is advantageous to the Government, or (b) the flow of power at the several points of delivery is reasonably beyond the control of the purchaser.

In case service at more than one point of delivery is billed on a combined basis for the convenience of the customer, a charge will be made for the diversity of the loads supplied at the several points of delivery. The charge for the diversity shall be determined in a uniform manner and shall be specified in the contract.

6.1 APPLICATION OF RATES DURING INITIAL OPERATING PERIOD: In order to promote the development of new industries, the Administrator, for an initial operating period beginning with the commencement of operation of a new plant or major addition to an existing plant, and extending for such period as may be reasonably required by the character of the operation but not to exceed three months, may agree (a) to bill for service to such new plant or major addition on the basis of the maximum demand for each day, or (b) if such new plant or major addition is served by a distributor purchasing power therefor from the Administrator, to bill for that portion of such distributor's load which results from service to such new plant or major addition on the basis of the maximum demand for each day. The initial operating period may, with approval of the Federal Power Commission, be extended beyond the initial three months' period for such additional time as the character of operations may reasonably require. During such initial operating period such rate schedule provisions regarding contract demand, billing demand, and minimum monthly charge as are inconsistent with this section will be inoperative.

7.1 ENERGY USED FOR EXPERIMENTAL AND TESTING PURPOSES: In order to promote experimentation in new processing methods and in development of new types of load within the market area, the Administrator, for such time as may be reasonably required by the character of the experimentation, but not to exceed six months from the date of initial service unless approval of the Federal Power Commission is first obtained, may sell the energy used solely for such experimentation in accordance with Wholesale Energy Rate Schedule H-3. Energy used solely for testing of new equipment or processes also may be sold by the Administrator under the same conditions as apply to experimental energy.

8.1 ENERGY SUPPLIED FOR EMERGENCY AND BREAK-DOWN USE: A purchaser taking firm power shall pay in accordance with Wholesale Energy Rate Schedule H-3 for any energy which has been supplied (a) for an emergency or breakdown use on the purchaser's system, or (b) following such emergency or breakdown to replace energy secured from sources other than the Government during such emergency or breakdown.

9.1 BILLING MONTH: Meters will normally be read and bills computed at intervals of one month. A month is defined as an interval of approximately 30 days between normal meter-reading dates. If service is for less or more than the normal billing month, the

monthly charges stated in the applicable rate schedule will be appropriately adjusted.

9.2 PAYMENT OF BILLS: Bills for power shall be rendered monthly and shall be payable at the office of the Administrator. Failure to receive a bill shall not release the purchaser from liability for payment. If payment in full is not made on or before the close of business of the thirtieth day after the date of the bill, a delayed payment charge of two per cent (2%) of the unpaid amount of the bill will be made except in the case of bills rendered under contracts with other agencies of the United States.

The Administrator may, whenever a power bill or a portion thereof remains unpaid subsequent to the thirtieth day after the date of the bill, and after giving thirty days' advance notice in writing, cancel the contract for service to the purchaser, but such cancellation shall not affect the purchaser's liability for any charges accrued prior thereto.

Remittances received by mail will be accepted without assessment of the two per cent (2%) delayed payment charge provided the postmark indicates the payment was mailed on or before the thirtieth day after the date of the bill. If the thirtieth day after the date of the bill is a Sunday or a holiday, the next following business day shall be the last day on which payment may be made without the addition of the delayed payment charge.

10.1 CHANGE FROM ONE RATE SCHEDULE TO ANOTHER: Upon written request to the Administrator, any purchaser who has contracted for service under any rate schedule may change, at his option, to any other applicable rate schedule under an appropriate amendment to the contract, effective during the remainder of the original contract term. Only one such change will be permitted during the term of the original contract, other than changes resulting from the purchaser's option to substitute any applicable new rate schedule which may be filed by the Administrator. The change in rate will be made effective at the beginning of the first billing period following receipt of such request or at such later date as the request may stipulate. The billing factors established under the superseded rate schedule shall be applied, if applicable, in computing bills under the newly elected rate schedule in the same manner as if they had been established under the newly elected rate schedule.

11.1 APPROVAL OF RATES: Schedules of rates and charges for electric energy sold to purchasers by the Administrator shall become effective only after confirmation and approval by the Federal Power Commission. Such rate schedules may be modified from time to time by the Administrator subject to confirmation and approval by the Federal Power Commission.

12.1 AVERAGE POWER FACTOR: The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive kilovolt-ampere-hours})^2}}$$

In applying the above formula, the meter for measurement of reactive kilovolt-ampere-hours will be ratcheted to prevent reverse registration.

When deliveries to a purchaser at any point of delivery include more than one class of power and it is impracticable to separately meter the kilowatt-hours and reactive kilovolt-ampere-hours for each class, the average power factor of the total deliveries for the month will be used, where applicable, as the power factor for each of the separate classes.

13.1 UNCONTROLLABLE FORCES: The term Uncontrollable Forces means (a) strikes affecting the operation of the purchaser's works or system or other physical facilities upon which such operation is completely dependent, or of physical facilities used by the Government to serve the purchaser, or (b) events, reasonably beyond the control of the party having jurisdiction thereof, causing failure, damage, or destruction of such works, system, or facilities which by the exercise of reasonable diligence such party could not reasonably have been expected to avoid. Each party shall notify the other immediately of any defect, trouble, or accident which may in any way affect the delivery of power by the Government to the purchaser. In the event the operations of either party are suspended, interrupted, interfered with, or curtailed due to uncontrollable forces, such party shall exercise due diligence to reinstate such operations with all reasonable dispatch.

13.2 REDUCTION IN CHARGES ON ACCOUNT OF INTERRUPTIONS: If operation of the customer's works or system or other physical facilities upon which such operation is completely dependent, or if operation of physical facilities used by the Government to serve the purchaser is suspended, interrupted, interfered with, or curtailed due to uncontrollable forces, as defined herein, or because of necessary maintenance on the Government's system, the charges for power shall be appropriately reduced. No interruption of less than five (5) minutes duration will be considered for computation of such reduction in charges.

14.1 DETERMINATION OF ESTIMATED BILLING DATA: In cases where amounts of power and energy purchased by a distributor must be estimated from information on use of power by ultimate consumers of that distributor, the Administrator shall review the data on consumer use of power submitted by the purchaser, and if any changes are deemed necessary, will advise the purchaser of the changes proposed. In the event that agreement cannot be reached as to the estimate, a binding determination shall be made by a committee composed of one member appointed by the Administrator, one member appointed by the purchaser, and if necessary, one member who shall have no direct interest to be selected by the two members so appointed.

15.1 SALE OF INTERRUPTIBLE POWER (Effective December 20, 1960): Interruptible power is nonfirm power which the Administrator agrees to deliver except when curtailed by him upon reasonable notice. The wholesale power rate schedules applicable to the sales of firm power by the Administrator shall also apply to sales of interruptible power, subject to the following provisions:

- A. A reduction of \$0.50 per month per kilowatt of billing demand shall be made in the demand or kilowatt charge of any new applicable rate adopted subsequent to December 20, 1959; provided, that the resulting billing for interruptible power will not be less than the billing would be under the applicable rate schedule effective December 20, 1959.
- B. The billing demand for interruptible power shall be the measured demand for that class of power for the month adjusted for average power factor for the month.
- C. The minimum monthly charge included in such firm power rate schedules shall not be applicable to sale of inter-

ruptible power.

- D. If the Administrator curtails or agrees at the request of the purchaser either to curtail or to increase deliveries of interruptible power during any month:
- (1) The rates per kilowatt and the energy blocks, if any, stated in the applicable rate schedule shall be prorated according to the ratio that the time in each portion of the month during which the same stipulations regarding deliveries were continuously in effect bears to the total time in the month, and
 - (2) The billing demand for interruptible power for each portion of the month mentioned in (1) above shall be the measured demand for that class of power during such portion of the month adjusted for average power factor for the month.
- E. Interruptible power delivered for resale shall be separately metered or scheduled, and billed independently of the regular firm power purchases.

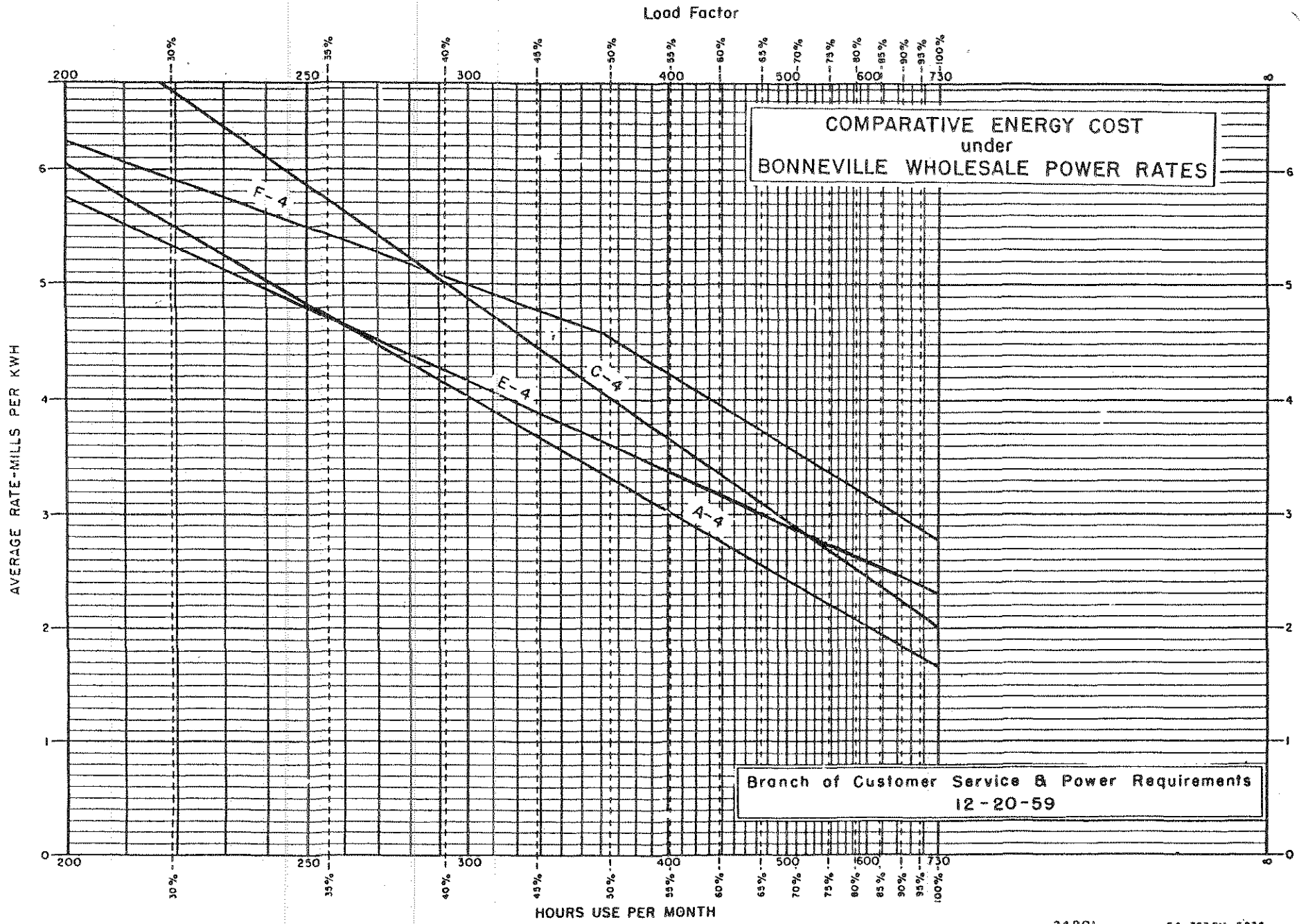
15.2 SALE OF INDUSTRIAL POWER (Effective December 20, 1960): Industrial power is nonfirm power which the Administrator agrees to deliver and which the purchaser agrees to purchase in accordance with a stipulated contract demand except when curtailed either by the Administrator or by the purchases in accordance with specific contractual provisions. The wholesale power rate schedules applicable to the sales of firm power by the Administrator shall also apply to sales of industrial power, subject to the following provisions;

- A. A reduction of \$0.50 per month per kilowatt of billing demand shall be made in the demand or kilowatt charge of any new applicable rate adopted subsequent to December 20, 1959; provided, that the resulting billing for industrial power will not be less than the billing would be under the applicable rate schedule effective December 20, 1959.
- B. The billing demand for industrial power shall be the higher of (1) the contract demand, or (2) the measured

demand for that class of power for the month adjusted for average power factor for the month.

- C. The minimum monthly charge included in such firm power rate schedules shall not be applicable to sale of industrial power.
- D. If either the Administrator or the purchaser curtails deliveries of industrial power during any month in accordance with specific contractual provisions:
 - (1) The rates per kilowatt and the energy blocks, if any, stated in the applicable rate schedule shall be prorated according to the ratio that the time in each portion of the month during which the same stipulations regarding deliveries were continuously in effect bears to the total time in the month.
 - (2) The billing demand for industrial power for each portion of the month mentioned in (1) above shall be the higher of (a) the contract demand for that class of power for such portion of the month after adjustments to reflect any authorized curtailments by the Administrator or the purchaser, or (b) the measured demand for that class of power during such portion of the month adjusted for average power factor for the month.
 - (3) If an industrial purchaser resumes operation of a portion of its plant which was shut down during a period of curtailment and which is dependent for operation upon industrial power, the billing for industrial power during such period of resumption will be based on the maximum measured demand for each day until such portion of the plant is operating normally, but not longer than 14 days.

These General Rate Schedule Provisions supersede the Provisions effective December 20, 1954.



COMPARATIVE ENERGY COST
under
BONNEVILLE WHOLESALE POWER RATES

Branch of Customer Service & Power Requirements
12-20-59

1954

WHOLESALE POWER RATE SCHEDULES
AND
GENERAL RATE SCHEDULE PROVISIONS

BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF INTERIOR

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BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

AT-SITE FIRM POWER
WHOLESALE POWER RATE SCHEDULE A-4
(Effective March 1, 1946)
(Amended December 20, 1954)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts at the power plants, or at a point or points adjacent thereto to be designated by the Administrator.

The amount of power sold from any power plant under this rate schedule shall not exceed the at-site firm power determined by the Administrator to be available.

Power sold under this schedule for direct consumption shall be consumed within fifteen miles of the power plant, and power sold under this schedule for resale shall remain available only to a purchaser the principal part of whose load is consumed within fifteen miles of the power plant.

Section 2. RATE:

Power sold under this schedule shall be at the rate of fourteen and one-half dollars (\$14.50) net per year per kilowatt of billing demand, and shall be billed each month at one-twelfth (1/12) of the yearly rate.

Section 3. MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12) of fourteen and one-half dollars (\$14.50) per kilowatt of contract demand.

Section 4. BILLING DEMAND:

The billing demand shall be the highest of the following demands:

- (1) The contract demand,
- (2) The measured demand for the month, adjusted for power factor,

Wholesale Power Rate Schedule A-4

- (3) The computed demand for the month, if part of the load is supplied from other sources (see Section 2.3 of the General Rate Schedule Provisions),
- (4) The highest measured or computed demand during the preceding eleven months, before adjustment for power factor.

Section 5. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 4 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which electric energy is supplied during such month is less than .85 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 6. RATE ADJUSTMENT:

This rate schedule shall be subject to such adjustment as the Federal Power Commission may approve upon proposal by the Administrator to become effective on December 20 of the year 1956, or 1957, or 1958, provided that the Administrator shall make timely proposal for the adjustment, if adjustment becomes necessary, in order to bring the rate schedule into conformity with the rate standards of the Bonneville Project Act.

Section 7. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule A-4 effective March 1, 1946.

Wm. A. Pearl
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

TRANSMISSION SYSTEM FIRM POWER
WHOLESALE POWER RATE SCHEDULE C-4
(Effective March 1, 1946)
(Amended December 20, 1954)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts.

Section 2. RATE:

Power sold under this schedule shall be at the rate of seventeen and one-half dollars (\$17.50) net per year per kilowatt of billing demand and shall be billed each month at one-twelfth (1/12) of the yearly rate.

Section 3. MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12) of seventeen and one-half dollars (\$17.50) per kilowatt of contract demand.

Section 4. BILLING DEMAND:

The billing demand shall be the highest of the following demands:

- (1) The contract demand,
- (2) The measured demand for the month, adjusted for power factor,
- (3) The computed demand for the month, if part of the load is supplied from other sources (see Section 2.3 of General Rate Schedule Provisions),
- (4) The highest measured or computed demand during the preceding eleven months, before adjustment for power factor.

Wholesale Power Rate Schedule C-4

Section 5. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 4 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which electric energy is supplied during such month is less than .85 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 6. RATE ADJUSTMENT:

This rate schedule shall be subject to such adjustment as the Federal Power Commission may approve upon proposal by the Administrator to become effective on December 20 of the year 1956, or 1957, or 1958, provided that the Administrator shall make timely proposal for the adjustment, if adjustment becomes necessary, in order to bring the rate schedule into conformity with the rate standards of the Bonneville Project Act.

Section 7. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule C-4 effective March 1, 1946.

Wm. A. Pearl
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE E-4
(Effective April 1, 1948
(Amended January 26, 1951, July 1, 1952,
and December 20, 1954)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts for resale, and for irrigation or drainage pumping use, including incidental use for other purposes in either case.

Section 2. RATE:

Subject to the provisions of Sections 4 and 5, the monthly rate for power sold under this schedule shall be as follows:

Demand Charge: 75¢ net per kilowatt of billing demand.

Energy Charge: First 200 kilowatt-hours per kilowatt of billing demand at 2.0 mills net per kilowatt-hour.

Additional kilowatt-hours at 1.0 mill net per kilowatt-hour.

Section 3. BILLING DEMAND:

The billing demand under this rate schedule shall be the higher of the following demands:

- (1) The measured demand for the month, adjusted for power factor,
- (2) 70% of the highest measured demand, after adjustment for power factor, during the preceding eleven months exclusive of measured demands for the period from May 1 through September 30. This subsection (2) shall not apply to purchasers who use the power purchased under this rate schedule solely for irrigation or drainage pumping, and for uses incidental thereto, and who do not resell any of the power so purchased.

Wholesale Power Rate Schedule E-4

Section 4. LIMITATIONS:

- (1) The amount payable under any billing shall not be less than 90% of the amount resulting from the application of the above charges and provisions in this schedule to the entire requirements of the separate system to which the billing applies.
- (2) For a period extending until five years after the date service is first rendered by the Administrator to a newly developed separate system, the net amount, after applying any applicable irrigation and drainage pumping discounts, payable for such system shall not exceed the higher of (1) 3.5 mills multiplied by the number of kilowatt-hours supplied, plus any increase in demand charge due to power factor adjustment, or (2) 3.5 mills multiplied by 90% of the entire energy requirements of the separate system to which the billing applies, plus any increase in demand charge due to power factor adjustment.
- (3) The 90% specified in limitations (1) and (2) above shall be subject to an appropriate adjustment if the purchaser is unable to obtain his full requirements from the Administrator.

Section 5. IRRIGATION AND DRAINAGE PUMPING PROVISION:

During the period from May 1 through September 30 each year, a discount of four-tenths mill (\$.0004) per kilowatt-hour will be applied to energy purchased from the Administrator under this rate schedule and resold by the purchaser to customers for strictly irrigation or drainage pumping and uses incidental thereto. Such discount also will be applied during the five-month period to energy purchased under this rate schedule by purchasers organized for and using such electric energy solely for irrigation or drainage pumping and uses incidental thereto.

Where irrigation or drainage pumping energy is purchased for resale by the purchaser:

- (1) The kilowatt-hours to which the discount is applied will be the irrigation or drainage pumping kilowatt-hours metered for resale by the purchaser increased by 10% for losses.

Wholesale Power Rate Schedule E-4

- (2) The discount will apply only to such irrigation or drainage pumping energy as is separately metered by the purchaser. In order to have such discount applied, the purchaser, except as provided in (3) below, shall supply within 10 days after the close of the Administrator's monthly billing period a record of the kilowatt-hours for each irrigation or drainage pumping customer so metered, and also such other data as are reasonably requested by the Administrator.
- (3) Purchasers may supply such data to the Administrator on other than a monthly basis if the data correspond to the purchasers' regular billing periods that may be in effect for billing such irrigation or drainage pumping deliveries to its customers. In such instances the discount will be applied to the Administrator's monthly bill most nearly corresponding to the purchaser's regular billing period for such customers.

Notwithstanding any other provisions of this schedule, the Administrator may include in contracts with purchasers of irrigation or drainage pumping power a minimum annual charge for such power in an amount which shall return the annual costs on special facilities, if any, required to be installed by the Administrator to supply such service. At the end of the calendar year the purchaser will be billed for any amount by which said required minimum annual charge exceeds the total amounts previously billed for the year.

Section 6. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 3 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which energy is supplied during such month is less than .95 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .95 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Wholesale Power Rate Schedule E-4

Section 7. RATE ADJUSTMENT:

This rate schedule shall be subject to such adjustment as the Federal Power Commission may approve upon proposal by the Administrator to become effective on December 20 of the year 1956, or 1957, or 1958, provided that the Administrator shall make timely proposal for the adjustment, if adjustment becomes necessary, in order to bring the rate schedule into conformity with the rate standards of the Bonneville Project Act.

Section 8. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule E-4, as amended July 1, 1952.

Wm. A. Pearl
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE F-4
(Effective April 1, 1948)
(Amended December 20, 1954)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts.

Section 2. RATE:

Power shall be sold under this schedule at the following monthly rate:

Demand Charge: 75¢ net per kilowatt of billing demand.

Energy Charge: First 360 kilowatt-hours per kilowatt of billing demand at 2.5 mills net per kilowatt-hour.

Additional kilowatt-hours at 1.0 mill net per kilowatt-hour.

Section 3. MINIMUM CHARGE:

The total net minimum monthly charge for service under this schedule shall be the higher of (1) 75¢ per kilowatt of contract demand, or (2) 75% of the highest demand charge billed during the preceding eleven months. The Administrator may include in contracts for the sale of power under this rate schedule a provision requiring a higher minimum charge based on load factor.

Section 4. BILLING DEMAND:

The billing demand under this rate schedule shall be the highest of the following demands:

- (1) The contract demand,
- (2) The measured demand for the month, adjusted for power factor,
- (3) The computed demand for the month, if part of the load is supplied from other sources (see Section 2.3 of General Rate Schedule Provisions).

Wholesale Power Rate Schedule F-4

Section 5. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 4 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which electric energy is supplied during such month is less than .85 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 6. RATE ADJUSTMENT:

This rate schedule shall be subject to such adjustment as the Federal Power Commission may approve upon proposal by the Administrator to become effective on December 20 of the year 1956, or 1957, or 1958, provided that the Administrator shall make timely proposal for the adjustment, if adjustment becomes necessary, in order to bring the rate schedule into conformity with the rate standards of the Bonneville Project Act.

Section 7. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule F-4 effective April 1, 1948.

Wm. A. Pearl
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

DUMP ENERGY
WHOLESALE ENERGY RATE SCHEDULE H-3
(Effective March 1, 1946)
(Amended December 20, 1954)

Section 1. AVAILABILITY:

This schedule is available to purchasers of dump energy delivered by the Administrator under appropriate contracts in cases in which the Administrator determines that the purchaser normally maintains electric generating facilities or has firm standby contracts or other sources of energy satisfactory to the Administrator sufficient to supply the purchaser's requirements when dump energy is not delivered. This schedule also applies to energy delivered for experimental and testing purposes and for emergency and break-down use under the conditions set forth in Sections 7.1 and 8.1, respectively, of the applicable General Rate Schedule Provisions.

Section 2. DELIVERY:

Delivery of dump energy is not assured. The Administrator shall be the sole judge of whether and when dump energy will be delivered, and if delivered, the amount thereof.

In the event that the dump energy available to the Administrator is insufficient to supply the requirements of all purchasers thereof, the Administrator shall, in his sole discretion, designate the purchasers to whom such dump energy shall be delivered and the amount thereof to be delivered to each such purchaser.

Section 3. RATE:

Energy shall be sold under this schedule at two and one-half (2.5) mills net per kilowatt-hour delivered.

Section 4. MINIMUM CHARGE:

If it is necessary for the Government to install extra equipment or extra capacity for the purpose of delivering energy under this schedule, the contract for the sale of energy shall provide a minimum charge sufficient, in the judgment of the Administrator, to protect the Government from loss due to the installation of such extra equipment or extra capacity.

Wholesale Energy Rate Schedule H-3

Section 5. RATE ADJUSTMENT:

This rate schedule shall be subject to such adjustment as the Federal Power Commission may approve upon proposal by the Administrator to become effective on December 20 of the year 1956, or 1957, or 1958, provided that the Administrator shall make timely proposal for the adjustment, if adjustment becomes necessary, in order to bring the rate schedule into conformity with the rate standards of the Bonneville Project Act.

Section 6. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Energy Rate Schedule H-3 effective March 1, 1946.

Wm. A. Pearl
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE R-1
(Effective April 1, 1948)
(Amended December 20, 1954)

Section 1. AVAILABILITY:

This schedule applies to at-site and transmission system firm power used by railroads primarily for traction purposes, delivered under appropriate contracts to railroads or to purchasers for resale to railroads. The points of delivery shall be so located that the capacity required for the estimated load at each point of delivery shall be not less than 7,500 kva, unless in any particular case the Administrator determines that it would be advantageous to the Government to supply a lower capacity.

Section 2. RATE:

Energy shall be sold under this schedule at four mills per kilowatt-hour of net energy supplied adjusted for power factor as set forth below. Such net energy before adjustment for power factor will be determined as the aggregate number of kilowatt-hours delivered to the purchaser's system at all points of delivery less the number of kilowatt-hours resulting from regenerative braking received by the Government for the purchaser's system. The energy flowing in both directions will be metered separately as of each point of delivery.

Section 3. MINIMUM CHARGE:

The net minimum charge under this schedule shall be \$0.50 per month times the aggregate kva capacity of all of the points of delivery.

Section 4. POWER FACTOR ADJUSTMENT:

The net energy before adjustment for power factor will be increased 1% for each 1% or major fraction thereof by which the average power factor is less than .95 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .95 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power at any time at a power factor below .75 lagging.

Wholesale Power Rate Schedule R-1

Section 5. RATE ADJUSTMENT:

This rate schedule shall be subject to such adjustment as the Federal Power Commission may approve upon proposal by the Administrator to become effective on December 20 of the year 1956, or 1957, or 1958, provided that the Administrator shall make timely proposal for the adjustment, if adjustment becomes necessary, in order to bring the rate schedule into conformity with the rate standards of the Bonneville Project Act.

Section 6. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and to the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule R-1 effective April 1, 1948.

Wm. A. Pearl
Bonneville Power Administrator

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

GENERAL RATE SCHEDULE PROVISIONS
(Effective December 20, 1954)

1.1 FIRM POWER: Firm power is power which the Administrator assures as being continuously available to a customer to meet his load requirements except when operation of the facilities used by the Government to serve the purchaser is suspended, interrupted, interfered with, or curtailed due to uncontrollable forces as defined herein, or because of necessary maintenance.

2.1 CONTRACT DEMAND: The contract demand shall be the number of kilowatts that the Administrator agrees to have available for delivery to the purchaser under the conditions stated in the rate schedule. Any delivery of power in excess of contract demand shall in no event obligate the Administrator to continue to deliver power in excess of the contract demand.

2.2 MEASURED DEMAND: Except where deliveries are scheduled as hereinafter provided, the measured demand for any class of power, for any point of delivery, and for any period, shall be the largest of the 30-minute integrated demands at which such class of power is delivered to the purchaser at such point during such period. The Administrator, in determining the measured demand, will exclude any abnormal 30-minute integrated demands due to or resulting from emergencies, breakdowns, or maintenance of the Government's facilities. The class of power referred to above may include but is not restricted to firm, dump, experimental, testing, emergency, breakdown, and interruptible power.

If the contractual arrangements provide for the delivery of more than one class of power to the purchaser at any point of delivery, the total 30-minute integrated demands at such point will be determined from measurements as specified in the contract, or estimated where metering or other data are not available for such determination. The portion of each of such demands assignable to each class of power will be determined according to the terms of the contract.

If the flow of electric energy to the purchaser at any point or points of delivery cannot be adequately controlled because the purchaser's system is interconnected with one or more systems which are also interconnected directly or indirectly with the Government's system, the purchaser's measured demand for each class of power, for such point or points, and for any period, shall be the largest of the hourly amounts of such class of power which are scheduled for delivery to the purchaser at such point or points during such period.

General Rate Schedule Provisions

2.3 COMPUTED DEMAND:

A. The determination of computed demand for purchasers whose hydro generating facilities depend essentially upon daily usable streamflow, or for purchasers having only fuel-burning generating facilities, is made as follows:

- (1) Determine for the billing month the capability of the purchaser's hydro generating facilities, both in terms of 30-minute peaking and of energy, under the water conditions which would have occurred during the same month in the critical year of record including modifications due to upstream storage operations. The determination will be made on the basis of the average daily usable streamflow in the critical year calculated separately for the first ten days, the second ten days, and the remainder of the month, respectively.
- (2) Determine the capability, both in terms of 30-minute peaking and of energy, of the purchaser's fuel-burning generating facilities based on the most adverse fuel conditions reasonably to be anticipated and for which prudent operation would require provision to be made.

Limitation of fuel supply due to war or other extraordinary emergency will receive special treatment as required to conform to the basic purposes of the computed demand as stated above.

