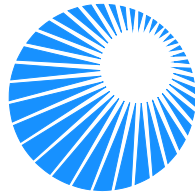


PUBLIC SERVICE OF NEW HAMPSHIRE



Guidelines for Generator Interconnection

January 2015

Excluding Inverter Based Projects 100 kVA and less

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SECTION 1

1.0 Introduction and Executive Summary

1.1 Introduction

Welcome! These Guidelines have been prepared to assist power-generating customers wishing to interconnect with the Public Service of New Hampshire Electric Power System (the “EPS”).

PSNH is responsible for the distribution of electric power throughout much of the State of New Hampshire. In order to carry out their responsibilities to all customers, PSNH must assure that all Interconnections are made according to certain protocols and procedures, which are described in more detail in these Guidelines.

These Guidelines do not apply to certified inverter-based Generating Facilities of 100 kVA and less. Separate guidelines, entitled “Interconnection Standards For Inverters Sized Up To 100 kVA,” were created for such Generating Facilities.

These Guidelines do not apply to requests to connect to PSNH transmission equipment (115 kV and higher).

If the requirements of these Guidelines are inconsistent with the New Hampshire Code of Administrative Rules – Chapter Puc 900 (“Net Metering”), then Chapter Puc 900 shall apply.

Generators intending to make an Interconnection are advised to (i) refer to the Technical Requirements for Non-Utility Generation, attached hereto as Exhibit A, for guidance in the design of the Generating Facility and the Interconnection Facility; (ii) consult with PSNH prior to purchase of equipment in connection with the proposed Interconnection; and (iii) contact the PSNH Distributed Generation group (PSNH DG) to determine where and how to apply.

Note regarding Sales of Energy and Capacity and ISO-NE Compliance

Sales of electrical products produced by the Generator are not addressed herein. The Generator is required to act as their own representative in all matters related to ISO-NE. PSNH will work with the Generator, at their specific request, to ensure proper registration of the Generator within the ISO-NE markets. Certain markets require applications and qualification processes with very long lead times (e.g. the capacity market may require registration more than 3 years in advance). The Generator is advised to be informed in how the ISO-NE market rules influence the revenues applicable to individual generators and is advised to hire a knowledgeable ISO-NE consultant, if desired.

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1.2 Executive Summary

This Executive Summary provides a quick overview of the Interconnection process and is not meant to replace the more detailed description of requirements contained in the remainder of these Interconnection Guidelines.

The first step of the Interconnection process is to identify under which jurisdiction an Interconnection falls; the Federal Energy Regulatory Commission (FERC) or the State of New Hampshire Public Utility Commission (NHPUC). Generators that intend to interconnect to the EPS and sell power or ancillary services to a third party, or in the wholesale market may under certain circumstances fall under FERC jurisdiction. State (NHPUC) jurisdictional interconnection applications are administered by PSNH, while FERC jurisdictional applications are administered by the Independent System Operator – New England, Inc. (ISO-NE).

Generators should contact PSNH DG to determine the appropriate jurisdiction for their project. At that time, DG, in consultation with other NU, PSNH and/or ISO-NE staff, will examine the proposed point of interconnection and determine whether the interconnection falls under New Hampshire State jurisdiction or the jurisdiction of the FERC. If the project is FERC jurisdictional, the Generator will be instructed to follow ISO-NE tariff Schedule 22 or Schedule 23 to continue the interconnection process. If the project is State jurisdictional, this document will govern the process.

The determination primarily involves whether or not the proposed generator will be interconnecting to a PSNH distribution facility that is subject to the ISO-NE tariff. That question requires a review of other generating resources or wholesale transactions located on the same PSNH distribution facility. In this context, “distribution facility” is interpreted as the entire PSNH circuit all the way back to the substation, and shall include taps off from that circuit that are at similar or lower voltages. If the circuit (as defined) already has an interconnected generator that is selling power in the ISO-NE administered markets, or if the circuit supports a wholesale transaction (e.g. delivery point with the New Hampshire Electric Co-op), then the circuit is considered FERC jurisdictional and, therefore, the proposed new generator must follow the FERC / ISO-NE process. In addition, requests to interconnect to the Transmission System are FERC jurisdictional.

FERC Jurisdictional Interconnections:

Generators seeking to Interconnect to the EPS whose Interconnections fall under FERC’s jurisdiction must submit their application to ISO-NE in accordance with the procedures in the ISO-NE Transmission, Markets and Services Tariff (ISO-NE Tariff), Schedule 22 (for Generators larger than 20 MW) or Schedule 23 (for Generating Facilities up to and including 20 MW). ISO-NE will administer the interconnection process.

State Jurisdictional Interconnections:

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The state-jurisdictional Interconnection process begins when a Generator submits a PSNH Generator Interconnection Request (IR) to PSNH. PSNH will review the application and submittals and work with the customer to resolve any discrepancy and obtain any missing information. PSNH will complete the application review within ten (10) Business Days and notify the Generator. **Note: effective January 1, 2015 all projects must submit a Pre-Application form (available on the website) and the applicable fee prior to submitting the Interconnection Request (IR).** This allows PSNH DG staff the opportunity to prepare an overview of the proposed project, the site, and nearby PSNH distribution circuits in order to facilitate the scoping meeting and interconnection study process described herein.

Upon completion of the IR review, if an Interconnection Study (Feasibility, System Impact and/or Facility) is required, PSNH will provide a Study Agreement and an estimate of the costs to complete the Study. PSNH will request that the Generator execute the Agreement within ten (10) Business Days and pay a 50% deposit towards the estimated cost of the Study. Some or all of the Studies may be required and PSNH will work with the Generator to identify the required Studies. Each Study will require its own Study Agreement.

Transmission studies may be required for some Interconnections. Transmission studies must be conducted in accordance with applicable ISO-NE rules and procedures. These Guidelines do not address the transmission studies process required by ISO-NE. The Generator may obtain guidance from the ISO-NE Tariff, Schedule 22 and 23 and Section I.3.9. However, during the Interconnection process, PSNH will provide guidance including information concerning the scope, duration and cost of the transmission studies.

At the conclusion of the studies, PSNH will submit an Interconnection Agreement (IA) to the Generator. The Generator will be required to sign the IA and submit full payment for the estimated costs for upgrades required to interconnect the Generating Facility. At the conclusion of the project, PSNH will reconcile actual vs. estimated cost and reimburse or invoice the Generator accordingly. For projects interconnected behind a retail customer meter, the Interconnection Agreement shall be between the retail customer and PSNH.

Additional Process Steps for Generators greater than 1 MW:

Regardless of the Interconnection jurisdiction, each Generator wishing to interconnect a Generating Facility larger than 1 MW must comply with the ISO-NE Planning Procedure 5 (PP5), which is the procedure for a Proposed Plan Application (PPA) under Section I.3.9 of the ISO-NE Tariff. This process must be completed before the Generator may interconnect such Generating Facility. It is important to note that the PPA process is an ISO-NE requirement, even if the Interconnection of such facility falls under state jurisdiction.

While the Generator is ultimately responsible for the PPA application and the associated data to be submitted to ISO-NE, PSNH will provide support to the Generator if the

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Generator is not a “Governance Participant” (as such term is defined in the Participants Agreement; among ISO-NE and the New England Power Pool) at the time the PPA is submitted to PSNH. Typically, PSNH will file the PPA on behalf of such non-Governance Participant Generator.

Additionally, PSNH will represent such non-Governance Participant Generator in ISO-NE proceedings in accordance with the current ISO-NE rules; provided, however, that such Generator shall remain solely responsible for, among other things:

- (a) the completion of the PPA and the accuracy of the information contained therein,
- (b) the advance payment based on a non-binding good faith estimate of all costs in connection with any required Transmission System Impact Study, and
- (c) the payment of all costs associated with transmission upgrades identified through the ISO-NE approval process.

