

SCHEDULE 254

LARGE POWER DISTRIBUTED GENERATION

I. AVAILABILITY

This Distributed Generation Rate is available to any member in good standing of Northeastern REMC (Northeastern) receiving service under Schedule 40-0, who owns and operates a solar, wind, or biomass generating facility rated 1,000 kW or less and designed to operate in parallel with Northeastern's distribution system.

II. CONDITIONS OF SERVICE

For purposes of this rider, an eligible distributed generation facility is an electrical generating facility that complies with all of the following requirements:

1. Is fueled by solar, wind, or biomass energy;
2. Has a nameplate capacity less than or equal to 1,000 kW;
3. Is owned and operated by the member and is located on the member's premises;
4. Is intended and sized appropriately to offset all or part of the member's own electrical load requirements; and
5. Is designed and installed to operate in parallel with Northeastern's distribution system without adversely affecting the operation of Northeastern's equipment, without adversely affecting service to other members, and without presenting safety hazards.

A member seeking to interconnect an eligible distributed generation facility to Northeastern's distribution system must submit a completed Application and Agreement for Interconnection which are available upon request.

The eligible distributed generation facility shall meet all applicable codes relating to the installation of electrical equipment, including the National Electric Code, the National Electric Safety Code, and state and local codes. The eligible distributed generation facility shall provide Northeastern proof of qualified installation of the distributed generation facility. Certification by a licensed electrician shall constitute acceptable proof.

The member shall install, operate, and maintain the distributed generation facility in accordance with the manufacturer's suggested practices for safe, efficient, and reliable operation.

Northeastern may perform on-site inspections to verify the proper installation and continuing safe operation of the distributed generation facility and the interconnection facilities, at reasonable times and upon reasonable advance notice to the distributed generation member.

Northeastern shall require a member operating a distributed generation facility maintain reasonable and adequate liability insurance coverage against losses or damages arising from the operation of the distributed generation facilities. The member shall provide proof of said liability coverage to Northeastern with the completed Application for Interconnection and upon Northeastern's request anytime thereafter. Northeastern's

receipt of evidence of liability insurance does not imply an endorsement of the terms and conditions of coverage.

Northeastern will be solely responsible for determining when a member meets the above qualifications.

III. CHARACTER OF SERVICE

Service rendered under this rider shall be as specified below:

A. SINGLE-PHASE

Single-phase service shall be alternating current, sixty (60) hertz, at approximately 120/240 volts, three wire.

B. MULTI-PHASE

Multi-phase service shall be alternating current, sixty (60) hertz, at approximately 120/208, 120/240, or 277/480 volts, four wire.

Other voltages may be available upon the member's request subject to agreement by Northeastern

IV. TERM OF SERVICE

So long as the member meets the conditions for service cited herein, service under this schedule may continue from the date the member enters into a contract with Northeastern until the member no longer wishes to operate the distributed generation facility in parallel with Northeastern's distribution system or the schedule is withdrawn by action of Northeastern's Board of Directors. This schedule is subject to periodic review by Northeastern's Board of Directors and may change at their discretion.

V. INTERCONNECTION EQUIPMENT

All generator interconnection equipment shall meet and be listed to UL standard 1741. The disconnect switch used to isolate the generator from Northeastern's system shall meet ANSI standard C37. The main circuit breaker between the distributed generation facility and Northeastern's distribution system shall have adequate interrupting capability for the maximum expected short circuit duty and meet ANSI standard C37. Distributed generation facilities not meeting these standards will not be approved to connect to Northeastern's system.

VI. MONTHLY CHARGES

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Service Availability Charge per Month	\$200.00
Demand Charge per kW Billing Demand	\$5.45
Energy Charge per kWh	\$0.0813

The total monthly charges to be paid by the member shall be the greater of the following:

1. The sum of charges, including the Power Cost Adjustment, for the total demand and energy delivered, a generation credit, and Service Availability Charge; determined as follows:
 - a) The charges for the total demand and energy delivered to the Member during the month determined pursuant to the charges shown above, plus
 - b) A generation credit determined by application of the Energy Charge plus the Power Cost Adjustment to the total energy (kWh) delivered to the Northeastern during the month and any dollar amount of net excess generation carried over from the prior month., plus
 - c) The Service Availability Charge.
2. The sum of the member and Demand Charges determined pursuant to the charges shown above.