- (3) Determine the firm peaking and energy capability available to the purchaser from other sources through purchase, lease, and exchange agreements.
- (4) Determine the purchaser's assured capability for either peaking or energy by adding the capabilities determined in A(1), (2), and (3) above and deducting appropriate reserves.
- (5) The computed demand for the month will be the greater of:
 - (a) The largest amount for any half hour by which the purchaser's actual system demand exceeds the purchaser's assured capability, or

General Rate Schedule Provisions

- (b) The largest amount during the month by which the purchaser's actual system average energy load for each ten-day period exceeds the purchaser's assured average energy capability for the corresponding ten-day period.
- B. The determination of computed demand for purchasers having seasonal storage facilities (subsequently defined) is made as follows:
 - (1) Determine the 30-minute peaking and monthly energy capabilities of all nonstorage resources described in A(1), (2), and (3) above.
 - (2) Determine the monthly capabilities, both in terms of 30-minute peaking and of energy, of hydro generation facilities having seasonal storage, by relating total system resources to estimated monthly loads for the current operating year with storage utilized to provide the minimum peaking or energy requirement after deduction of adequate reserve generating capacity.

This determination will be made prior to the beginning of each operating year.
 - (3) The purchaser's assured monthly capability for either peaking or energy will be the total system resources less reserves, as determined in B(1) and (2) above.
 - (4) The computed demand for the month will be the greater of:
 - (a) The largest amount for any half hour by which the purchaser's actual system demand exceeds the purchaser's assured capability, or
 - (b) The purchaser's actual system average energy load for the month less the purchaser's assured average energy capability for the corresponding month.

General Rate Schedule Provisions

Seasonal Storage shall mean storage held over from the annual high-water season to the following low-water season in an amount sufficient to regulate the hydro energy resources of the system to the system load requirements in a manner which would result in a uniform computed energy demand for a period of one month or more.

The use of computed demand as one of the alternatives in determining billing demand is intended to assure that each purchaser who purchases power from the Administrator to supplement his own facilities or other firm-power purchases will take a block of power substantially equivalent to the additional capacity which the purchaser would otherwise have to provide on the basis of normal and prudent operation, viz. sufficient capacity to carry the load through the most critical water or other conditions reasonably to be anticipated, with an adequate operating reserve.

Since the computed demand depends on the relationship of capability of resources to system requirements, the computed demand for any month cannot be determined until after the end of the month. As each purchaser must estimate his own load, and is in the best position to follow its development from day to day, it will be his responsibility to request scheduling of firm power, including any increase over previously established demands, on the basis estimated by him to result in the most advantageous purchase of the power to be billed at the end of the month.

Each contract in which computed demand may be a factor in determining the billing demand shall have attached to it as an exhibit a calculation of the computed demand of the purchaser for the period having the highest computed demand during the twelve months immediately preceding the effective date of the contract.

2.4 RESTRICTED DEMAND: If at any time the Administrator notifies the purchaser that future delivery of power will be restricted, or restricts power delivery to a specific amount which he determines can be made available (not including temporary restrictions made necessary by emergency conditions) then, in determining subsequent bills such restricted demand shall be substituted for any higher ratcheted demand or current computed demand which would otherwise be applicable. This provision shall not be deemed to give the Administrator the right to restrict deliveries below contract demand.

General Rate Schedule Provisions

3.1 ADMINISTRATOR: The term Administrator means the Bonneville Power Administrator or such other department, agency, or official authorized by law to perform functions now performed by the Administrator, or any of their authorized agents.

4.1 CHARACTER OF SERVICE: Power and energy supplied hereunder shall be 3-phase alternating current at approximately 60 cycles per second, or such other type of service as may be available.

5.1 POINT OF DELIVERY AND DELIVERY VOLTAGE: Power and energy shall be delivered to each purchaser at such point or points and such voltage or voltages as are agreed upon by the Administrator and the purchaser. Delivery at more than one voltage shall constitute delivery at more than one point.

Unless otherwise specifically provided in the rate schedule, where service is rendered to a purchaser at more than one point of delivery, the service at each point of delivery shall be billed separately under the applicable rate schedule. Provision for combined billing may be made in other cases, under conditions and terms specifically provided in the power sales contract, when: (a) delivery at more than one point is advantageous to the Government, or (b) the flow of power at the several points of delivery is reasonably beyond the control of the purchaser.

5.1 POINT OF DELIVERY AND DELIVERY VOLTAGE:

(Additional paragraph effective May 15, 1956)

In case service at more than one point of delivery is billed on a combined basis for the convenience of the customer, a charge will be made for the diversity of the loads supplied at the several points of delivery. The charge for the diversity shall be determined in a uniform manner and shall be specified in the contract.

Commission, be extended beyond the initial three months' period for such additional time as the character of operations may reasonably require. During such initial operating period such rate schedule provisions regarding contract demand, billing demand, and minimum monthly charge as are inconsistent with this section will be inoperative.

General Rate Schedule Provisions

7.1 ENERGY USED FOR EXPERIMENTAL AND TESTING PURPOSES:

In order to promote experimentation in new processing methods and in development of new types of load within the market area, the Administrator, for such time as may be reasonably required by the character of the experimentation, but not to exceed six months from the date of initial service unless approval of the Federal Power Commission is first obtained, may sell the energy used solely for such experimentation in accordance with Wholesale Energy Rate Schedule H-3. Energy used solely for testing of new equipment or processes also may be sold by the Administrator under the same conditions as apply to experimental energy.

8.1 ENERGY SUPPLIED FOR EMERGENCY AND BREAKDOWN USE:

A purchaser taking firm power shall pay in accordance with Wholesale Energy Rate Schedule H-3 for any energy which has been supplied (a) for an emergency or breakdown use on the purchaser's system, or (b) following such emergency or breakdown to replace energy secured from sources other than the Government during such emergency or breakdown.

9.1 BILLING MONTH: Meters will normally be read and bills computed at intervals of one month. A month is defined as an interval of approximately 30 days between normal meter-reading dates. If service is for less or more than the normal billing month, the monthly charges stated in the applicable rate schedule will be appropriately adjusted.

9.2 PAYMENT OF BILLS: Bills for power shall be rendered monthly and shall be payable at the office of the Administrator. Failure to receive a bill shall not release the purchaser from liability for payment. If payment in full is not made on or before the close of business of the thirtieth day after the date of the bill, a delayed payment charge of two percent (2%) of the unpaid amount of the bill will be made except in the case of bills rendered under contracts with other agencies of the United States.

The Administrator may, whenever a power bill or a portion thereof remains unpaid subsequent to the thirtieth day after the date of the bill, and after giving thirty days' advance notice in writing, cancel the contract for service to the purchaser, but such cancellation shall not affect the purchaser's liability for any charges accrued prior thereto.

General Rate Schedule Provisions

Remittances received by mail will be accepted without assessment of the two percent (2%) delayed payment charge provided the postmark indicates the payment was mailed on or before the thirtieth day after the date of the bill. If the thirtieth day after the date of the bill is a Sunday or a holiday, the next following business day shall be the last day on which payment may be made without the addition of the delayed payment charge.

10.1 CHANGE FROM ONE RATE SCHEDULE TO ANOTHER: Upon written request to the Administrator, any purchaser who has contracted for service under any rate schedule may change, at his option, to any other applicable rate schedule under an appropriate amendment to the contract, effective during the remainder of the original contract term. Only one such change will be permitted during the term of the original contract, other than changes resulting from the purchaser's option to substitute any applicable new rate schedule which may be filed by the Administrator. The change in rate will be made effective at the beginning of the first billing period following receipt of such request or at such later date as the request may stipulate. The billing factors established under the superseded rate schedule shall be applied, if applicable, in computing bills under the newly elected rate schedule in the same manner as if they had been established under the newly elected rate schedule.

11.1 APPROVAL OF RATES: Schedules of rates and charges for electric energy sold to purchasers by the Administrator shall become effective only after confirmation and approval by the Federal Power Commission. Such rate schedules may be modified from time to time by the Administrator subject to confirmation and approval by the Federal Power Commission.

12.1 AVERAGE POWER FACTOR: The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive kilovolt-ampere-hours})^2}}$$

In applying the above formula, the meter for measurement of reactive kilovolt-ampere-hours will be ratcheted to prevent reverse registration.

General Rate Schedule Provisions

When deliveries to a purchaser at any point of delivery include more than one class of power and it is impracticable to separately meter the kilowatt-hours and reactive kilovolt-ampere-hours for each class, the average power factor of the total deliveries for the month will be used, where applicable, as the power factor for each of the separate classes.

13.1 UNCONTROLLABLE FORCES: The term Uncontrollable Forces means (a) strikes affecting the operation of the purchaser's works or system or other physical facilities upon which such operation is completely dependent, or of physical facilities used by the Government to serve the purchaser, or (b) events, reasonably beyond the control of the party having jurisdiction thereof, causing failure, damage, or destruction of such works, system, or facilities which by the exercise of reasonable diligence such party could not reasonably have been expected to avoid. Each party shall notify the other immediately of any defect, trouble, or accident which may in any way affect the delivery of power by the Government to the purchaser. In the event the operations of either party are suspended, interrupted, interfered with, or curtailed due to uncontrollable forces, such party shall exercise due diligence to reinstate such operations with all reasonable dispatch.

13.2 REDUCTION IN CHARGES ON ACCOUNT OF INTERRUPTIONS: If operation of the customer's works or system or other physical facilities upon which such operation is completely dependent, or if operation of physical facilities used by the Government to serve the purchaser is suspended, interrupted, interfered with, or curtailed due to uncontrollable forces, as defined herein, or because of necessary maintenance on the Government's system, the charges for power shall be appropriately reduced. No interruption of less than five (5) minutes duration will be considered for computation of such reduction in charges.

14.1 DETERMINATION OF ESTIMATED BILLING DATA: In cases where amounts of power and energy purchased by a distributor must be estimated from information on use of power by ultimate consumers of that distributor, the Administrator shall review the data on consumer use of power submitted by the purchaser, and if any changes are deemed necessary, will advise the purchaser of the changes proposed. In the event that agreement cannot be reached as to the estimate, a binding determination shall be made by a committee composed of one member appointed by the Administrator, one member appointed by the purchaser, and if necessary, one member who shall have no direct interest to be selected by the two members so appointed.

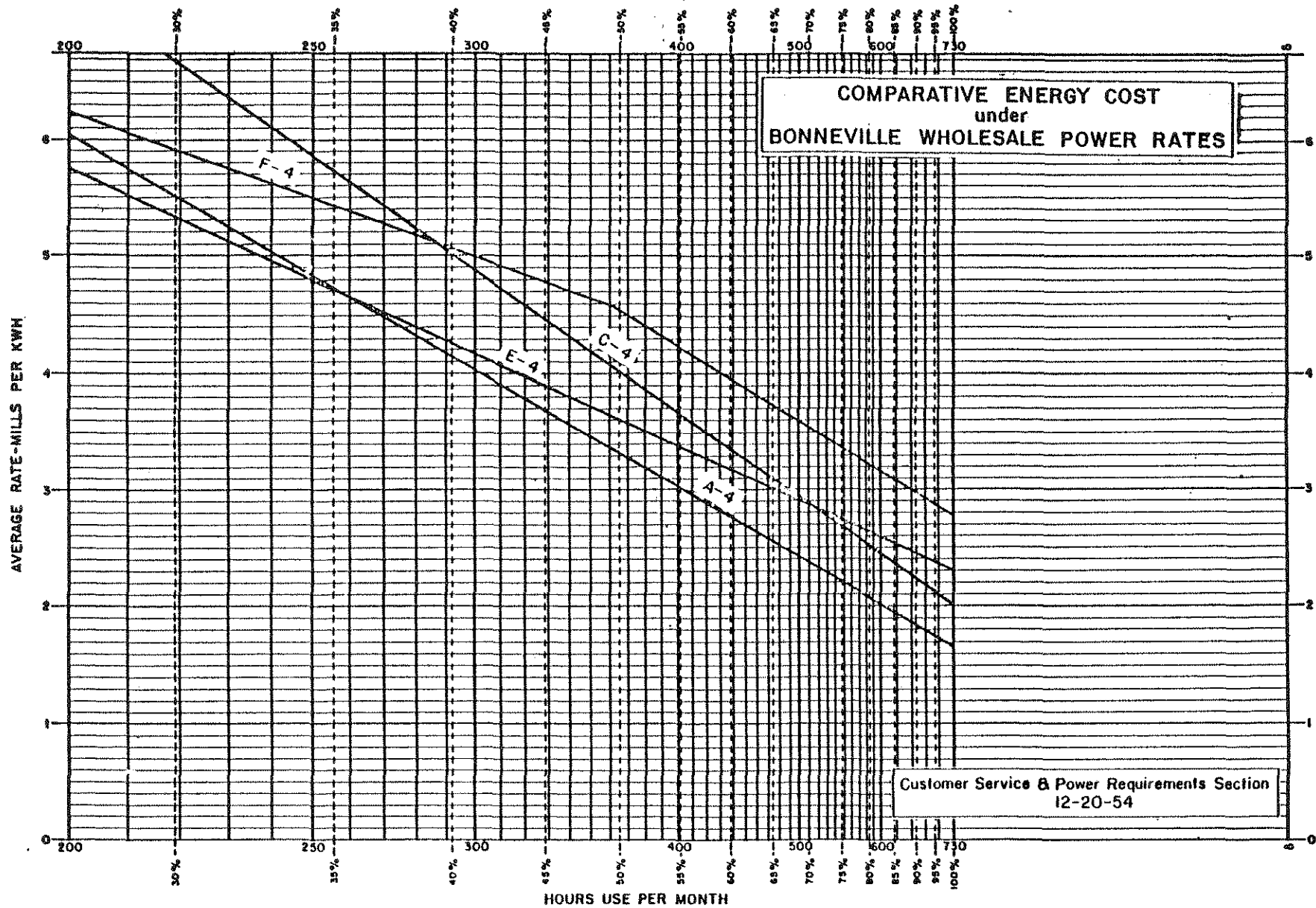
General Rate Schedule Provisions

15.1 SALE OF INTERRUPTIBLE POWER: Interruptible power is power which the Administrator agrees to deliver except when curtailed by him upon reasonable notice. The wholesale power rate schedules applicable to the sales of firm power by the Administrator shall also apply to sales of interruptible power, subject to the following provisions:

- A. The billing demand shall be the measured demand for the month, adjusted for power factor.
- B. The minimum monthly charge for firm power included in such schedules shall not apply.
- C. If the Administrator curtails or agrees at the request of the purchaser to curtail deliveries of interruptible power during any month:
 - (1) The rates per kilowatt and the energy blocks, if any, stated in the schedules shall be pro-rated according to the ratio of the time in each portion of the month during which the same restrictions were continuously in effect to the total time in the month, and
 - (2) The billing demand for interruptible power for such portion of the month shall be the measured demand during such portion of the month adjusted, pursuant to the applicable rate schedule, for the average power factor for the entire month.
- D. Any contract which provides that the purchaser shall purchase a specified amount of interruptible power until firm power is substituted therefor when it becomes available for that purpose as provided in such contract, shall include a minimum billing demand for such interruptible power which shall apply except when deliveries thereof are curtailed by the Administrator below the specified amount to be purchased.

HYPERBOLIC GRAPH SHEET

High Load Factor

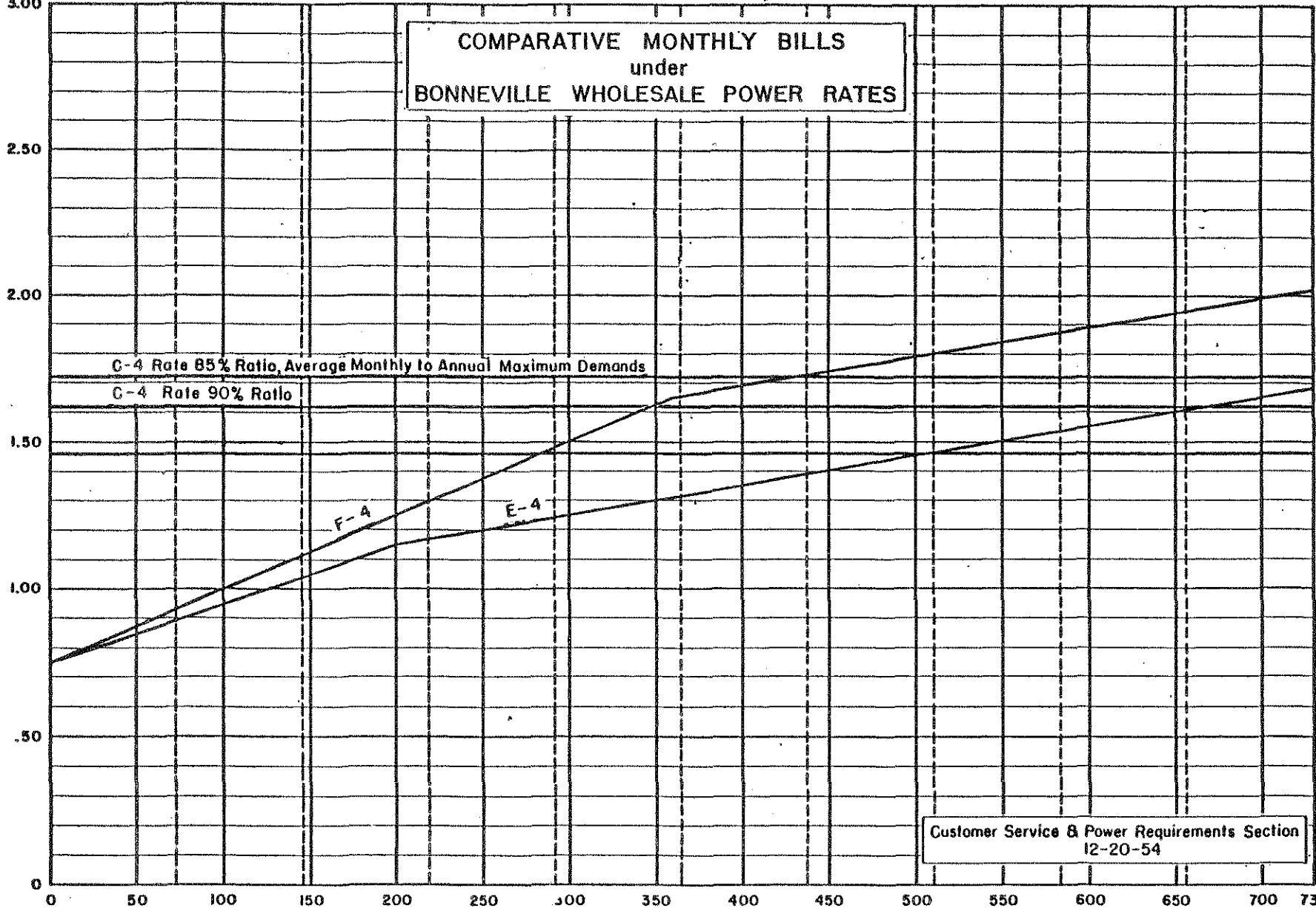


LOAD FACTOR

0 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

COMPARATIVE MONTHLY BILLS
under
BONNEVILLE WHOLESALE POWER RATES

NET MONTHLY BILL PER KW
OF MONTHLY MEASURED DEMAND - DOLLARS



Customer Service & Power Requirements Section
12-20-54

HOURS USE PER MONTH



1964

WHOLESALE POWER RATE SCHEDULES
AND
GENERAL RATE SCHEDULE PROVISIONS

BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF INTERIOR

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24901	Comparative Energy Cost Under Bonneville Wholesale Power Rates
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BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

AT-SITE FIRM POWER
WHOLESALE POWER RATE SCHEDULE A-4
(Effective March 1, 1946)
(Amended December 20, 1954,
December 20, 1959, and December 20, 1964)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts at the power plants, or at a point or points adjacent thereto to be designated by the Administrator.

The amount of power sold from any power plant under this rate schedule shall not exceed the at-site firm power determined by the Administrator to be available.

Power sold under this schedule for direct consumption shall be consumed within fifteen miles of the power plant, and power sold under this schedule for resale shall remain available only to a purchaser the principal part of whose load is consumed within fifteen miles of the power plant.

Section 2. RATE:

Power sold under this schedule shall be at the rate of fourteen and one-half dollars (\$14.50) net per year per kilowatt of billing demand, and shall be billed each month at one-twelfth (1/12) of the yearly rate.

Section 3. MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12) of fourteen and one-half dollars (\$14.50) per kilowatt of contract demand.

Section 4. BILLING DEMAND:

The billing demand shall be the highest of the following demands:

- (1) The contract demand,
- (2) The measured demand for the month, adjusted for power power factor,
- (3) The computed demand for the month, if part of the load is supplied from other sources (see Section 2.3 of the General Rate Schedule Provisions),
- (4) The highest measured or computed demand during the preceding eleven months, before adjustment for power factor.

Section 5. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 4 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which electric energy is supplied during such month is less than .85 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 6. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule A-4 as amended December 20, 1959.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

TRANSMISSION SYSTEM FIRM POWER
WHOLESALE POWER RATE SCHEDULE C-4
(Effective March 1, 1946)
(Amended December 20, 1954,
December 20, 1959, and December 20, 1964)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts.

Section 2. RATE:

Power sold under this schedule shall be at the rate of seventeen and one-half dollars (\$17.50) net per year per kilowatt of billing demand and shall be billed each month at one-twelfth (1/12) of the yearly rate.

Section 3. MINIMUM CHARGE:

The net minimum monthly charge for service under this schedule shall be one-twelfth (1/12) of seventeen and one-half dollars (\$17.50) per kilowatt of contract demand.

Section 4. BILLING DEMAND:

The billing demand shall be the highest of the following demands:

- (1) The contract demand,
- (2) The measured demand for the month, adjusted for power factor,
- (3) The computed demand for the month, if part of the load is supplied from other sources (see Section 2.3 of General Rate Schedule Provisions),
- (4) The highest measured or computed demand during the

preceding eleven months, before adjustment for power factor.

Section 5. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 4 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which electric energy is supplied during such month is less than .85 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 6. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule C-4 as amended December 20, 1959.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE E-4

(Effective April 1, 1948)

(Amended January 26, 1951, July 1, 1952,
December 20, 1954, December 20, 1959, and December 20, 1964)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts for resale, and for irrigation or drainage pumping use, including incidental use for other purposes in either case.

Section 2. RATE:

Subject to the provisions of Sections 4 and 5, the monthly rate for power sold under this schedule shall be as follows:

Demand Charge: 75¢ net per kilowatt of billing demand.

Energy Charge: First 200 kilowatt-hours per kilowatt of billing demand at 2.0 mills net per kilowatt-hour.

Additional kilowatt-hours at 1.0 mill net per kilowatt-hour.

Section 3. BILLING DEMAND:

The billing demand under this rate schedule shall be the higher of the following demands:

- (1) The measured demand for the month, adjusted for power factor,
- (2) 70% of the highest measured demand, after adjustment for power factor, during the preceding eleven months exclusive of measured demands for the period from May 1 through September 30. This subsection (2) shall not apply to purchasers who use the power purchased

under this rate schedule solely for irrigation or drainage pumping, and for uses incidental thereto, and who do not resell any of the power so purchased.

Section 4. LIMITATIONS:

- (1) The amount payable under any billing shall not be less than 90% of the amount resulting from the application of the above charges and provisions in this schedule to the entire requirements of the separate system to which the billing applies.
- (2) For a period extending until five years after the date service is first rendered by the Administrator to a newly developed separate system, the net amount, after applying any applicable irrigation and drainage pumping discounts, payable for such system shall not exceed the higher of (1) 3.5 mills multiplied by the number of kilowatt-hours supplied, plus any increase in demand charge due to power factor adjustment, or (2) 3.5 mills multiplied by 90% of the entire energy requirements of the separate system to which the billing applies, plus any increase in demand charge due to power factor adjustment.
- (3) The 90% specified in limitations (1) and (2) above shall be subject to an appropriate adjustment if the purchaser is unable to obtain his full requirements from the Administrator.

Section 5. IRRIGATION AND DRAINAGE PUMPING PROVISIONS:

During the period from May 1 through September 30 each year, a discount of four-tenths mill (\$0.0004) per kilowatt-hour will be applied to energy purchased from the Administrator under this rate schedule and resold by the purchaser to customers for strictly irrigation or drainage pumping and uses incidental thereto. Such discount also will be applied during the five-month period to energy purchased under this rate schedule by purchasers organized for and using such electric energy solely for irrigation or drainage pumping and uses incidental thereto.

Where irrigation or drainage pumping energy is purchased for resale by the purchaser:

- (1) The kilowatt-hours to which the discount is applied will be the irrigation or drainage pumping kilowatt-hours metered for resale by the purchaser increased by 10% for losses.
- (2) The discount will apply only to such irrigation or drainage pumping energy as is separately metered by the purchaser. In order to have such discount applied, the purchaser, except as provided in (3) below, shall supply within 10 days after the close of the Administrator's monthly billing period a record of the kilowatt-hours for each irrigation or drainage pumping customer so metered, and also such other data as are reasonably requested by the Administrator.
- (3) Purchasers may supply such data to the Administrator on other than a monthly basis if the data correspond to the purchasers' regular billing periods that may be in effect for billing such irrigation or drainage pumping deliveries to its customers. In such instances the discount will be applied to the Administrator's monthly bill most nearly corresponding to the purchaser's regular billing period for such customers.

Notwithstanding any other provisions of this schedule, the Administrator may include in contracts with purchasers of irrigation or drainage pumping power a minimum annual charge for such power in an amount which shall return the annual costs on special facilities, if any, required to be installed by the Administrator to supply such service. At the end of the calendar year the purchaser will be billed for any amount by which said required minimum annual charge exceeds the total amounts previously billed for the year.

Section 6. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Section 3 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which energy is supplied during such month is less than .95 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .95 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be

obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 7. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule E-4, as amended December 20, 1959.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE F-4

(Effective April 1, 1948)

(Amended December 20, 1954,
December 20, 1959, and December 20, 1964)

Section 1. AVAILABILITY:

This schedule is available to purchasers of firm power delivered by the Administrator under appropriate contracts; and for purchase of firm capacity in accordance with the provisions of Sections 5 and 6.

Section 2. RATE:

Power shall be sold under this schedule at the following monthly rate:

Demand Charge: 75¢ net per kilowatt of billing demand.

Energy Charge: First 360 kilowatt-hours per kilowatt of billing demand at 2.5 mills net per kilowatt-hour.

Additional kilowatt-hours at 1.0 mill net per kilowatt-hour.

Section 3. MINIMUM CHARGE:

The total net minimum monthly charge for service under this schedule shall be the higher of (1) 75¢ per kilowatt of contract demand, or (2) 75% of the highest demand charge billed during the preceding eleven months. The Administrator may include in contracts for the sale of power under this rate schedule a provision requiring a higher minimum charge based on load factor.

Section 4. BILLING DEMAND:

The billing demand under this rate schedule shall be the highest of the following demands:

- (1) The contract demand,

- (2) The measured demand for the month, adjusted for power factor,
- (3) The computed demand for the month, if part of the load is supplied from other sources (see Section 2.3 of General Rate Schedule Provisions)

Section 5. FIRM CAPACITY:

Firm capacity may be purchased under this schedule on a contract demand basis for supply during a contract year or during a contract season of May 1 through September 30. Only billing demand factors (1) and (2) of Section 4 will be applied.

The minimum annual charge shall be as follows:

- (1) Contract year service:

\$9.00 per kilowatt per year of the larger of the contract demand or measured demand for the contract year. Interim bills will be rendered monthly at the rate of \$0.75 per kilowatt of billing demand starting with deliveries for the first month of each contract year.

- (2) Contract season service:

\$5.00 per kilowatt per season of the larger of the contract demand or measured demand for the contract season. Interim bills will be rendered monthly at the rate of \$1.00 per kilowatt of billing demand starting with deliveries for May of each contract season.

If the Administrator restricts any demand in excess of contract demand for capacity, such restricted demand shall be substituted for any previously established larger measured demand in determining the minimum annual charge for the contract year or contract season.

Final adjustment of interim billing will be included in the bill for the last month of the contract year or contract season.

Contracts for the purchase of firm capacity shall include provisions for the advance delivery or for return by the purchaser of energy accompanying the delivery of such capacity. Any such energy which is not supplied by the purchaser will be billed under Schedule H-3. Interim monthly bills may include a charge for such energy.

Section 6. SPECIAL PROVISIONS RELATING TO COMBINATION WITH C-4 RATE:

Firm capacity may be purchased under this schedule in combination with the purchase of firm power under Schedule C-4.

Under such combination purchase, the billing demand for firm capacity under Schedule F-4 shall be the contract demand specified in the contract, which may be increased by the purchaser on July 1 of any year by prior notice to the Administrator. Capacity deliveries under Schedule F-4 shall be deducted from total firm power peak measured and peak computed demands in determining the billing demand under Schedule C-4. Any adjustment for power factor on combination purchase deliveries shall be applied to the billing under Schedule C-4 by relating total reactive kilovolt-ampere-hours to energy deliveries under Schedule C-4.

The contract for purchase of firm capacity in combination with Schedule C-4 shall include provisions for the advance delivery or for return by the purchaser of energy accompanying the delivery of such capacity from actual generation at the purchaser's plants or by purchase of energy from sources other than contracts with Bonneville. Any such energy which is not supplied by the purchaser will be billed under Schedule H-3.