Each non-Governance Participant Generator wishing to interconnect a Generating Facility larger than 1 MW must read and be familiar with PP5, Section I.3.9 of the ISO-NE Tariff and other relevant ISO-NE guidance on the PPA process. Further, such non-Governance Participant Generator can communicate directly with ISO-NE to seek assistance concerning the applicable PPA requirements and associated issues.

Governance Participants are responsible for filing their own PPA with the ISO-NE and representing themselves in connection with all ISO-NE proceedings.

SECTION 2

2.0 Pre Application

2.1 PSNH DG will serve as the primary point of contact for all Interconnections. Copies of these Guidelines, information and forms can be obtained from PSNH DG.

2.2 PSNH Distributed Generation group can be contacted:

by phone: 1-603-634-2931; or
by email: psnhesd@psnh.com
by mail or courier:

PSNH Distributed Generation
P.O. Box 330
Manchester, NH 03105-0330

2.3 During the initial contact(s) with DG, the Interconnection Customer (IC or Generator) will be educated about the PSNH interconnection process and offered, either via email or link to the DG webpage, a copy of 1) these Guidelines for Generator Interconnection, 2) the Technical Requirements for Non-Utility Generation (Exhibit A), 3) the PSNH Standard Interconnection Agreement (Exhibit B or B-1, as applicable), and 4) any other procedure, form or guideline relevant to the process.

2.4 The IC shall submit a pre-application form (posted on the website) to request information about the EPS in the area of the proposed generator. PSNH DG will review the nearby circuits, substations, etc. and may conduct a brief meeting with PSNH System Planning and/or the PSNH Circuit Owner. DG may discuss with the IC in general terms the feasibility of the proposal and the types of system upgrades that may be required. PSNH reserves the right to charge a fee for pre-application form reviews. More significant study efforts are discussed below.

Note: DG will only provide interconnection information, whether informal or through detailed studies, for specific generator proposal at specific generator locations.

SECTION 3

3.0 Application

3.1 Applicability

3.1.1 These Guidelines are applicable to Interconnection Requests for Generating Facilities which fall under NHPUC jurisdiction. Generators unsure as to whether the proposed Interconnection is subject to these Guidelines should contact the PSNH DG. If the requirements of this section are inconsistent with the New Hampshire Code of Administrative Rules – Chapter Puc 900 (“Net Metering”), then Chapter Puc 900 shall apply.

3.1.2 Requests for Interconnection received by PSNH shall be processed as follows:

3.1.2.1 A request to interconnect a certified inverter-based Generating Facility no larger than 100 kVA shall be evaluated under the “Guidelines for Certified Inverter Based Generating Facilities, 100 kVA and Less” and in accordance with the applicable provisions of the Chapter Puc 900 of the NH PUC rules (“Net Metering for Customer-Owned Renewable Energy Generation Resources of 1,000 Kilowatts or Less”).

3.1.2.2 All other requests shall be evaluated under the Study Process (Section 4), as applicable.

3.2 Interconnection Request

3.2.1 Prior to making an Interconnection Request, Generators should contact PSNH DG to determine where to apply. If an Interconnection Request is sent to PSNH in error (*e.g.*, FERC jurisdiction) PSNH will return such Interconnection Request to the Generator and direct them to apply via ISO-NE.

3.2.2 Interconnection Requests will not be processed unless and until the Pre-Application process has been complete.

3.2.3 An Interconnection Request must be in the form of Attachment I, and addressed to the appropriate PSNH DG contact.

3.2.4 PSNH shall date- and time-stamp the Interconnection Request upon receipt. Such date- and time-stamp shall be used for the purposes of the timetables set forth in these Guidelines.

3.2.5 Within ten (10) Business Days of the receipt of the Interconnection Request, PSNH shall notify the Generator if such Interconnection Request is incomplete. The Generator will have fifteen (15) Business Days from the date of such notice to submit the listed information or to

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request an extension of time to provide such information. If the Generator does not provide the listed information or a request for an extension of time within such fifteen (15) day period, then the Interconnection Request will be deemed withdrawn, and such deemed withdrawal shall be subject to Section 3.7. An Interconnection Request will be deemed complete upon receipt of the listed information by PSNH.

3.3 Insurance Requirements

Generators interconnecting a Generating Facility to the EPS of PSNH shall maintain general liability insurance in the amounts set forth in the following table, per Interconnection at all times during the Interconnection. This requirement shall be incorporated into the Interconnection Agreement (see Exhibit B or B-1 for detailed insurance requirements). Prior to interconnection, the Generator shall have its insurer furnish to PSNH certificates of insurance evidencing the required insurance coverage.

If the requirements of this section are inconsistent with the New Hampshire Code of Administrative Rules – Chapter Puc 900 (“Net Metering”), then Chapter Puc 900 shall apply.

Liability Insurance	
Nameplate Rating*	Minimum Liability Insurance Required
Not Greater than 500 kW	\$1,000,000
Greater than 500 kW	\$3,000,000

*All Nameplate Ratings are based on aggregate generation at the site.

3.4 Modification

Any modification to machine data, equipment configuration or the Interconnection site not agreed to in writing by PSNH may be deemed a withdrawal of the Interconnection Request. In the event of a deemed withdrawal, the provisions of Section 3.7 shall apply.

3.5 Site Control

Documentation evidencing site control must be submitted with the Interconnection Request. Site control may be demonstrated through:

- 3.5.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility;
- 3.5.2 An irrevocable option to acquire any of the property rights set forth in Section 3.5.1; or

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3.5.3 An exclusivity or other business relationship between the Generator and an entity having the right to sell, lease, or grant the Generator the right to possess or occupy a site for such purpose; or

3.5.4 Filed applications for required permits with respect to a site on Federal or State property.

3.6 Queue Position

3.6.1 PSNH shall assign to each Interconnection Request a queue position based upon date of the date-stamp described in Section 3.2.3. The queue position of each Interconnection Request will be used to determine the cost responsibility for any EPS upgrades necessary to accommodate the Interconnection.

3.7 Withdrawal

3.7.1 The Generator may withdraw its Interconnection Request at any time by written notice of such withdrawal to PSNH.

3.7.2 In addition, if the Generator fails to adhere to all requirements of these Guidelines, subject to Section 3.7.3, PSNH shall deem the Interconnection Request to be withdrawn and shall provide written notice to the Generator of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal.

3.7.3 Upon receipt of such written notice, if the Generator wishes to dispute the withdrawal notice, the Generator shall have fifteen (15) Business Days in which to respond with information or actions that cure the deficiency.

3.7.4 Withdrawal of an Interconnection Request shall result in the loss of queue position assigned to such Interconnection Request.

3.7.5 If a Generator disputes such withdrawal and loss of queue position, then the Generator's Interconnection Request shall be removed from the queue until such time that the outcome of the dispute restores its queue position.

3.7.6 Within thirty (30) days following a withdrawal, a Generator that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to PSNH and any Affected Parties all costs prudently incurred with respect to such Interconnection Request prior to the receipt of notices described Section 3.7.1 or 3.7.2, as the case may be.

3.7.7 A Generator who fails to pay all monies due pursuant to Section 3.7.6 shall not be eligible to obtain any Interconnection Study reports or submit subsequent Interconnection Requests.

SECTION 4

4.0 Study Process

4.1 Applicability

The Study Process shall be used by a Generator proposing to interconnect its Generating Facility with the Distribution System if the Generating Facility is either non-inverter based or is inverter based and greater than 100 kVA.

