

Brainerd Public Utilities

Rules

**Governing the Interconnection of
Cogeneration and Small Power Production Facilities**

**Policy 2018-02 Adopted
March 20, 2018**

PART A - DEFINITIONS

Subpart 1. Applicability - For purposes of these rules, the following terms have the meanings given them below.

Subp. 2. Average retail utility energy rate - Any class of utility customer, the quotient of the total annual class revenue from sales of electricity minus the annual revenue resulting from fixed charges, divided by the annual class kilowatt-hour sales. The computation shall use data from the most recent 12-month period available.

Subp. 3. Backup power - Electric energy or capacity supplied by BPU to replace energy ordinarily generated by a qualifying facility's own generation equipment during an unscheduled outage of the facility.

Subp. 4. Capacity - The capability to produce, transmit, or deliver electric energy, and is measured by the number of megawatts alternating current at the point of common coupling between a qualifying facility and BPU's electric system during a 15-minute interval period.

Subp. 5. Capacity costs - The costs associated with providing the capability to deliver energy. BPU capital costs consist of the costs of facilities from BPU and BPU's wholesale provider used to generate, transmit, and distribute electricity and the fixed operating and maintenance costs of these facilities.

Subp. 6. Customer - The person named on BPU electric bill for the premises.

Subp. 7. Energy - Electric energy, measured in kilowatt-hours.

Subp. 8. Energy costs - The variable costs associated with the production of electric energy. They consist of fuel costs and variable operating and maintenance expenses.

Subp. 9. Firm power - Energy delivered by the qualifying facility to BPU with at least a 65 percent on-peak capacity factor in the month. The capacity factor is based upon the qualifying facility's maximum metered capacity delivered to BPU during the on-peak hours for the month.

Subp. 10. Governing body – Brainerd Public Utilities Commission

Subp. 11. Interconnection costs - The reasonable costs of connection, switching, metering, transmission, distribution, safety provisions, and administrative costs incurred by BPU that are directly related to installing and maintaining the physical facilities necessary to permit interconnected operations with a qualifying facility. Costs are considered interconnection costs only to the extent that they exceed the costs BPU would incur in selling electricity to the qualifying facility as a non-generating customer.

Subp. 12. Interruptible power - Electric energy or capacity supplied by BPU to a qualifying facility subject to interruption under the provisions of BPU's tariff applicable to the retail class of customers to which the qualifying facility would belong irrespective of its ability to generate electricity.

Subp. 13. Maintenance power – Electric energy or capacity supplied by a utility during scheduled outages of the qualifying facility.

Subp. 14. On-peak hours - Hours formally designated by BPU as on-peak for ratemaking purposes or hours for which its typical loads are at least 85 percent of its average maximum monthly loads.

Subp. 15. Point of common coupling - The point where the qualifying facility's generation system, including the point of generator output, is connected to BPU's electric power grid.

Subp. 16. Purchase - The purchase of electric energy or capacity or both from a qualifying facility by BPU.

Subp. 17. Qualifying facility – A cogeneration or small power production facility which satisfies the conditions established in Code of Federal Regulations, title 18, part 292. The initial operation date or initial installation date of a cogeneration or small power production facility must not prevent the facility from being considered a qualifying facility for the purposes of this chapter if it otherwise satisfies all stated conditions. The qualifying facility must be owned by a customer and located in BPU service area.

Subp. 18. Sale - The sale of electric energy or capacity or both by BPU to a qualifying facility.

Subp. 19a. Standby charge - The charge imposed by BPU upon a qualifying facility for the recovery of costs for the provision of standby services necessary to make electricity service available to the qualifying facility.

Subp. 19b. Standby service - The service to potentially provide electric energy or capacity supplied by BPU to a qualifying facility greater than 40 kW.

Subp. 20. Supplementary power – Electric energy or capacity supplied by BPU which is regularly used by a qualifying facility in addition to that which the facility generates itself.

Subp. 21. System emergency - A condition on BPU's system which is imminently likely to result in significant disruption of service to customers or to endanger life or property.