Section 7. POWER FACTOR ADJUSTMENT:

The adjustment for power factor specified in Sections 4 and 6 shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average power factor at which electric energy is supplied during such month is less than .85 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than .85 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power to the purchaser at any time at a power factor below .75 lagging.

Section 8. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule F-4 as amended December 20, 1959.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

DUMP ENERGY
WHOLESALE ENERGY RATE SCHEDULE H-3
(Effective March 1, 1946)
(Amended December 20, 1954,
December 20, 1959, and December 20, 1964)

Section 1. AVAILABILITY:

This schedule is available to purchasers of dump energy delivered by the Administrator under appropriate contracts in cases in which the Administrator determines that the purchaser normally maintains electric generating facilities or has firm standby contracts or other sources of energy satisfactory to the Administrator sufficient to supply the purchaser's requirements when dump energy is not delivered. This schedule also applies to energy delivered for experimental and testing purposes and for emergency and breakdown use under the conditions set forth in Sections 7.1 and 8.1, respectively, of the applicable General Rate Schedule Provisions.

Section 2. DELIVERY:

Delivery of dump energy is not assured. The Administrator shall be the sole judge of whether and when dump energy will be delivered, and if delivered, the amount thereof.

In the event that the dump energy available to the Administrator is insufficient to supply the requirements of all purchasers thereof, the Administrator shall, in his sole discretion, designate the purchasers to whom such dump energy shall be delivered and the amount thereof to be delivered to each such purchaser.

Section 3. RATE:

Energy shall be sold under this schedule at two and one-half (2.5) mills net per kilowatt-hour delivered.

Section 4. MINIMUM CHARGE:

If it is necessary for the Government to install extra equip-

ment or extra capacity for the purpose of delivering energy under this schedule, the contract for the sale of energy shall provide a minimum charge sufficient, in the judgment of the Administrator, to protect the Government from loss due to the installation of such extra equipment or extra capacity.

Section 5. GENERAL PROVISIONS:

Sales of Power under this schedule shall be subject to the provisions of the Bonneville Project Act and the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Energy Rate Schedule H-3 as amended December 20, 1959.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

WHOLESALE POWER RATE SCHEDULE R-1
(Effective April 1, 1948)
(Amended December 20, 1954,
December 20, 1959, and December 20, 1964)

Section 1. AVAILABILITY:

This schedule applies to at-site and transmission system firm power used by railroads primarily for traction purposes, delivered under appropriate contracts to railroads or to purchasers for resale to railroads. The points of delivery shall be so located that the capacity required for the estimated load at each point of delivery shall be not less than 7,500 kva, unless in any particular case the Administrator determines that it would be advantageous to the Government to supply a lower capacity.

Section 2. RATE:

Energy shall be sold under this schedule at four mills per kilowatt-hour of net energy supplied adjusted for power factor as set forth below. Such net energy before adjustment for power factor will be determined as the aggregate number of kilowatt-hours delivered to the purchaser's system at all points of delivery less the number of kilowatt-hours resulting from regenerative braking received by the Government for the purchaser's system. The energy flowing in both directions will be metered separately as of each point of delivery.

Section 3. MINIMUM CHARGE:

The net minimum charge under this schedule shall be \$0.50 per month times the aggregate kva capacity of all of the points of delivery.

Section 4. POWER FACTOR ADJUSTMENT:

The net energy before adjustment for power factor will be increased 1% for each 1% or major fraction thereof by which the average power factor is less than .95 lagging. This adjustment may be waived in whole or in part to the extent that the Administrator determines that

a power factor of less than .95 lagging would in any particular case be advantageous to the Government. Unless specifically otherwise agreed, the Administrator shall not be obligated to deliver power at any time at a power factor below .75 lagging.

Section 5. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act and to the applicable General Rate Schedule Provisions.

This schedule supersedes Wholesale Power Rate Schedule R-1 as amended December 20, 1959.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

GENERAL RATE SCHEDULE PROVISIONS

(Effective December 20, 1954)

(Amended May 15, 1956, December 20, 1959,
December 20, 1960, and December 20, 1964)

1.1 FIRM POWER: Firm power is power which the Administrator assures as being continuously available to a customer to meet his load requirements except when operation of the facilities used by the Government to serve the purchaser is suspended, interrupted, interfered with, or curtailed due to uncontrollable forces as defined herein, or because of necessary maintenance.

1.2 FIRM CAPACITY: Firm capacity is capacity which the Administrator will make available to a purchaser on a contract demand basis. The contract for service will state the conditions for supplying any energy required to effect delivery of such capacity.

2.1 CONTRACT DEMAND: The contract demand shall be the number of kilowatts that the Administrator agrees to have available for delivery to the purchaser under the conditions stated in the rate schedule. Any delivery of power in excess of contract demand shall in no event obligate the Administrator to continue to deliver power in excess of the contract demand.

2.2 MEASURED DEMAND: Except where deliveries are scheduled as hereinafter provided, the measured demand for any class of power, for any point of delivery, and for any period, shall be the largest of the 30-minute integrated demands at which such class of power is delivered to the purchaser at such point during such period. The Administrator, in determining the measured demand, will exclude any abnormal 30-minute integrated demands due to or resulting from emergencies, breakdowns, or maintenance of the Government's facilities. The class of power referred to above may include but is not restricted to firm, dump, experimental, testing, emergency, breakdown, and interruptible power.

If the contractual arrangements provide for the delivery of more than one class of power to the purchaser at any point of delivery, the total 30-minute integrated demands at such point will be determined from measurements as specified in the contract, or estimated where metering or other data are not available for such determination. The

portion of each of such demands assignable to each class of power will be determined according to the terms of the contract.

If the flow of electric energy to the purchaser at any point or points of delivery cannot be adequately controlled because the purchaser's system is interconnected with one or more systems which are also interconnected directly or indirectly with the Government's system, the purchaser's measured demand for each class of power, for such point or points, and for any period, shall be the largest of the hourly amounts of such class of power which are scheduled for delivery to the purchaser at such point or points during such period.

2.3 COMPUTED DEMAND:

A. The determination of computed demand for purchasers whose hydro generating facilities depend essentially upon daily usable streamflow, or for purchasers having only fuel-burning generating facilities, is made as follows:

(1) Determine for the billing month the capability of the purchaser's hydro generating facilities, both in terms of 30-minute peaking and of energy, under the water conditions which would have occurred during the same month in the critical year of record including modifications due to upstream storage operations. The determination will be made on the basis of the average daily usable streamflow in the critical year calculated separately for the first ten days, the second ten days, and the remainder of the month, respectively.

(2) Determine the capability, both in terms of 30-minute peaking and of energy, of the purchaser's fuel-burning generating facilities based on the most adverse fuel conditions reasonably to be anticipated and for which prudent operation would require provision to be made.

Limitation of fuel supply due to war or other extraordinary emergency will receive special treatment as required to conform to the basic purposes of the computed demand as stated above.

(3) Determine the firm peaking and energy capability available to the purchaser from other sources

through purchase, lease, and exchange agreements.

- (4) Determine the purchaser's assured capability for either peaking or energy by adding the capabilities determined in A(1), (2), and (3) above and deducting appropriate reserves.
- (5) The computed demand for the month will be the greater of:
 - (a) The largest amount for any half hour by which the purchaser's actual system demand exceeds the purchaser's assured capability, or
 - (b) The largest amount during the month by which the purchaser's actual system average energy load for each ten-day period exceeds the purchaser's assured average energy capability for the corresponding ten-day period.

B. The determination of computed demand for purchasers having seasonal storage facilities (subsequently defined) is made as follows:

- (1) Determine the 30-minute peaking and monthly energy capabilities of all nonstorage resources described in A(1), (2), and (3) above.
- (2) Determine the monthly capabilities, both in terms of 30-minute peaking and of energy, of hydro generation facilities having seasonal storage, by relating total system resources to estimated monthly loads for the current operating year with storage utilized to provide the minimum peaking or energy requirement after deduction of adequate reserve generating capacity.

This determination will be made prior to the beginning of each operating year.

- (3) The purchaser's assured monthly capability for either peaking or energy will be the total system resources less reserves, as determined in B(1) and (2) above.

- (4) The computed demand for the month will be the greater of:
 - (a) The largest amount for any half hour by which the purchaser's actual system demand exceeds the purchaser's assured capability, or
 - (b) The purchaser's actual system average energy load for the month less the purchaser's assured average energy capability for the corresponding month.

Seasonal Storage shall mean storage held over from the annual high-water season to the following low-water season in an amount sufficient to regulate the hydro energy resources of the system to the system load requirements in a manner which would result in a uniform computed energy demand for a period of one month or more.

The use of computed demand as one of the alternatives in determining billing demand is intended to assure that each purchaser who purchases power from the Administrator to supplement his own facilities or other firm-power purchases will take a block of power substantially equivalent to the additional capacity which the purchaser would otherwise have to provide on the basis of normal and prudent operation, viz: sufficient capacity to carry the load through the most critical water or other conditions reasonably to be anticipated, with an adequate operating reserve.

Since the computed demand depends on the relationship of capability of resources to system requirements, the computed demand for any month cannot be determined until after the end of the month. As each purchaser must estimate his own load, and is in the best position to follow its development from day to day, it will be his responsibility to request scheduling of firm power, including any increase over previously established demands, on the basis estimated by him to result in the most advantageous purchase of the power to be billed at the end of the month.

Each contract in which computed demand may be a factor in determining the billing demand shall have attached to it as an exhibit a calculation of the computed demand of the purchaser for the period having the highest computed demand during the twelve months imme-

diately preceding the effective date of the contract.

2.4 RESTRICTED DEMAND: If at any time the Administrator notifies the purchaser that future delivery of power will be restricted, or restricts power delivery to a specific amount which he determines can be made available (not including temporary restrictions made necessary by emergency conditions) then, in determining subsequent bills such restricted demand shall be substituted for any higher ratcheted demand or current computed demand which would otherwise be applicable. This provision shall not be deemed to give the Administrator the right to restrict deliveries below contract demand.

3.1 ADMINISTRATOR: The term Administrator means the Bonneville Power Administrator or such other department, agency, or official authorized by law to perform functions now performed by the Administrator, or any of their authorized agents.

4.1 CHARACTER OF SERVICE: Power and energy supplied hereunder shall be 3-phase alternating current at approximately 60 cycles per second, or such other type of service as may be available.

5.1 POINT OF DELIVERY AND DELIVERY VOLTAGE: Power and energy shall be delivered to each purchaser at such point or points and such voltage or voltages as are agreed upon by the Administrator and the purchaser. Delivery at more than one voltage shall constitute delivery at more than one point.

Unless otherwise specifically provided in the rate schedule, where service is rendered to a purchaser at more than one point of delivery, the service at each point of delivery shall be billed separately under the applicable rate schedule. Provision for combined billing may be made in other cases, under conditions and terms specifically provided in the power sales contract, when: (a) delivery at more than one point is advantageous to the Government, or (b) the flow of power at the several points of delivery is reasonably beyond the control of the purchaser.

In case service at more than one point of delivery is billed on a combined basis for the convenience of the customer, a charge will be made for the diversity of the loads supplied at the several points of delivery. The charge for the diversity shall be determined in a uniform manner and shall be specified in the contract.

6.1 APPLICATION OF RATES DURING INITIAL OPERATING PERIOD: In order to promote the development of new industries, the Administrator, for an initial operating period beginning with the commencement of operation of a new plant or major addition to an existing plant, and extending for such period as may be reasonably required by the character of the operation but not to exceed three months, may agree (a) to bill for service to such new plant or major addition on the basis of the maximum demand for each day, or (b) if such new plant or major addition is served by a distributor purchasing power therefor from the Administrator, to bill for that portion of such distributor's load which results from service to such new plant or major addition on the basis of the maximum demand for each day. The initial operating period may, with approval of the Federal Power Commission, be extended beyond the initial three months' period for such additional time as the character of operations may reasonably require. During such initial operating period such rate schedule provisions regarding contract demand, billing demand, and minimum monthly charge as are inconsistent with this section will be inoperative.

7.1 ENERGY USED FOR EXPERIMENTAL AND TESTING PURPOSES: In order to promote experimentation in new processing methods and in development of new types of load within the market area, the Administrator, for such time as may be reasonably required by the character of the experimentation, but not to exceed six months from the date of initial service unless approval of the Federal Power Commission is first obtained, may sell the energy used solely for such experimentation in accordance with Wholesale Energy Rate Schedule H-3. Energy used solely for testing of new equipment or processes also may be sold by the Administrator under the same conditions as apply to experimental energy.

8.1 ENERGY SUPPLIED FOR EMERGENCY AND BREAK-DOWN USE: A purchaser taking firm power shall pay in accordance with Wholesale Energy Rate Schedule H-3 for any energy which has been supplied (a) for an emergency or breakdown use on the purchaser's system, or (b) following such emergency or breakdown to replace energy secured from sources other than the Government during such emergency or breakdown.

9.1 BILLING MONTH: Meters will normally be read and bills computed at intervals of one month. A month is defined as an interval of approximately 30 days between normal meter-reading dates. If service is for less or more than the normal billing month, the

monthly charges stated in the applicable rate schedule will be appropriately adjusted.

9.2 PAYMENT OF BILLS: Bills for power shall be rendered monthly and shall be payable at the office of the Administrator. Failure to receive a bill shall not release the purchaser from liability for payment. If payment in full is not made on or before the close of business of the thirtieth day after the date of the bill, a delayed payment charge of two per cent (2%) of the unpaid amount of the bill will be made except in the case of bills rendered under contracts with other agencies of the United States.

The Administrator may, whenever a power bill or a portion thereof remains unpaid subsequent to the thirtieth day after the date of the bill, and after giving thirty days' advance notice in writing, cancel the contract for service to the purchaser, but such cancellation shall not affect the purchaser's liability for any charges accrued prior thereto.

Remittances received by mail will be accepted without assessment of the two per cent (2%) delayed payment charge provided the postmark indicates the payment was mailed on or before the thirtieth day after the date of the bill. If the thirtieth day after the date of the bill is a Sunday or a holiday, the next following business day shall be the last day on which payment may be made without the addition of the delayed payment charge.

10.1 CHANGE FROM ONE RATE SCHEDULE TO ANOTHER: Upon written request to the Administrator, any purchaser who has contracted for service under any rate schedule may change, at his option, to any other applicable rate schedule under an appropriate amendment to the contract, effective during the remainder of the original contract term. Only one such change will be permitted during the term of the original contract, other than changes resulting from the purchaser's option to substitute any applicable new rate schedule which may be filed by the Administrator. The change in rate will be made effective at the beginning of the first billing period following receipt of such request or at such later date as the request may stipulate. The billing factors established under the superseded rate schedule shall be applied, if applicable, in computing bills under the newly elected rate schedule in the same manner as if they had been established under the newly elected rate schedule.

11.1 APPROVAL OF RATES: Schedules of rates and charges for electric energy sold to purchasers by the Administrator shall become effective only after confirmation and approval by the Federal Power Commission. Such rate schedules may be modified from time to time by the Administrator subject to confirmation and approval by the Federal Power Commission.

12.1 AVERAGE POWER FACTOR: The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive kilovolt-ampere-hours})^2}}$$

In applying the above formula, the meter for measurement of reactive kilovolt-ampere-hours will be ratcheted to prevent reverse registration.

When deliveries to a purchaser at any point of delivery include more than one class of power and it is impracticable to separately meter the kilowatt-hours and reactive kilovolt-ampere-hours for each class, the average power factor of the total deliveries for the month will be used, where applicable, as the power factor for each of the separate classes.

13.1 UNCONTROLLABLE FORCES: The term Uncontrollable Forces means (a) strikes affecting the operation of the purchaser's works or system or other physical facilities upon which such operation is completely dependent, or of physical facilities used by the Government to serve the purchaser, or (b) events, reasonably beyond the control of the party having jurisdiction thereof, causing failure, damage, or destruction of such works, system, or facilities which by the exercise of reasonable diligence such party could not reasonably have been expected to avoid. Each party shall notify the other immediately of any defect, trouble, or accident which may in any way affect the delivery of power by the Government to the purchaser. In the event the operations of either party are suspended, interrupted, interfered with, or curtailed due to uncontrollable forces, such party shall exercise due diligence to reinstate such operations with all reasonable dispatch.

13.2 REDUCTION IN CHARGES ON ACCOUNT OF INTERRUPTIONS: If operation of the customer's works or system or other physical facilities upon which such operation is completely dependent, or if operation of physical facilities used by the Government to serve the purchaser is suspended, interrupted, interfered with, or curtailed due to uncontrollable forces, as defined herein, or because of necessary maintenance on the Government's system, the charges for power shall be appropriately reduced. No interruption of less than five (5) minutes duration will be considered for computation of such reduction in charges.

14.1 DETERMINATION OF ESTIMATED BILLING DATA: In cases where amounts of power and energy purchased by a distributor must be estimated from information on use of power by ultimate consumers of that distributor, the Administrator shall review the data on consumer use of power submitted by the purchaser, and if any changes are deemed necessary, will advise the purchaser of the changes proposed. In the event that agreement cannot be reached as to the estimate, a binding determination shall be made by a committee composed of one member appointed by the Administrator, one member appointed by the purchaser, and if necessary, one member who shall have no direct interest to be selected by the two members so appointed.

15.1 SALE OF INTERRUPTIBLE POWER (Effective December 20, 1960): Interruptible power is nonfirm power which the Administrator agrees to deliver except when curtailed by him upon reasonable notice. The wholesale power rate schedules applicable to the sales of firm power by the Administrator shall also apply to sales of interruptible power, subject to the following provisions:

- A. A reduction of \$0.50 per month per kilowatt of billing demand shall be made in the demand or kilowatt charge of any new applicable rate adopted subsequent to December 20, 1959; provided, that the resulting billing for interruptible power will not be less than the billing would be under the applicable rate schedule effective December 20, 1959.
- B. The billing demand for interruptible power shall be the measured demand for that class of power for the month adjusted for average power factor for the month.
- C. The minimum monthly charge included in such firm power rate schedules shall not be applicable to sale of inter-

ruptible power.

- D. If the Administrator curtails or agrees at the request of the purchaser either to curtail or to increase deliveries of interruptible power during any month:
- (1) The rates per kilowatt and the energy blocks, if any, stated in the applicable rate schedule shall be prorated according to the ratio that the time in each portion of the month during which the same stipulations regarding deliveries were continuously in effect bears to the total time in the month, and
 - (2) The billing demand for interruptible power for each portion of the month mentioned in (1) above shall be the measured demand for that class of power during such portion of the month adjusted for average power factor for the month.
- E. Interruptible power delivered for resale shall be separately metered or scheduled, and billed independently of the regular firm power purchases.

15.2 SALE OF INDUSTRIAL POWER (Effective December 20, 1960): Industrial power is nonfirm power which the Administrator agrees to deliver and which the purchaser agrees to purchase in accordance with a stipulated contract demand except when curtailed either by the Administrator or by the purchases in accordance with specific contractual provisions. The wholesale power rate schedules applicable to the sales of firm power by the Administrator shall also apply to sales of industrial power, subject to the following provisions;

- A. A reduction of \$0.50 per month per kilowatt of billing demand shall be made in the demand or kilowatt charge of any new applicable rate adopted subsequent to December 20, 1959; provided, that the resulting billing for industrial power will not be less than the billing would be under the applicable rate schedule effective December 20, 1959.
- B. The billing demand for industrial power shall be the higher of (1) the contract demand, or (2) the measured

demand for that class of power for the month adjusted for average power factor for the month.

C. The minimum monthly charge included in such firm power rate schedules shall not be applicable to sale of industrial power.

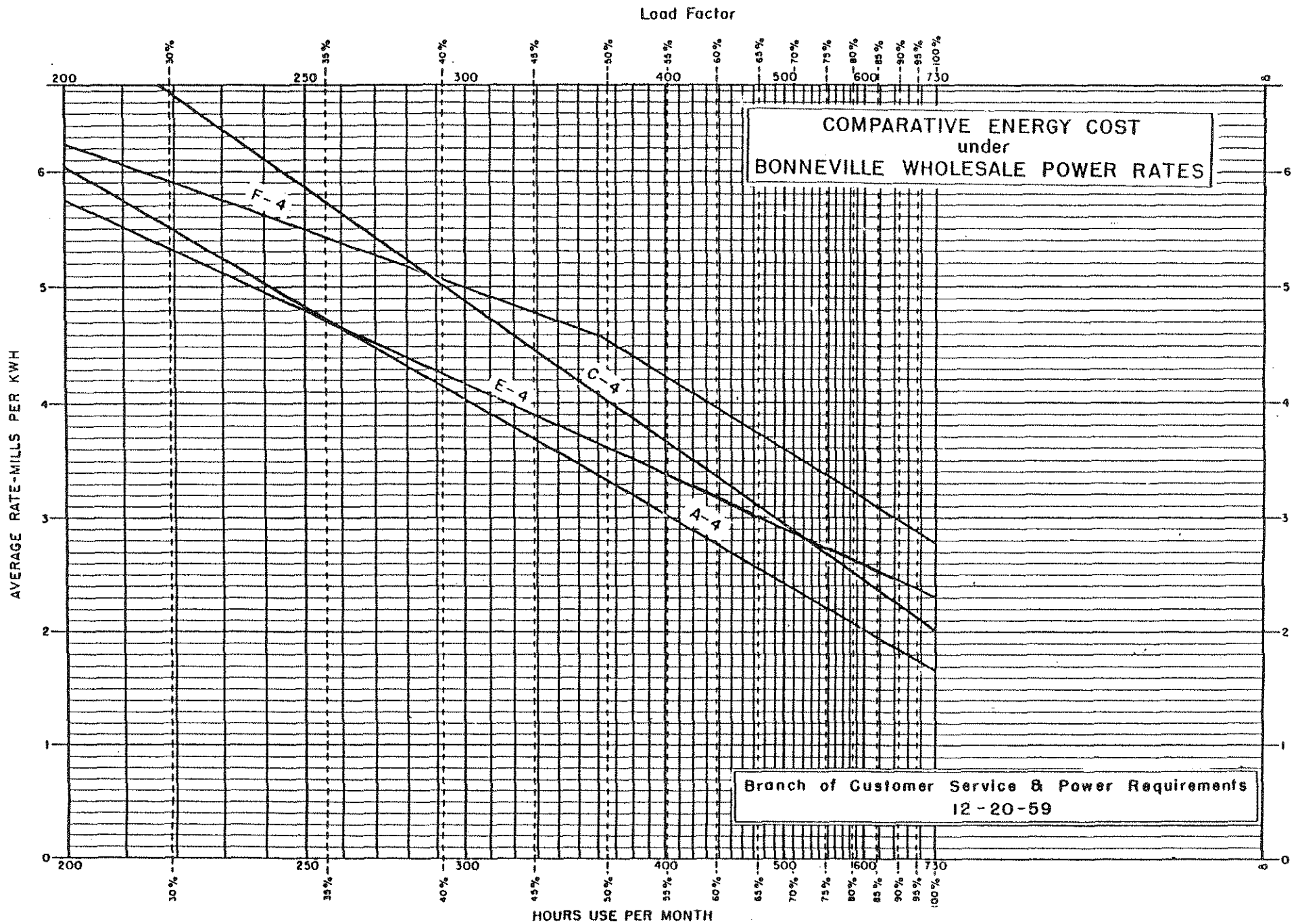
D. If either the Administrator or the purchaser curtails deliveries of industrial power during any month in accordance with specific contractual provisions:

(1) The rates per kilowatt and the energy blocks, if any, stated in the applicable rate schedule shall be prorated according to the ratio that the time in each portion of the month during which the same stipulations regarding deliveries were continuously in effect bears to the total time in the month.

(2) The billing demand for industrial power for each portion of the month mentioned in (1) above shall be the higher of (a) the contract demand for that class of power for such portion of the month after adjustments to reflect any authorized curtailments by the Administrator or the purchaser, or (b) the measured demand for that class of power during such portion of the month adjusted for average power factor for the month.

(3) If an industrial purchaser resumes operation of a portion of its plant which was shut down during a period of curtailment and which is dependent for operation upon industrial power, the billing for industrial power during such period of resumption will be based on the maximum measured demand for each day until such portion of the plant is operating normally, but not longer than 14 days.

These General Rate Schedule Provisions supersede the Provisions effective December 20, 1959.





1965

WHOLESALE POWER RATE SCHEDULES
AND
GENERAL RATE SCHEDULES PROVISIONS

BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF INTERIOR

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The Wholesale Rate Schedules and General Rate Schedule Provisions of the Bonneville Power Administration effective December 20, 1965, supersede in their entirety the Administration's Wholesale Power Rate Schedules and General Rate Schedule Provisions effective December 20, 1964.

These Schedules and Provisions were approved by Federal Power Commission in Opinion and Order No. 482 issued December 14, 1965, Docket Nos. E-6611, E-6905, and E-7242.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE C-5 WHOLESALE POWER RATE
FOR FIRM, MODIFIED FIRM, AND INTERRUPTIBLE POWER
(Effective December 20, 1965)

Section 1. AVAILABILITY:

This schedule is available for the purchase of the following classes of power:

- (a) Firm power, modified firm power, or a combination thereof on a contract demand basis.
- (b) Firm power on a computed demand basis.
- (c) Interruptible power.

Section 2. RATE:

Subject to other provisions of this schedule, the monthly rate for power shall be as follows:

- (a) Transmission system deliveries:

Firm at \$1.55 per kw of billing demand
Modified firm at 1.50 per kw of billing demand
Interruptible at 1.45 per kw of billing demand

- (b) At-site deliveries:

Firm at \$1.284 per kw of billing demand
Modified firm at 1.243 per kw of billing demand
Interruptible at 1.20 per kw of billing demand

Section 3. BILLING DEMAND FACTORS:

The factors to be used, as hereinafter provided, in determining the billing demand for power purchased under this schedule are as follows:

- (a) The contract demand.

- (b) The measured demand for the month adjusted for power factor.
- (c) The computed demand for the month, determined as provided in section 2.3 of the General Rate Schedule Provisions. Computed demand will be applicable only if the purchaser has firm resources other than power received from the Administrator, and if the contract between the purchaser and the Administrator provides for the purchase of firm power on a computed demand basis.
- (d) The highest computed demand, if applicable, during the preceding eleven months.
- (e) The highest measured demand, after adjustment for power factor, during the preceding eleven months.

Section 4. DETERMINATION OF BILLING DEMAND ON PURCHASES FOR RESALE OR CONSUMPTION BY PURCHASER:

The billing demand for the month for firm power shall be the highest of factors (a), (b), (c) if applicable, (d), and (e) of section 3 hereof.

The billing demand for the month for modified firm power shall be the highest of factors (a), (b), and (e) of section 3 hereof.

The billing demand for the month for interruptible power shall be factor (b) of section 3 hereof.

If more than one class of power is purchased, the measured demand for each class will be determined in the manner specified in the contract as provided in section 2.2 of the General Rate Schedule Provisions.

Section 5. COMBINATION PURCHASES:

Firm power may be purchased on a contract or computed demand basis under this schedule in combination with firm power or firm capacity purchased on a contract demand basis under Schedule F-5. When purchases are so combined:

- (a) If computed demand is not a billing factor, the contract demand for firm power, or firm capacity, or both, purchased under Schedule F-5 shall be deducted from the largest sum of the 60-

minute integrated demands for purchases under the C-5 and F-5 schedules for the month; the remainder shall be used in determining the billing demand for such month under this schedule.

- (b) If computed demand is a billing factor, (1) the contract demand for firm power, firm capacity, or both, purchased under Schedule F-5 shall be deducted from the total measured demand and from the largest actual 60-minute integrated system demand of the purchaser for the month, and (2) the specified amount of firm energy purchased under Schedule F-5 shall be deducted from the actual average energy load of the purchaser for the month; the remainders shall be used in determining the billing demand for such month under this schedule.

The billing demand for the month for the firm power purchased hereunder shall be the highest of factors (a), (b), (c) if applicable, (d), and (e) of section 3 hereof.

Section 6. MODIFIED FIRM POWER:

Modified firm power may be purchased under this schedule in accordance with the provisions of section 1.2 of the General Rate Schedule Provisions.

Section 7. INTERRUPTIBLE POWER:

Interruptible power may be purchased under this schedule in accordance with the provisions of section 1.4 of the General Rate Schedule Provisions.

Section 8. AT-SITE POWER:

At-site power purchased for consumption by the purchaser shall be used within fifteen miles of the power plant. At least 90% of any at-site power purchased for resale shall be used within fifteen miles of the power plant.

At-site power will be made available at a Federal hydroelectric plant or at a point adjacent thereto, and at a voltage, all as designated by the Administrator. If deliveries are made from an interconnection with the Federal transmission system other than such adjacent point, the purchaser shall, in addition to the charge for power under this schedule, pay an amount adequate to cover the annual cost of the

facilities which would have been required to deliver such power at the generator bus at the hydroelectric plant, or at the adjacent point and voltage designated by the Administrator.

The total amount of at-site firm power sold from any hydro plant shall not exceed the amount of such power determined by the Administrator to be available at such plant.

Section 9. POWER FACTOR ADJUSTMENT:

Except as hereafter provided, the adjustment for power factor wherever specified in this rate schedule shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 0.85 lagging.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured demand for the month by 1% for each 1% or major fraction thereof by which the average power factor is less than 0.85 lagging or 0.95 leading, whichever results in the larger adjustment.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than 0.85 lagging or 0.95 leading would in any particular case be beneficial to the Government. Unless specifically otherwise agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the purchaser at such point of delivery or for such system is below 0.75 lagging or 0.75 leading.