4.2 Scoping Meeting

- 4.2.1 Unless the Parties mutually agree to forgo the Scoping Meeting, a Scoping Meeting shall be held within ten (10) Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties. PSNH, the Generator and the Affected Party(ies) will bring to the meeting personnel, including system engineers, and other resources as may be reasonably necessary in order to accomplish the purpose of the meeting.
- 4.2.2 The purpose of the Scoping Meeting is to discuss the Interconnection Request, review the appropriate jurisdiction for application submittal, and review whether the proposed project will require a corresponding Transmission System Impact Study to be performed and also to review existing studies relevant to the Interconnection Request. At the Scoping Meeting, the Parties shall further discuss whether PSNH should perform a Feasibility Study or proceed directly to the Distribution and Transmission System Impact Studies.
- 4.2.3 If the Parties agree that a Feasibility Study should be performed, PSNH shall provide the Generator, as soon as practicable, but not later than five (5) Business Days after the Scoping Meeting, a Feasibility Study Agreement in the form of Attachment II, including an outline of the scope of the Feasibility Study and a non-binding good faith estimate of the cost to perform the Feasibility Study. The Generator must return the executed Feasibility Study Agreement and associated deposit within fifteen (15) Business Days.
- 4.2.4 If PSNH determines that a Feasibility Study is not required and the Parties agree to proceed to the System Impact Studies, then PSNH shall provide the Generator, no later than five (5) Business Days after the scoping meeting, the appropriate System Impact Study agreement(s) including an outline of the scope of such System Impact Study and a non-binding good faith estimate of the cost to perform such System Impact Study. The form of System Impact Study Agreement is attached hereto as Attachment III. The Generator must return the executed System Impact Study Agreement and associated deposit within fifteen (15) Business Days.

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4.3 Feasibility Study

- 4.3.1 The Feasibility Study shall identify any potential adverse system impacts that would result from the Interconnection of the Generating Facility.
- 4.3.2 The Generator must pay 50% of the good faith cost estimate set forth in the Feasibility Study Agreement prior to PSNH's initiation of the Feasibility Study. The scope of and cost responsibilities for the Feasibility Study are more fully described in the Feasibility Study Agreement (Attachment II).
- 4.3.3 If the Feasibility Study shows the potential for adverse system impacts and PSNH determines that additional study is required, the review process shall proceed to the System Impact Study(ies). PSNH shall provide the Generator, no later than five (5) Business Days after delivery of the Feasibility Study results, the appropriate System Impact Study agreement(s) including an outline of the scope of such System Impact Study and a non-binding good faith estimate of the cost to perform such System Impact Study. The form of System Impact Study Agreement is attached hereto as Attachment III. The Generator must return the executed System Impact Study Agreement and associated deposit within fifteen (15) Business Days.
- 4.3.4 If the Feasibility Study shows no potential for adverse system impacts or if PSNH determines that the Feasibility Study has adequately evaluated all system impacts, the review process shall proceed to the Facility Study. PSNH shall provide the Generator, no later than five (5) Business Days after delivery of the Feasibility Study results, a Facility Study Agreement in the form of Attachment IV, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. The Generator must return the executed Facility Study Agreement and associated deposit within fifteen (15) Business Days.
- 4.3.5 If the Feasibility Study shows that no additional facilities or EPS upgrades are necessary such that a Facility Study is not required, an Interconnection Agreement shall be provided to the Generator for execution within five (5) Business Days after the delivery of the Feasibility Study results. The Generator must return the executed Interconnection Agreement within thirty (30) Business Days.

4.4 System Impact Studies

- 4.4.1 The System Impact Studies shall (a) identify and detail the EPS impacts that would result if the proposed Generating Facility were interconnected without project modifications (e.g. specific protection and control features) or electric system modifications, focusing on the

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adverse system impacts identified in the Feasibility Study, and/or (b) study potential impacts, including but not limited to those identified in the Scoping Meeting.

- 4.4.2 A payment of 50% of the good faith estimated System Impact Study costs shall be required from the Generator prior to initiation of the System Impact Studies. The scope of and cost responsibilities for the System Impact Study are more fully described in the System Impact Study Agreement (Attachment III).
- 4.4.3 Any Affected Parties shall be invited to participate in the System Impact Studies and provide information necessary or helpful to complete the System Impact Studies.
- 4.4.4 If the System Impact Study identifies that additional facilities and/or upgrades to the EPS are required, the review process shall proceed to the Facility Study. PSNH shall provide the Generator, no later than five (5) Business Days after delivery of the System Impact Study results, a Facility Study Agreement in the form of Attachment IV, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. The Generator must return the executed Facility Study Agreement and associated deposit within fifteen (15) Business Days.
- 5.4.5 If the System Impact Study shows that no additional facilities or EPS upgrades are necessary such that a Facility Study is not required; or if PSNH determines that the System Impact Study has adequately specified the additional facilities or EPS upgrades, an Interconnection Agreement shall be provided to the Generator for execution within five (5) Business Days after the delivery of the System Impact Study results. The Generator must return the executed Interconnection Agreement within thirty (30) Business Days.

4.5 Facility Study

- 4.5.1 Within five (5) Business Days following receipt of the Facility Study Agreement described above, the Generator shall notify PSNH in writing as to whether it will either pursue the Facility Study or waive the Facility Study and elect an expedited Interconnection.
 - 4.5.1.1 If the Generator waives the Facility Study, it shall commit to the following milestones in the Interconnection Agreement: (a) siting approval by the appropriate regulatory authorities for the Generating Facility and Interconnection Facilities; (b) engineering of Interconnection Facilities shall be subject to prior approval by PSNH; (c) the ordering of long lead time material by PSNH for Interconnection Facilities and system upgrades; (iv) an In-Service Date; and (v) Commercial Operation Date.
 - 4.5.1.2 If the Generator does not waive the Facility Study, in order to remain under consideration for Interconnection and in PSNH's Interconnection queue, then the

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Generator must return the executed Facility Study Agreement and associated deposit or a request for an extension of time within fifteen (15) Business Days following receipt of the Facility Study Agreement from PSNH. Any such extension shall not exceed sixty (60) Business Days.

- 4.5.2 The Facility Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the Feasibility Study and/or the System Impact Studies.
- 4.5.3 Design for any required Interconnection Facilities and/or Generating Facility upgrades shall be provided for under the Facility Study Agreement. PSNH may contract with outside consultants to provide such design(s). The Generator, PSNH and any Affected Party(ies), may agree to allow the Generator to separately arrange for such design(s). In such cases, facilities design shall be subject to review and prior approval by PSNH, in accordance with the Facility Study Agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, PSNH shall make sufficient information available to the Generator in accordance with confidentiality and critical infrastructure requirements to permit the Generator to obtain an independent design and cost estimate for any necessary facilities.
- 4.5.4 A payment of 50% of the good faith estimated Facility Study costs shall be required from the Generator prior to execution of the Facility Study.
- 4.5.5 The scope of and cost responsibilities for the Facility Study are described in the attached Facility Study Agreement.
- 4.5.6 Within thirty (30) Business Days of receipt of the Facility Study results, the Generator shall provide written notice whether it agrees to pay for the Interconnection Facilities and upgrades identified in the Facility Study. An executable Interconnection Agreement shall be tendered by PSNH to the Generator within five (5) Business Days of receipt of such written notice. The Generator must return the executed Interconnection Agreement and associated deposit within thirty (30) Business Days.

SECTION 5

5.0 Provisions That Apply to All Interconnections and Associated Applications

5.1 Reasonable Efforts

PSNH shall make reasonable efforts to meet all time frames provided in these Guidelines; provided, however, that PSNH and the Generator may agree to different time frames. If PSNH fails to meet a deadline provided herein, it shall (a) notify the Generator, (b) explain the reason for the failure to meet the deadline, and (c) provide an estimated date by which it will complete the applicable Interconnection procedure in the process.

5.2 Interconnection Metering

Any metering necessitated by the use of the Generating Facility shall be installed at the Generator's expense in accordance with Applicable Reliability Standards then in effect.