PART B - SCOPE AND PURPOSE

The purpose of these rules are to implement certain provisions of Minnesota Statutes, section 216B.164; the Public Utility Regulatory Policies Act of 1978, United States Code, title 16, section 824a-3; and the Federal Energy Regulatory Commission regulations, Code of Federal Regulations, title 18, part 292. These rules shall be applied in accordance with their intent to give the maximum possible encouragement to cogeneration and small power production consistent with protection of the ratepayers and the public.

PART C - FILING REQUIREMENTS

Annually BPU shall file for review and approval, a cogeneration and small power production tariff with the governing body. The tariff must contain schedules 1 – 5.

SCHEDULE 1 – Calculation of the average retail utility energy rates to be updated annually.

SCHEDULE 2 - All standard contracts to be used with qualifying facilities, containing applicable terms and conditions.

SCHEDULE 3 – BPU's adopted interconnection process, safety standards, technical requirements for distributed energy resource systems, required operating procedures for interconnected operations, and the functions to be performed by any control and protective apparatus.

SCHEDULE 4 - Procedures for notifying affected qualifying facilities of any periods of time when BPU will not purchase electric energy or capacity because of extraordinary operational circumstances which would make the costs of purchases during those periods greater than the costs of internal generation.

SCHEDULE 5 - Estimated average incremental energy costs by seasonal, peak and off-peak periods for BPU's power supplier from which energy purchases are first avoided. Schedule 5 shall also contain the net annual avoided capacity costs, if any, stated per kilowatt-hour and averaged over the on-peak hours and over all hours for BPU's power supplier from which capacity purchases are first avoided. Both the average incremental energy costs and net annual avoided capacity costs shall be increased by a factor equal to 50 percent of BPU and BPU's power supplier's overall line losses due to distribution, transmission and transformation of electric energy.

PART D - AVAILABILITY OF FILINGS

All filings shall be maintained at BPU's general office and any other offices of BPU where rate tariffs are kept. The filings shall be made available for public inspection during normal business hours. BPU shall supply the current year's distributed

generation rates, interconnection procedures and application form on BPU website, if practicable, or at BPU office.

PART E - REPORTING REQUIREMENTS

Annually BPU shall report to the governing body for its review and approval an annual report including information in subparts 1-3. BPU shall still comply with other federal and state reporting of distributed generation to federal and state agencies expressly required by statute.

Subpart 1. Summary of Average Retail Utility Energy Rate - A summary of the qualifying facilities that are currently served under average retail utility energy rate.

Subp. 2. Other Qualifying Facilities - A summary of the qualifying facilities that are not currently served under average retail utility energy rate.

Subp. 3. Wheeling - A summary of the wheeling undertaken with respect to qualifying facilities.

PART F. CONDITIONS OF SERVICE

Subpart 1. Requirement to Purchase. BPU shall purchase energy and capacity from any qualifying facility which offers to sell energy and capacity to BPU and agrees to the conditions in these rules.

Subp. 2. Written Contract. A written contract shall be executed between the qualifying facility and BPU.

PART G. - ELECTRICAL CODE COMPLIANCE

Subpart 1. Compliance; standards - The interconnection between the qualifying facility and BPU must comply with the requirements in the most recently published edition of the National Electrical Safety Code issued by the Institute of Electrical and Electronics Engineers. The interconnection is subject to subparts 2 and 3.

Subp. 2. Interconnection - The qualifying facility is responsible for complying with all applicable local, state, and federal codes, including building codes, the National Electrical Code (NEC), the National Electrical Safety Code (NESC), and noise and emissions standards. BPU shall require proof that the qualifying facility is in compliance with the NEC before the interconnection is made. The qualifying facility must obtain installation approval from an electrical inspector recognized by the Minnesota State Board of Electricity.

Subp. 3. Generation system - The qualifying facility's generation system and installation must comply with the American National Standards Institute/Institute of

Electrical and Electronics Engineers (ANSI/IEEE) standards applicable to the installation.