Section 10. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act as amended, and to the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE E-5 WHOLESALE FIRM POWER RATE
(Effective December 20, 1965)

Section 1. AVAILABILITY:

This schedule is available for the purchase of firm and interruptible power for resale, of firm power for irrigation or drainage pumping use by the purchaser, and incidental use by the purchaser for other purposes in either case.

Section 2. RATE:

Subject to other provisions of this schedule, the monthly rates shall be as follows:

Demand Charge: 95¢ per kilowatt of billing demand.

Energy Charge: 1.25 mills per kilowatt-hour.

Section 3. BILLING DEMAND:

The billing demand shall be the higher of the following demands:

- (a) The measured demand for the month, adjusted for power factor.
- (b) 50% of the highest measured demand, after adjustment for power factor, during the preceding eleven months. This subsection (b) shall not apply to purchasers who use the power purchased hereunder solely for irrigation or drainage pumping for agricultural production and uses incidental thereto, and who do not resell any of the power so purchased.

Section 4. LIMITATION:

- (a) The amount payable in any month shall not be less than 90% of the billing which would result from application of the charges and provisions in this schedule to the entire firm power demand and energy requirements of the separate system to which the billing applies. The provisions of this subsection shall not

apply to any system of the purchaser where the total power requirements of such system are used solely for irrigation or drainage pumping for agricultural production and uses incidental thereto.

- (b) In determining the monthly billing under this section, the purchaser's "entire firm power demand and energy requirements" shall not include that part of the purchaser's system requirements supplied with firm power obtained from the Administrator separately under any exchange agreement, or obtained under any assignment or allocation agreement which the Administrator has approved or to which he is a party.
- (c) The 90% specified in this section shall be modified by the Administrator during any period that he is unable to supply the entire firm power requirements of such separate system.

Section 5. SYSTEM DEVELOPMENTAL DISCOUNT:

A predetermined discount will, if applicable, be applied each month of a calendar year to the charges for power purchased under this rate schedule. The amount of such discount will depend on the ratio of the total annual energy requirements of the purchaser's electric operations during the preceding calendar year to the average of the purchaser's depreciated investment in electric plant in service (excluding generating plant) at the end of each month during such year. The discount shall be:

5% if such ratio is less than 15 kilowatt-hours per dollar of net investment, or

2% if such ratio is 15 or more, but less than 25 kilowatt-hours per dollar of net investment.

No discount if such ratio is 25 kilowatt-hours or more per dollar of net investment.

Section 6. IRRIGATION AND DRAINAGE PUMPING PROVISIONS:

- (a) A discount of six-tenths mill (\$0.0006) per kilowatt-hour will be applied to energy used by the purchaser or resold to customers

of the purchaser for irrigation or drainage pumping for agricultural production and uses incidental thereto. The amount of such energy shall be increased by 10% for losses before the discount is applied provided, however, that such increased amount of energy shall not exceed total energy supplied by the Administrator to the purchaser's system. To qualify for the discount, the purchaser shall comply with the following provisions:

- (1) Any energy on which the discount is claimed shall be metered separately by the purchaser if resold and, if practicable, metered separately, if used by the purchaser. If metering of such energy used by the purchaser is not practicable, the amount shall be determined in a manner satisfactory to the Administrator.
 - (2) The purchaser shall report the number of irrigation or drainage pumping kilowatt-hours delivered to each of its customers and used in its own operations, and such other pertinent data as the Administrator may reasonably request. Reports of such kilowatt-hours may be supplied from time to time during the irrigation or drainage pumping season, but the last report covering deliveries for resale shall be supplied within ten days after the purchaser makes the final billing to his customers for such season. The discount will be applied to the next power bill following receipt of each report.
- (b) The portion of the purchaser's measured demand in any billing month attributable to energy to which the discount is applied shall, if determined in a manner satisfactory to the Administrator, and if reported by the purchaser within 10 days after the end of such month, be excluded in determining the billing demand stated in section 3(b) for such month; provided that the load factor determined from the remaining demand and the remaining kilowatt-hours used in such billing month shall not be greater than 70%.

Section 7. INTERRUPTIBLE POWER:

Interruptible power for resale may be purchased under this schedule in accordance with the provisions of section 1.4 of the General Rate Schedule Provisions.

The billing demand for the month for interruptible power shall be the measured demand adjusted for average power factor. The demand charge specified in section 2 hereof will be reduced by 10 cents per month per kilowatt of billing demand.

Section 8. POWER FACTOR ADJUSTMENT:

Except as hereafter provided, the adjustment for power factor shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 0.95 lagging.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured demand for the month by 1% for each 1% or major fraction thereof by which the average power factor is less than 0.95 lagging or 0.95 leading, whichever is lower.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than 0.95 lagging or leading would in any particular case be beneficial to the Government. Unless otherwise specifically agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the purchaser at such point of delivery or for such system is below 0.75 lagging or 0.75 leading.

Section 9. BILLING MODIFICATION:

The total amount payable for firm power under this schedule for all firm power so purchased in each of the calendar years 1966, 1967, 1968, and 1969 shall not be more than 106%, nor less than 102%, of the amount which would have been payable for each such year under the following modifications of this schedule (this schedule E-5 as so modified comprises, generally, the major provisions of Wholesale Power Rate Schedule E-4 effective, as amended, December 20, 1964); provided, however, that for any purchaser qualifying for the System Developmental Discount pursuant to Section 5 hereof, the

quantity 106% shall be reduced by application of the percentage discount appropriate for such purchaser.

- (a) Section 2. Rate: Substitute energy charge of 1 mill per kilowatt-hour for 1.25 mills per kilowatt-hour.
- (b) Section 3. Billing Demand: Substitute 70% for 50%.
- (c) Section 5. System Developmental Discount: Not to be applied.
- (d) Section 6(a). Irrigation and Drainage Pumping: Substitute \$0.0004 per kilowatt-hour for \$0.0006 per kilowatt-hour.
- (e) Increase all 60-minute measured demands by 1.1%.

An appropriate credit or charge shall be included with the last monthly bill of each calendar year for any required billing modification.

Section 10. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act as amended and the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE F-5 WHOLESALE FIRM POWER RATE--OPTIONAL
(Effective December 20, 1965)

Section 1. AVAILABILITY:

This schedule is available for the purchase of the following classes of power:

- (a) Firm power on a computed or contract demand basis.
- (b) Firm power, firm capacity, or both, on a contract demand basis in combination with the purchase of firm power under Schedule C-5.
- (c) Firm capacity.
- (d) Interruptible power.

Section 2. RATE:

Subject to other provisions of this schedule, the monthly rate for power shall be as follows:

Demand Charge:

\$0.75 per kilowatt of billing demand.

Energy Charge:

First 300 kilowatt-hours per kilowatt of billing demand at 2.5 mills per kilowatt-hour,

All additional kilowatt-hours associated with the billing demand at 1.25 mills per kilowatt-hour.

Section 3. BILLING DEMAND AND BILLING ENERGY:

- (a) The billing demand shall be the highest of the following demands:

- (1) The contract demand, if specified in the contract.
 - (2) The measured demand for the month adjusted for power factor.
 - (3) The computed demand for the month, determined as provided in section 2.3 of the General Rate Schedule Provisions. Computed demand will be applicable only if the purchaser has firm resources other than power received from the Administrator, and if the contract provides for purchase of firm power on a computed demand basis.
 - (4) 70% of the highest computed demand, if applicable, during the preceding eleven months.
 - (5) 70% of the highest measured demand, after adjustment for power factor, during the preceding eleven months.
- (b) If power is purchased on a contract demand basis for resale, the energy billed under this schedule shall be the amount specified in the contract.

Section 4. FIRM CAPACITY:

Firm capacity may be purchased under this schedule on a contract demand basis for supply during a contract year of 12 months as specified in the contract, or during a contract season of May 1 through September 30. Only billing demand factors (a)(1) and (a)(2) of section 3 will be applicable.

The charge for firm capacity shall be as follows:

(a) Contract year service:

\$9.00 per kilowatt per year of the larger of the contract demand or measured demand for the contract year. Interim bills will be rendered monthly at the rate of \$0.75 per kilowatt of billing demand.

(b) Contract season service:

\$5.00 per kilowatt per season of the larger of the contract demand or measured demand for the contract season. Interim bills will be rendered monthly at the rate of \$1.00 per kilowatt

of billing demand starting with deliveries for May of each contract season.

If the Administrator restricts any demand in excess of the contract demand for the balance of a contract year or season, the annual charge shall be reduced by the kilowatt-months of restriction multiplied by the interim billing rate per kilowatt.

Contracts for the purchase of firm capacity shall include provisions for the advance delivery or for replacement by the purchaser of energy accompanying the delivery of such capacity.

Section 5. COMBINATION FIRM POWER PURCHASES:

Firm power, firm capacity, or both, may be purchased under this schedule on a contract basis in combination with the purchase of firm power on a contract or computed demand basis under Schedule C-5. Charges for purchases under this schedule shall be for the contracted amounts of firm power or capacity.

Section 6. INTERRUPTIBLE POWER:

Interruptible power may be purchased under this schedule in accordance with the provisions of section 1.4 of the General Rate Schedule Provisions. The billing demand for the month shall be factor (a)(2) of section 3 hereof.

Section 7. IRRIGATION AND DRAINAGE PUMPING PROVISIONS:

A monthly discount of six-tenths mill (\$0.0006) per kilowatt-hour will be applied to energy resold to customers of the purchaser for irrigation and drainage pumping for agricultural production and uses incidental thereto. The amount of such monthly energy shall be increased by 10% for losses and multiplied by the ratio that monthly energy purchased under this schedule bears to total monthly energy requirements for the purchaser's system.

Any energy on which the discount is claimed shall be metered separately by the purchaser. The purchaser shall report such energy for each customer within 10 days after the close of the monthly billing period, and such other pertinent data as the Administrator

may reasonably request. Purchasers may supply such data on other than a monthly basis if the data correspond with the purchaser's regular billing periods for billing such customers, and the assignable monthly energy on which the discount will be applied will be determined in a manner satisfactory to the Administrator.

The respective computed and measured demands used in determining the billing demand stated in section 3(a)(4) and 3(a)(5) shall exclude an amount equal to the demand attributable to energy resold for irrigation and drainage pumping use as specified above multiplied by the same ratio used in determining the energy subject to discount during such month. Such attributable demand shall be determined in a manner satisfactory to the Administrator and reported within 10 days after the close of the monthly billing period.

The provisions of this section do not apply if firm power is purchased under this schedule in combination with purchase of firm power under Schedule C-5.

Section 8. POWER FACTOR ADJUSTMENT:

Except as hereafter provided, the adjustment for power factor wherever specified in this rate schedule shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 0.85 lagging.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured demand for the month by 1% for each 1% or major fraction thereof by which the average power factor is less than 0.85 lagging or 0.95 leading, whichever results in the larger adjustment.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than 0.85 lagging or 0.95 leading would in any particular case be beneficial to the Government. Unless otherwise specifically agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of

power delivered to the purchaser at such point of delivery or for such system is below 0.75 lagging or 0.75 leading.

Section 9. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act as amended and the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE R-2 FIRM POWER FOR RAILROAD USE
(Effective December 20, 1965)

Section 1. AVAILABILITY:

This schedule applies to at-site and transmission system firm power used by railroads primarily for traction purposes, delivered to railroads or to purchasers for resale to railroads. The points of delivery shall be so located that the capacity required for the estimated load at each point of delivery shall be not less than 7,500 kva, unless in any particular case the Administrator determines that it would be advantageous to the Government to supply a lower capacity.

Section 2. RATE:

Energy shall be sold under this schedule at 4.25 mills per kilowatt-hour of net energy supplied adjusted for power factor as set forth below. Such net energy before adjustment for power factor will be determined as the aggregate number of kilowatt-hours delivered to the railroad or to the purchaser's system under this schedule at all points of delivery less the number of kilowatt-hours resulting from regenerative braking received by the Government at such points of delivery. The energy flowing in both directions will be metered separately as of each point of delivery.

Section 3. MINIMUM CHARGE:

The net minimum charge under this schedule shall be \$0.50 per month times the aggregate kva capacity of all the points of delivery.

Section 4. POWER FACTOR ADJUSTMENT:

Except as hereafter provided, the net energy before adjustment for power factor will be increased 1% for each 1% or major fraction thereof by which the average lagging power factor of electric energy supplied during such month is less than 0.95 lagging.

The Administrator may, if he considers it desirable, determine the average leading power factor. If the leading power factor as well as lagging power factor is determined, the adjustment for power factor

shall be made by increasing the net energy for the month by 1% for each 1% or major fraction thereof by which the average power factor is less than 0.95 lagging or 0.95 leading, whichever is lower.

The adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than 0.95 lagging or leading would in any particular case be beneficial to the Government. Unless specifically otherwise agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the purchaser at such point of delivery or for such system is below 0.75 lagging or 0.75 leading.

Section 5. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act as amended, and to the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE H-4 WHOLESALE ENERGY RATE
(Effective December 20, 1965)

Section 1. AVAILABILITY:

This schedule is available for purchase of nonfirm energy exclusive of excess energy made available under Schedule S-1 and interruptible power.

This schedule is also available for energy delivered (1) for emergency use under conditions set forth in Section 6.1 of General Rate Schedule Provisions, and (2) for experimental, research, and testing purposes under conditions set forth in section 5.1 of General Rate Schedule Provisions.

Section 2. DELIVERY:

The Administrator shall determine whether and when energy will be delivered under this rate schedule, and the amount thereof.

Section 3. RATE:

2.5 mills per kilowatt-hour.

Section 4. GENERAL PROVISIONS:

Sales of energy under this schedule shall be subject to the provisions of the Bonneville Project Act as amended and the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE S-1 WHOLESALE EXCESS ENERGY RATE
(Effective December 20, 1965)

Section 1. AVAILABILITY:

This schedule is available for the purchase, both within and outside the Pacific Northwest, of such amounts of nonfirm energy as the Administrator determines he would have available for sale outside the Pacific Northwest in accordance with Public Law 88-552 assuming, only for the purpose of making such determination, that there is no market for such energy in the Pacific Northwest under this schedule. After making such determination, the Administrator will supply energy under this schedule, to the extent available, to meet the energy requirements of any Pacific Northwest customer as that term is defined in Public Law 88-552 before delivering any such energy outside the Pacific Northwest.

This schedule is not available at any time for the purchase of energy which the Administrator has a firm obligation to supply.

Section 2. DELIVERY:

Delivery of energy under this schedule is not assured. The Administrator shall determine whether and when such energy will be delivered and the amount thereof.

Section 3. RATE:

2.0 mills per kilowatt-hour.

Section 4. GENERAL PROVISIONS:

Sales of energy under this schedule shall be subject to the provisions of the Bonneville Project Act as amended and the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

GENERAL RATE SCHEDULE PROVISIONS
(Effective December 20, 1965)

1.1 FIRM POWER: Firm power is power which the Administrator will make continuously available to a purchaser to meet its load requirements except when restricted because the operation of generating or transmission facilities used by the Administrator to serve such purchaser is suspended, interrupted, interfered with, or curtailed as the result of the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract. Such restriction of firm power shall not be made until modified firm power has been restricted in accordance with section 1.2.

1.2 MODIFIED FIRM POWER: Modified firm power is power which the Administrator will make continuously available to a purchaser on a contract demand basis subject to:

- (a) the restriction applicable to firm power, and
- (b) the following:

When a restriction is made necessary because the operation of generating or transmission facilities used by the Administrator to serve such purchaser and one or more firm power purchasers is suspended, interrupted, interfered with, or curtailed as a result of the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract, the Administrator shall restrict such purchaser's contract demand for modified firm power to the extent necessary to prevent, if possible, or minimize restriction of any firm power, provided, however, that (1) such restriction of modified firm power shall not exceed at any time 25% of the contract demand therefor and (2) the accumulation of such restrictions of modified firm power during any calendar year, expressed in kilowatt-hours, shall not exceed 500 times the contract demand therefor.

1.3 FIRM CAPACITY: Firm capacity is capacity which the Administrator assures will be available to a purchaser on a contract

demand basis except when operation of the Government's facilities used to serve the purchaser is suspended, interrupted, interfered with, or curtailed as made necessary by the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract.

1.4 INTERRUPTIBLE POWER: Interruptible power is nonfirm power which the Administrator may agree to make available under the applicable rate schedules upon the purchaser's request prior to delivery, subject to the following conditions:

- (a) The Administrator may curtail delivery of interruptible power, in whole or in part, at any time. The Administrator will give as much notice of curtailment as possible.
- (b) The purchaser may reduce the purchase of interruptible power, in whole or in part, at the end of any billing month. By prior agreement with the Administrator, the purchaser may increase or reduce the purchase of interruptible power during a billing month.
- (c) If the Administrator curtails or agrees at the request of the purchaser either to curtail or to increase deliveries of interruptible power during any month:
 - (1) The specified rate per kilowatt of billing demand shall be prorated according to the ratio that the time in each portion of the month during which the same stipulations regarding deliveries were continuously in effect bears to the total time in the month, and
 - (2) The billing demand for interruptible power for each portion of the month shall be the measured demand during such portion of the month adjusted for the power factor for the entire month.
- (d) If interruptible power is purchased for resale, the contract for purchase of such power shall provide for the separation of the demand and energy components thereof from any other class of power which may be delivered through the same point of delivery, and for the separate billing therefor.

2.1 CONTRACT DEMAND: The contract demand shall be the number of kilowatts that the purchaser agrees to purchase and the Adminis-

trator agrees to make available. The Administrator may make deliveries at a rate in excess of the contract demand at the request of the purchaser, but shall not be obligated to continue such excess deliveries.

2.2 MEASURED DEMAND: Except where deliveries are scheduled as hereinafter provided, the measured demand in kilowatts shall be the largest of the 60-minute clock-hour integrated demands at which electric energy is delivered to a purchaser at a point of delivery during any billing period. Such largest 60-minute integrated demand shall be determined from measurements made as specified in the contract, or estimated by the Administrator when metering or other data are not available for such purpose. The Administrator, in determining the measured demand, will exclude any abnormal 60-minute integrated demands due to or resulting from (a) emergencies or breakdowns on, or maintenance of, the Government's facilities, and (b) emergencies on the purchaser's facilities, provided that such facilities have been adequately maintained and prudently operated as determined by the Administrator.

If the contract provides for delivery of more than one class of power to the purchaser at any point of delivery, the portion of each 60-minute integrated demand assigned to any class of power shall be determined as specified in the contract. The portion of the total measured demand so assigned shall constitute the measured demand for such class of power.

If the flow of electric energy to a purchaser's system through two or more points of delivery cannot be adequately controlled because such points are interconnected within the purchaser's system, or the purchaser's system is interconnected with one or more systems which are also interconnected directly or indirectly with the Government's system, the purchaser's measured demand for each class of power for such system for any billing period shall be the largest of the hourly amounts of such class of power which are scheduled for delivery to the purchaser.

2.3 COMPUTED DEMAND: The computed demand for each month is the larger of the amount of peak capacity or average energy required by a purchaser to serve its system load in addition to the assured peak and energy capability of its system, determined in accordance with the provisions of this section.

A. General Principles:

1. The assured capability of each of the purchaser's system shall be determined and applied separately.
2. As used in this section "year" shall mean the twelve-month period commencing July 1.
3. The critical period is that period, determined for the purchaser's system under adverse streamflow conditions adjusted for current water uses, assured storage operation and appropriate operating agreements, during which the purchaser would have the maximum requirement for peaking or energy after utilizing the firm capability of all resources available to its system in such a manner as to place the least requirement for capacity and energy on the Administrator.
4. Critical water conditions are those conditions of streamflow based on historical records, adjusted for current water uses, assured storage operation and appropriate operating agreements, for the year or years which would result in the minimum capabilities of the purchaser's firm resources during the critical period.
5. Prior to the beginning of each year the purchaser shall determine the assured capability of each of the purchaser's systems in terms of peaking and average energy for each month of each year or years which contain the critical period. The firm capability of all resources available to the purchaser's system shall be utilized in such a manner as to place the least requirement for capacity and energy on the Administrator. Such assured capability shall be effective after review and approval by the Administrator.
6. As used herein, the capability of a firm resource shall include only that portion of the total capability of such resource which the purchaser can deliver on a firm basis to its load. The capabilities of all generating facilities which are claimed as part of the purchaser's assured capability shall be determined by test or other substantiating data acceptable to the Administrator. The Administrator may require verification of the capabilities of any or all of the purchaser's generating facilities. Such verification will not be required more often than once

each year for operating plants, or more often than once each third year for thermal plants in cold standby status, if the Administrator determines that adequate annual preventive maintenance is performed and the plant is capable of operating at its claimed capability.

7. The purchaser shall at any time, if required by the Administrator, demonstrate the ability of its claimed hydro resources to develop the assured capability previously approved for the remainder of the critical period based on critical water conditions. If such ability cannot be demonstrated to the satisfaction of the Administrator, the purchaser's assured capability shall be reduced for the remainder of the critical period by the amount which cannot be developed, unless such deficiency is the result of operation required by firm obligations under contracts to which the Administrator is a party.
8. In determining assured capability, the aggregate capability of the purchaser's firm resources shall be appropriately reduced to provide adequate reserves.

B. Determination of Assured Capability:

The purchaser's assured peaking and energy capabilities shall be the respective sums of (1) the capabilities of its hydro generating plants based on its most critical water conditions, (2) the capabilities of its thermal generating plants based on the most adverse fuel or other conditions reasonably to be anticipated, and (3) the firm capabilities of other resources made available under contracts prior to the beginning of the year, after deduction of adequate reserves. Assured capabilities for each month shall be determined separately for the first ten days, the second ten days, and the remainder of such month if the purchaser does not have seasonal storage (subsequently defined), or for each month if the purchaser has seasonal storage. The capabilities of the purchaser's firm resources shall be determined as follows:

1. Hydroelectric generating facilities:

The capability of each of the purchaser's hydrogenerating plants shall be determined in terms of both peaking and average energy using critical water conditions. The average energy capability shall be that capability which would be available under the storage

operation necessary to produce the claimed peaking capability.

Seasonal storage shall mean storage sufficient to regulate all the purchaser's hydro resources in such a manner that when combined with the purchaser's thermal generating facilities, if any, and with firm capacity and energy available to the purchaser under contracts, a uniform computed energy demand for a period of one month or more would result.

A purchaser having seasonal storage shall, within 10 days after the end of each month in the critical period, notify the Administrator in writing of the assured energy capability to be applied tentatively to the preceding month; such notice shall also specify the purchaser's best estimate of its average system energy load for such month. If such notice is not submitted, or is submitted later than 10 days after the end of the month to which it applies, subject to the limitations stated herein, the assured energy capability determined for such month prior to the beginning of the year shall be applied to such month and may not be changed thereafter.

If notice has been submitted pursuant to the preceding paragraph, the purchaser shall, within 30 days after the end of the month, submit final specification of the assured energy capability to be applied to the preceding month; provided that the assured energy capability so specified shall not differ from the amount shown in the original notice by more than the amount by which the purchaser's actual average system energy load for such month differs from the estimate of that load shown in the original notice. If the assured energy capability for such month differs from that determined prior to the beginning of the year for such month, the purchaser, if required by the Administrator, shall demonstrate by a suitable regulation study based on critical water conditions that such change could actually be accomplished, and that the remaining balance of its total critical period assured energy capability could be developed without adversely affecting the firm capability of other purchasers' resources. The algebraic sum of all such changes in the purchaser's assured energy capability shall be zero at the end of the critical period or year, whichever is earlier. Appropriate adjustments in the assured peaking capability shall be made if required by any change in reservoir operation indicated by such revisions in the monthly distribution of critical period energy capability.

2. Thermal generating facilities:

The capability of each of the purchaser's thermal generating plants shall be determined in terms of both peaking and average energy. Such capabilities shall be based on the most adverse fuel or other conditions reasonably to be anticipated. The effect of limitations on fuel supply due to war or other extraordinary situations will be evaluated at the time of occurrence, and appropriate changes will be made in the monthly plant capabilities by the Administrator.

3. Other sources of power:

The assured capability of other resources available to the purchaser on a firm basis under contracts shall be determined prior to each year in terms of both peaking and average energy.

C. Determination of Computed Demand:

The purchaser's computed demand for each billing month shall be the greater of:

1. The largest amount during such month by which the purchaser's actual 60-minute system demand, excluding any loads otherwise provided for in the contract, exceeds its assured peaking capability for such month, or period within such month, or
2. The largest amount for such month, or period within such month, by which the purchaser's actual system average energy load, excluding the average energy loads otherwise provided for in the contract, exceeds its assured average energy capability.

The use of computed demand as one of the alternatives in determining billing demand is intended to assure that each purchaser who purchases power from the Administrator to supplement his own firm resources will purchase amounts of power substantially equivalent to the additional capacity and energy which the purchaser would otherwise have to provide on the basis of normal and prudent operations, viz. sufficient capacity and energy to carry the load through the most critical water or other conditions reasonably to be anticipated, with an adequate reserve.

Since the computed demand depends on the relationship of capability of resources to system requirements, the computed demand for

any month cannot be determined until after the end of the month. As each purchaser must estimate his own load, and is in the best position to follow its development from day to day, it will be his responsibility to request scheduling of firm power, including any increase over previously established demands, on the basis estimated by him to result in the most advantageous purchase of the power to be billed at the end of the month.

Each contract in which computed demand may be a factor in determining the billing demand shall have attached to it as an exhibit a sample calculation of the computed demand of the purchaser for the period having the highest computed demand during the twelve months immediately preceding the effective date of the contract.

2.4 RESTRICTED DEMAND: Deliveries of any class of capacity and energy in excess of the Administrator's contracted obligations to supply may be restricted by him at any time. Billing demands subsequent to the effective time of a restriction shall be determined as provided in the applicable rate schedule except that any higher billing demand established prior thereto which would otherwise be applicable shall be reduced to the amount of the restricted demand.

3.1 BILLING: Unless otherwise provided in the contract, power made available to a purchaser at more than one point of delivery shall be billed separately under the applicable rate schedule or schedules. The contract may provide for combined billing under specified conditions and terms when (a) delivery at more than one point is beneficial to the Government, or (b) the flow of power at the several points of delivery is reasonably beyond the control of the purchaser.

If deliveries at more than one point of delivery are billed on a combined basis for the convenience of the customer, a charge will be made for the diversity between the measured demands at the several points of delivery. The charge for the diversity shall be determined in a uniform manner and shall be specified in the contract.

4.1 APPLICATION OF RATES DURING INITIAL OPERATION PERIOD: For an initial operating period, not in excess of three months, beginning with the commencement of operation of a new industrial plant, a major addition to an existing plant, or reactivation of an existing plant or important part thereof the Administrator may agree (a) to bill for service to such new or reactivated plant facilities on the basis of the measured demand for each day, adjusted for

power factor, or (b) if such facilities are served by a distributor purchasing power therefor from the Administrator, to bill for that portion of such distributor's load which results from service to such facilities on the basis of the measured demand for each day, adjusted for power factor. Any rate schedule provisions regarding contract demand, billing demand, and minimum monthly charge which are inconsistent with this section shall be inoperative during such initial operating period.

The initial operating period and the special billing provisions may, on approval by the Administrator, be extended beyond the initial three months' period for such additional time as is justified by the developmental character of the operations.

5.1 ENERGY SUPPLIED FOR EXPERIMENTAL, RESEARCH, AND TESTING PURPOSES: In order to promote experimentation in new processing methods, in development of new types of load, and for research, the Administrator may sell, either for consumption by the purchaser or for resale, the electric energy used solely for such experimentation and research and uses incidental thereto in accordance with Wholesale Energy Schedule H-4.

Electric energy used solely for testing of new equipment or processes and uses incidental thereto also may be sold by the Administrator, either for consumption by the purchaser or for resale, in accordance with Wholesale Energy Schedule H-4.

6.1 ENERGY SUPPLIED FOR EMERGENCY USE: A purchaser taking firm power shall pay in accordance with Wholesale Energy Rate Schedule H-4 for any electric energy which has been supplied (a) for use during an emergency on the purchaser's system, or (b) following an emergency to replace energy secured from sources other than the Government during such emergency, except that mutual emergency assistance may be provided and settled under exchange agreements.

7.1 BILLING MONTH: Meters will normally be read and bills computed at intervals of one month. A month is defined as the interval between meter-reading dates which normally will be approximately 30 days. If service is for less or more than the normal billing month, the monthly charges stated in the applicable rate schedule will be appropriately adjusted.

8.1 PAYMENT OF BILLS: Bills for power shall be rendered monthly and shall be payable at the office of the Administrator. Failure to receive a bill shall not release the purchaser from liability for payment. Demand and energy billings under each rate schedule application shall be rounded to whole dollar amounts, by elimination of any amount of less than 50 cents and increasing any amount from 50 cents through 99 cents to the next higher dollar.

Bills not paid in full on or before the close of business of the thirtieth day after the date of the bill shall bear an additional charge of two percent (2%) of the amount unpaid. Thereafter a further charge of one-half of one percent (1/2%) of the initial amount remaining unpaid shall be added on the first day of each succeeding calendar month until the amount due is paid in full. The provisions of this paragraph shall not apply to bills rendered under contracts with other agencies of the United States.

Remittances received by mail will be accepted without assessment of the delayed payment charges referred to above provided the post-mark indicates the payment was mailed on or before the thirtieth day after the date of the bill. If the thirtieth day after the date of the bill is a Sunday or other nonbusiness day of the purchaser, the next following business day shall be the last day on which payment may be made without addition of the delayed payment charge.