5.3 Commissioning

Commissioning tests of the Generator's installed equipment shall be performed pursuant to applicable Codes and Standards, and equipment manufacturers' recommendations. Upon request, the Generator shall provide a certified commissioning test procedure to PSNH for approval.

The list below is a list of tests commonly required by IEEE 1547 and is not intended to be a list of additional testing requirements:

- Current Transformer (CT) and CT circuit polarity, ratio, insulation, excitation, continuity and burden tests,
- Voltage Transformer (VT) and VT circuit polarity, ratio, insulation and continuity tests,
- Relay pick-up and time delay tests,
- Functional breaker trip tests from protective relays,
- Relay in-service test to check for proper phase rotation and magnitudes of applied currents and voltages,
- Breaker closing interlock tests, and
- Paralleling and disconnection operation.
- Anti-islanding function, if applicable.
- Non-export function, if applicable.
- Synchronizing Controls, if applicable.
- Proof of inability to energize dead lines.

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PSNH must be given at least ten (10) Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests. PSNH will not assist in performance of, or provide equipment for the commissioning test.

5.4 Periodic Interconnection Tests

Upon request, the Generator shall provide a written periodic Interconnection test procedure to PSNH. (Such procedures are typically provided by the equipment manufacturer.) The procedure shall describe a test process that will verify all Interconnection-related protective functions and associated batteries are functional, but need not replicate the commissioning test procedures. The interval between periodic tests shall be specified by the manufacturer, system integrator, the authority having jurisdiction over the Interconnection, or as specified in the Interconnection Agreement. Written test reports or a log for inspection shall be maintained by the Generator.

PSNH may audit the Generator's written test reports, logs and other materials regarding the Interconnection or the Generating Facility at its discretion. If the functional software or firmware of the Interconnection system has been modified or if any hardware component of the Interconnection system has been modified, replaced or repaired with parts different from the tested configuration, and if such hardware, software or firmware have not been previously approved, then the applicable commissioning tests shall be performed by an independent testing facility. If such hardware, software or firmware has been previously approved or if settings have been changed, then only the commissioning tests applicable to the changes made shall be conducted. This requirement is in accordance with IEEE 1547.2.

5.5 Confidentiality

PSNH shall maintain confidentiality of all information provided by the Generator clearly designated as "Confidential" except as otherwise required by system operators, applicable laws and regulations. In the event that PSNH is requested to produce such confidential information, PSNH shall provide advance notice to Generator, if possible, to give Generator an opportunity to seek protective treatment of such information. If such information is requested or required by the NHPUC, PSNH will seek protective treatment of such confidential information. Confidential information does not include information that is: (a) in or becomes part of the public domain; (b) known to PSNH previously; (c) independently developed by PSNH; (d) rightfully obtained by PSNH from third parties without a duty of confidentiality; or (e) required to be publicly disclosed by law, statute or regulation.

5.6 Record Retention

PSNH shall, at a minimum, maintain for three (3) years, subject to audit, records of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.

5.7 Interconnection Agreement

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The Generator and PSNH shall be Parties to the Interconnection Agreement. PSNH shall provide an Interconnection Agreement to the Generator in accordance with these Guidelines. After PSNH provides an Interconnection Agreement to the Generator for execution, the Generator shall have thirty (30) Business Days or another mutually agreeable timeframe to sign and return the Interconnection Agreement and associated deposit. After the Interconnection Agreement is fully executed, the Interconnection of the Generating Facility shall proceed under the provisions of the Interconnection Agreement.

5.8 Performance Assurance

Performance Assurance will only be required in rare cases where abnormally high ongoing maintenance cost are anticipated to support the Interconnection or in unusual cases where there is a potential for wide variation between the actual and estimated costs for the Interconnection.

If performance assurance is required for an Interconnection, PSNH will provide a written explanation of the reasons to the Generator.

5.9 Coordination with Affected Systems

If PSNH determines that any Interconnection Request may have an impact on other Affected Systems, PSNH will include representatives of such Affected Systems in all meetings and proceedings pertinent to such impact.

5.10 Generating Facility Capacity

The Generating Facility Capacity, for the purpose of analysis, shall be determined as follows:

6.10.1 If the Interconnection Request is for an increase in capacity for an existing Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Generating Facility.

6.10.2 If the Interconnection Request is for a Generating Facility that includes multiple energy production devices at a site for which the Generator seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of such multiple devices.

6.10.3 The Interconnection Request shall be evaluated using the maximum rated capacity of the Generating Facility.

ATTACHMENT I

PSNH INTERCONNECTION REQUEST

Send the completed Interconnection Request and required attachments to:
[Contact DG for the latest form]

Public Service of New Hampshire
Attn: Michael Motta, Senior Engineer – Distributed Generation
P. O. Box 330
Manchester, NH 03105

Telephone Number: 603-634-2920
Fax: 603-634-2924
E-Mail Address: mottamd@psnh.com

An Interconnection Request is considered complete when it provides all applicable and correct information required below.

Documentation that the applicant has control of the property on which the proposed facility shall be located must be submitted with the Interconnection Request. The documentation may include proof of ownership, a leasehold interest, a right to develop, or an option to acquire the site.

A facility one-line electrical diagram must be submitted with the Interconnection Request.

Generating Facility Information:

Legal Name of the Generator (or, if an individual, individual's name)

Name: _____

Contact Person: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Facility Location (if different from above): _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

ATTACHMENT I
PSNH INTERCONNECTION REQUEST

Is the Interconnection Request for:

New Generating Facility?

Yes _____ No _____

Capacity addition to or Material Modification of an existing Generating Facility:

Yes _____ No _____

If capacity addition to or Material Modification of an existing facility, please describe:

Commencement of participation in the wholesale markets by an existing Generating Facility:

Yes _____ No _____

A retail customer interconnecting a New Generating Facility that will produce electric energy to be consumed only on the retail customer's site?

Yes _____ No _____

If onsite use of power, describe the mode of operation: (Please Check all that Apply)

- Peak Shaving
- Demand Management
- Primary Power/Base Load
- Combined Heat and Power or Cogeneration
- Stand By/Emergency/Back-up

A Qualifying Facility where 100% of the output will be sold to PSNH?

Yes _____ No _____

A Qualifying Facility intending to sell power at wholesale to an entity other than PSNH?

Yes _____ No _____

A Generator interconnecting a new Generating Facility that plans to participate in the wholesale markets?

Yes _____ No _____

An existing Generating Facility commencing participation in the wholesale markets?

Yes _____ No _____

ATTACHMENT I
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Paralleling:

Will the Generating Facility operate in parallel with the PSNH system for any amount of time?

Yes _____ No _____

If No: Then Generator is operating as "Open" Transition.

If Yes: Will the Generating Facility operate in parallel with PSNH for longer than 100 milliseconds?

Yes _____ No _____

If No: Then Generator is operating as "Closed" Transition.

If Yes: Then Generator is operating as "Parallel Operation."

Will the generator operation vary by season? (Please describe)

For installations at locations with existing electric service to which the proposed Generating Facility will interconnect, provide:

Account # _____

Meter # _____

Contact Name: _____

Title: _____

Address: _____

Telephone (Day): _____ Telephone (Evening): _____

Fax: _____ E-Mail Address: _____

Requested Point of Interconnection: _____

Generating Facility's Requested In-Service Date: _____

Generating Facility Information:

Data apply only to the Generating Facility, not the Interconnection Facilities.

