

1 **Generating Facility Expedited/Standard Process**
2 **Interconnection Application**

3 **Contact Information**

Date Prepared: _____

4 Legal Name and address of Interconnecting Customer applicant (or, if an Individual, Individual's Name)

5 Company Name: _____ Contact Person: _____

6 Mailing Address: _____

7 City: _____ State: _____ Zip Code: _____

8 Telephone (Daytime): _____ (Evening): _____

9 Facsimile Number: _____ E-Mail Address: _____

10 **Alternative Contact Information (if different from Applicant)**

11 **NOTE: add lines/sections for coordinating contractor & local electrical contractor as appropriate.**

12 Name: _____

13 Mailing Address: _____

14 City: _____ State: _____ Zip Code: _____

15 Telephone (Daytime): _____ (Evening): _____

16 Facsimile Number: _____ E-Mail Address: _____

17 Ownership (include % ownership by any electric utility): _____

18 Confidentiality Statement: **not applicable in RI or NH:** "I agree to allow information regarding the
19 processing of my application (without my name and address) to be reviewed by the Massachusetts DG
20 Collaborative that is exploring ways to further expedite future interconnections." Yes ___ No ___
21

22 **Generating Facility Information**

23 Address of Facility (if different from above): _____

24 City: _____ State: _____ Zip Code: _____

25 Electric Service Company: _____ Account Number: **(required – on bill)** _____

26 Meter Number _____ **(required – on bill)**

27 Type of Generating Unit: Synchronous _____ Induction _____ Inverter _____

28 Manufacturer: _____ Model: _____

29 Nameplate Rating: _____ (kW) _____ (kVAR) _____ (Volts) Single ___ or Three ___ Phase

30 Prime Mover: Fuel Cell ___ Recip Engine ___ Gas Turb ___ Steam Turb ___ Microturbine ___ PV ___ Other ___

31 Energy Source: Solar ___ Wind ___ Hydro ___ Diesel ___ Natural Gas ___ Fuel Oil ___ Other _____
(Specify)

32 For Solar PV provide system total DC-STC rating: _____ (KW)

33 UL1741 Listed? Yes ___ No ___ Need an air quality permit from DEP? Yes ___ No ___ Not Sure ___

34 Planning to Export Power? Yes ___ No ___ A Cogeneration Facility? Yes ___ No ___

35 Anticipated Export Power Purchaser: _____

36 Export Form? Simultaneous Purchase/Sale ___ Net Purchase/Sale ___ Net Metering ___ Other _____
(Specify)

37 Est. Install Date: _____ Est. In-Service Date: _____ Agreement Needed By: _____

38 **Application Process**

39 I hereby certify that, to the best of my knowledge, all of the information provided in this application is true:

40 Interconnecting Customer Signature: _____ Title: _____ Date: _____

41 The information provided in this application is complete:

42 Company Signature: _____ Title: _____ Date: _____

Generating Facility Technical Detail

Date: _____

List components of the generating facility that are currently certified and/or listed to national standards

	Equipment Type	Manufacturer	Model	National Standard
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____

Total Number of Generating Units in Facility? _____

Generator Unit Power Factor Rating: _____

Max Adjustable Leading Power Factor? _____ Max Adjustable Lagging Power Factor? _____

Generator Characteristic Data (for all inverter-based machines)

Max Design Fault Contribution Current? _____ Instantaneous ___ or RMS? _____

Harmonics Characteristics: _____

Start-up power requirements: _____

Generator Characteristic Data (for all rotating machines)

Rotating Frequency: _____ (rpm) Neutral Grounding Resistor (If Applicable): _____

Additional Information for Synchronous Generating Units

Synchronous Reactance, Xd: _____ (PU) Transient Reactance, X'd: _____ (PU)

Subtransient Reactance, X''d: _____ (PU) Neg Sequence Reactance, X₂: _____ (PU)

Zero Sequence Reactance, X₀: _____ (PU) KVA Base: _____

Field Voltage: _____ (Volts) Field Current: _____ (Amps)

Additional information for Induction Generating Units

Rotor Resistance, Rr: _____ Stator Resistance, Rs: _____

Rotor Reactance, Xr: _____ Stator Reactance, Xs: _____

Magnetizing Reactance, Xm: _____ Short Circuit Reactance, Xd'': _____

Exciting Current: _____ Temperature Rise: _____

Frame Size: _____

Total Rotating Inertia, H: _____ Per Unit on KVA Base: _____

Reactive Power Required In Vars (No Load): _____

Reactive Power Required In Vars (Full Load): _____

Additional information for Induction Generating Units that are started by motoring

Motoring Power: _____ (kW) Design Letter: _____

Interconnection Facilities Technical Detail

Date: _____

Will a transformer be used between the generator and the point of interconnection? Yes____ No____

Will the transformer be provided by Interconnecting Customer? Yes____ No____

Transformer Data (if applicable, for Interconnecting Customer-Owned Transformer):

Nameplate Rating: _____ (kVA) Single ___ or Three ___ Phase

Transformer Impedance: _____ (%) on a _____ KVA Base

If Three Phase:

Transformer Primary: _____ (Volts) ___Delta ___ Wye ___ Wye Grounded ___ Other

Transformer Secondary: _____ (Volts) ___Delta ___ Wye ___ Wye Grounded ___ Other

Transformer Fuse Data (if applicable, for Interconnecting Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt & Total Clearing Time-Current Curves)

Manufacturer: _____ Type: _____ Size: _____ Speed: _____

Interconnecting Circuit Breaker (if applicable):

Manufacturer: _____ Type: _____ Load Rating: _____ Interrupting Rating: _____ Trip Speed: _____
(Amps) (Amps) (Cycles)

Interconnection Protective Relays (if applicable):

(If microprocessor-controlled)

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

(If discrete components)

(Enclose copy of any proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed Setting: _____

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Current Transformer Data (if applicable):

(Enclose copy of Manufacturer's Excitation & Ratio Correction Curves)

Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

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Potential Transformer Data (if applicable):

Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

General Technical Detail

Date: _____

Enclose 3 copies of a site electrical One-Line Diagram showing the configuration of all generating facility equipment, current and potential circuits, and protection and control schemes with a stamp from a professional engineer (PE) registered in the state of the facility.

Enclose 3 copies of any applicable site documentation that indicates the precise physical location of the proposed generating facility (e.g., USGS topographic map or other diagram).

Proposed Location of Protective Interface Equipment on Property:
(Include Address if Different from Application Address)

Enclose copy of any applicable site documentation that describes and details the operation of the protection and control schemes.

Enclose copies of applicable schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Please enclose any other information pertinent to this installation.

**MAIL COMPLETE PACKAGE TO: National Grid, Attn: Distributed Generation
(Alex Kuriakose), 40 Sylvan Rd (E1.553), Waltham, MA, 02451-1120**