The Administrator may, whenever a power bill or a portion thereof remains unpaid subsequent to the thirtieth day after the date of the bill, and after giving thirty days' advance notice in writing, cancel the contract for service to the purchaser, but such cancellation shall not affect the purchaser's liability for any charges accrued prior thereto.

9.1 CHANGE IN APPLICABLE RATE SCHEDULE: A change in the applicable rate schedule or applicable combination of schedules may be requested by the purchaser and, upon approval by the Administrator, shall be made by an appropriate amendment of the contract or by a new contract. Any approved change in the applicable rate schedule shall be made effective at the beginning of the first billing month following receipt of such request or at such later date as is stipulated in the contract. The billing factors established prior to the change in the applicable rate schedule or schedules shall be applied, if relevant, in computing bills after the change in the same manner as if they had been established under the newly applicable rate schedule or combination of schedules.

10.1 APPROVAL OF RATES: Schedules of rates and charges, or modifications thereof, for electric energy sold by the Administrator shall become effective only after confirmation and approval by the Federal Power Commission.

11.1 AVERAGE POWER FACTOR: The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive kilovolt-ampere-hours})^2}}$$

The data used in the above formula shall be obtained from meters which are ratcheted to prevent reverse registration.

When deliveries to a purchaser at any point of delivery include more than one class of power or are under more than one rate schedule, and it is impracticable to separately meter the kilowatt-hours and reactive kilovolt-ampere-hours for each class, the average power factor of the total deliveries for the month will be used, where applicable, as the power factor for each of the separate classes of power and rate schedules.

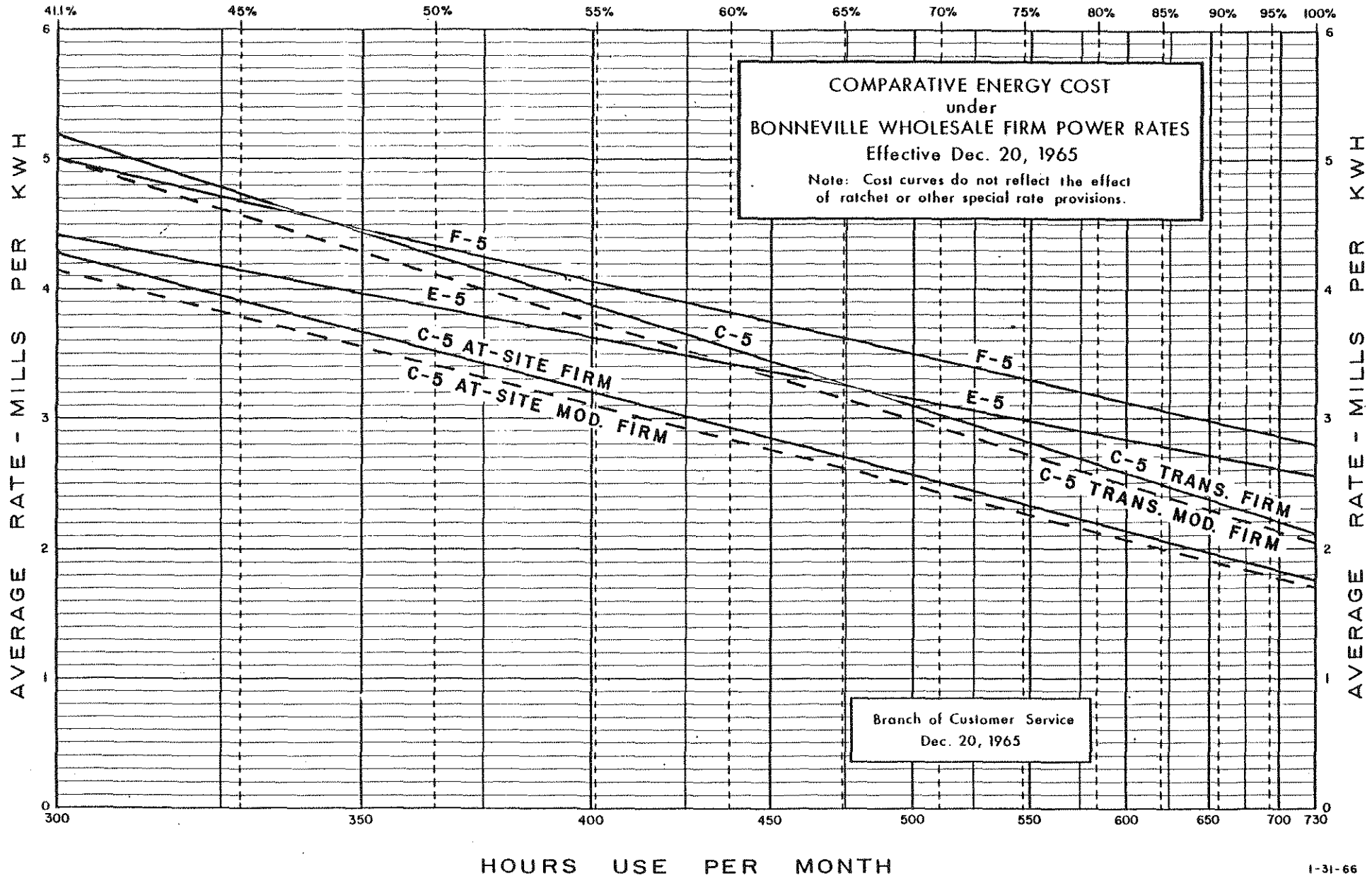
12.1 DETERMINATION OF ESTIMATED BILLING DATA: If the purchased amounts of capacity, energy, and the 60-minute demands for energy must be estimated from data other than metered or scheduled quantities, the Administrator and the purchaser will agree on billing data to be used in preparing the bill. If the parties cannot agree on the estimated billing quantities, a determination binding on both parties shall be made in accordance with the arbitration provisions of the contract.

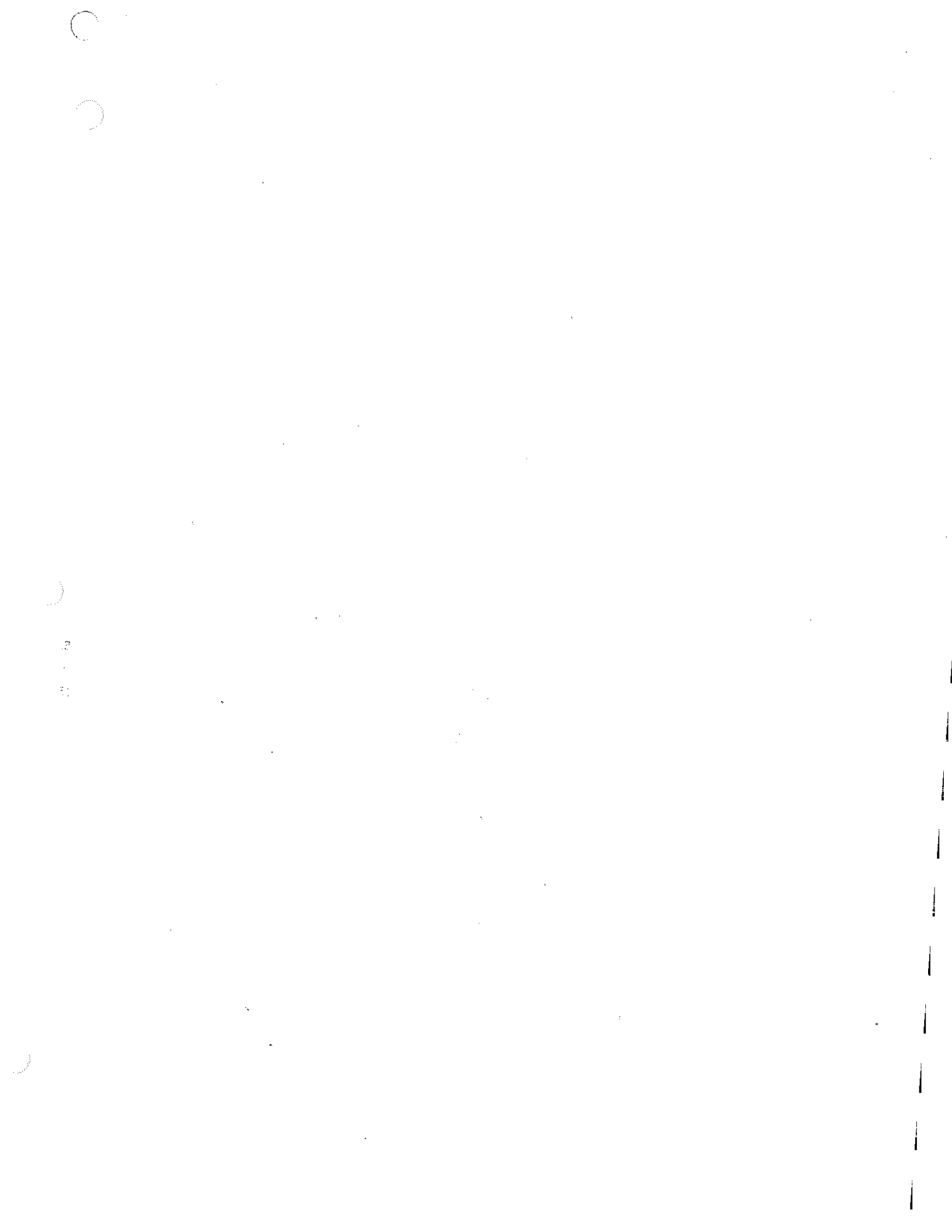
13.1 TEMPORARY CURTAILMENT OF CONTRACT DEMAND: The Administrator may include in contracts with industrial purchasers, provisions for temporary curtailment of contract demand for firm and modified firm power by the purchaser. The reduction of charges for power so curtailed shall be applied in a uniform manner.

14.1 GENERAL PROVISIONS: The Wholesale Rate Schedules and General Rate Schedule Provisions of the Bonneville Power Administration effective December 20, 1965, supersede in their entirety the Ad-

ministration's Wholesale Power Rate Schedules and General Rate
Schedule Provisions effective December 20, 1964.

LOAD FACTOR





1969

WHOLESALE POWER RATE SCHEDULES
AND
GENERAL RATE SCHEDULE PROVISIONS

BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF INTERIOR

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The Wholesale Rate Schedules and General Rate Schedule Provisions of the Bonneville Power Administration effective December 20, 1969, supersede in their entirety the Administration's Wholesale Power Rate Schedules and General Rate Schedule Provisions effective December 20, 1965.

These Schedules and Provisions were approved by the Federal Power Commission in an Order issued December 5, 1969 (Docket No. E-7508).

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE C-5 WHOLESALE POWER RATE
FOR FIRM, MODIFIED FIRM, AND INTERRUPTIBLE POWER
(Effective December 20, 1969)

Section 1. AVAILABILITY:

This schedule is available for the purchase of the following classes of power:

- (a) Firm power, modified firm power, or a combination thereof on a contract demand basis.
- (b) Firm power on a computed demand basis.
- (c) Interruptible power.

Section 2. RATE:

Subject to other provisions of this schedule, the monthly rate for power shall be as follows:

- (a) Transmission system deliveries:

Firm	at \$1.55 per kw of billing demand
Modified firm	at 1.50 per kw of billing demand
Interruptible	at 1.45 per kw of billing demand

- (b) At-site deliveries:

Firm	at \$1.284 per kw of billing demand
Modified firm	at 1.243 per kw of billing demand
Interruptible	at 1.20 per kw of billing demand

Section 3. BILLING DEMAND FACTORS:

The factors to be used, as hereinafter provided, in determining the billing demand for power purchased under this schedule are as follows:

- (a) The contract demand.

- (b) The measured demand for the month adjusted for power factor.
- (c) The computed demand for the month, determined as provided in section 2.3 of the General Rate Schedule Provisions. Computed demand will be applicable only if the purchaser has firm resources other than power received from the Administrator, and if the contract between the purchaser and the Administrator provides for the purchase of firm power on a computed demand basis.
- (d) The highest computed demand, if applicable, during the preceding eleven months.
- (e) The highest measured demand, after adjustment for power factor, during the preceding eleven months.

Section 4. DETERMINATION OF BILLING DEMAND ON PURCHASES FOR RESALE OR CONSUMPTION BY PURCHASER:

The billing demand for the month for firm power shall be the highest of factors (a), (b), (c) if applicable, (d), and (e) of section 3 hereof.

The billing demand for the month for modified firm power shall be the highest of factors (a), (b), and (e) of section 3 hereof.

The billing demand for the month for interruptible power shall be factor (b) of section 3 hereof.

If more than one class of power is purchased, the measured demand for each class will be determined in the manner specified in the contract as provided in section 2.2 of the General Rate Schedule Provisions.

Section 5. COMBINATION PURCHASES:

Firm power may be purchased on a contract or computed demand basis under this schedule in combination with firm power or firm capacity purchased on a contract demand basis under Schedule F-5. When purchases are so combined:

- (a) If computed demand is not a billing factor, the contract demand for firm power, or firm capacity, or both, purchased under Schedule F-5 shall be deducted from the largest sum of the 60-

minute integrated demands for purchases under the C-5 and F-5 schedules for the month; the remainder shall be used in determining the billing demand for such month under this schedule.

- (b) If computed demand is a billing factor, (1) the contract demand for firm power, firm capacity, or both, purchased under Schedule F-5 shall be deducted from the total measured demand and from the largest actual 60-minute integrated system demand of the purchaser for the month, and (2) the specified amount of firm energy purchased under Schedule F-5 shall be deducted from the actual average energy load of the purchaser for the month; the remainders shall be used in determining the billing demand for such month under this schedule.

The billing demand for the month for the firm power purchased hereunder shall be the highest of factors (a), (b), (c) if applicable, (d), and (e) of section 3 hereof.

Section 6. MODIFIED FIRM POWER:

Modified firm power may be purchased under this schedule in accordance with the provisions of section 1.2 of the General Rate Schedule Provisions.

Section 7. INTERRUPTIBLE POWER:

Interruptible power may be purchased under this schedule in accordance with the provisions of section 1.4 of the General Rate Schedule Provisions.

Section 8. AT-SITE POWER:

At-site power purchased for consumption by the purchaser shall be used within fifteen miles of the power plant. At least 90% of any at-site power purchased for resale shall be used within fifteen miles of the power plant.

At-site power will be made available at a Federal hydroelectric plant or at a point adjacent thereto, and at a voltage, all as designated by the Administrator. If deliveries are made from an interconnection with the Federal transmission system other than such adjacent point, the purchaser shall, in addition to the charge for power under this schedule, pay an amount adequate to cover the annual cost of the

facilities which would have been required to deliver such power at the generator bus at the hydroelectric plant, or at the adjacent point and voltage designated by the Administrator.

The total amount of at-site firm power sold from any hydro plant shall not exceed the amount of such power determined by the Administrator to be available at such plant.

Section 9. POWER FACTOR ADJUSTMENT:

Except as hereafter provided, the adjustment for power factor wherever specified in this rate schedule shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 0.85 lagging.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured demand for the month by 1% for each 1% or major fraction thereof by which the average power factor is less than 0.85 lagging or 0.95 leading, whichever results in the larger adjustment.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than 0.85 lagging or 0.95 leading would in any particular case be beneficial to the Government. Unless specifically otherwise agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the purchaser at such point of delivery or for such system is below 0.75 lagging or 0.75 leading.

Section 10. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act as amended, and to the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE E-5 WHOLESALE FIRM POWER RATE
(Effective December 20, 1969)

Section 1. AVAILABILITY:

This schedule is available for the purchase of firm and interruptible power for resale, of firm power for irrigation or drainage pumping use by the purchaser, and incidental use by the purchaser for other purposes in either case.

Section 2. RATE:

Subject to other provisions of this schedule, the monthly rates shall be as follows:

Demand Charge: 95¢ per kilowatt of billing demand.

Energy Charge: 1.25 mills per kilowatt-hour.

Section 3. BILLING DEMAND:

The billing demand shall be the higher of the following demands:

- (a) The measured demand for the month, adjusted for power factor.
- (b) 50% of the highest measured demand, after adjustment for power factor, during the preceding eleven months. This subsection (b) shall not apply to purchasers who use the power purchased hereunder solely for irrigation or drainage pumping for agricultural production and uses incidental thereto, and who do not resell any of the power so purchased.

Section 4. LIMITATION:

- (a) The amount payable in any month shall not be less than 90% of the billing which would result from application of the charges and provisions in this schedule to the entire firm power demand and energy requirements of the separate system to which the billing applies. The provisions of this subsection shall not

apply to any system of the purchaser where the total power requirements of such system are used solely for irrigation or drainage pumping for agricultural production and uses incidental thereto.

(b) In determining the monthly billing under this section, the purchaser's "entire firm power demand and energy requirements" shall not include that part of the purchaser's system requirements supplied with firm power obtained from the Administrator separately under any exchange agreement, or obtained under any assignment or allocation agreement which the Administrator has approved or to which he is a party.

(c) The 90% specified in this section shall be modified by the Administrator during any period that he is unable to supply the entire firm power requirements of such separate system.

Section 5. SYSTEM DEVELOPMENTAL DISCOUNT:

A predetermined discount will, if applicable, be applied each month of a calendar year to the charges for power purchased under this rate schedule. The amount of such discount will depend on the ratio of the total annual energy requirements of the purchaser's electric operations during the preceding calendar year to the average of the purchaser's depreciated investment in electric plant in service (excluding generating plant) at the end of each month during such year. The discount shall be:

5% if such ratio is less than 15 kilowatt-hours per dollar of net investment, or

2% if such ratio is 15 or more, but less than 25 kilowatt-hours per dollar of net investment.

No discount if such ratio is 25 kilowatt-hours or more per dollar of net investment.

Section 6. IRRIGATION AND DRAINAGE PUMPING PROVISIONS:

(a) A discount of six-tenths mill (\$0.0006) per kilowatt-hour will be applied to energy used by the purchaser or resold to customers

of the purchaser for irrigation or drainage pumping for agricultural production and uses incidental thereto. The amount of such energy shall be increased by 10% for losses before the discount is applied provided, however, that such increased amount of energy shall not exceed total energy supplied by the Administrator to the purchaser's system. To qualify for the discount, the purchaser shall comply with the following provisions:

- (1) Any energy on which the discount is claimed shall be metered separately by the purchaser if resold and, if practicable, metered separately, if used by the purchaser. If metering of such energy used by the purchaser is not practicable, the amount shall be determined in a manner satisfactory to the Administrator.
 - (2) The purchaser shall report the number of irrigation or drainage pumping kilowatt-hours delivered to each of its customers and used in its own operations, and such other pertinent data as the Administrator may reasonably request. Reports of such kilowatt-hours may be supplied from time to time during the irrigation or drainage pumping season, but the last report covering deliveries for resale shall be supplied within ten days after the purchaser makes the final billing to his customers for such season. The discount will be applied to the next power bill following receipt of each report.
- (b) The portion of the purchaser's measured demand in any billing month attributable to energy to which the discount is applied shall, if determined in a manner satisfactory to the Administrator, and if reported by the purchaser within 10 days after the end of such month, be excluded in determining the billing demand stated in section 3(b) for such month; provided that the load factor determined from the remaining demand and the remaining kilowatt-hours used in such billing month shall not be greater than 70%.

Section 7. INTERRUPTIBLE POWER:

Interruptible power for resale may be purchased under this schedule in accordance with the provisions of section 1.4 of the General Rate Schedule Provisions.

The billing demand for the month for interruptible power shall be the measured demand adjusted for average power factor. The demand charge specified in section 2 hereof will be reduced by 10 cents per month per kilowatt of billing demand.

Section 8. POWER FACTOR ADJUSTMENT:

Except as hereafter provided, the adjustment for power factor shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 0.95 lagging.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured demand for the month by 1% for each 1% or major fraction thereof by which the average power factor is less than 0.95 lagging or 0.95 leading, whichever is lower.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than 0.95 lagging or leading would in any particular case be beneficial to the Government. Unless otherwise specifically agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the purchaser at such point of delivery or for such system is below 0.75 lagging or 0.75 leading.

Section 9. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act as amended and the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE F-5 WHOLESALE FIRM POWER RATE--OPTIONAL
(Effective December 20, 1969)

Section 1. AVAILABILITY:

This schedule is available for the purchase of the following classes of power:

- (a) Firm power on a computed or contract demand basis.
- (b) Firm power, firm capacity, or both, on a contract demand basis in combination with the purchase of firm power under Schedule C-5.
- (c) Firm capacity.
- (d) Interruptible power.

Section 2. RATE:

Subject to other provisions of this schedule, the monthly rate for power shall be as follows:

Demand Charge:

\$0.75 per kilowatt of billing demand.

Energy Charge:

First 300 kilowatt-hours per kilowatt of billing demand at 2.5 mills per kilowatt-hour,

All additional kilowatt-hours associated with the billing demand at 1.25 mills per kilowatt-hour.

Section 3. BILLING DEMAND AND BILLING ENERGY:

- (a) The billing demand shall be the highest of the following demands:

- (1) The contract demand, if specified in the contract.
 - (2) The measured demand for the month adjusted for power factor.
 - (3) The computed demand for the month, determined as provided in section 2.3 of the General Rate Schedule Provisions. Computed demand will be applicable only if the purchaser has firm resources other than power received from the Administrator, and if the contract provides for purchase of firm power on a computed demand basis.
 - (4) 70% of the highest computed demand, if applicable, during the preceding eleven months.
 - (5) 70% of the highest measured demand, after adjustment for power factor, during the preceding eleven months.
- (b) If power is purchased on a contract demand basis for resale, the energy billed under this schedule shall be the amount specified in the contract.

Section 4. FIRM CAPACITY:

Firm capacity may be purchased under this schedule on a contract demand basis for supply during a contract year of 12 months as specified in the contract, or during a contract season of May 1 through September 30. Only billing demand factors (a)(1) and (a)(2) of section 3 will be applicable.

The charge for firm capacity shall be as follows:

(a) Contract year service:

\$9.00 per kilowatt per year of the larger of the contract demand or measured demand for the contract year. Interim bills will be rendered monthly at the rate of \$0.75 per kilowatt of billing demand.

(b) Contract season service:

\$5.00 per kilowatt per season of the larger of the contract demand or measured demand for the contract season. Interim bills will be rendered monthly at the rate of \$1.00 per kilowatt

of billing demand starting with deliveries for May of each contract season.

If the Administrator restricts any demand in excess of the contract demand for the balance of a contract year or season, the annual charge shall be reduced by the kilowatt-months of restriction multiplied by the interim billing rate per kilowatt.

Contracts for the purchase of firm capacity shall include provisions for the advance delivery or for replacement by the purchaser of energy accompanying the delivery of such capacity.

Section 5. COMBINATION FIRM POWER PURCHASES:

Firm power, firm capacity, or both, may be purchased under this schedule on a contract basis in combination with the purchase of firm power on a contract or computed demand basis under Schedule C-5. Charges for purchases under this schedule shall be for the contracted amounts of firm power or capacity.

Section 6. INTERRUPTIBLE POWER:

Interruptible power may be purchased under this schedule in accordance with the provisions of section 1.4 of the General Rate Schedule Provisions. The billing demand for the month shall be factor (a)(2) of section 3 hereof.

Section 7. IRRIGATION AND DRAINAGE PUMPING PROVISIONS:

A monthly discount of six-tenths mill (\$0.0006) per kilowatt-hour will be applied to energy resold to customers of the purchaser for irrigation and drainage pumping for agricultural production and uses incidental thereto. The amount of such monthly energy shall be increased by 10% for losses and multiplied by the ratio that monthly energy purchased under this schedule bears to total monthly energy requirements for the purchaser's system.

Any energy on which the discount is claimed shall be metered separately by the purchaser. The purchaser shall report such energy for each customer within 10 days after the close of the monthly billing period, and such other pertinent data as the Administrator

may reasonably request. Purchasers may supply such data on other than a monthly basis if the data correspond with the purchaser's regular billing periods for billing such customers, and the assignable monthly energy on which the discount will be applied will be determined in a manner satisfactory to the Administrator.

The respective computed and measured demands used in determining the billing demand stated in section 3(a)(4) and 3(a)(5) shall exclude an amount equal to the demand attributable to energy resold for irrigation and drainage pumping use as specified above multiplied by the same ratio used in determining the energy subject to discount during such month. Such attributable demand shall be determined in a manner satisfactory to the Administrator and reported within 10 days after the close of the monthly billing period.

The provisions of this section do not apply if firm power is purchased under this schedule in combination with purchase of firm power under Schedule C-5.

Section 8. POWER FACTOR ADJUSTMENT:

Except as hereafter provided, the adjustment for power factor wherever specified in this rate schedule shall be made by increasing the measured demand for each month by 1% for each 1% or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 0.85 lagging.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured demand for the month by 1% for each 1% or major fraction thereof by which the average power factor is less than 0.85 lagging or 0.95 leading, whichever results in the larger adjustment.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than 0.85 lagging or 0.95 leading would in any particular case be beneficial to the Government. Unless otherwise specifically agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of

power delivered to the purchaser at such point of delivery or for such system is below 0.75 lagging or 0.75 leading.

Section 9. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act as amended and the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE R-2 FIRM POWER FOR RAILROAD USE
(Effective December 20, 1969)

Section 1. AVAILABILITY:

This schedule applies to at-site and transmission system firm power used by railroads primarily for traction purposes, delivered to railroads or to purchasers for resale to railroads. The points of delivery shall be so located that the capacity required for the estimated load at each point of delivery shall be not less than 7,500 kva, unless in any particular case the Administrator determines that it would be advantageous to the Government to supply a lower capacity.

Section 2. RATE:

Energy shall be sold under this schedule at 4.25 mills per kilowatt-hour of net energy supplied adjusted for power factor as set forth below. Such net energy before adjustment for power factor will be determined as the aggregate number of kilowatt-hours delivered to the railroad or to the purchaser's system under this schedule at all points of delivery less the number of kilowatt-hours resulting from regenerative braking received by the Government at such points of delivery. The energy flowing in both directions will be metered separately as of each point of delivery.

Section 3. MINIMUM CHARGE:

The net minimum charge under this schedule shall be \$0.50 per month times the aggregate kva capacity of all the points of delivery.

Section 4. POWER FACTOR ADJUSTMENT:

Except as hereafter provided, the net energy before adjustment for power factor will be increased 1% for each 1% or major fraction thereof by which the average lagging power factor of electric energy supplied during such month is less than 0.95 lagging.

The Administrator may, if he considers it desirable, determine the average leading power factor. If the leading power factor as well as lagging power factor is determined, the adjustment for power factor

shall be made by increasing the net energy for the month by 1% for each 1% or major fraction thereof by which the average power factor is less than 0.95 lagging or 0.95 leading, whichever is lower.

The adjustment may be waived in whole or in part to the extent that the Administrator determines that a power factor of less than 0.95 lagging or leading would in any particular case be beneficial to the Government. Unless specifically otherwise agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the purchaser at such point of delivery or for such system is below 0.75 lagging or 0.75 leading.

Section 5. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act as amended, and to the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE H-4 WHOLESALE ENERGY RATE
(Effective December 20, 1969)

Section 1. AVAILABILITY:

This schedule is available for purchase of nonfirm energy exclusive of excess energy made available under Schedule S-1 and interruptible power.

This schedule is also available for energy delivered (1) for emergency use under conditions set forth in Section 6.1 of General Rate Schedule Provisions, and (2) for experimental, research, and testing purposes under conditions set forth in section 5.1 of General Rate Schedule Provisions.

Section 2. DELIVERY:

The Administrator shall determine whether and when energy will be delivered under this rate schedule, and the amount thereof.

Section 3. RATE:

2.5 mills per kilowatt-hour.

Section 4. GENERAL PROVISIONS:

Sales of energy under this schedule shall be subject to the provisions of the Bonneville Project Act as amended and the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE S-1 WHOLESALE EXCESS ENERGY RATE
(Effective December 20, 1969)

Section 1. AVAILABILITY:

This schedule is available for the purchase, both within and outside the Pacific Northwest, of such amounts of nonfirm energy as the Administrator determines he would have available for sale outside the Pacific Northwest in accordance with Public Law 88-552 assuming, only for the purpose of making such determination, that there is no market for such energy in the Pacific Northwest under this schedule. After making such determination, the Administrator will supply energy under this schedule, to the extent available, to meet the energy requirements of any Pacific Northwest customer as that term is defined in Public Law 88-552 before delivering any such energy outside the Pacific Northwest.

This schedule is not available at any time for the purchase of energy which the Administrator has a firm obligation to supply.

Section 2. DELIVERY:

Delivery of energy under this schedule is not assured. The Administrator shall determine whether and when such energy will be delivered and the amount thereof.

Section 3. RATE:

2.0 mills per kilowatt-hour.

Section 4. GENERAL PROVISIONS:

Sales of energy under this schedule shall be subject to the provisions of the Bonneville Project Act as amended and the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

GENERAL RATE SCHEDULE PROVISIONS
(Effective December 20, 1969)

1.1 FIRM POWER: Firm power is power which the Administrator will make continuously available to a purchaser to meet its load requirements except when restricted because the operation of generating or transmission facilities used by the Administrator to serve such purchaser is suspended, interrupted, interfered with, or curtailed as the result of the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract. Such restriction of firm power shall not be made until modified firm power has been restricted in accordance with section 1.2.