Energy Source:

Solar _____ Wind _____ Hydro _____ Hydro Type (e.g. Run-of-River): _____

Diesel _____ Natural Gas _____ Fuel Oil _____

Other (state type) _____

Prime Mover:

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PSNH INTERCONNECTION REQUEST

Fuel Cell _____ Reciprocating Engine _____ Gas Turbine _____

Steam Turbine _____ Micro-turbine _____ PV _____

Other (state type) _____

Type of Generator: Synchronous _____ Induction _____ Inverter _____

Generator Manufacturer: _____

Generator Model Name & Number: _____

Generator Version Number: _____

Generator Nameplate Rating: _____ kW (Typical)

Generator Nameplate kVAR: _____

Generating Facility or Customer-Site Load: _____ kW (if none, so state)

Typical Reactive Load (if known): _____

Maximum Physical Export Capability Requested: _____ kW

Generator Nameplate Output Power Rating in kW:

(Summer) _____ (Winter) _____

Generator Nameplate Output Power Rating in kVA:

(Summer) _____ (Winter) _____

Individual Generator Power Factor:

Rated Power Factor: Leading _____ Lagging _____

Wind Farm Interconnection:

Total Number of Generators in wind farm to be interconnected pursuant to this Interconnection Request:

Quantity: _____ Elevation: _____ Single Phase _____ Three Phase _____

Generating Facility Characteristic Data (for inverter-based machines):

Inverter Manufacturer: _____

Model Name & Number: _____

Is the Inverter UL 1741 listed? Yes _____ No _____

Is the Inverter IEEE 1547 listed? Yes _____ No _____

Is the Inverter IEEE 1547.1 listed? Yes _____ No _____

Max design fault contribution current: _____ Instantaneous _____ or RMS? _____

ATTACHMENT I

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Harmonics Characteristics: _____

Start-up requirements: _____

Available fault current: _____

Generating Facility Characteristic Data (for rotating machines):

Speed: _____ RPM

Neutral Grounding Resistor (If Applicable): _____

Synchronous Generators:

Direct Axis Synchronous Reactance, X_d : _____ Per Unit

Direct Axis Transient Reactance, X_d' : _____ Per Unit

Direct Axis Sub transient Reactance, X_d'' : _____ Per Unit

Negative Sequence Reactance, X_2 : _____ Per Unit

Zero Sequence Reactance, X_0 : _____ Per Unit

KVA Base: _____

Field Volts: _____

Field Amperes: _____

Induction Generators:

Motoring Power (kW): _____

I_2^2t or K (Heating Time Constant): _____

Rotor Resistance, R_r : _____ Per Unit

Stator Resistance, R_s : _____ Per Unit

Stator Reactance, X_s : _____ Per Unit

Rotor Reactance, X_r : _____ Per Unit

Magnetizing Reactance, X_m : _____ Per Unit

Short Circuit Reactance, X_d'' : _____ Per Unit

Exciting Current: _____ Amps

Temperature Rise: _____

Frame Size: _____

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Design Letter: _____

Reactive Power Required In Vars (No Load): _____

Reactive Power Required In Vars (Full Load): _____

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

Transformer Data (If Applicable, for Generating Facility-Owned Transformer):

Transformer Size: _____ kVA

Is the transformer: _____ single phase _____ three phase?

Transformer Impedance: _____% on _____ kVA Base

Transformer Positive-Sequence Short Circuit Impedances (pu):

Zps= _____, Zpt= _____, Zst= _____

Transformer Zero-Sequence Impedances (pu):

Zpm0= _____, Zsm0= _____, Zmg0= _____

Transformer Neutral Grounding Reactor/Resistor Impedance (Ohms):

Transformer BIL Rating _____ kV

If Three Phase:

Transformer Primary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Secondary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Tertiary: _____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Fuse Data (If Applicable, for Generating Facility-Owned Fuse):

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

Manufacturer: _____ Type: _____

Size: _____ Speed: _____

Interconnecting Circuit Breaker (if applicable):

Manufacturer: _____

Type: _____

Load Rating (Amps): _____ Interrupting Rating (Amps): _____

Trip Speed (Cycles): _____

ATTACHMENT I PSNH INTERCONNECTION REQUEST

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: _____

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

Manufacturer: _____

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

Potential Transformer Data (If Applicable):

Manufacturer: _____

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

Manufacturer: _____

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

General Information:

Is evidence of site control enclosed?

Yes _____ No _____

Are site electrical One-Line Diagram(s) showing the configuration of all Generating Facility equipment enclosed?

Yes _____ No _____

Enclose copy of any site documentation that indicates the precise physical location of the proposed Generating Facility (*e.g.*, USGS topographic map or other diagram or documentation).

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

Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

For Generator: _____ Date: _____

ATTACHMENT II FEASIBILITY STUDY AGREEMENT

Feasibility Study Agreement

This Feasibility Study Agreement (this “*Agreement*”), dated as of _____ (the “*Effective Date*”), is entered into by and between Public Service of New Hampshire, a New Hampshire corporation with a principal place of business at 780 North Commercial St, Manchester, NH, 03101 (“**PSNH**”), and _____, a _____ with a principal place of business at _____, (“*Generator*”). (PSNH and Generator are collectively referred to as the “*Parties*” and individually as a “*Party*”).

RECITALS

WHEREAS, Generator is proposing to develop a Generating Facility or increase the generating capacity of an existing Generating Facility consistent with the Interconnection Request completed by Generator on _____;

WHEREAS, Generator desires to interconnect the Generating Facility with the Distribution System; and

WHEREAS, Generator has requested PSNH to perform a Feasibility Study to assess the feasibility of interconnecting the proposed Generating Facility with the facilities that are part of PSNH’s Distribution System, and of any Affected Systems (the “*Feasibility Study*”).

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 Capitalized terms used herein but not defined herein shall have the meanings ascribed to such terms in PSNH’s Guidelines for Generator Interconnection (the “*Guidelines*”).
- 2.0 PSNH shall conduct a Feasibility Study in accordance with the Guidelines.
- 3.0 The scope of the Feasibility Study shall be subject to the assumptions set forth in Exhibit A to this Agreement.
- 4.0 The Feasibility Study shall be based on the technical information provided by the Generator in its Interconnection Request, as may be modified as the result of the Scoping Meeting. At the reasonable request of PSNH, the Generator shall promptly provide additional technical information to PSNH.
- 5.0 In performing the Feasibility Study, PSNH may rely, to the extent reasonably practicable, on other existing studies in PSNH’s possession.
- 6.0 At the request of the Generator and at the Generator’s sole cost and expense, the Feasibility Study shall include the feasibility of any Interconnection at a proposed

ATTACHMENT II

FEASIBILITY STUDY AGREEMENT

- project site where there could be multiple potential Points of Interconnection.
- 7.0 In conjunction with the execution of this Agreement, PSNH shall provide to the Generator a written good faith estimate of the cost of the Feasibility Study (the “*Cost Estimate*”). Prior to commencement of the Feasibility Study, the Generator shall pay at least 50% of the Cost Estimate to PSNH (the “**Deposit**”). The Cost Estimate shall be provided in Exhibit A to this Agreement.
- 8.0 Following receipt of the Deposit, PSNH shall open a work order (the “Work Order”) to track PSNH expenses related to the Feasibility Study.
- 9.0 Following the conclusion of the Feasibility Study, PSNH shall prepare a Feasibility Study report (the “*Report*”), which, unless otherwise noted in Exhibit A to this Agreement, shall provide the following analyses for the purpose of identifying any potential adverse system impacts that would result from the Interconnection of the Generating Facility as proposed:
- 8.1 Initial identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the Interconnection;
 - 8.2 Initial identification of any thermal overload or voltage limit violations resulting from the Interconnection;
 - 8.3 Initial review of grounding requirements and electric system protection; and
 - 8.4 A non-binding estimate of the cost (including a description thereof) of facilities required to interconnect the proposed Generating Facility.
- 10.0 PSNH shall use commercially reasonable efforts to provide the Report to the Generator in accordance with the estimated completion date noted in Exhibit A to this Agreement.
- 11.0 At any time prior to completion of the Feasibility Study, PSNH may calculate the expenses that have accrued on the Work Order and, to the extent that the accrued expenses exceed the Deposit, PSNH may provide an invoice to the Generator. The Generator shall pay the invoice to PSNH within thirty (30) Calendar Days of the invoice date (without interest).
- 12.0 Within thirty (30) days of the completion of the Feasibility Study, PSNH shall calculate the actual costs of the Feasibility Study (the “*Actual Cost*”), and PSNH shall provide an invoice to the Generator.
- 13.0 In the event the Actual Cost exceeds the Deposit, the Generator shall pay the difference to PSNH within thirty (30) Calendar Days of the invoice date (without interest). In the event the Deposit exceeds the Actual Cost, PSNH shall pay the excess to the Generator within thirty (30) Calendar Days of the invoice date (without interest).