PART H - RESPONSIBILITY FOR APPARATUS

The qualifying facility, without cost to BPU, must furnish, install, operate, and maintain in good order and repair any apparatus the qualifying facility needs in order to operate in accordance with Schedule 3.

PART I - TYPES OF POWER TO BE OFFERED; STANDBY SERVICE

Subpart 1. Service to be offered - BPU shall offer maintenance, interruptible, supplementary, and backup power to the qualifying facility upon request.

Subp. 2. Standby service - BPU shall offer a qualifying facility standby power or service at BPU's applicable standby rate schedule.

PART J - DISCONTINUING SALES DURING EMERGENCY

BPU may discontinue sales to the qualifying facility during a system emergency, if the discontinuance and recommencement of service is not discriminatory.

PART K - RATES FOR UTILITY SALES TO A QUALIFYING FACILITY

Rates for sales to a qualifying facility are governed by the applicable tariff for the class of electric utility customers to which the qualifying facility belongs or would belong were it not a qualifying facility. Such rates are not guaranteed and may change from time to time at the discretion of BPU.

PART L –STANDARD RATES FOR PURCHASES FROM QUALIFYING FACILITIES

Subpart 1. Qualifying facilities with 100 kilowatt capacity or less - For qualifying facilities with capacity of 100 kilowatts or less, standard purchase rates apply. BPU shall make available four types of standard rates, described in parts M, N, O, and P. The qualifying facility with a capacity of 100 kilowatts or less must choose interconnection under one of these rates, and must specify its choice in the written contract required in part V. Any net credit to the qualifying facility must, at its option, be credited to its account with BPU or returned by check or comparable electronic payment service within 15 days of the billing date. The option chosen must be specified in the written contract required in part V. Qualifying facilities remain responsible for any monthly service charges and demand charges specified in the tariff under which they consume electricity from BPU.

Subp. 2. Qualifying facilities over 100 kilowatt capacity - A qualifying facility with more than 100 kilowatt capacity has the option to negotiate a contract with BPU or, if it commits to provide firm power, be compensated under standard rates.

PART M - AVERAGE RETAIL UTILITY ENERGY RATE

Subpart 1. Applicability - The average retail utility energy rate is available only to customer-owned qualifying facilities with capacity of less than 40 kilowatts which choose not to offer electric power for sale on either a time-of-day basis, a simultaneous purchase and sale basis or roll-over credit basis.

Subp. 2. Method of billing - BPU shall bill the qualifying facility for the excess of energy supplied by BPU above energy supplied by the qualifying facility during each billing period according to BPU's applicable retail rate schedule.

Subp. 3. Additional calculations for billing - When the energy generated by the qualifying facility exceeds that supplied by BPU to the customer at the same site during the same billing period, BPU shall compensate the qualifying facility for the excess energy at the average retail utility energy rate.

PART N - SIMULTANEOUS PURCHASE AND SALE BILLING RATE

Subpart 1. Applicability - The simultaneous purchase and sale rate is available only to qualifying facilities with capacity of less than 40 kilowatts which choose not to offer electric power for sale on average retail utility energy rate basis, time-of-day basis or roll-over credit basis.

Subp. 2. Method of billing - The qualifying facility must be billed for all energy and capacity it consumes during a billing period according to BPU's applicable retail rate schedule.

Subp. 3. Compensation to qualifying facility; energy purchase - BPU shall purchase all energy which is made available to it by the qualifying facility. At the option of the qualifying facility, its entire generation must be deemed to be made available to BPU. Compensation to the qualifying facility must be the energy rate shown on Schedule 5.

Subp. 4. Compensation to qualifying facility; capacity purchase - If the qualifying facility provides firm power to BPU, the capacity component must be BPU 's net annual avoided capacity cost per kilowatt-hour averaged over all hours shown on Schedule 5, divided by the number of hours in the billing period. If the qualifying facility does not provide firm power to BPU, no capacity component may be included in the compensation paid to the qualifying facility.