1.2 MODIFIED FIRM POWER: Modified firm power is power which the Administrator will make continuously available to a purchaser on a contract demand basis subject to:

- (a) the restriction applicable to firm power, and
- (b) the following:

When a restriction is made necessary because the operation of generating or transmission facilities used by the Administrator to serve such purchaser and one or more firm power purchasers is suspended, interrupted, interfered with, or curtailed as a result of the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract, the Administrator shall restrict such purchaser's contract demand for modified firm power to the extent necessary to prevent, if possible, or minimize restriction of any firm power, provided, however, that (1) such restriction of modified firm power shall not exceed at any time 25% of the contract demand therefor and (2) the accumulation of such restrictions of modified firm power during any calendar year, expressed in kilowatt-hours, shall not exceed 500 times the contract demand therefor.

1.3 FIRM CAPACITY: Firm capacity is capacity which the Administrator assures will be available to a purchaser on a contract

demand basis except when operation of the Government's facilities used to serve the purchaser is suspended, interrupted, interfered with, or curtailed as made necessary by the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract.

1.4 INTERRUPTIBLE POWER: Interruptible power is nonfirm power which the Administrator may agree to make available under the applicable rate schedules upon the purchaser's request prior to delivery, subject to the following conditions:

- (a) The Administrator may curtail delivery of interruptible power, in whole or in part, at any time. The Administrator will give as much notice of curtailment as possible.
- (b) The purchaser may reduce the purchase of interruptible power, in whole or in part, at the end of any billing month. By prior agreement with the Administrator, the purchaser may increase or reduce the purchase of interruptible power during a billing month.
- (c) If the Administrator curtails or agrees at the request of the purchaser either to curtail or to increase deliveries of interruptible power during any month:
 - (1) The specified rate per kilowatt of billing demand shall be prorated according to the ratio that the time in each portion of the month during which the same stipulations regarding deliveries were continuously in effect bears to the total time in the month, and
 - (2) The billing demand for interruptible power for each portion of the month shall be the measured demand during such portion of the month adjusted for the power factor for the entire month.
- (d) If interruptible power is purchased for resale, the contract for purchase of such power shall provide for the separation of the demand and energy components thereof from any other class of power which may be delivered through the same point of delivery, and for the separate billing therefor.

2.1 CONTRACT DEMAND: The contract demand shall be the number of kilowatts that the purchaser agrees to purchase and the Adminis-

trator agrees to make available. The Administrator may make deliveries at a rate in excess of the contract demand at the request of the purchaser, but shall not be obligated to continue such excess deliveries.

2.2 MEASURED DEMAND: Except where deliveries are scheduled as hereinafter provided, the measured demand in kilowatts shall be the largest of the 60-minute clock-hour integrated demands at which electric energy is delivered to a purchaser at a point of delivery during any billing period. Such largest 60-minute integrated demand shall be determined from measurements made as specified in the contract, or estimated by the Administrator when metering or other data are not available for such purpose. The Administrator, in determining the measured demand, will exclude any abnormal 60-minute integrated demands due to or resulting from (a) emergencies or breakdowns on, or maintenance of, the Government's facilities, and (b) emergencies on the purchaser's facilities, provided that such facilities have been adequately maintained and prudently operated as determined by the Administrator.

If the contract provides for delivery of more than one class of power to the purchaser at any point of delivery, the portion of each 60-minute integrated demand assigned to any class of power shall be determined as specified in the contract. The portion of the total measured demand so assigned shall constitute the measured demand for such class of power.

If the flow of electric energy to a purchaser's system through two or more points of delivery cannot be adequately controlled because such points are interconnected within the purchaser's system, or the purchaser's system is interconnected with one or more systems which are also interconnected directly or indirectly with the Government's system, the purchaser's measured demand for each class of power for such system for any billing period shall be the largest of the hourly amounts of such class of power which are scheduled for delivery to the purchaser.

2.3 COMPUTED DEMAND: The computed demand for each month is the larger of the amount of peak capacity or average energy required by a purchaser to serve its system load in addition to the assured peak and energy capability of its system, determined in accordance with the provisions of this section.

A. General Principles:

1. The assured capability of each of the purchaser's system shall be determined and applied separately.
2. As used in this section "year" shall mean the twelve-month period commencing July 1.
3. The critical period is that period, determined for the purchaser's system under adverse streamflow conditions adjusted for current water uses, assured storage operation and appropriate operating agreements, during which the purchaser would have the maximum requirement for peaking or energy after utilizing the firm capability of all resources available to its system in such a manner as to place the least requirement for capacity and energy on the Administrator.
4. Critical water conditions are those conditions of streamflow based on historical records, adjusted for current water uses, assured storage operation and appropriate operating agreements, for the year or years which would result in the minimum capabilities of the purchaser's firm resources during the critical period.
5. Prior to the beginning of each year the purchaser shall determine the assured capability of each of the purchaser's systems in terms of peaking and average energy for each month of each year or years which contain the critical period. The firm capability of all resources available to the purchaser's system shall be utilized in such a manner as to place the least requirement for capacity and energy on the Administrator. Such assured capability shall be effective after review and approval by the Administrator.
6. As used herein, the capability of a firm resource shall include only that portion of the total capability of such resource which the purchaser can deliver on a firm basis to its load. The capabilities of all generating facilities which are claimed as part of the purchaser's assured capability shall be determined by test or other substantiating data acceptable to the Administrator. The Administrator may require verification of the capabilities of any or all of the purchaser's generating facilities. Such verification will not be required more often than once

each year for operating plants, or more often than once each third year for thermal plants in cold standby status, if the Administrator determines that adequate annual preventive maintenance is performed and the plant is capable of operating at its claimed capability.

7. The purchaser shall at any time, if required by the Administrator, demonstrate the ability of its claimed hydro resources to develop the assured capability previously approved for the remainder of the critical period based on critical water conditions. If such ability cannot be demonstrated to the satisfaction of the Administrator, the purchaser's assured capability shall be reduced for the remainder of the critical period by the amount which cannot be developed, unless such deficiency is the result of operation required by firm obligations under contracts to which the Administrator is a party.
8. In determining assured capability, the aggregate capability of the purchaser's firm resources shall be appropriately reduced to provide adequate reserves.

B. Determination of Assured Capability:

The purchaser's assured peaking and energy capabilities shall be the respective sums of (1) the capabilities of its hydro generating plants based on its most critical water conditions, (2) the capabilities of its thermal generating plants based on the most adverse fuel or other conditions reasonably to be anticipated, and (3) the firm capabilities of other resources made available under contracts prior to the beginning of the year, after deduction of adequate reserves. Assured capabilities for each month shall be determined separately for the first ten days, the second ten days, and the remainder of such month if the purchaser does not have seasonal storage (subsequently defined), or for each month if the purchaser has seasonal storage. The capabilities of the purchaser's firm resources shall be determined as follows:

1. Hydroelectric generating facilities:

The capability of each of the purchaser's hydrogenerating plants shall be determined in terms of both peaking and average energy using critical water conditions. The average energy capability shall be that capability which would be available under the storage

operation necessary to produce the claimed peaking capability.

Seasonal storage shall mean storage sufficient to regulate all the purchaser's hydro resources in such a manner that when combined with the purchaser's thermal generating facilities, if any, and with firm capacity and energy available to the purchaser under contracts, a uniform computed energy demand for a period of one month or more would result.

A purchaser having seasonal storage shall, within 10 days after the end of each month in the critical period, notify the Administrator in writing of the assured energy capability to be applied tentatively to the preceding month; such notice shall also specify the purchaser's best estimate of its average system energy load for such month. If such notice is not submitted, or is submitted later than 10 days after the end of the month to which it applies, subject to the limitations stated herein, the assured energy capability determined for such month prior to the beginning of the year shall be applied to such month and may not be changed thereafter.

If notice has been submitted pursuant to the preceding paragraph, the purchaser shall, within 30 days after the end of the month, submit final specification of the assured energy capability to be applied to the preceding month; provided that the assured energy capability so specified shall not differ from the amount shown in the original notice by more than the amount by which the purchaser's actual average system energy load for such month differs from the estimate of that load shown in the original notice. If the assured energy capability for such month differs from that determined prior to the beginning of the year for such month, the purchaser, if required by the Administrator, shall demonstrate by a suitable regulation study based on critical water conditions that such change could actually be accomplished, and that the remaining balance of its total critical period assured energy capability could be developed without adversely affecting the firm capability of other purchasers' resources. The algebraic sum of all such changes in the purchaser's assured energy capability shall be zero at the end of the critical period or year, whichever is earlier. Appropriate adjustments in the assured peaking capability shall be made if required by any change in reservoir operation indicated by such revisions in the monthly distribution of critical period energy capability.

2. Thermal generating facilities:

The capability of each of the purchaser's thermal generating plants shall be determined in terms of both peaking and average energy. Such capabilities shall be based on the most adverse fuel or other conditions reasonably to be anticipated. The effect of limitations on fuel supply due to war or other extraordinary situations will be evaluated at the time of occurrence, and appropriate changes will be made in the monthly plant capabilities by the Administrator.

3. Other sources of power:

The assured capability of other resources available to the purchaser on a firm basis under contracts shall be determined prior to each year in terms of both peaking and average energy.

C. Determination of Computed Demand:

The purchaser's computed demand for each billing month shall be the greater of:

1. The largest amount during such month by which the purchaser's actual 60-minute system demand, excluding any loads otherwise provided for in the contract, exceeds its assured peaking capability for such month, or period within such month, or
2. The largest amount for such month, or period within such month, by which the purchaser's actual system average energy load, excluding the average energy loads otherwise provided for in the contract, exceeds its assured average energy capability.

The use of computed demand as one of the alternatives in determining billing demand is intended to assure that each purchaser who purchases power from the Administrator to supplement his own firm resources will purchase amounts of power substantially equivalent to the additional capacity and energy which the purchaser would otherwise have to provide on the basis of normal and prudent operations, viz. sufficient capacity and energy to carry the load through the most critical water or other conditions reasonably to be anticipated, with an adequate reserve.

Since the computed demand depends on the relationship of capability of resources to system requirements, the computed demand for

any month cannot be determined until after the end of the month. As each purchaser must estimate his own load, and is in the best position to follow its development from day to day, it will be his responsibility to request scheduling of firm power, including any increase over previously established demands, on the basis estimated by him to result in the most advantageous purchase of the power to be billed at the end of the month.

Each contract in which computed demand may be a factor in determining the billing demand shall have attached to it as an exhibit a sample calculation of the computed demand of the purchaser for the period having the highest computed demand during the twelve months immediately preceding the effective date of the contract.

2.4 RESTRICTED DEMAND: Deliveries of any class of capacity and energy in excess of the Administrator's contracted obligations to supply may be restricted by him at any time. Billing demands subsequent to the effective time of a restriction shall be determined as provided in the applicable rate schedule except that any higher billing demand established prior thereto which would otherwise be applicable shall be reduced to the amount of the restricted demand.

3.1 BILLING: Unless otherwise provided in the contract, power made available to a purchaser at more than one point of delivery shall be billed separately under the applicable rate schedule or schedules. The contract may provide for combined billing under specified conditions and terms when (a) delivery at more than one point is beneficial to the Government, or (b) the flow of power at the several points of delivery is reasonably beyond the control of the purchaser.

If deliveries at more than one point of delivery are billed on a combined basis for the convenience of the customer, a charge will be made for the diversity between the measured demands at the several points of delivery. The charge for the diversity shall be determined in a uniform manner and shall be specified in the contract.

4.1 APPLICATION OF RATES DURING INITIAL OPERATION PERIOD: For an initial operating period, not in excess of three months, beginning with the commencement of operation of a new industrial plant, a major addition to an existing plant, or reactivation of an existing plant or important part thereof the Administrator may agree (a) to bill for service to such new or reactivated plant facilities on the basis of the measured demand for each day, adjusted for

power factor, or (b) if such facilities are served by a distributor purchasing power therefor from the Administrator, to bill for that portion of such distributor's load which results from service to such facilities on the basis of the measured demand for each day, adjusted for power factor. Any rate schedule provisions regarding contract demand, billing demand, and minimum monthly charge which are inconsistent with this section shall be inoperative during such initial operating period.

The initial operating period and the special billing provisions may, on approval by the Administrator, be extended beyond the initial three months' period for such additional time as is justified by the developmental character of the operations.

5.1 ENERGY SUPPLIED FOR EXPERIMENTAL, RESEARCH, AND TESTING PURPOSES: In order to promote experimentation in new processing methods, in development of new types of load, and for research, the Administrator may sell, either for consumption by the purchaser or for resale, the electric energy used solely for such experimentation and research and uses incidental thereto in accordance with Wholesale Energy Schedule H-4.

Electric energy used solely for testing of new equipment or processes and uses incidental thereto also may be sold by the Administrator, either for consumption by the purchaser or for resale, in accordance with Wholesale Energy Schedule H-4.

6.1 ENERGY SUPPLIED FOR EMERGENCY USE: A purchaser taking firm power shall pay in accordance with Wholesale Energy Rate Schedule H-4 for any electric energy which has been supplied (a) for use during an emergency on the purchaser's system, or (b) following an emergency to replace energy secured from sources other than the Government during such emergency, except that mutual emergency assistance may be provided and settled under exchange agreements.

7.1 BILLING MONTH: Meters will normally be read and bills computed at intervals of one month. A month is defined as the interval between meter-reading dates which normally will be approximately 30 days. If service is for less or more than the normal billing month, the monthly charges stated in the applicable rate schedule will be appropriately adjusted.

8.1 PAYMENT OF BILLS: Bills for power shall be rendered monthly and shall be payable at the office of the Administrator. Failure to receive a bill shall not release the purchaser from liability for payment. Demand and energy billings under each rate schedule application shall be rounded to whole dollar amounts, by elimination of any amount of less than 50 cents and increasing any amount from 50 cents through 99 cents to the next higher dollar.

Bills not paid in full on or before the close of business of the thirtieth day after the date of the bill shall bear an additional charge of two percent (2%) of the amount unpaid. Thereafter a further charge of one-half of one percent (1/2%) of the initial amount remaining unpaid shall be added on the first day of each succeeding calendar month until the amount due is paid in full. The provisions of this paragraph shall not apply to bills rendered under contracts with other agencies of the United States.

Remittances received by mail will be accepted without assessment of the delayed payment charges referred to above provided the postmark indicates the payment was mailed on or before the thirtieth day after the date of the bill. If the thirtieth day after the date of the bill is a Sunday or other nonbusiness day of the purchaser, the next following business day shall be the last day on which payment may be made without addition of the delayed payment charge.

The Administrator may, whenever a power bill or a portion thereof remains unpaid subsequent to the thirtieth day after the date of the bill, and after giving thirty days' advance notice in writing, cancel the contract for service to the purchaser, but such cancellation shall not affect the purchaser's liability for any charges accrued prior thereto.

9.1 CHANGE IN APPLICABLE RATE SCHEDULE: A change in the applicable rate schedule or applicable combination of schedules may be requested by the purchaser and, upon approval by the Administrator, shall be made by an appropriate amendment of the contract or by a new contract. Any approved change in the applicable rate schedule shall be made effective at the beginning of the first billing month following receipt of such request or at such later date as is stipulated in the contract. The billing factors established prior to the change in the applicable rate schedule or schedules shall be applied, if relevant, in computing bills after the change in the same manner as if they had been established under the newly applicable rate schedule or combination of schedules.

10.1 APPROVAL OF RATES: Schedules of rates and charges, or modifications thereof, for electric energy sold by the Administrator shall become effective only after confirmation and approval by the Federal Power Commission.

11.1 AVERAGE POWER FACTOR: The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive kilovolt-ampere-hours})^2}}$$

The data used in the above formula shall be obtained from meters which are ratcheted to prevent reverse registration.

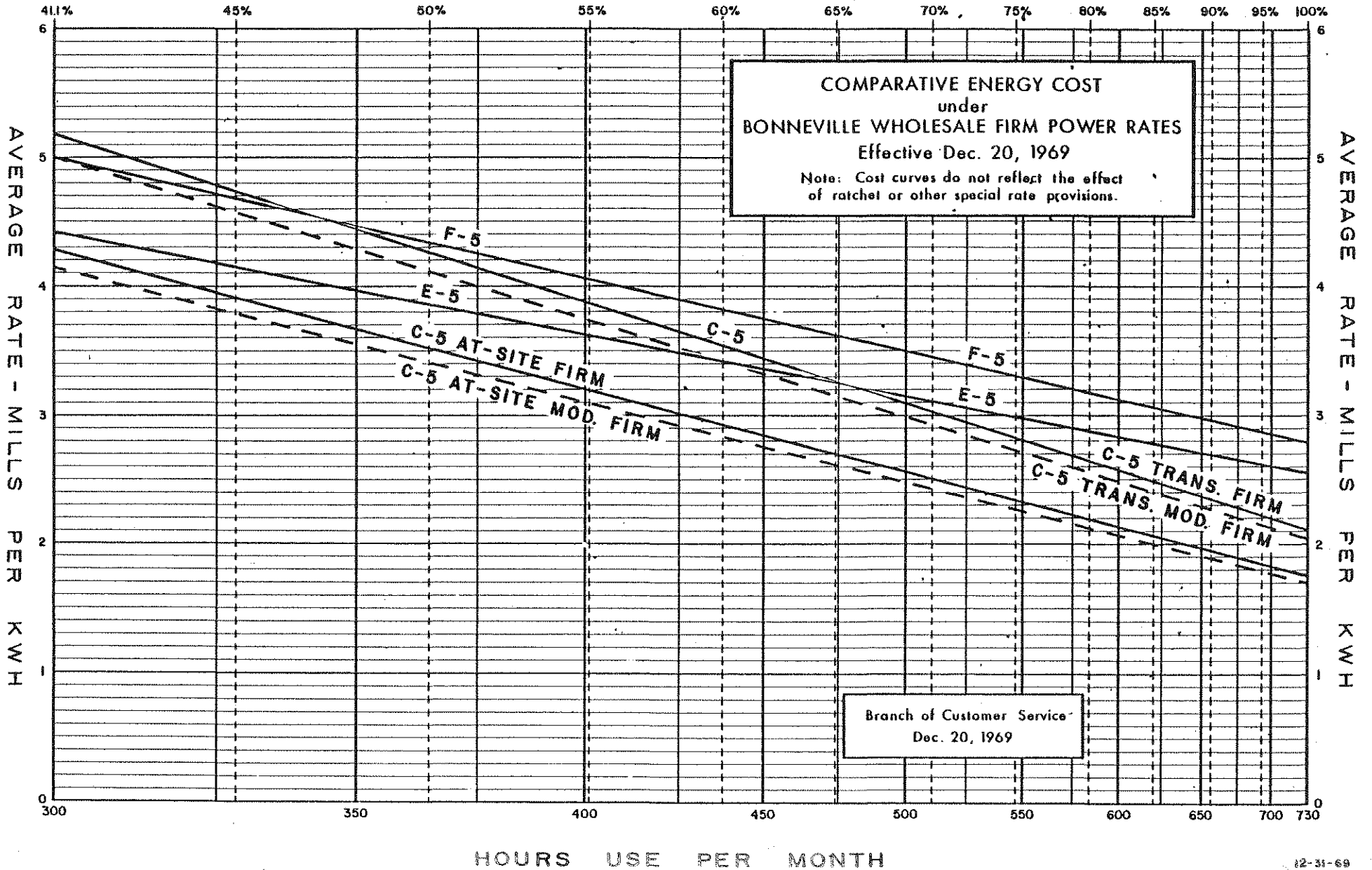
When deliveries to a purchaser at any point of delivery include more than one class of power or are under more than one rate schedule, and it is impracticable to separately meter the kilowatt-hours and reactive kilovolt-ampere-hours for each class, the average power factor of the total deliveries for the month will be used, where applicable, as the power factor for each of the separate classes of power and rate schedules.

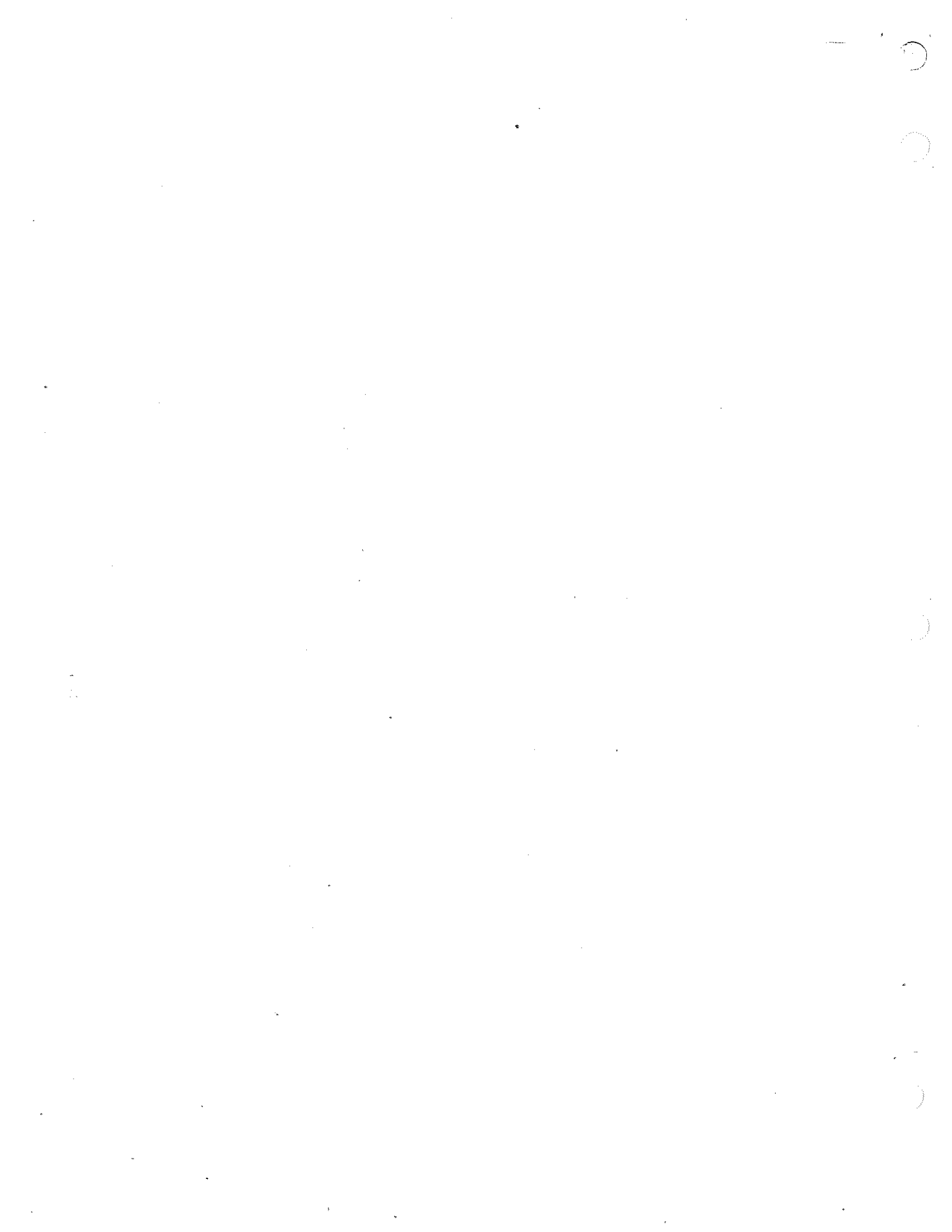
12.1 DETERMINATION OF ESTIMATED BILLING DATA: If the purchased amounts of capacity, energy, and the 60-minute demands for energy must be estimated from data other than metered or scheduled quantities, the Administrator and the purchaser will agree on billing data to be used in preparing the bill. If the parties cannot agree on the estimated billing quantities, a determination binding on both parties shall be made in accordance with the arbitration provisions of the contract.

13.1 TEMPORARY CURTAILMENT OF CONTRACT DEMAND: The Administrator may include in contracts with industrial purchasers, provisions for temporary curtailment of contract demand for firm and modified firm power by the purchaser. The reduction of charges for power so curtailed shall be applied in a uniform manner.

14.1 GENERAL PROVISIONS: The Wholesale Rate Schedules and General Rate Schedule Provisions of the Bonneville Power Administration effective December 20, 1969, supersede in their entirety the Administration's Wholesale Power Rate Schedules and General Rate Schedule Provisions effective December 20, 1965.

LOAD FACTOR





1974

WHOLESALE POWER RATE SCHEDULES
AND
GENERAL RATE SCHEDULE PROVISIONS

BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF INTERIOR

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The Wholesale Rate Schedules and General Rate Schedule Provisions of the Bonneville Power Administration effective December 20, 1974, supersede in their entirety the Administration's Wholesale Power Rate Schedules and General Rate Schedule Provisions effective December 20, 1969.

These Schedules and Provisions were approved by the Federal Power Commission in an Order issued December 19, 1974 (Docket No. E-8978).

**BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR**

**SCHEDULE EC-6
Wholesale Firm Power Rate**

(Effective December 20, 1974)

Section 1. AVAILABILITY:

This schedule is available for purchase of firm power for resale or for direct consumption by purchasers other than direct service industrial purchasers covered under rate Schedules IF-1 or MF-1. This schedule is available in combination with other rate schedules only for specific purposes as stated in a purchaser's power sales contract.

Section 2. RATE:

(a) The basic monthly charge for firm power shall be as follows:

(1) For the winter period, September 1 - March 31:

Demand charge: \$1.05 per kilowatt of billing demand
Energy charge: 1.9 mills per kilowatt-hour

(2) For the summer period, April 1 - August 31:

Demand charge: \$0.93 per kilowatt of billing demand
Energy charge: 1.0 mill per kilowatt-hour

(b) The following charges for transformation and other substation facilities, exclusive of such equipment for integrating generation into the Federal grid, (Substation) provided by the Government (Administrator), whether by ownership, lease or otherwise, shall be made in addition to the basic charges specified in section 2(a):

(1) Where the load side voltage is 100 kV to 150 kV at points where the Administrator provides a Substation at the delivery point, the monthly charge for such service shall be \$0.12 per kilowatt of billing demand.

(2) Where the load side voltage is less than 100 kV at points where the Administrator provides a Substation at the delivery point, the monthly charge for such service shall be \$0.20 per kilowatt of billing demand.

(3) Where the Administrator provides a Substation for use anywhere on the purchaser's system, the charges in section 2(b)(1) and 2(b)(2) shall apply to power flowing through the delivery point and shall be based upon the load side voltage at such Substation.

(4) If, in section 2(b)(1), 2(b)(2), or 2(b)(3), the customer provides either the transformer or substantially all of the substation facilities other than the transformer, but not both, the charge shall be one-half the charge specified therein.

(5) The charges in section 2(b) shall apply to delivery of power at points where the Administrator does not provide a Substation if the delivery point is 10 line miles or less from a Substation which is provided by the Administrator. The charges shall be determined as if the purchaser's delivery point were served at such Substation provided by the Administrator. These charges shall apply to the number of kilowatts of billing demand at the purchaser's delivery point.

(6) If the purchaser acquires the facilities for which a charge was made through application of section 2(b), the charge shall be discontinued and he shall not be subject to charges for delivery of power at such point based on re-application of section 2(b) during the term of this rate schedule.

(7) Charges initially determined for each delivery point shall not be altered during the term of this rate schedule as a result of changes the Administrator makes to reinforce his transmission system or to upgrade substation facilities provided by him unless such facilities were included in the Administrator's budget for Fiscal Year 1975 or a prior year.

(c) For at-site deliveries of firm power pursuant to section 8 of this rate schedule, the rate specified in section 2(a) shall not be subject to the additional charges specified in section 2(b) and, further, shall be reduced by \$0.10 per kilowatt month of billing demand.

Section 3. BILLING FACTORS:

The factors to be used in determining the billing for firm power purchased under this schedule are as follows:

(a) For purchasers designated by the Administrator to purchase on a computed demand basis because of such purchaser's potential ability to affect adversely the reservoir operations of the Federal Columbia River Power System; provided that when a purchaser operates two or more separate systems, only those systems designated by the Administrator will be covered by this section:

(1) The peak computed demand for the month.

(2) The average energy computed demand for the month.

(3) 60 percent of the highest peak computed demand during the previous 11 months.

(4) 60 percent of the highest average energy computed demand during the previous 11 months.

(5) The measured demand for the month, adjusted for power factor.

(6) The measured energy for the month.

(b) For purchasers not designated to purchase under section 3(a):

(1) The contract demand as specified in the contract.

(2) The measured demand for the month, adjusted for power factor.

(3) The measured energy for the month.

(c) For purchasers contractually limited to an allocation of energy or, if applicable, capacity and energy as determined by the Administrator pursuant to the terms of the purchaser's power sales contract:

(1) The allocated demand for the month, as specified in the contract.

(2) The measured demand for the month, adjusted for power factor.

(3) The allocated energy for the month, as specified in the contract.

(4) The measured energy for the month.

Section 4. DETERMINATION OF BILLING DEMAND AND BILLING ENERGY:

(a) For purchasers governed by section 3(a):

(1) The billing demand for the month shall be the largest of factors 3(a)(3), 3(a)(4), or 3(a)(5). Factor 3(a)(5) before adjustment for power factor shall be no greater than the larger of factors 3(a)(1) or 3(a)(2). At such time as the Administrator determines that the limitation in section 3(c) is necessary, the billing demand for the month shall be factor 3(c)(2). Billing demand factor 3(c)(2) before adjustment for power factor shall not exceed factor 3(c)(1).

(2) The billing factor for energy used during the month shall be factor 3(a)(6) except that at such time as the Administrator determines that the limitation

in section 3(c) is necessary, the billing factor for energy shall be factor 3(c)(4), provided, however, that factor 3(c)(4) cannot exceed factor 3(c)(3).