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FEASIBILITY STUDY AGREEMENT

14.0 Miscellaneous.

14.1 Accuracy of Information. The Generator represents and warrants that, to the best of its knowledge, the information it provides to PSNH in connection with this Agreement and the Feasibility Study shall be accurate and complete as of the date such information is provided. The Generator shall promptly provide PSNH with any additional information needed to update information previously provided.

14.2 Disclaimer of Warranty. In performing the Feasibility Study, PSNH may rely on information provided by the Generator and third parties, and may not have control over the accuracy of such information. ACCORDINGLY, PSNH HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Generator acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

14.3 Force Majeure, Liability and Indemnification.

14.3.1 Force Majeure. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing, and will keep the other Party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected Party shall specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected Party is taking to mitigate the effects of the event on its performance. The affected Party may suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of commercially reasonable efforts. The affected Party shall use commercially reasonable efforts to resume its performance as soon as possible. Without limiting this section, the Generator shall immediately notify PSNH verbally if the failure to fulfill the Generator's obligations under this Agreement may impact the safety or reliability of PSNH EPS. For purposes of this Agreement, "***Force Majeure Event***" means any event or circumstance that (a) is beyond the reasonable control of the affected Party and (b) the affected Party is unable to prevent or provide against by exercising commercially

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FEASIBILITY STUDY AGREEMENT

reasonable efforts. Force Majeure Events include the following events or circumstances, but only to the extent they satisfy the foregoing requirements: (i) acts of war or terrorism, public disorder, insurrection, or rebellion; (ii) floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; (iii) explosions or fire; (iv) strikes, work stoppages, or labor disputes; (v) embargoes; and (vi) sabotage. In no event shall the lack of funds or the inability to obtain funds constitute a Force Majeure Event.

- 14.3.2 Liability. Except with respect to a Party's fraud or willful misconduct, and except with respect to damages sought by a third party in connection with a third party claim: (a) neither Party shall be liable to the other Party, for any damages other than direct damages; and (b) each Party agrees that it is not entitled to recover and agrees to waive any claim with respect to, and will not seek, consequential, punitive or any other special damages as to any matter under, relating to, arising from or connected to this Agreement.. Notwithstanding the foregoing, nothing in this Section 13.3.2 shall be deemed to limit Generator's obligations under Section 13.3.3.
- 14.3.3 Indemnification. The Generator shall indemnify, defend and hold harmless PSNH and its trustees, directors, officers, employees and agents (including affiliates, contractors and their employees) from and against any liability, damage, loss, claim, demand, complaint, suit, proceeding, action, audit, investigation, obligation, cost, judgment, adjudication, arbitration decision, penalty (including fees and fines), or expense (including court costs and attorneys' fees) relating to, arising from or connected to this Agreement.
- 14.4 Term and Termination. This Agreement shall be effective from the Effective Date until the earlier of (a) one year from the Effective Date and (b) the withdrawal of the Generator's Interconnection Request, unless extended by written agreement of the Parties. Notwithstanding the foregoing, PSNH may terminate this Agreement fifteen (15) days after providing written notice to the Generator that it has breached any of its obligations hereunder, if such breach has not been cured within such fifteen (15) day period.
- 14.5 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New Hampshire applicable to contracts made and performed in such State and without regard to conflicts of law doctrines.
- 14.6 Severability. If any provision of this Agreement is held to be unenforceable for any reason, such provision shall be adjusted rather than voided, if possible, to achieve the intent of the Parties. If no such adjustment is possible, such provision shall be fully severable and severed, and all other

ATTACHMENT II FEASIBILITY STUDY AGREEMENT

provisions of this Agreement will be deemed valid and enforceable to the extent possible.

- 14.7 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all counterparts so executed shall constitute one agreement binding on all of the Parties hereto, notwithstanding that all of the Parties are not signatories to the same counterpart. Facsimile counterparts may be delivered by any Party, with the intention that they shall have the same effect as an original counterpart hereof.
- 14.8 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 14.9 Survival. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination.
- 14.10 Independent Contractor. PSNH shall at all times be deemed to be an independent contractor of the Generator, and none of PSNH's employees, contractors or the employees of its contractors shall be deemed to be employees of the Generator as a result of this Agreement.
- 14.11 No Implied Waivers. No failure on the part of any Party to exercise or delay in exercising any right hereunder shall be deemed a waiver thereof, nor shall any single or partial exercise of any right hereunder preclude any further or other exercise of such or any other right..
- 14.12 Successors and Assigns. Neither Party may assign this Agreement, by operation of law or otherwise, without the prior written consent of the other Party, which consent shall not be unreasonably withheld. In the event of an assignment authorized hereunder, each and every term and condition hereof shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns.
- 14.13 Due Authorization. Each Party represents and warrants to the other that (a) it has full power and authority to enter into this Agreement and to perform its obligations hereunder, (b) execution of this Agreement will not violate any other agreement with a third party, and (c) the individual signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

[Signature page follows.]

**ATTACHMENT II
FEASIBILITY STUDY AGREEMENT**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of the Generator]

Signed _____

Name (Printed):

Title _____

[Insert name of PSNH]

Signed _____

Name (Printed):

Title _____

ATTACHMENT II FEASIBILITY STUDY AGREEMENT

EXHIBIT A

The Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on: _____

1) Designation of Point of Interconnection and configuration to be studied:

2) Other assumptions (listed below) are to be provided by the Generator and PSNH.

3) Scope of Work:

4) Cost Estimate:

5) Estimated Completion Date:

ATTACHMENT III SYSTEM IMPACT STUDY AGREEMENT

System Impact Study Agreement

This System Impact Study Agreement (this “*Agreement*”), dated as of _____ (the “*Effective Date*”) is entered into by and between Public Service of New Hampshire, a New Hampshire corporation with a principal place of business at 780 North Commercial St, Manchester, NH, 03101 (“*PSNH*”), and _____, a _____ with a principal place of business at _____, (“*Generator*”). (PSNH and Generator are collectively referred to as the “*Parties*” and individually as a “*Party*”).

RECITALS

WHEREAS, Generator is proposing to develop a Generating Facility or increase the generating capacity of an existing Generating Facility consistent with the Interconnection Request completed by Generator on _____;

WHEREAS, Generator desires to interconnect the Generating Facility with the Distribution System;

WHEREAS, Generator has requested PSNH to perform or cause to be performed one or more System Impact Study(ies) to assess the impact of the proposed Interconnection of the Generating Facility.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 Capitalized terms used herein but not defined herein shall have the meanings ascribed to such terms in PSNH’s Guidelines for Generator Interconnection (the “*Guidelines*”).
- 2.0 PSNH shall conduct or cause to be conducted a Distribution System Impact Study in accordance with the Guidelines. If a Transmission System Impact Study is required, PSNH shall coordinate the study which shall be in accordance with ISO-NE Schedule 22 or 23, as applicable. Either or both of these studies may be referred to as the “Study”.
- 3.0 The Study shall be based upon the results of the Feasibility Study, if conducted, the technical information provided by Generator in the Interconnection Request, and the assumptions set forth in Exhibit A to this Agreement (the “*Assumptions*”). At the reasonable request of PSNH, the Generator shall promptly provide additional technical information to PSNH.