PART O - TIME-OF-DAY PURCHASE RATES

Subpart 1. Applicability - Time-of-day rates are required for qualifying facilities with capacity of 40 kilowatts or more and less than or equal to 100 kilowatts, and they are optional for qualifying facilities with capacity less than 40 kilowatts. Time-of-day rates are also optional for qualifying facilities with capacity greater than 100 kilowatts if these qualifying facilities provide firm power.

Subp. 2. Method of billing - The qualifying facility must be billed for all energy and capacity it consumes during each billing period according to BPU's applicable retail rate schedule.

Subp. 3. Compensation to qualifying facility; energy purchases - BPU shall purchase all energy which is made available to it by the qualifying facility. Compensation to the qualifying facility must be the energy rate shown on Schedule 5.

Subp. 4. Compensation to qualifying facility; capacity purchases - If the qualifying facility provides firm power to BPU, the capacity component must be the capacity cost per kilowatt shown on Schedule 5 divided by the number of on-peak hours in the billing period. The capacity component applies only to deliveries during on-peak hours. If the qualifying facility does not provide firm power to BPU, no capacity component may be included in the compensation paid to the qualifying facility.

PART P - ROLL-OVER CREDIT PURCHASE RATES

Subpart 1. Applicability - The roll-over credit rate is available only to qualifying facilities with capacity of less than 40 kilowatts which choose not to offer electric power for sale on average retail utility energy rate basis, time-of-day basis or simultaneous purchase and sale basis.

Subp. 2 - Method of billing - BPU shall bill the qualifying facility for the excess of energy supplied by BPU above energy supplied by the qualifying facility during each billing period according to BPU's applicable retail rate schedule.

Subp. 3. Additional calculations for billing - When the energy generated by the qualifying facility exceed that supplied by BPU during a billing period, BPU shall apply the excess kilowatt hours as a credit to the next billing period kilowatt hour usage. Excess kilowatt hours that are not offset in the next billing period shall continue to be rolled over to the next consecutive billing period. Any excess kilowatt hours rolled over that are remaining at the end of each calendar year shall cancel with no additional compensation.

PART Q - CONTRACTS NEGOTIATED BY CUSTOMER

A qualifying facility with capacity greater than 100 kilowatts must negotiate a contract with BPU setting the applicable rates for payments to the customer of avoided capacity and energy costs.

Subpart 1. Amount of Capacity Payments - The qualifying facility which negotiates a contract under part Q must be entitled to the full avoided capacity costs of BPU. The amount of capacity payments will be determined by BPU and BPU's wholesale power provider.

Subp. 2. Full Avoided Energy Costs - The qualifying facility which negotiates a contract under part Q must be entitled to the full avoided energy costs of BPU. The costs must be adjusted as appropriate to reflect line losses.

PART R - WHEELING

Qualifying facilities with capacity of 30 kilowatts or greater, are interconnected to BPU's distribution system and choose to sell the output of the qualifying facility to any other utility, must pay any appropriate wheeling charges to BPU. Within 15 days of receiving payment from BPU ultimately receiving the qualifying facility's output, BPU shall pay the qualifying facility the payment less the charges it has incurred and its own reasonable wheeling costs.

PART S - NOTIFICATION TO CUSTOMERS

Subpart 1. Contents of Written Notice - Following each annual review and approval by BPU of the cogeneration rate tariffs BPU shall furnish in the monthly newsletter or similar mailing, written notice to each of its customers that BPU is obligated to interconnect with and purchase electricity from cogenerators and small power producers.

Subp. 2. Availability of Information - BPU shall make available to all interested persons upon request, the interconnection process and requirements adopted by BPU, pertinent rate schedules and sample contractual agreements.

PART T - DISPUTE RESOLUTION

In case of a dispute between a utility and a qualifying facility or an impasse in the negotiations between them, either party may request the governing body to determine the issue.