(b) For purchasers governed by section 3(b):

(1) The billing demand for the month shall be factor 3(b)(1) or 3(b)(2), as appropriate to the terms of the power sales contract. At such time as the Administrator determines that the limitation in section 3(c) is necessary, the billing demand for the month shall be factor 3(c)(2). Billing demand factor 3(c)(2) before adjustment for power factor shall not exceed factor 3(c)(1).

(2) The billing factor for energy used during the month shall be factor 3(b)(3) except that at such time as the Administrator determines that the limitation in section 3(c) is necessary, the billing factor for energy shall be factor 3(c)(4), provided, however, that factor 3(c)(4) cannot exceed factor 3(c)(3).

Section 5. MINIMUM BILL:

For purchasers governed by section 3(a), an annual minimum bill of \$10.80 per kilowatt of the highest peak computed demand or average energy computed demand for the operating year (July through June) shall apply. Such minimum bill determination shall be made on the June wholesale power bill and shall include as an offset against the minimum bill the sum of the monthly charges for firm power demand and energy under this rate schedule for that operating year before application of any charges for transformation to delivery voltage. The resulting difference, if positive, shall be added to the charges made on the June wholesale power bill.

Section 6. BILLING MODIFICATION:

The amount payable for firm power under this schedule for all firm power purchased for each of the calendar years 1975, 1976, 1977, 1978, and 1979, by customers previously on the E-5 rate schedule and who qualified under the System Developmental Discount and Irrigation and/or Drainage Pumping Provisions sections, shall be adjusted as follows:

(a) Based on application of rate schedule E-5, monthly charges shall be determined for each customer covered by this section for calendar year 1973 after adjustment for irrigation and/or developmental discounts applicable to such calendar year.

(b) Monthly amounts of irrigation and/or developmental discounts shall also be determined.

(c) A calculation shall be made for each customer for each month in calendar year 1973 based on application of the rates specified in section 2 of this rate

schedule to the billing demand and energy determination made in accordance with section 4 of this rate schedule.

(d) The sum of the monthly charges determined in section 6(a) multiplied by 1.27 shall be subtracted from the sum of the monthly charges determined in section 6(c). If this difference is negative, no modification will be made to the customer's bill.

(e) The lesser of the difference calculated in section 6(d), if positive, and the sum of the monthly amounts of irrigation and developmental discounts calculated in section 6(b) multiplied by the appropriate factor below will be the amount credited to the customer's June wholesale power bill:

<u>Calendar Year</u>	<u>Billing Modification Factor</u>
1975	1.00
1976	0.85
1977	0.65
1978	0.45
1979	0.25

Section 7. UNAUTHORIZED INCREASE (Overrun):

Any amount by which any 60-minute clock-hour integrated demand in any month, or a scheduled demand, exceeds the contract demand effective at that time for power under this rate schedule may be considered as an overrun.

When the Administrator is unable, under the terms of his power sales contract, to supply a purchaser with nonfirm energy, the amount by which any such integrated demand during such period exceeds the sum of the contract demand and any applicable scheduled, measured, or contract demands for power which the purchaser acquires from sources other than the Administrator shall be considered as an overrun.

The charge for each overrun shall be \$0.10 per kilowatt-hour. Each integrated demand so overrunning the sum of the demands herein described shall be considered separately.

Section 8. AT-SITE POWER:

At-site power purchased for consumption by the purchaser shall be used within 15 miles of the powerplant. At least 90 percent of any at-site power purchased for

resale shall be used within 15 miles of the powerplant.

At-site firm power will be made available at a Federal hydroelectric generating plant or at a point adjacent thereto, and at a voltage, all as designated by the Administrator. If deliveries are made from an interconnection with the Federal Columbia River Power System other than at one of such designated points, the purchaser shall pay an amount adequate to cover the annual cost of the facilities which would have been required to deliver such power to such point from either the generator bus at the generating plant, or from the adjacent point as designated by the Administrator. This charge shall be in addition to the charge determined by application of section 2 of the rate schedule. The total amount of at-site firm power sold from any plant shall not exceed the amount of such power determined by the Administrator to be available at such plant.

Section 9. POWER FACTOR ADJUSTMENT:

Except as hereinafter provided, the adjustment for power factor wherever specified in this rate schedule shall be made by increasing the measured demand for each month by 1 percent for each 1 percent or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 95 percent.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured demand for the month by 1 percent for each 1 percent or major fraction thereof by which the average lagging or the average leading power factor is less than 95 percent, whichever results in the larger adjustment.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than 95 percent lagging or 95 percent leading would in any particular case be beneficial to the Government. Unless specifically otherwise agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the purchaser at such point of delivery or for such system is below 75 percent lagging or 75 percent leading.

Wherever the figure "95 percent" appears in this section and the purchaser's previous wholesale power sales contract with the Administrator contained an "85 percent" power factor provision, the "95 percent" provision contained herein shall not be applicable until July 1, 1978. There shall be substituted the following interim provisions for the periods shown:

December 20, 1974, through June 30, 1977	"85 percent"
July 1, 1977, through June 30, 1978	"90 percent"

Section 10. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act, as amended, and to the applicable General Rate Schedule Provisions.

**BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR**

**SCHEDULE EC-7
Reserve Power Rate**

(Effective December 20, 1974)

Section 1. AVAILABILITY:

This schedule is available for purchase of:

(a) Firm power to meet the purchaser's unanticipated load growth as provided in the purchaser's power sales contracts.

(b) Firm power on a contract demand basis for a term of not less than 1 year nor greater than 5 years as determined by the Administrator.

(c) Power to serve the purchaser's firm power loads in circumstances where the Administrator does not have a power sales contract in force with the purchaser.

Section 2. RATE:

(a) The basic monthly charge for firm power shall be as follows:

(1) For the winter period, September 1 - March 31:

Demand charge: \$1.65 per kilowatt of billing demand
Energy charge: 10.0 mills per kilowatt-hour

(2) For the summer period, April 1 - August 31:

Demand charge: \$1.40 per kilowatt of billing demand
Energy charge: 5.0 mills per kilowatt-hour

(b) The following charges for transformation and other substation facilities, exclusive of such equipment for integrating generation into the Federal grid, (Substation) provided by the Government (Administrator), whether by ownership, lease or otherwise, shall be made in addition to the basic charges specified in section 2(a):

(1) Where the load side voltage is 100 kV to 150 kV at points where the Administrator provides a Substation at the delivery point, the monthly

charge for such service shall be \$0.12 per kilowatt of billing demand.

(2) Where the load side voltage is less than 100 kV at points where the Administrator provides a Substation at the delivery point, the monthly charge for such service shall be \$0.20 per kilowatt of billing demand.

(3) Where the Administrator provides a Substation for use anywhere on the purchaser's system, the charges in section 2(b)(1) and 2(b)(2) shall apply to power flowing through the delivery point and shall be based upon the load side voltage at such Substation.

(4) If, in section 2(b)(1), 2(b)(2), or 2(b)(3), the customer provides either the transformer or substantially all of the substation facilities other than the transformer, but not both, the charge shall be one-half the charge specified therein.

(5) The charges in section 2(b) shall apply to delivery of power at points where the Administrator does not provide a Substation if the delivery point is 10 line miles or less from a Substation which is provided by the Administrator. The charges shall be determined as if the purchaser's delivery point were served at such Substation provided by the Administrator. These charges shall apply to the number of kilowatts of billing demand at the purchaser's delivery point.

(6) If the purchaser acquires the facilities for which a charge was made through application of section 2(b), the charge shall be discontinued and he shall not be subject to charges for delivery of power at such point based on re-application of section 2(b) during the term of this rate schedule.

(7) Charges initially determined for each delivery point shall not be altered during the term of this rate schedule as a result of changes the Administrator makes to reinforce his transmission system or to upgrade substation facilities provided by him unless such facilities were included in the Administrator's budget for Fiscal Year 1975 or a prior year.

Section 3. BILLING FACTORS AND DETERMINATION OF BILLING DEMAND AND ENERGY:

(a) The factors to be used in determining the billing for firm power purchased under this schedule are as follows:

(1) The contract demand as specified in the contract, adjusted for power factor.

(2) The measured demand, adjusted for power factor.

(3) The amount adjusted for power factor by which the highest integrated

demand for the month exceeds the sum of the purchaser's allocation, if any, and other power available to the purchaser.

(4) The contract amount of energy for the month.

(5) The measured energy for the month.

(b) The billing demand and billing energy shall be determined as provided in the purchaser's power sales contract. Where the Administrator does not have a power sales contract in force with the purchaser the billing demand and billing energy shall be the measured demand, adjusted for power factor, and the measured energy.

Section 4. UNAUTHORIZED INCREASE (Overrun):

Any amount by which any 60-minute clock-hour integrated demand in any month, or a scheduled demand, exceeds the contract demand effective at that time for power under this rate schedule may be considered as an overrun. The charge for each overrun shall be \$0.10 per kilowatt-hour. Each integrated demand or scheduled demand so overrunning the sum of the demands herein described shall be considered separately.

Section 5. POWER FACTOR ADJUSTMENT:

Except as hereinafter provided, the adjustment for power factor wherever specified in this rate schedule shall be made by increasing the measured demand for each month by 1 percent for each 1 percent or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 95 percent.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured demand for the month by 1 percent for each 1 percent or major fraction thereof by which the average lagging or the average leading power factor is less than 95 percent, whichever results in the larger adjustment.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than 95 percent lagging or 95 percent leading would in any particular case be beneficial to the Government. Unless specifically otherwise agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the

purchaser at such point of delivery or for such system is below 75 percent lagging or 75 percent leading.

Section 6. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act, as amended, and to the applicable General Rate Schedule Provisions.

**BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR**

SCHEDULE F-6

Wholesale Firm Capacity Rate

(Effective December 20, 1974)

Section 1. AVAILABILITY:

This schedule is available for purchase of firm capacity without energy on a contract demand basis for supply during a contract year of 12 months, or during a contract season of June 1 through October 31.

Section 2. RATE:

(a) The basic charge for firm capacity shall be as follows:

(1) Contract year service:

\$12.00 per kilowatt per year of contract demand. Interim bills will be rendered monthly at the rate of \$1.00 per kilowatt of contract demand.

(2) Contract season service, June 1 - October 31:

\$6.50 per kilowatt per season of contract demand. Interim bills will be rendered monthly at the rate of \$1.30 per kilowatt of contract demand starting with deliveries for June of each contract season.

(b) The following charges for transformation and other substation facilities, exclusive of such equipment for integrating generation into the Federal grid, (Substation) provided by the Government (Administrator), whether by ownership, lease or otherwise, shall be made in addition to the basic charges specified in section 2(a):

(1) Where the load side voltage is 100 kV to 150 kV at points where the Administrator provides a Substation at the delivery point, the monthly charge for such service shall be \$0.12 per kilowatt of billing demand.

(2) Where the load side voltage is less than 100 kV at points where the Administrator provides a Substation at the delivery point, the monthly charge for such service shall be \$0.20 per kilowatt of billing demand.

(3) Where the Administrator provides a Substation for use anywhere on the purchaser's system, the charges in section 2(b)(1) and 2(b)(2) shall apply to power flowing through the delivery point and shall be based upon the load side voltage at such Substation.

(4) If, in section 2(b)(1), 2(b)(2), or 2(b)(3), the customer provides either the transformer or substantially all of the substation facilities other than the transformer, but not both, the charge shall be one-half the charge specified therein.

(5) The charges in section 2(b) shall apply to delivery of power at points where the Administrator does not provide a Substation if the delivery point is 10 line miles or less from a Substation which is provided by the Administrator. The charges shall be determined as if the purchaser's delivery point were served at such Substation provided by the Administrator. These charges shall apply to the number of kilowatts of billing demand at the purchaser's delivery point.

(6) If the purchaser acquires the facilities for which a charge was made through application of section 2(b), the charge shall be discontinued and he shall not be subject to charges for delivery of power at such point based on re-application of section 2(b) during the term of this rate schedule.

(7) Charges initially determined for each delivery point shall not be altered during the term of this rate schedule as a result of changes the Administrator makes to reinforce his transmission system or to upgrade substation facilities provided by him unless such facilities were included in the Administrator's budget for Fiscal Year 1975 or a prior year.

Section 3. PEAKING ENERGY REPLACEMENT:

Contracts for the purchase of firm capacity under this schedule shall include provisions for replacement by the purchaser of energy accompanying the delivery of such capacity.

Section 4. GENERAL PROVISIONS:

Sales of firm capacity under this schedule shall be subject to the provisions of the Bonneville Project Act, as amended, and to the applicable General Rate Schedule Provisions.

**BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR**

**SCHEDULE H-5
Wholesale Non-Firm Energy Rate**

(Effective December 20, 1974)

Section 1. AVAILABILITY:

This schedule is available for purchase of non-firm energy both within and outside the Pacific Northwest. Amounts to be made available for sale outside the Pacific Northwest will be determined by the Administrator in accordance with Public Law 88-552.

This schedule is also available for energy delivered for emergency use under conditions set forth in section 5.1 of the General Rate Schedule Provisions.

This schedule is not available for the purchase of energy which the Administrator has a firm obligation to supply.

Section 2. RATE:

For the winter period, September 1 - March 31:

3.5 mills per kilowatt-hour

For the summer period, April 1 - August 31:

3.0 mills per kilowatt-hour

Section 3. DELIVERY:

The Administrator shall determine the availability of energy hereunder and the rate of delivery thereof.

Section 4. GENERAL PROVISIONS:

Sales of energy under this schedule shall be subject to the provisions of the Bonneville Project Act, as amended, and to the applicable General Rate Schedule Provisions.

**BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR**

**SCHEDULE J-1
Wholesale Firm Energy Rate**

(Effective December 20, 1974)

Section 1. AVAILABILITY:

This schedule is available for contract purchase of firm energy, to be delivered for the uses, in the amounts and during the period or periods specified in such contract.

Section 2. RATE:

4.0 mills per kilowatt-hour

Section 3. DELIVERY:

Delivery of energy under this rate schedule is assured during the contract period. However, the Administrator may interrupt the delivery of firm energy hereunder, in whole or in part, at any time that he determines that he is unable because of system operating conditions, including lack of capacity, to effect such delivery.

Section 4. POWER FACTOR ADJUSTMENT:

Except as hereinafter provided, the adjustment for power factor wherever specified in this rate schedule shall be made by increasing the measured energy for each month by 1 percent for each 1 percent or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 95 percent.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured energy for the month by 1 percent for each 1 percent or major fraction thereof by which the average leading or the average lagging power factor is less than 95 percent, whichever results in the larger adjustment.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than

95 percent lagging or 95 percent leading would in any particular case be beneficial to the Government. Unless specifically otherwise agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Government's system, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the purchaser at such point of delivery or for such system is below 75 percent lagging or 75 percent leading.

Section 5. GENERAL PROVISIONS:

Sales of energy under this schedule shall be subject to the provisions of the Bonneville Project Act, as amended, and to the applicable General Rate Schedule Provisions.

**BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR**

SCHEDULE IF-1

Wholesale Power Rate for Industrial Firm Power

(Effective December 20, 1974)

Section 1. AVAILABILITY:

This schedule is available for purchase of industrial firm power on a contract demand basis. This schedule is also available for purchase of an authorized increase of power on a contract demand basis.

Section 2: RATE:

The monthly rate for delivery of industrial firm power shall be as follows:

(a) For transmission system deliveries:

Demand charge: \$1.20 per kilowatt of billing demand
Energy charge: 1.525 mills per kilowatt-hour

(b) For at-site deliveries:

Demand charge: \$0.90 per kilowatt of billing demand
Energy charge: 1.525 mills per kilowatt-hour

Section 3. ADJUSTMENTS TO RATE:

The Administrator shall determine separately the annual availability of industrial firm power pursuant to section 1.4 and the availability of an authorized increase of power pursuant to section 1.5 of the General Rate Schedule Provisions. Based upon the annual availability of industrial firm power, the Administrator will credit the purchaser for that operating year from July 1 through June 30 an amount determined by multiplying the appropriate annual adjustment factor from the following table by one-twelfth the sum of the monthly billing demands in kilowatts for such operating year for industrial firm power prior to adjustment for power factor. Based upon the availability of an authorized increase of power, the Administrator will credit the purchaser for that operating year an amount determined by multiplying the appropriate adjustment factor in the following table by one-twelfth the sum of the monthly billing demands in kilowatts for such operating year for such authorized increase prior to adjustment for power factor.

Adjustment for the annual credits, if any, shall be made to the extent possible on the purchaser's June wholesale power bill. If the full credit cannot be effected on the June bill, the remaining credit will be given on subsequent bills. An appropriate adjustment will be made based on the availability calculated during the initial 6-month period of this rate schedule.

<u>Annual Availability in percent</u>		<u>Annual Adjustment Factor dollars per kilowatt</u>
	but less than	
95	100	2.00
90	95	4.90
85	90	6.60
80	85	7.70
75	80	8.30
70	75	8.60
under 70		9.00

Section 4. BILLING FACTORS AND DETERMINATION OF BILLING DEMAND AND ENERGY:

(a) The factors to be used in determining the monthly billing for demand and energy for each class of power purchased under this schedule are as follows:

- (1) The contract demand.
- (2) The curtailed demand.
- (3) The restricted demand.
- (4) The measured energy for the month.

(b) The billing demand for industrial firm power shall be the least of factors 4(a)(1), 4(a)(2), or 4(a)(3), after each such factor has been adjusted for power factor.

(c) The billing demand for an authorized increase of power shall be the least of factors 4(a)(1), 4(a)(2), or 4(a)(3), after each such factor has been adjusted for power factor.

(d) The billing energy for an unauthorized increase (overrun) is the sum of the hourly amounts obtained by subtracting from each 60-minute clock-hour integrated demand the sum of the following demands appropriate to each such hour:

- (1) the least of the contract, curtailed, or restricted demand for industrial firm power,
- (2) the least of the contract, curtailed, or restricted demand for an authorized increase of industrial firm power, and

(3) the sum of any other scheduled amounts which the Administrator has agreed to deliver to the purchaser.

(e) The billing energy for the month shall be factor 4(a)(4) less the amount, if any, determined in 4(d), and less any scheduled amounts which the Administrator has agreed to deliver to the purchaser.

Section 5. AT-SITE POWER:

At-site power purchased for consumption by the purchaser shall be used within 15 miles of the powerplant.

At-site industrial firm power will be made available at a Federal hydroelectric generating plant or at a point adjacent thereto, and at a voltage, all as designated by the Administrator. If deliveries are made from an interconnection with the Federal Columbia River Power System other than at one of such designated points, the purchaser shall pay an amount adequate to cover the annual cost of the facilities which would have been required to deliver such power to such point from either the generator bus at the generating plant, or from the adjacent point as designated by the Administrator. This charge shall be in addition to the charge determined by application of section 2. The total amount of at-site industrial firm power sold from any plant shall not exceed the amount of such power determined by the Administrator to be available at such plant.

Section 6. AUTHORIZED INCREASE:

Where the Administrator has made available an authorized increase pursuant to section 1.5 of the General Rate Schedule Provisions, the demand charge specified in section 2 shall apply to such authorized increase in the same manner but separate from the charge applying to industrial firm power. Adjustments pursuant to section 3 shall be separately determined for, and applied to, such authorized increase.

Section 7. UNAUTHORIZED INCREASE (Overrun):

Any amount by which any 60-minute clock-hour integrated demand in any month exceeds the sum of any applicable scheduled demands for power which the purchaser acquires through other contracts and any amounts of industrial firm power and authorized increase thereof which the Administrator has agreed to supply under this rate schedule shall be considered as an overrun. The charge for each such overrun shall be \$0.10 per kilowatt-hour. Each integrated demand so overrunning the sum of the demands herein described shall be considered separately.

Section 8. ADVANCE OF ENERGY:

In lieu of restrictions pursuant to the purchaser's power sales contract, the

Administrator may elect to advance energy to the purchaser under the terms and conditions included in such contract.

Section 9. POWER FACTOR ADJUSTMENT:

Except as hereinafter provided, the adjustment for power factor wherever specified in this rate schedule shall be made by increasing the appropriate billing demand factor in section 4(a) for each month by 1 percent for each 1 percent or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 95 percent.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured demand for the month by 1 percent for each 1 percent or major fraction thereof by which the average lagging or the average leading power factor is less than 95 percent, whichever results in the larger adjustment.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than 95 percent lagging or 95 percent leading would in any particular case be beneficial to the Government. Unless specifically otherwise agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Federal Columbia River Power System, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the purchaser at such point of delivery or for such system is below 75 percent lagging or 75 percent leading.

Wherever the figure "95 percent" appears in this section and the purchaser's previous wholesale power sales contract with the Administrator contained an "85 percent" power factor provision, the "95 percent" provision contained herein shall not be applicable until July 1, 1978. There shall be substituted the following interim provisions for the periods shown:

December 20, 1974, through June 30, 1977	"85 percent"
July 1, 1977, through June 30, 1978	"90 percent"

Section 10: GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act, as amended, and to the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

SCHEDULE MF-1
Wholesale Power Rate for Firm Power and
Modified Firm Power

(Effective December 20, 1974)

Section 1. AVAILABILITY:

This schedule is available for purchase of firm power or modified firm power on a contract demand basis for direct consumption by existing industrial customers until existing contracts expire. This schedule is also available for purchase of an authorized increase of power on a contract demand basis.

Section 2. RATE:

(a) The monthly rate for delivery of firm power and for an authorized increase of either firm power or modified firm power shall be as follows:

(1) For transmission system deliveries:

Demand charge: \$1.20 per kilowatt of billing demand
Energy charge: 1.525 mills per kilowatt-hour

(2) For at-site deliveries:

Demand charge: \$0.90 per kilowatt of billing demand
Energy charge: 1.525 mills per kilowatt-hour

(b) The monthly rate for delivery of modified firm power shall be as follows:

(1) For transmission system deliveries:

Demand charge: \$1.15 per kilowatt of billing demand
Energy charge: 1.525 mills per kilowatt-hour

(2) For at-site deliveries:

Demand charge: \$0.85 per kilowatt of billing demand
Energy charge: 1.525 mills per kilowatt-hour

Section 3. ADJUSTMENTS TO RATE:

The Administrator shall determine the annual availability of authorized increase power made available to the purchaser pursuant to section 1.5 of the General Rate Schedule Provisions. Based upon the availability of authorized increase power during the operating year from July 1 through June 30, the Administrator will credit the purchaser for that operating year an amount determined by multiplying the appropriate adjustment factor in the following table by one-twelfth the sum of the monthly demands in kilowatts for such operating year for authorized increase prior to adjustment for power factor. Adjustment for the annual credits, if any, shall be made to the extent possible on the purchaser's June wholesale power bill. If the full credit cannot be effected on the June bill, the remaining credit will be given on subsequent bills. An appropriate adjustment will be made based on the availability calculated during the initial 6-month period of this rate schedule.

<u>Annual Availability</u> <u>in percent</u>		<u>Annual Adjustment Factor</u> <u>dollars per kilowatt</u>
	but less than	
95	100	2.00
90	95	4.90
85	90	6.60
80	85	7.70
75	80	8.30
70	75	8.60
under 70		9.00

Section 4. BILLING FACTORS AND DETERMINATION OF BILLING DEMAND AND ENERGY:

(a) The factors to be used in determining the monthly billing for demand and energy for each class of power purchased under this schedule are as follows:

- (1) The contract demand.
- (2) The curtailed demand.
- (3) The restricted demand.
- (4) The measured energy for the month.

(b) The monthly billing demand for firm power or modified firm power shall be the lesser of factors 4(a)(1) or 4(a)(2), after each such factor has been adjusted for power factor.

(c) The billing demand for an authorized increase of power shall be the least of factors 4(a)(1), 4(a)(2), or 4(a)(3) after each such factor has been adjusted for power factor.

(d) The billing energy for an unauthorized increase (overrun) is the sum of the hourly amounts obtained by subtracting from each 60-minute clock-hour integrated demand the sum of the following demands appropriate to each such hour:

(1) the contract demand for firm power or modified firm power,

(2) the least of the contract, curtailed, or restricted demand for an authorized increase of firm power or modified firm power, and

(3) the sum of any other scheduled amounts which the Administrator has agreed to deliver to the purchaser.

(e) The billing energy for the month shall be factor 4(a)(4) less the amount, if any, determined in section 4(d), and less any scheduled amounts which the Administrator has agreed to deliver to the purchaser.

Section 5. AT-SITE POWER:

At-site power purchased for consumption by the purchaser shall be used within 15 miles of the powerplant.

At-site firm power or modified firm power will be made available at a Federal hydroelectric generating plant or at a point adjacent thereto, and at a voltage, all as designated by the Administrator. If deliveries are made from an interconnection with the Federal Columbia River Power System other than at one of such designated points, the purchaser shall pay an amount adequate to cover the annual cost of the facilities which would have been required to deliver such power to such point from either the generator bus at the generating plant, or from the adjacent point as designated by the Administrator. This charge shall be in addition to the charge determined by application of section 2. The total amount of at-site firm power or modified firm power sold from any plant shall not exceed the amount of such power determined by the Administrator to be available at such plant.

Section 6. AUTHORIZED INCREASE:

Where the Administrator has made available an authorized increase pursuant to section 1.5 of the General Rate Schedule Provisions, the demand charges specified in section 2(a) shall apply to such authorized increase separately from the charges applying to firm power or modified firm power. Adjustments pursuant to section 3 shall only be applied to such authorized increase.

Section 7. UNAUTHORIZED INCREASE (Overrun):

Any amount by which any 60-minute clock-hour integrated demand in any month exceeds the sum of any applicable scheduled demands for power which the purchaser acquires through other contracts and any amounts of firm power, modified firm power and authorized increase thereof which the Administrator has agreed to supply under this rate schedule shall be considered as an overrun. The charge for each such overrun shall be \$0.10 per kilowatt-hour. Each integrated demand so overrunning the sum of the demands herein described shall be considered separately.

Section 8. POWER FACTOR ADJUSTMENT:

Except as hereinafter provided, the adjustment for power factor wherever specified in this rate schedule shall be made by increasing the appropriate billing demand factor in section 4(a) for each month by 1 percent for each 1 percent or major fraction thereof by which the average lagging power factor at which energy is supplied during such month is less than 95 percent.

The Administrator may, if he considers it desirable, determine the average leading power factor. If leading power factor as well as lagging power factor is determined, the adjustment for power factor shall be made by increasing the measured demand for the month by 1 percent for each 1 percent or major fraction thereof by which the average lagging or the average leading power factor is less than 95 percent, whichever results in the larger adjustment.

The adjustment for power factor may be waived in whole or in part to the extent that the Administrator determines that an average power factor of less than 95 percent lagging or 95 percent leading would in any particular case be beneficial to the Government. Unless specifically otherwise agreed, the Administrator may, if necessary to maintain acceptable operating conditions on the Federal Columbia River Power System, curtail deliveries of power to the purchaser at a point of delivery or for a system at any time that the power factor for all classes of power delivered to the purchaser at such point of delivery or for such system is below 75 percent lagging or 75 percent leading.

Wherever the figure "95 percent" appears in this section and the purchaser's previous wholesale power sales contract with the Administrator contained an "85 percent" power factor provision, the "95 percent" provision contained herein shall not be applicable until July 1, 1978. There shall be substituted the following interim provisions for the periods shown:

December 20, 1974, through June 30, 1977
July 1, 1977, through June 30, 1978

"85 percent"
"90 percent"

Section 9. GENERAL PROVISIONS:

Sales of power under this schedule shall be subject to the provisions of the Bonneville Project Act, as amended, and to the applicable General Rate Schedule Provisions.

BONNEVILLE POWER ADMINISTRATION
UNITED STATES DEPARTMENT OF THE INTERIOR

GENERAL RATE SCHEDULE PROVISIONS

(Effective December 20, 1974)

1.1 FIRM POWER: Firm power is power which the Administrator will make continuously available to a purchaser to meet its load requirements except when restricted because the operation of generating or transmission facilities used by the Administrator to serve such purchaser is suspended, interrupted, interfered with, curtailed or restricted as the result of the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract. Such restriction of firm power shall not be made until industrial firm power has been restricted in accordance with section 1.4 and until modified firm power has been restricted in accordance with section 1.2.

1.2 MODIFIED FIRM POWER: Modified firm power is power which the Administrator will make continuously available to a purchaser on a contract demand basis subject to:

- a. the restriction applicable to firm power, and
- b. the following:

When a restriction is made necessary because the operation of generating or transmission facilities used by the Administrator to serve such purchaser and one or more firm power purchasers is suspended, interrupted, interfered with, curtailed or restricted as a result of the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract, the Administrator shall restrict such purchaser's contract demand for modified firm power to the extent necessary to prevent, if possible, or minimize restriction of any firm power, provided, however, that (1) such restriction of modified firm power shall not exceed at any time 25 percent of the contract demand therefor and (2) the accumulation of such restrictions of modified firm power during any calendar year, expressed in kilowatt-hours, shall not exceed 500 times the contract demand therefor. When possible, restrictions of modified firm power will be made ratably with restrictions of industrial firm power based on the proportion that the respective contract demands bear to one another. The extent of such restrictions shall be limited for modified firm power by this subsection and for industrial firm power by section 8 of the General Contract Provisions (Form IND-18) of the contract.

1.3 FIRM CAPACITY: Firm capacity is capacity which the Administrator assures will be available to a purchaser on a contract demand basis except when operation of generating or transmission facilities used by the Administrator to serve such purchaser is suspended, interrupted, interfered with, curtailed or restricted as the result of the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract.