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SYSTEM IMPACT STUDY AGREEMENT

- 4.0 The Study shall incorporate any combination of the following: (a) short circuit analyses; (b) stability analyses; (c) power flow analyses; (d) distribution load flow studies; (e) analyses of equipment interrupting ratings; (f) voltage drop and flicker studies; (g) protection coordination studies; (h) protection and set point coordination studies; and (i) grounding reviews.
- 5.0 Any Affected System may participate in the Study at its own cost.
- 6.0 In connection with the Study, PSNH shall consider the impact of the proposed Interconnection of the Generating Facility in light of other generating facilities that, on the date the Study is commenced:
- 6.1 are currently interconnected with the Distribution or Transmission System or an Affected System;
 - 6.2 are expected to be interconnected with the Distribution or Transmission System or an Affected System; and
 - 6.3 have an earlier queue position (as assigned either by ISO-NE pursuant to Schedule 22 or 23, or by PSNH pursuant to Section 3.6 of the Guidelines) than the Generating Facility.
- 7.0 In conjunction with the execution of this Agreement, PSNH shall provide to the Generator a written good faith estimate of the cost of the Study (the “**Cost Estimate**”). Prior to commencement of the Study, the Generator shall pay 50% of the Cost Estimate to PSNH (the “**Deposit**”). The Cost Estimate shall be provided in Exhibit A to this Agreement.
- 8.0 Following receipt of the Deposit, PSNH shall open a work order (the “Work Order”) to track PSNH expenses related to the Study.
- 9.0 Following the conclusion of the Study, PSNH shall prepare or cause to be prepared a Study report (the “**Report**”). The Report, unless otherwise noted in Exhibit A to this Agreement, shall (a) state the assumptions upon which the Study was based, (b) set forth the results of the various analyses and reviews, (c) provide the requirement or potential impediments to providing the requested Interconnection service, (d) provide an initial estimate of the cost necessary to correct any problems, if any, identified in the Report; and (e) provide a list of facilities that are required to implement the Interconnection of the Generating Facility, along with and a non-binding good faith estimate of cost to construct such facilities.
- 10.0 Any Affected System that may be adversely impacted by the proposed Interconnection shall be afforded an opportunity to review and comment on the Report.

ATTACHMENT III

SYSTEM IMPACT STUDY AGREEMENT

- 11.0 PSNH shall use commercially reasonable efforts to provide the Report to the Generator in accordance with the estimated completion date noted in Exhibit A to this Agreement.
- 12.0 At any time prior to completion of the Study, PSNH may calculate the expenses that have accrued on the Work Order and, to the extent that the accrued expenses exceed the Deposit, PSNH may provide an invoice to the Generator. The Generator shall pay the invoice to PSNH within thirty (30) Calendar Days of the invoice date (without interest).
- 13.0 Within thirty (30) days of the completion of the Study, PSNH shall calculate the actual costs of the Study (the “*Actual Cost*”), and PSNH shall provide an invoice to the Generator.
- 14.0 In the event the Actual Cost exceeds the Deposit, the Generator shall pay the difference to PSNH within thirty (30) Calendar Days of the invoice date (without interest). In the event the Deposit exceeds the Actual Cost, PSNH shall pay the excess to the Generator within thirty (30) Calendar Days of the invoice date (without interest).
- 15.0 Miscellaneous.
- 15.1 Accuracy of Information. The Generator represents and warrants that, to the best of its knowledge, the information it provides to PSNH in connection with this Agreement and the Study shall be accurate and complete as of the date such information is provided. The Generator shall promptly provide PSNH with any additional information needed to update information previously provided.
- 15.2 Disclaimer of Warranty. In performing the Study, PSNH may rely on information provided by the Generator and third parties, and may not have control over the accuracy of such information. ACCORDINGLY, PSNH HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Generator acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.
- 15.3 Force Majeure, Liability and Indemnification.

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SYSTEM IMPACT STUDY AGREEMENT

- 15.3.1 Force Majeure. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing, and will keep the other Party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected Party shall specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected Party is taking to mitigate the effects of the event on its performance. The affected Party may suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of commercially reasonable efforts. The affected Party shall use commercially reasonable efforts to resume its performance as soon as possible. Without limiting this section, the Generator shall immediately notify PSNH verbally if the failure to fulfill the Generator's obligations under this Agreement may impact the safety or reliability of PSNH EPS. For purposes of this Agreement, "***Force Majeure Event***" means any event or circumstance that (a) is beyond the reasonable control of the affected Party and (b) the affected Party is unable to prevent or provide against by exercising commercially reasonable efforts. Force Majeure Events include the following events or circumstances, but only to the extent they satisfy the foregoing requirements: (i) acts of war or terrorism, public disorder, insurrection, or rebellion; (ii) floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; (iii) explosions or fire; (iv) strikes, work stoppages, or labor disputes; (v) embargoes; and (vi) sabotage. In no event shall the lack of funds or the inability to obtain funds constitute a Force Majeure Event.
- 15.3.2 Liability. Except with respect to a Party's fraud or willful misconduct, and except with respect to damages sought by a third party in connection with a third party claim: (a) neither Party shall be liable to the other Party, for any damages other than direct damages; and (b) each Party agrees that it is not entitled to recover and agrees to waive any claim with respect to, and will not seek, consequential, punitive or any other special damages as to any matter under, relating to, arising from or connected to this Agreement.. Notwithstanding the foregoing, nothing in this Section 13.3.2 shall be deemed to limit Generator's obligations under Section 13.3.3.
- 15.3.3 Indemnification. The Generator shall indemnify, defend and hold harmless PSNH and its trustees, directors, officers, employees and agents (including affiliates, contractors and their employees) from and against any liability, damage, loss, claim, demand, complaint, suit,

ATTACHMENT III

SYSTEM IMPACT STUDY AGREEMENT

proceeding, action, audit, investigation, obligation, cost, judgment, adjudication, arbitration decision, penalty (including fees and fines), or expense (including court costs and attorneys' fees) relating to, arising from or connected to this Agreement.

- 15.4 Term and Termination. This Agreement shall be effective from the Effective Date until the earlier of (a) one year from the Effective Date and (b) the withdrawal of the Generator's Interconnection Request, unless extended in writing by the Parties. Notwithstanding the foregoing, PSNH may terminate this Agreement fifteen (15) days after providing written notice to the Generator that it has breached any of its obligations hereunder, if such breach has not been cured within such fifteen (15) day period.
- 15.5 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New Hampshire applicable to contracts made and performed in such State and without regard to conflicts of law doctrines.
- 15.6 Severability. If any provision of this Agreement is held to be unenforceable for any reason, such provision shall be adjusted rather than voided, if possible, to achieve the intent of the Parties. If no such adjustment is possible, such provision shall be fully severable and severed, and all other provisions of this Agreement will be deemed valid and enforceable to the extent possible.
- 15.7 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all counterparts so executed shall constitute one agreement binding on all of the Parties hereto, notwithstanding that all of the Parties are not signatories to the same counterpart. Facsimile counterparts may be delivered by any Party, with the intention that they shall have the same effect as an original counterpart hereof.
- 15.8 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 15.9 Survival. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination.
- 15.10 Independent Contractor. PSNH shall at all times be deemed to be an independent contractor of the Generator, and none of PSNH's employees, contractors or the employees of its contractors shall be deemed to be employees of the Generator as a result of this Agreement.