PART U - INTERCONNECTION CONTRACTS

Subpart 1. Interconnection Standards - BPU shall provide a customer applying for interconnection with a copy of, or electronic link to, BPU’s adopted interconnection process and requirements.

Subp. 2. Existing Contracts - Any existing interconnection contract executed between BPU and a qualifying facility with capacity of less than 40 kilowatts remains in force until terminated by mutual agreement of the parties or as otherwise specified in the contract. The governing body has assumed all dispute responsibilities as listed in existing interconnection contracts. Disputes are resolved in accordance with Part T.

Subp. 3. Renewable Energy Credits; Ownership. Generators own all renewable energy credits unless other ownership is expressly provided for by a contract between a generator and BPU

PART V - UNIFORM CONTRACT – EXHIBIT B

The form for uniform contract that shall be used between BPU and a qualifying facility having less than 40 kilowatts of capacity is as shown in subpart 1.

Subpart 1. Contract for Cogeneration and Small Power Production Facilities

(See attached contract form.)

ADOPTED ON _____

SIGNED _____
BRAINERD PUBLIC UTILITIES COMMISSION PRESIDENT



EXHIBIT B

**Contract for Cogeneration and Small Production Facilities
Minnesota Rules 7835.9910 Uniform Statewide Contract**

THIS CONTRACT is entered into on _____, _____, by BRAINERD PUBLIC UTILITIES, A MUNICIPAL CORPORATION (hereafter called BPU), and _____ (hereafter called "QF").

RECITALS

The QF has installed electric generating facilities, consisting of _____

(Description of facilities), rated at less than 40 kW of electricity, on property located at _____

The QF is prepared to generate electricity in parallel with BPU.

The QF's electric generating facilities meet the requirements of the Minnesota Public Utilities Commission (hereafter called "Commission") rules on Cogeneration and Small Power Production and any technical standards for interconnection BPU has established that are authorized by those rules.

BPU is obligated under federal and Minnesota law to interconnect with the QF and to purchase electricity offered for sale by the QF.

A contract between the QF and BPU is required by the Commission's rules.

AGREEMENTS

The QF and BPU agree:

1. BPU will sell electricity to the QF under the rate schedule in force for the class of customer to which the QF belongs.
2. BPU will buy electricity from the QF using the Average Retail Utility Energy Rate under Minnesota Rule 7835.3000.

A copy of the rate schedule is available at the BPU office.

3. The rates for sales and purchases of electricity may change over the time this contract is in force, due to actions of BPU or of the Commission, and the QF and BPU agree that sales and purchases will be made under the rates in effect each month during the time this contract is in force.
4. BPU will compute the charges and payments for purchases and sales for each billing period. Any net credit to the QF will be made to the QF's account with BPU during the calendar year within 15 days of the billing date following December 31. Any net credit to the QF will be paid by check.
5. The QF must operate its electric generating facilities within any rules, regulations, and policies adopted by BPU not prohibited by the Commission's rules on Cogeneration and Small Power Production which provide reasonable technical connection and operating specifications for the QF. This agreement does not waive the QF's right to bring a dispute before the Commission as authorized by Minnesota Rules, part 7835.4500, and any other provision of the Commission's rules on Cogeneration and Small Power Production authorizing Commission resolution of a dispute.
6. BPU's rules, regulations, and policies must conform to the Commission's rules on Cogeneration and Small Power Production.
7. The QF will operate its electric generating facilities so that they conform to the national, state, and local electric and safety codes, and will be responsible for the costs of conformance.
8. The QF is responsible for the actual, reasonable costs of interconnection which are estimated to be \$_____. The QF will pay BPU in this way_____.
9. The QF will give BPU reasonable access to its property and electric generating facilities if the configuration of those facilities does not permit disconnection or testing from BPU's side of the interconnection. If BPU enters the QF's property, BPU will remain responsible for its personnel.
10. BPU may stop providing electricity to the QF during a system emergency. BPU will not discriminate against the QF when it stops providing electricity or when it resumes providing electricity.
11. BPU may stop purchasing electricity from the QF when necessary for BPU to construct, install, maintain, repair, replace, remove, investigate, or inspect any equipment or facilities within its electric system. BPU will notify the QF before it stops purchasing electricity with a written notice and/or a telephone call.

