

North Branch Water & Light
Interconnection Guidelines
For Customer-Owned
New Distributed Generation
For
40 kW Or Less



Overview

The Interconnection Guidelines for Customer-Owned New Distributed Generation for 40 kW or less (Guidelines) describes the requirements for connecting new generation of 40 kW or less to North Branch Municipal Water & Light (NBWL) distribution system. The primary purpose for the Guidelines is to ensure that any generation system installed functions reliably and does not adversely affect the safety and reliability of the electrical distribution system and those working on the system.

The Guidelines will provide applicants (Customers) with an understanding of the process and information required allowing NBWL to review and accept the applicant's equipment for interconnection in a reasonable and expeditious manner. Generation not operating in parallel is not subject to the Guidelines. The Guidelines will ensure that customers are aware of the technical interconnection requirements and NBWL interconnection policies and practices.

Application Process

Step 1: The inquiry is reviewed by NBWL to determine the nature of the project.

NBWL staff will discuss the scope of the project with the potential Customer to determine what specific information and documents (i.e. application, technical requirements, specifications, applicable rate schedules and metering requirements) will be provided to the potential applicant. The preliminary technical feasibility of the project at the proposed location may also be discussed at this time.

Step 2: Potential customer files an application.

The filing must include the completed standard application form, including generator information, and a drawing of the proposed generation and interconnecting system.

Step 3: NBWL performs a review of customer's proposed interconnection design package.

NBWL will review the design package to ensure that the plans and design satisfy the goal of attaining a safe, reliable, and efficient interconnection and satisfy the technical requirements for interconnection. Upon completion of the review, NBWL will notify the Customer of its final acceptance of the Customer's design or an explanation of the technical requirements the design fails to meet.

Step 4: Customer commits to NBWL metering requirements and possible construction of distribution system modifications.

Metering for generation interconnection may require a non-standard metering installation. The Customer will be responsible for the incremental costs of the metering over standard metering installation for the facility. If any construction on the utility distribution systems is determined to be required for the interconnection, the Customer will be required to pay an advance payment for the estimated costs associated with the system modification.

Step 5: Project construction.

The Customer will build their facility in accordance with the previously submitted design, with comments incorporated into the installation design. NBWL will commence construction and installation of any system modifications and metering requirements as identified in Step 4 after receipt of estimated system upgrade costs. NBWL system modifications will vary in construction time depending on the extent of work and equipment required. The schedule for this work will be discussed with the Customer.

Step 6: Interconnection.

The Customer's facility will be allowed to commence parallel operation upon electrical inspection by agencies having jurisdiction at the location, and satisfactory demonstration to NBWL of the safe operation of the customer-owned generation system when interconnected to the NBWL distribution system. In addition, the Customer must have complied with and must continue to comply with any applicable code, safety, operating, maintenance, and or technical requirements. The Customer is strongly urged to follow the manufacturer's maintenance, testing, and operation instructions for the life of the installed generation and associated controls.

Step 7: Final acceptance and NBWL cost reconciliation.

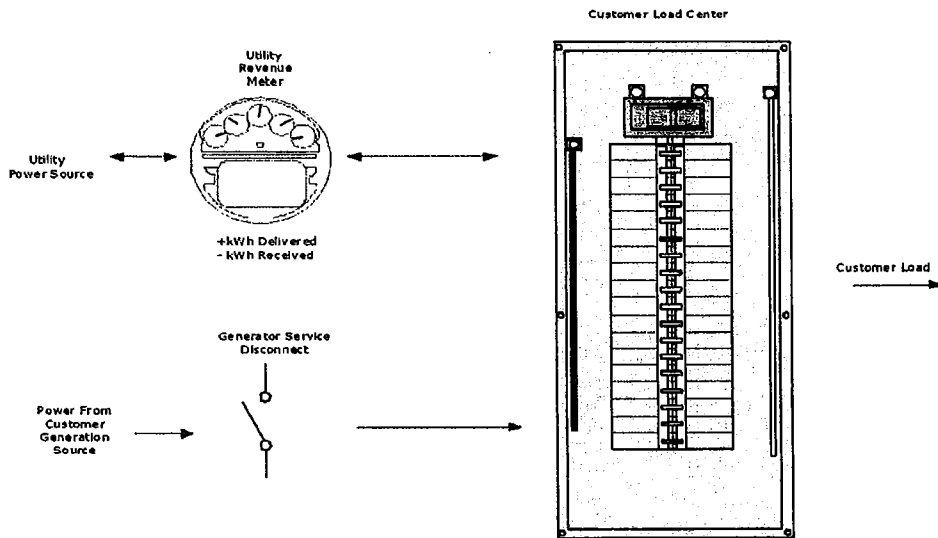
Within a reasonable time frame after interconnection, NBWL will review the results of its on-site verification and issue to the Customer a formal letter of acceptance for interconnection. NBWL will also reconcile its actual costs related to the Customer's project against any advance payments for Utility distribution system construction made by the Customer. The Customer will receive either a bill for any balance due or a reimbursement for overpayment as determined by NBWL.