1.4 INDUSTRIAL FIRM POWER: Industrial firm power is power which the Administrator will make continuously available to a purchaser on a contract demand basis subject to:

- a. the restriction applicable to firm power, and
- b. the following:

(1) The restrictions given in section 8, "Restriction of Deliveries," of the General Contract Provisions (Form IND-18) of the contract.

(2) When a restriction is made necessary because of the operation of generating or transmission facilities used by the Administrator to serve such purchaser and one or more firm power purchasers is suspended, interrupted, interfered with, curtailed or restricted as a result of the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract, the Administrator shall restrict such purchaser's contract demand for industrial firm power to the extent necessary to prevent, if possible, or minimize restriction of any firm power. When possible, restrictions of industrial firm power will be made ratably with restrictions of modified firm power based on the proportion that the respective contract demands bear to one another. The extent of such restrictions shall be limited for modified firm power by section 1.2(b) of the General Rate Schedule Provisions and for industrial firm power by section 8 of the General Contract Provisions (Form IND-18) of the contract.

1.5. AUTHORIZED INCREASE: An authorized increase is an amount of power in excess of the purchaser's contract demand for firm power, modified firm power or industrial firm power that the Administrator is able to make available to the purchaser upon his request. The purchaser shall make such request in writing stating the amount of increase requested, the purpose for which it will be used, and the period for which it is needed. Such request shall be made prior to the first of the calendar month beginning such specified period. The Administrator will then determine whether such increase can be made available, but he shall retain the right to restrict the delivery of such increase if he determines at any subsequent time that he can no longer make such increase available.

The purchaser may curtail an authorized increase, in whole or in part, at the end of any billing month within the period such authorized increase is to be made available.

1.6 FIRM ENERGY: Firm energy is energy which the Administrator assures will be available to a purchaser during the period or periods specified in the contract except during such hours as specified in the contract and when the operation of the Government's facilities used to serve the purchaser are suspended, interrupted, interfered with, curtailed or restricted as made necessary by the occurrence of any condition described in the Uncontrollable Forces or Continuity of Service sections of the General Contract Provisions of the contract.

2.1 CONTRACT DEMAND: The contract demand shall be the number of kilowatts that the purchaser agrees to purchase and the Administrator agrees to make available. The Administrator may make deliveries at a rate in excess of the contract demand at the request of the purchaser (authorized increase), but shall not be obligated to continue such excess deliveries.

2.2 MEASURED DEMAND: Except where deliveries are scheduled as hereinafter provided, the measured demand in kilowatts shall be the largest of the 60-minute clock-hour integrated demands at which electric energy is delivered to a purchaser at a point of delivery during any billing period. Such largest 60-minute integrated demand shall be determined from measurements made as specified in the contract, or as determined in section 3.2 herein when metering or other data are not available for such purpose. The Administrator, in determining the measured demand, will exclude any abnormal 60-minute integrated demands due to or resulting from (a) emergencies or breakdowns on, or maintenance of, the Federal Columbia River Power System facilities, and (b) emergencies on the purchaser's facilities, provided that such facilities have been adequately maintained and prudently operated as determined by the Administrator.

If the contract provides for delivery of more than one class of power to the purchaser at any point of delivery, the portion of each 60-minute integrated demand assigned to any class of power shall be determined as specified in the contract. The portion of the total measured demand so assigned shall constitute the measured demand for such class of power.

If the flow of electric energy to a purchaser's system through two or more points of delivery cannot be adequately controlled because such points are interconnected within the purchaser's system, or the purchaser's system is interconnected directly or indirectly with the Federal Columbia River Power System, the purchaser's measured demand for each class of power for such system for any billing period shall be the largest of the hourly amounts of such class of power which are scheduled for delivery to the purchaser.

2.3 PEAK COMPUTED DEMAND AND ENERGY COMPUTED DEMAND: The purchaser's peak computed demand for each billing month shall be the largest amount during such month by which the purchaser's 60-minute system demand exceeds its assured peaking capability.

The purchaser's average energy computed demand for each billing month shall be the largest amount during such month by which the purchaser's actual system average load exceeds its assured average energy capability.

A. General Principles:

1. The assured peaking and average energy capability of each of the purchaser's systems shall be determined and applied separately.
2. As used in this section "year" shall mean the twelve-month period commencing July 1.
3. The critical period is that period, determined for the purchaser's system under adverse streamflow conditions adjusted for current water uses, assured storage operation and appropriate operating agreements, during which the purchaser would have the maximum requirement for peaking or energy after utilizing the firm capability of all resources available to its system in such a manner as to place the least requirement for capacity and energy on the Administrator.
4. Critical water conditions are those conditions of streamflow based on historical records, adjusted for current water uses, assured storage operation and appropriate operation agreements, for the year or years which would result in the minimum capability of the purchaser's firm resources during the critical period.
5. Prior to the beginning of each year the purchaser shall determine the assured capability of each of the purchaser's systems in terms of peaking and average energy for each month of each year or years which contain the critical period. The firm capability of all resources available to the purchaser's system shall be utilized in such a manner as to place the least requirement for capacity and energy on the Administrator. Such assured capability shall be effective after review and approval by the Administrator.
6. The purchaser's assured energy capability shall be determined by shaping its firm resources to its firm load in a manner which places a uniform requirement on BPA within each year of the critical period with such requirement increasing each year not in excess of the purchaser's annual load growth.
7. As used herein, the capability of a firm resource shall include only that portion of the total capability of such resource which the purchaser can deliver on a firm basis to its load. The capabilities of all generating facilities which are claimed as part of the purchaser's assured capability shall be determined by test or other substantiating data acceptable to the Administrator. The Administrator may require verification of the capabilities of any or all of the purchaser's generating facilities. Such verification will

not be required more often than once each year for operating plants, or more often than once each third year for thermal plants in cold standby status, if the Administrator determines that adequate annual preventive maintenance is performed and the plant is capable of operating at its claimed capability.

8. The purchaser shall at any time, if required by the Administrator, demonstrate the ability of its claimed hydro resources to develop the assured capability previously approved for the remainder of the critical period based on critical water conditions. If such ability cannot be demonstrated to the satisfaction of the Administrator, the purchaser's assured capability shall be reduced for the remainder of the critical period by the amount which cannot be developed, unless such deficiency is the result of operation required by firm obligations under contracts to which the Administrator is a party.
9. In determining assured capability, the aggregate capability of the purchaser's firm resources shall be appropriately reduced to provide adequate reserves.

B. Determination of Assured Capability:

The purchaser's assured peaking and energy capabilities shall be the respective sums of (1) the capabilities of its hydro generating plants based on the most critical water conditions on the purchaser's system, (2) the capabilities of its thermal generating plants based on the most adverse fuel or other conditions reasonably to be anticipated, and (3) the firm capabilities of other resources made available under contracts prior to the beginning of the year, after deduction of adequate reserves. Assured capabilities shall be determined for each month if the purchaser has seasonal storage. The capabilities of the purchaser's firm resources shall be determined as follows:

1. Hydroelectric generating facilities:

The capability of each of the purchaser's hydrogenerating plants shall be determined in terms of both peaking and average energy using critical water conditions. The average energy capability shall be that capability which would be available under the storage operation necessary to produce the claimed peaking capability.

Seasonal storage shall mean storage sufficient to regulate all the purchaser's hydro resources in such a manner that when combined with the purchaser's thermal generating facilities, if any, and with firm capacity and energy available to the purchaser under contracts, a uniform computed energy demand for a period of one month or more would result.

A purchaser having seasonal storage shall, within 10 days after the end of

each month in the critical period, notify the Administrator in writing of the assured energy capability to be applied tentatively to the preceding month; such notice shall also specify the purchaser's best estimate of its average system energy load for such month. If such notice is not submitted, or is submitted later than 10 days after the end of the month to which it applies, subject to the limitations stated herein, the assured energy capability determined for such month prior to the beginning of the year shall be applied to such month and may not be changed thereafter.

If notice has been submitted pursuant to the preceding paragraph, the purchaser shall, within 30 days after the end of the month, submit final specification of the assured energy capability to be applied to the preceding month; provided that the assured energy capability so specified shall not differ from the amount shown in the original notice by more than the amount by which the purchaser's actual average system energy load for such month differs from the estimate of that load shown in the original notice. If the assured energy capability for such month differs from that determined prior to the beginning of the year for such month, the purchasers, if required by the Administrator, shall demonstrate by a suitable regulation study based on critical water conditions that such change could actually be accomplished, and that the remaining balance of its total critical period assured energy capability could be developed without adversely affecting the firm capability of other purchaser's resources. The algebraic sum of all such changes in the purchaser's assured energy capability shall be zero at the end of the critical period or year, whichever is earlier. Appropriate adjustments in the assured peaking capability shall be made if required by any change in reservoir operation indicated by such revisions in the monthly distribution of critical period energy capability.

2. Thermal generating facilities:

The capability of each of the purchaser's thermal generating plants shall be determined in terms of both peaking and average energy. Such capabilities shall be based on the most adverse fuel or other conditions reasonably to be anticipated. The effect of limitations on fuel supply due to war or other extraordinary situations will be evaluated at the time of occurrence, and appropriate changes will be made in the monthly plant capabilities by the Administrator.

3. Other sources of power:

The assured capability of other resources available to the purchaser on a firm basis under contracts shall be determined prior to each year in terms of both peaking and average energy.

C. Determination of Computed Demand:

The purchaser's computed demand for each billing month shall be the greater of:

1. The largest amount during such month by which the purchaser's actual 60-minute system demand, excluding any loads otherwise provided for in the contract, exceeds its assured peaking capability for such month, or period within such month, or
2. The largest amount for such month, or period within such month, by which the purchaser's actual system average energy load, excluding the average energy loads otherwise provided for in the contract, exceeds its assured average energy capability.

The use of computed demands as one of the alternatives in determining billing demand is intended to assure that each purchaser who purchases power from the Administrator to supplement his own firm resources will purchase amounts of power substantially equivalent to the additional capacity and energy which the purchaser would otherwise have to provide on the basis of normal and prudent operations, viz. sufficient capacity and energy to carry the load through the most critical water or other conditions reasonably to be anticipated, with an adequate reserve.

Since the computed demand depends on the relationship of capability of resources to system requirements, the computed demand for any month cannot be determined until after the end of the month. As each purchaser must estimate his own load, and is in the best position to follow its development from day to day, it will be his responsibility to request scheduling of firm power, including any increase over previously established demands, on the basis estimated by him to result in the most advantageous purchase of the power to be billed at the end of the month.

Each contract in which computed demand may be a factor in determining the billing demand shall have attached to it as an exhibit a sample calculation of the computed demand of the purchaser for the period having the highest computed demand during the twelve months immediately preceding the effective date of the contract.

2.4 RESTRICTED DEMAND: A restricted demand shall be the number of kilowatts of firm power, modified firm power, industrial firm power or authorized increase of any of the preceding classes of power which results when the Administrator has restricted delivery of such power for one clock-hour or more. Such restrictions by the Administrator are made pursuant to Section 8 of the General Contract Provisions (Form IND-18) for industrial firm power and pursuant to Sections 1.1 and 1.2 of the General Rate Schedule Provisions for firm power and modified firm power, respectively. Such restricted demand shall be determined by the Administrator after the purchaser has made his determination to accept or curtail his contract demand for the month in accordance with Section 2.5 of the

General Rate Schedule Provisions.

2.5 CURTAILED DEMAND: A curtailed demand shall be the number of kilowatts of firm power, modified firm power, industrial firm power or authorized increase of any of the preceding classes of power which results from the purchaser's request for such power in amounts less than the contract demand therefor. Each industrial purchaser of firm power or modified firm power may curtail his demand in accordance with Section 9 of the General Contract Provisions (Form IND-17R) of the contract. Each purchaser of industrial firm power may curtail his demand in accordance with Section 7 of the General Contract Provisions (Form IND-18) of the contract. Each purchaser of an authorized increase of firm power, modified firm power or industrial firm power may curtail his demand in accordance with Section 1.5 of the General Rate Schedule Provisions.

3.1 BILLING: Unless otherwise provided in the contract, power made available to a purchaser at more than one point of delivery shall be billed separately under the applicable rate schedule or schedules. The contract may provide for combined billing under specified conditions and terms when (a) delivery at more than one point is beneficial to the Government, or (b) the flow of power at the several points of delivery is reasonably beyond the control of the purchaser.

If deliveries at more than one point of delivery are billed on a combined basis for the convenience of the customer, a charge will be made for the diversity between the measured demands at the several points of delivery. The charge for the diversity shall be determined in a uniform manner and shall be specified in the contract.

3.2 DETERMINATION OF ESTIMATED BILLING DATA: If the purchased amounts of capacity, energy, and the 60-minute demands for energy must be estimated from data other than metered or scheduled quantities, the Administrator and the purchaser will agree on billing data to be used in preparing the bill. If the parties cannot agree on the estimated billing quantities, a determination binding on both parties shall be made in accordance with the arbitration provisions of the contract.

4.1 APPLICATION OF RATES DURING INITIAL OPERATION PERIOD: For an initial operating period, not in excess of three months, beginning with the commencement of operation of a new industrial plant, a major addition to an existing plant, or reactivation of an existing plant or important part thereof, the Administrator may agree (a) to bill for service to such new or reactivated plant facilities on the basis of the measured demand for each day, adjusted for power factor, or (b) if such facilities are served by a distributor purchasing power therefor from the Administrator, to bill for that portion of such distributor's load which results from service to such facilities on the basis of the measured demand for each day, adjusted for power factor. Any rate schedule provisions regarding contract demand, billing demand, and minimum monthly charge which are inconsistent with

this section shall be inoperative during such initial operating period.

The initial operating period and the special billing provisions may, on approval by the Administrator, be extended beyond the initial three months' period for such additional time as is justified by the developmental character of the operations.

5.1 ENERGY SUPPLIED FOR EMERGENCY USE: A purchaser taking firm power shall pay in accordance with Wholesale Energy Rate Schedule H-5 for any electric energy which has been supplied (a) for use during an emergency on the purchaser's system, or (b) following an emergency to replace energy secured from sources other than the Government during such emergency, except that mutual emergency assistance may be provided and settled under exchange agreements.

6.1 BILLING MONTH: Meters will normally be read and bills computed at intervals of one month. A month is defined as the interval between meter-reading dates which normally will be approximately 30 days. If service is for less or more than the normal billing month, the monthly charges stated in the applicable rate schedule will be appropriately adjusted.

7.1 PAYMENT OF BILLS: Bills for power shall be rendered monthly and shall be payable at the office of the Administrator. Failure to receive a bill shall not release the purchaser from liability for payment. Demand and energy billings under each rate schedule application shall be rounded to whole dollar amounts, by elimination of any amount of less than 50 cents and increasing any amount from 50 cents through 99 cents to the next higher dollar.

The Administrator agrees to render bills on an equalized basis for firm power sales under rate schedules with seasonal rate differentials. Such uniform billing must be requested by a purchaser in writing prior to June 1 of each year. Equal bills determined by the Administrator will be rendered for the months of July through May. The June bill (and any necessary subsequent bills) will include an adjustment so that the total amount previously billed for that year is equal to the total amount due for the entire year.

If the Administrator is unable to render the purchaser a timely monthly bill which includes a full disclosure of all billing factors, he may elect to render an estimated bill for that month to be followed at a subsequent billing date by a final bill. Such estimated bill, if so issued, shall have the validity of and be subject to the same payment provisions as shall a final bill.

Bills not paid in full on or before the close of business of the twentieth day after the date of the bill shall bear an additional charge which shall be the greater of one-fourth percent (0.25%) of the amount unpaid or \$50. Thereafter a charge of one-twentieth percent (0.05%) of the sum of the initial amount remaining unpaid and the additional charge herein described shall be added on each succeeding day until the amount due is paid in full. The provisions of this paragraph shall not apply to bills rendered under contracts with other agencies of the United States.

Remittances received by mail will be accepted without assessment of the charges referred to in the preceding paragraph provided the postmark indicates the payment was mailed on or before the twentieth day after the date of the bill. If the twentieth day after the date of the bill is a Sunday or other nonbusiness day of the purchaser, the next following business day shall be the last day on which payment may be made to avoid such further charges. Payment made by metered mail and received subsequent to the twentieth day must bear a postal department cancellation in order to avoid assessment of such further charges.

The Administrator may, whenever a power bill or a portion thereof remains unpaid subsequent to the twentieth day after the date of the bill, and after giving thirty days' advance notice in writing, cancel the contract for service to the purchaser, but such cancellation shall not affect the purchaser's liability for any charges accrued prior thereto.

8.1 APPROVAL OF RATES: Schedules of rates and charges, or modifications thereof, for electric energy sold by the Administrator shall become effective only after confirmation and approval by the Federal Power Commission.

9.1 AVERAGE POWER FACTOR: The formula for determining average power factor is as follows:

$$\text{Average Power Factor} = \frac{\text{Kilowatt-hours}}{\sqrt{(\text{Kilowatt-hours})^2 + (\text{Reactive-kilovolt-ampere-hours})^2}}$$

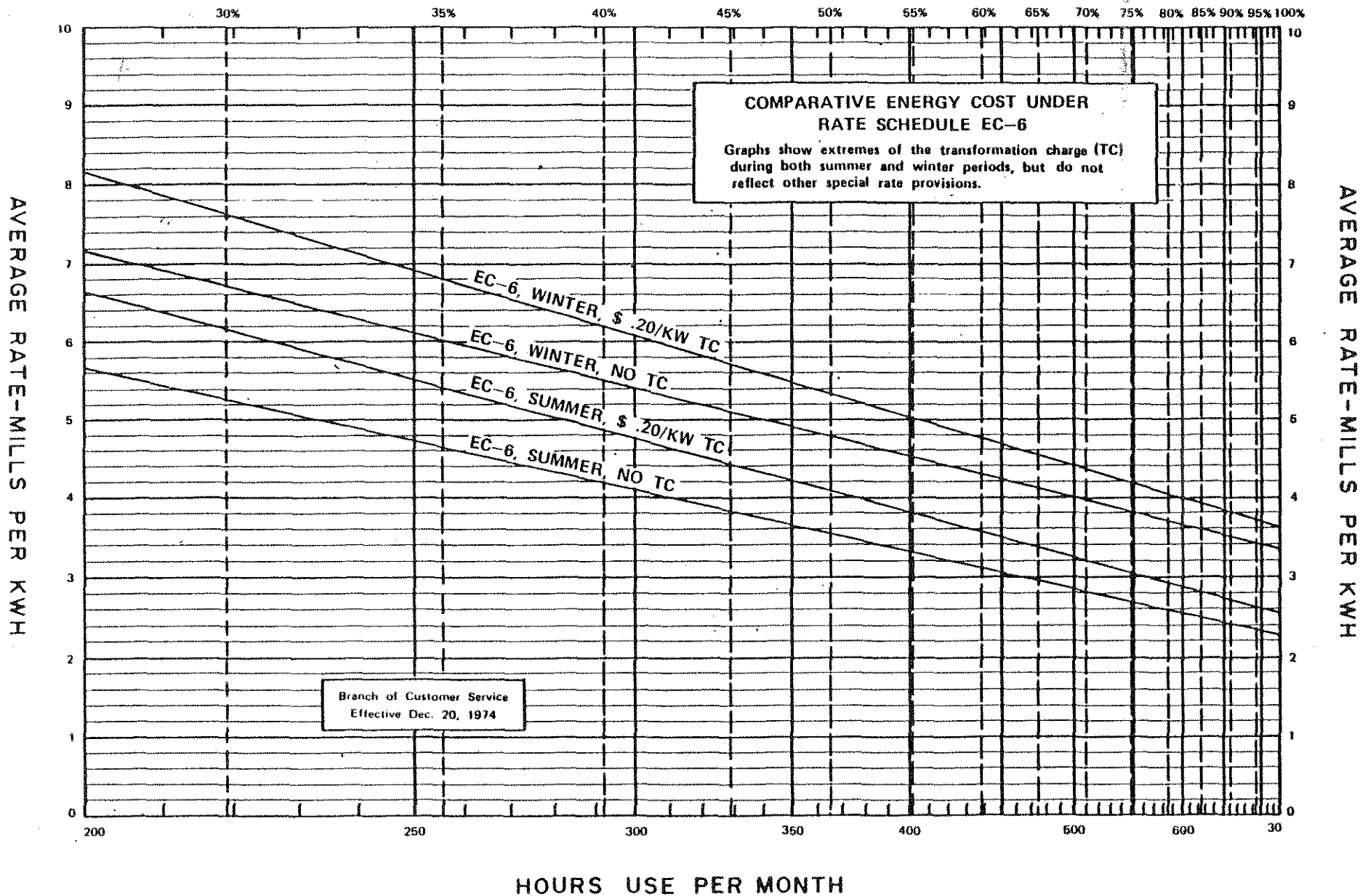
The data used in the above formula shall be obtained from meters which are ratcheted to prevent reverse registration.

When deliveries to a purchaser at any point of delivery include more than one class of power or are under more than one rate schedule, and it is impracticable to separately meter the kilowatt-hours and reactive kilovolt-ampere-hours for each class, the average power factor of the total deliveries for the month will be used, where applicable, as the power factor for each of the separate classes of power and rate schedules.

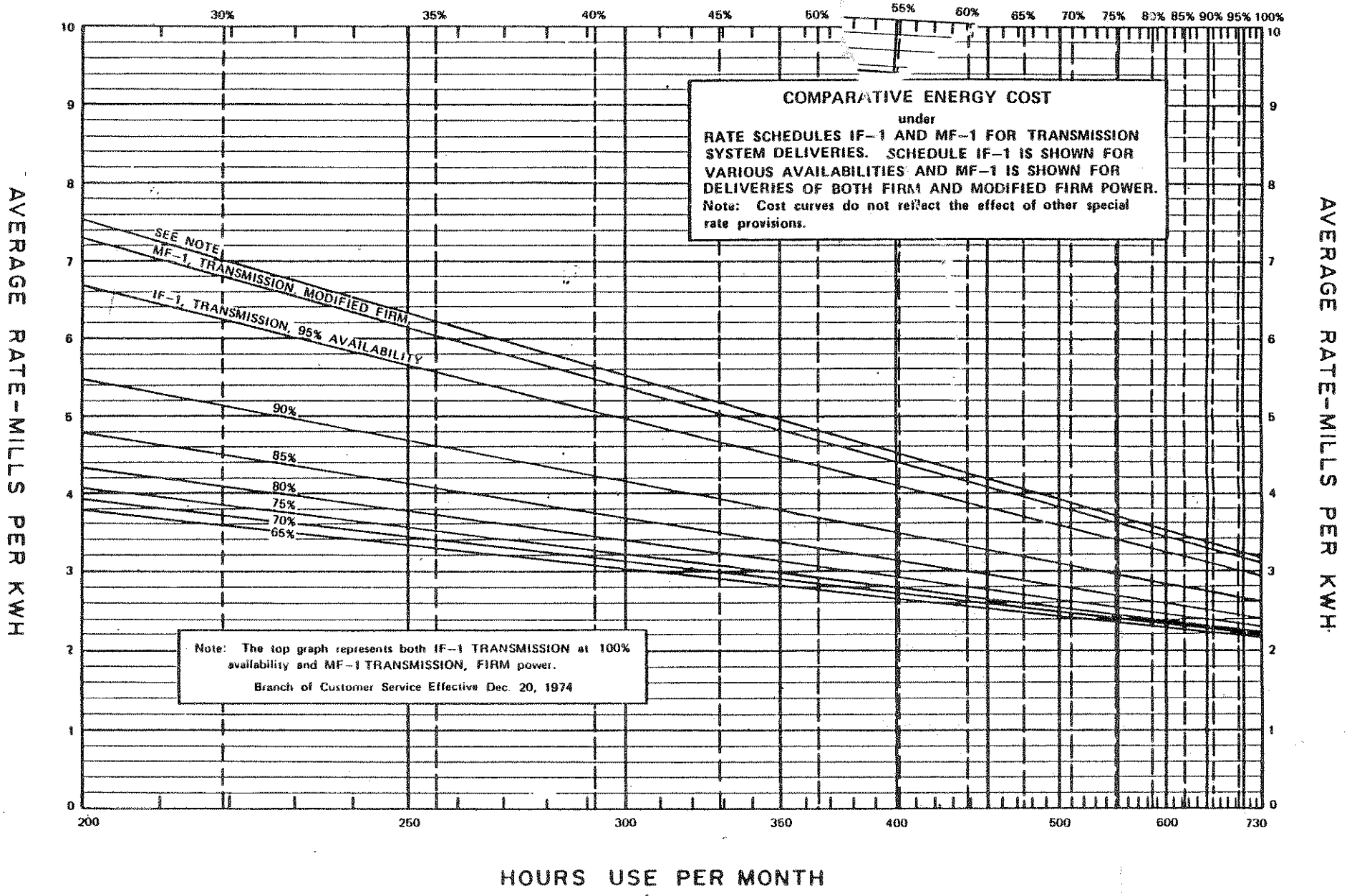
10.1 TEMPORARY CURTAILMENT OF CONTRACT DEMAND: The Administrator may include in contracts with industrial purchasers, provisions for temporary curtailment of contract demand by the purchaser. The reduction of charges for power so curtailed shall be applied in a uniform manner.

11.1 GENERAL PROVISIONS: The Wholesale Rate Schedules and General Rate Schedule Provisions of the Bonneville Power Administration effective December 20, 1974, supersede in their entirety the Administration's Wholesale Power Rate Schedules and General Rate Schedule Provisions effective December 20, 1969.

LOAD FACTOR

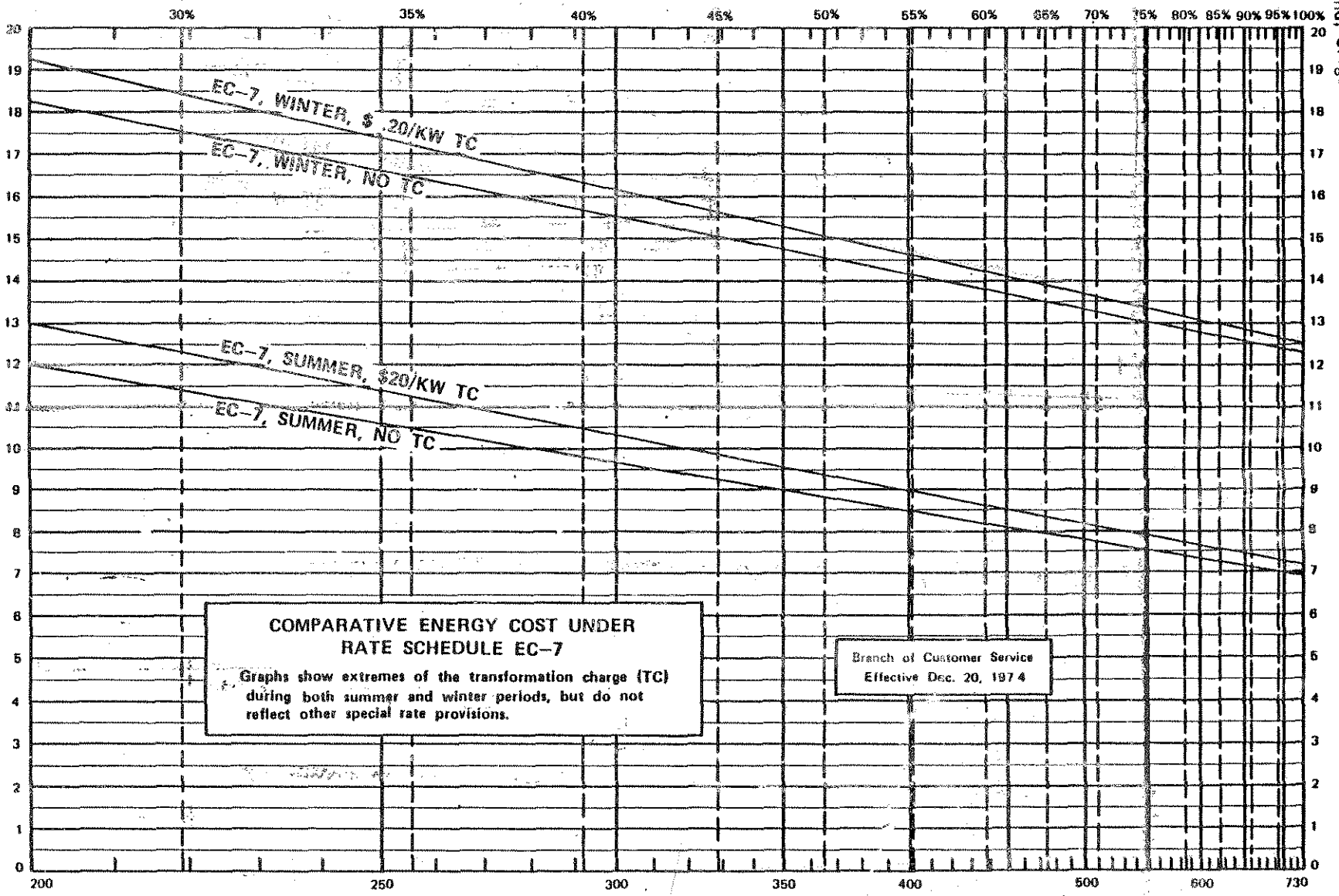


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AVERAGE RATE-MILLS PER KWH



COMPARATIVE ENERGY COST UNDER RATE SCHEDULE EC-7
 Graphs show extremes of the transformation charge (TC) during both summer and winter periods, but do not reflect other special rate provisions.

Branch of Customer Service
 Effective Dec. 20, 1974

HOURS USE PER MONTH