12. The QF shall keep in force a policy of liability insurance for \$300,000, against personal or property damage to BPU's system, equipment, and personnel arising from the installation, interconnection, and operation of QF's generating facility, and shall provide annual proof of the insurance to BPU with said policy specifically naming BPU as an additional insured. The QF agrees to indemnify and hold harmless BPU from all claims whatsoever arising from the QF's generating system.

13. This contract becomes effective as soon as it is signed by the QF and BPU. This contract will remain in force until either the QF or BPU gives written notice to the other that the contract is canceled. This contract will be canceled 30 days after notice is given.

14. This contract contains all the agreements made between the QF and BPU except that this contract shall at all times be subject to all rules and orders issued by the Public Utilities Commission or other government agency having jurisdiction over the subject matter of this contract. The QF and BPU are not responsible for any agreements other than those stated in this contract.

QUALIFYING FACILITY

By _____

Title _____

Date _____

BRAINERD PUBLIC UTILITIES

By _____

Title _____

Date _____



EXHIBIT A
Interconnection Application for Installation of
Customer-owned Grid-connected
Electric Generating System of 40kW or less

Customer:

Name _____ Account No _____

Mailing Address _____

Installation Address _____

Phone No. _____ Alternate Phone _____

System Designer & Installation Contractor Information:

Design Consultant _____

Address _____

Contact Person _____ Phone Number _____

Installation Contractor (if different) _____

Address _____

Contact Person _____ Phone Number _____

Specifications

Estimated In-Service Date _____

Existing Electric Service: Amperes _____ Volts _____

Identify Type of Service: () Solar PV array () Fuel Cell () Wind () Other

If Other Describe _____

Specific Location of Service Disconnect Equipment on Property _____

Generation Equipment Information: (Include copy of product literature)

Manufacturer _____ Model No _____ Version _____

() Synchronous () Induction () Inverter () Other _____

Rating: _____ kW Rating: _____ Rated Current (Amps) _____

() Single Phase () Three Phase

Generator Connection: () Wye () Wye Grounded

Interconnection Voltage: _____ Volts _____

Interconnection Compliance & Owner Acknowledgement

The electrical system referenced above shall meet BPU's "Interconnection Process and Requirements For Qualifying Facilities (0 – 40kW)".

Customer shall be solely responsible for obtaining and complying with any and all necessary easements, licenses and permits, or exemptions, as may be required by federal, state, local statutes, regulations, ordinances or other legal mandates.

The customer shall submit documentation to BPU that the system has been inspected and approved by the local permitting agency regarding electrical code requirements.

Customer shall not commence parallel operation of the generating system until written approval of the interconnection has been given by BPU.

I, the undersigned, have completed this Exhibit A for interconnection, which accurately describes the QF equipment to be interconnected and operated in parallel with BPU's distribution system. I have read and understand "Rules for Governing the Interconnection of Cogeneration and Small Power Production Facilities" and understand that approval of Exhibit A is dependent on compliance with these requirements and the accuracy of the information as included in this Exhibit A.

A \$250 application fee is required.

Customer Signature

Date



**Notification to Customers
Minnesota Rules 7835.4600 & 7835.4700**

1. Brainerd Public Utilities is obligated to interconnect with and purchase electricity from qualifying co-generators and small power producers. Qualifying facilities are defined under Subpart. 19 of Minnesota Rules 7835.0100.
2. Brainerd Public Utilities is obligated to provide information concerning its rates and interconnection policies relative to qualifying facilities to all interested persons, free of charge.
3. Any disputes over interconnection, sales, and purchases relative to qualifying facilities, are subject to Minnesota Public Utilities Commission upon complaint.
4. Inquiries should be directed to:

Brainerd Public Utilities
P O Box 373
Brainerd MN 56401
218-825-3211