If the total monthly charges are less than or equal to the sum of the Service Availability Charge and Demand Charges, all unused dollar amount of net excess generation credit shall carry over and be available for determination of the generation credit in the following month's bill. Any dollar amount of net excess generation credit carried forward to the following month that is not used up that month shall be carried forward for use in subsequent billing periods. If a member terminates service with the Northeastern while having a net metering credit amount on their account, the Northeastern shall refund the remaining credit amount to the Member following a final reading by the Northeastern of the member's net meter.

VII. FACILITIES CHARGE

The member will be assessed an additional monthly Facility Charge when Northeastern is required to install any equipment to accommodate the distributed generation facility. The additional Facility Charge shall be based on one-twelfth (1/12) of Northeastern's annual fixed costs associated with the investment in facilities.

VIII. MINIMUM MONTHLY CHARGE

The minimum monthly charge shall be the Service Availability Charge plus the minimum billing demand as defined under "Determination of Billing Demand."

IX. DETERMINATION OF BILLING DEMAND

The Billing Demand shall be the Metered Maximum kilowatt (kW) load measured over a period of fifteen (15) consecutive minutes during the billing month as metered or recorded by suitable metering equipment installed by Northeastern. The Billing Demand may be adjusted when the member's average power factor falls below 95%.

The average monthly Power Factor for the month shall be calculated from the kilowatts hours "A" and reactive kilovolt-amperes hours "B", by the following formula:

$$\text{Average Power Factor} = \frac{\text{"A"}}{\text{Square Root of (A}^2 + \text{B}^2)}$$

If the average monthly Power Factor is less than 95% lagging, the Billing Demand shall be the Metered Maximum kW load adjusted in accordance with the following formula:

$$\text{Billing Demand} = \frac{\text{Maximum Metered kW} \times .95}{\text{Average Power Factor}}$$

If the average monthly Power Factor is equal to or in excess of 95% lagging, then:

$$\text{Billing Demand} = \text{Maximum Metered kW load}$$

The monthly Billing Demand, as determined above, shall not be less than any one of the following:

1. Not less than the minimum contracted kVA capacity specified in the member's service application or contract with Northeastern.
2. Where highly fluctuating or intermittent loads (such as welding machines, electric furnaces, hoists, elevators, X-rays and the like) are in operation by the member, Northeastern reserves the right to determine the billing capacity by averaging the member's total load over a two-minute period, or by increasing the fifteen minute measured maximum billing capacity by an amount equal to 50% of the nameplate rated kVA capacity of the fluctuating equipment. Where such fluctuating loads require additional or separate transformers or additional system capacity, an additional separate capacity charge will be made on a special study of the member's requirements.

X. MEMBER FURNISHED TRANSFORMER AND EQUIPMENT

Where individual or nonstandard substation installations are required to serve the member, Northeastern reserves the right to require the member to make, at the member's expense, the necessary complete substation installation (consisting of transformer, structure, protective devices, etc.) required to provide adequate service to the member and, in such event, the member will own, operate and maintain said installation. A credit of \$0.25 per kW of Billing Demand will apply to the Demand Charge.

XI. METERING

One of the following metering options, if not already present, shall be installed on the member's premises by Northeastern to properly record the net energy of the distributed generation facility. At a minimum, the metering shall be capable of measuring the flow of electricity in both directions and the generation output.

Northeastern may, at its own expense, install additional meters to monitor the flow of electricity.

XII. CONNECTION AND DISCONNECTION

The Interconnection Application and Agreement must be executed by both parties prior to the distributed generation facility being connected to Northeastern's system.