Requirements for Interconnection

Metering

Metering for generation interconnection may require a non-standard metering installation. For a generation interconnection, the Customer shall install (or reimburse utility for installing), a meter that will measure and store hourly data of input and output using meters compatible with the utility meter reading systems and associated communications. In the case of a Qualifying Facility (as defined by Minnesota Statutes 216B.164) having less than 40 kilowatts of capacity which can demonstrate that it expects no net export of

power in any month and elects the net energy billing option under the Uniform Statewide Contract for Cogeneration and Small Power Production Facilities, a standard bi-directional meter will suffice so long as there continues to be no net export from such facility. Depending on the nature of the Customer's installation, a new meter socket may need to be installed. This installation will be the Customer's responsibility. The following diagram represents "Net Metering":



Generator Service Disconnect

The Customer shall provide a visible, lockable disconnect device which is readily accessible to NBWL at all times of the year per MN State Rule 7835.5200. This disconnect switch shall be clearly marked, "Generator Disconnect Switch".

Permits

The Customer will provide NBWL with copies of all electrical permits and inspections from agencies having jurisdiction over the location of the installation before interconnection of the generation will be allowed.

System Inspection

The generation system will not be allowed to operate in parallel with NBWL until the Customer provides a satisfactory demonstration to NBWL showing the safe operation of the generation system.

Insurance

All customers are urged to obtain adequate liability insurance to cover risks, liabilities, and consequences which may arise as a result of interconnection with a utility system. NBWL recommends a minimum liability umbrella policy of \$1,000,000 due to the increased potential liability which can result from an operation of a generating facility. The Customer should contact their insurance carrier to advise them of the generating interconnected equipment is being added to the home or facility.

Billing

Billing for the energy usage and delivery, will be based on a net metering calculation for generation less than 40 kW. Reimbursement for kWh produced and delivered to NBWL above and beyond the Customer's own use will be based on the current rate in effect set by the NBWL Commission based on the customer class.

Rates

NBWL will calculate the Customer's bill for the billing period using a net metering calculation and with the following conditions:

1. The Customer will be billed for service in accordance with the rate structure and monthly charges that the Customer would be assigned if the Customer had not interconnected a Qualifying Facility.
2. If electricity supplied by NBWL exceeds electricity generated by the customer during a billing period, the Customer shall be billed for the net energy supplied by NBWL in accordance with the appropriate rate schedule. (Rate schedule attached).
3. If electricity generated by the Customer exceeds the electricity supplied by the grid during the billing period, NBWL shall credit the Customer's account by the dollar value of the excess kilowatt-hours generated. This dollar value will be determined by multiplying the excess kilowatt-hours generated, and current rate in effect set by the NBWL Commission based on the customer class.
 - a. An outstanding credit balance on the account will be applied against the Customer's total monthly charges from NBWL in each subsequent month until the credit balance is completely offset. If the current month's charges from NBWL for the Customer totals less than the outstanding credit balance on the Customer's account prior to the current month's charges, the Customer will not be billed for any charges in the month. (The phrase "total monthly charges from NBWL" refers to all charges NBWL may bill for. Currently that includes, among others, these charges: electric energy sold by NBWL, electric monthly customer charge, water use, water monthly customer charge, sales taxes, sewer charges, storm water charges, Infrastructure Replacement/Availability charges, etc.)

- b. If the Customer leaves the system, an outstanding credit balance on the account due to excess kilowatt-hours generated will be paid to the customer after final reads process through the billing system in the same manner an outstanding credit balance on the account due to other reasons is handled.

4. The rates for sales and purchases of electricity may change over the time of this agreement. Also, at times the rates may need to be adjusted retroactively. Therefore, the Customer and NBWL agree that sales and purchases will be made under the rates in effect each month during the time this agreement is in force.

Operation

The generation system shall not affect the safety, reliability, or operation of NBWL's distribution system or adversely affect the quality of service of any adjacent customers. The generation system shall not supply power to NBWL during any outages of the distribution system or be used to energize any portion of a de-energized utility circuit for any reason. Islanding is not permitted.