



## Summary of Requirements For Interconnections Proposed On The NSTAR Electrical Grid

This is just a portion of the requirements for interconnection to the NSTAR electrical grid. For a complete list, see the Interconnection Tariff MDTE 162A on NSTAR's web site – [www.nstar.com](http://www.nstar.com).

The NSTAR requirements listed below are noted with the following issues in mind: (1) distributed generation (DG) operation does not cause harm or damage to the utility. (2) DG operations does not cause problems for other customers on the NSTAR distribution system. (3) Most importantly, the safety of personnel and the public is not jeopardized by the operation of the DG. These concerns are mainly addressed by our specifications of the design and operation of the DG/utility interface.

1. Three (3) hard copies of the **Application Package** are required. If electronic copies are available only one hard copy of data is required along with the electronic copy. The application package shall include:
  - A. Completed and signed interconnection application.
  - B. Relay Protection scheme and type of relays to be used.
  - C. Facility one-line diagram.
  - D. Physical location map.
2. A copy of the **User Manual** for each DG device (hard copy or electronic) is required (except inverter based devices less than 10 kW).
3. For inverter based devices less than 10kW, the **Manufacturers Cut-sheet** showing that it complies with UL1741 is required to be submitted at the time of application.
4. Qualified Facility (QF) certificate from FERC.
5. Each location will have a **Exterior Lockable Disconnect Switch** with a door that can be opened to view the switch contacts. This disconnect shall be accessible to NSTAR 24-hours per day, 7 days per week preferably outside. This allows NSTAR personnel to disconnect the DG from the grid, lock switch in the open position, and to have the visible means of determining status of the switch. Permission to install the disconnect switch inside must be obtained from the Interconnection Program Manager.
6. This facilities generation and interconnection installation needs to meet all applicable national, state and local construction codes.
7. A copy of the **Inspection Certificate** is required when construction of DG is complete and before the unit is interconnected to the NSTAR Electrical Grid.



8. A **Third Party Ownership Agreement** will be required if the owner of the DG device is installing unit in a location for which they do not own.
9. A signed **Interconnection Agreement** is required prior to the DG Unit being interconnected to the NSTAR electrical grid.
10. The owner of the DG is required to add NSTAR as an insured for the proper amount and the **Insurance Certificate** shall be sent to NSTAR prior to the unit being interconnected to the NSTAR electrical grid. The certificate will be required annually to prove continued insurance. This does not apply to Inverter-based DG devices sized 10kW or below.
11. Copies of **Certified Test Reports** for protection devices (if applicable) are required to be sent to NSTAR after tests are completed.
12. Inspection and start-up testing. This facility shall provide NSTAR at least two weeks notice before the initial energizing and start-up testing of the generating equipment and NSTAR will witness the testing of any equipment and protective systems associated with the interconnection. The customer shall revise and resubmit the application information and any proposed modification that may affect the safe and reliable operation of the NSTAR system.
13. Site testing and commissioning. Testing of protection systems shall include procedures to functionally test all protective elements of the system including tripping of the generator and the interconnection point. Testing will verify all protective set points and relay/breaker trip timing. NSTAR will witness initial testing of installed switchgear, protection systems, and generator. The facility is responsible for routine maintenance of the generator and control and protective equipment. The customer will maintain records of maintenance, which NSTAR may review at reasonable times. The customer agrees to the periodic testing of protective functions. Frequency of testing to conform with general practice which at present is not more frequent than every two years.
14. Permanent labeling of utility disconnect. This will make it easy for utility personnel to locate generator disconnect (visible lockable break point).