In order to isolate the distributed generation facility from Northeastern's distribution system, the member shall install an outdoor, visible, lockable disconnect switch. This disconnect switch shall be accessible to Northeastern personnel at all times and located at or within 10 feet of the electric service meter location. The disconnect switch shall meet ANSI standard C37 and shall be lockable in the open or off position. In accordance with provisions of the NEC, a permanent, weatherproof sign shall be provided by the member. It shall be securely affixed on or immediately adjacent to the disconnect switch. The sign shall be clearly marked, "Generator Disconnect Switch", with permanent $\frac{3}{4}$ inch letters or larger. If the installation has more than one disconnect switch, each disconnect switch must be identified with its function.

Northeastern may require that the net metering facility be temporarily curtailed or interrupted in order for Northeastern to construct, install, maintain, repair, replace, or inspect any of its equipment or any part of its distribution system. Northeastern will strive to provide the member reasonable notice of interruption. In any such event, Northeastern shall not be obligated to accept any energy from the member. Northeastern will take reasonable steps to minimize the number and duration of such interruptions.

Northeastern may, at its own discretion, isolate or disconnect any distributed generation facility if it has reason to believe that continued interconnection creates or contributes to a system emergency. System emergencies include, but not are limited to, a disruption of service to another member, a substantial deviation from a normal service standard, or an endangerment to life or property.

XIII. SYSTEM LIMITATIONS

In order to help maintain proper utility voltages, to not overload distribution equipment, and to prevent improper operation of equipment, the following limitations and constraints are imposed on distributed generation facilities:

1. The total nameplate capacity of all of the existing and proposed generation does not exceed 25% of the radial distribution circuit peak load and that total is also less than the radial distribution circuit minimum load.
2. The proposed generator's nameplate capacity does not exceed 15% of the annual peak load for the line section with which it will interconnect. A line section is defined as that section of the distribution system between two sectionalizing devices.
3. The proposed generator does not contribute more than 10% to the distribution circuit's maximum fault current at the point of the nearest interconnection with Northeastern's primary distribution voltage.
4. The proposed generator's nameplate capacity, in aggregate with all of the other generators on the distribution circuit, will not cause any distribution protective devices to exceed 85% of their short circuit interrupting capability.
5. If the proposed generator is to be interconnected on a single-phase shared secondary, the total name plate capacity of all of the generators on the shared secondary, including the proposed generator, does not exceed 20 kW.

Any generation exceeding the above limitations and constraints will not be allowed to interconnect to Northeastern's distribution system. With regards to system capacity limitations and constraints, distributed generation projects will be evaluated on a first-come, first-served basis. Any modifications to Northeastern's distribution system required for the interconnection of a distributed generation facility are at the expense of the member.

XIV. OTHER CONDITIONS OF SERVICE

1. Service shall be provided based upon Northeastern's Rules and Regulations.
2. Service under this rate will be furnished on a continuous twelve-month basis.
3. Northeastern may require corrective measures or devices for any generator or inverter that in the opinion of Northeastern will cause objectionable voltage fluctuations to other members. The member shall limit harmonic distortion per IEEE Standard 519.
4. At the removal of the distributed generation installation, the member shall revert to the standard tariff in effect and applicable to the member.
5. Northeastern shall have access to the distributed generation installation at all times.
6. Interruption or temporary stoppage of the supply of electric energy occasioned by fire, strike, equipment failure and casualty, or acts of God or public authorities, beyond the control of Northeastern, shall not constitute a breach of the obligation of Northeastern.

XV. POWER COST ADJUSTMENT

Refer to Appendix A.

XVI. TERMS OF PAYMENT

Refer to Appendix B.

XVII. LATE PAYMENT CHARGE

Refer to Appendix B.

XVIII. INTERPRETATION

Refer to Appendix B.

XIX. ALL OTHER NON-RECURRING CHARGES

Refer to Appendix B.

XX. OPERATION ROUND UP

Refer to Appendix E.