ATTACHMENT III SYSTEM IMPACT STUDY AGREEMENT

- 15.11 No Implied Waivers. No failure on the part of any Party to exercise or delay in exercising any right hereunder shall be deemed a waiver thereof, nor shall any single or partial exercise of any right hereunder preclude any further or other exercise of such or any other right.
- 15.12 Successors and Assigns. Neither Party may assign this Agreement, by operation of law or otherwise, without the prior written consent of the other Party, which consent shall not be unreasonably withheld. In the event of an assignment authorized hereunder, each and every term and condition hereof shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns.
- 15.13 Due Authorization. Each Party represents and warrants to the other that (a) it has full power and authority to enter into this Agreement and to perform its obligations hereunder, (b) execution of this Agreement will not violate any other agreement with a third party, and (c) the individual signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

[Signature page follows.]

**ATTACHMENT III
SYSTEM IMPACT STUDY AGREEMENT**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of the Generator]

Signed _____

Name (Printed):

Title _____

[Insert name of PSNH]

Signed _____

Name (Printed):

Title _____

ATTACHMENT III SYSTEM IMPACT STUDY AGREEMENT

EXHIBIT A

The Study shall be based upon the information set forth in the Interconnection Agreement, the results of the Feasibility Study (if performed), and the following assumptions:

1) Designation of Point of Interconnection and configuration to be studied:

2) Other assumptions (listed below) are to be provided by the Generator and PSNH.

3) Scope of Work:

4) Cost Estimate:

5) Estimated Completion Date:

ATTACHMENT IV FACILITY STUDY AGREEMENT

Facility Study Agreement

This Facility Study Agreement (this “*Agreement*”), dated as of _____ (the “*Effective Date*”) is entered into by and between Public Service of New Hampshire, a New Hampshire corporation with a principal place of business at 780 North Commercial St, Manchester, NH, 03101 (“**PSNH**”), and _____, a _____ with a principal place of business at _____, (“*Generator*”). (PSNH and Generator are collectively referred to as the “*Parties*” and individually as a “*Party*”).

RECITALS

WHEREAS, Generator is proposing to develop a Generating Facility or increase the generating capacity of an existing Generating Facility consistent with the Interconnection Request completed by Generator on _____;

WHEREAS, Generator desires to interconnect the Generating Facility with the Distribution System;

WHEREAS, PSNH has completed a Distribution/Transmission System Impact Study with respect to the proposed Interconnection of the Generating Facility and provided the results of such study to Generator on _____ (the “*System Impact Study*”); and [*If both System Impact Studies are conducted, then this will be appropriately modified and the defined term “System Impact Studies” will be used.*]

WHEREAS, Generator has requested PSNH to perform a Facility Study to specify and estimate the cost of the equipment, engineering, procurement and construction work required pursuant to the conclusions of the System Impact Study.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 Capitalized terms used herein but not defined herein shall have the meanings ascribed to such terms in PSNH’s Guidelines for Generator Interconnection (the “*Guidelines*”).
- 2.0 PSNH shall conduct or cause to be conducted a Facility Study in accordance with the Guidelines (the “*Facility Study*”).
- 3.0 The scope of the Facility Study shall be based on the conclusions of the System Impact Study and the data provided by Generator in Exhibit A to this Agreement (the “*Data*”). At the reasonable request of PSNH, the Generator shall promptly provide additional data to PSNH.

ATTACHMENT IV FACILITY STUDY AGREEMENT

- 4.0 In conjunction with the execution of this Agreement, PSNH shall provide to the Generator a written good faith estimate of the cost of the Facility Study (the “*Cost Estimate*”). Prior to commencement of the Facility Study, the Generator shall pay 50% of the Cost Estimate to PSNH (the “*Deposit*”). The Cost Estimate shall be provided in Exhibit A to this Agreement.
- 5.0 Following receipt of the Deposit, PSNH shall open a work order (the “*Work Order*”) to track PSNH expenses related to the Facility Study.
- 6.0 Following the conclusion of the Facility Study, PSNH shall prepare a report setting forth the results of the Facility Study (the “*Report*”). The Report may include, but is not limited to: (a) specification and estimation of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the System Impact Study; (b) identification of the electrical switching configuration of the equipment (including, without limitation, transformer, switchgear, meters, and other station equipment); and (c) estimation of the nature and estimated cost of PSNH’s Interconnection Facilities and upgrades necessary to accomplish the Interconnection (including, without limitation, an estimation of the time required to complete the construction and installation of such facilities).
- 7.0 PSNH shall use commercially reasonable efforts to provide the Report to the Generator in accordance with the estimated completion date noted in Exhibit A to this Agreement.
- 8.0 At any time prior to completion of the Study, PSNH may calculate the expenses that have accrued on the Work Order and, to the extent that the accrued expenses exceed the Deposit, PSNH may provide an invoice to the Generator. The Generator shall pay the invoice to PSNH within thirty (30) Calendar Days of the invoice date (without interest).
- 9.0 Within thirty (30) days of the completion of the Facility Study, PSNH shall calculate the actual costs of the Facility Study (the “*Actual Cost*”), and PSNH shall provide an invoice to the Generator.
- 10.0 In the event the Actual Cost exceeds the Deposit, the Generator shall pay the difference to PSNH within thirty (30) Calendar Days of the invoice date (without interest). In the event the Deposit exceeds the Actual Cost, PSNH shall pay the excess to the Generator within thirty (30) Calendar Days of the invoice date (without interest).
- 11.0 Miscellaneous.
- 11.1 Accuracy of Information. The Generator represents and warrants that, to the best of its knowledge, the information it provides to PSNH in

ATTACHMENT IV FACILITY STUDY AGREEMENT

connection with this Agreement and the Facility Study (including without limitation the Data and all information provided on Generator's Interconnection Request) shall be accurate and complete as of the date such information is provided. The Generator shall promptly provide PSNH with any additional information needed to update information previously provided.

11.2 Disclaimer of Warranty. In performing the Facility Study, PSNH may rely on information provided by the Generator and third parties, and may not have control over the accuracy of such information. ACCORDINGLY, PSNH HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Generator acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.

11.3 Force Majeure, Liability and Indemnification.

10.3.1 Force Majeure. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing, and will keep the other Party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected Party shall specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected Party is taking to mitigate the effects of the event on its performance. The affected Party may suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of commercially reasonable efforts. The affected Party shall use commercially reasonable efforts to resume its performance as soon as possible. Without limiting this section, the Generator shall immediately notify PSNH verbally if the failure to fulfill the Generator's obligations under this Agreement may impact the safety or reliability of PSNH EPS. For purposes of this Agreement, "***Force Majeure Event***" means any event or circumstance that (a) is beyond the reasonable control of the affected Party and (b) the affected Party is unable to prevent or provide against by exercising commercially

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reasonable efforts. Force Majeure Events include the following events or circumstances, but only to the extent they satisfy the foregoing requirements: (i) acts of war or terrorism, public disorder, insurrection, or rebellion; (ii) floods, hurricanes, earthquakes, lighting, storms, and other natural calamities; (iii) explosions or fire; (iv) strikes, work stoppages, or labor disputes; (v) embargoes; and (vi) sabotage. In no event shall the lack of funds or the inability to obtain funds constitute a Force Majeure Event.

- 11.3.2 Liability. Except with respect to a Party's fraud or willful misconduct, and except with respect to damages sought by a third party in connection with a third party claim: (a) neither Party shall be liable to the other Party, for any damages other than direct damages; and (b) each Party agrees that it is not entitled to recover and agrees to waive any claim with respect to, and will not seek, consequential, punitive or any other special damages as to any matter under, relating to, arising from or connected to this Agreement.. Notwithstanding the foregoing, nothing in this Section 10.3.2 shall be deemed to limit Generator's obligations under Section 10.3.3.
- 11.3.3 Indemnification. The Generator shall indemnify, defend and hold harmless PSNH and its trustees, directors, officers, employees and agents (including affiliates, contractors and their employees) from and against any liability, damage, loss, claim, demand, complaint, suit, proceeding, action, audit, investigation, obligation, cost, judgment, adjudication, arbitration decision, penalty (including fees and fines), or expense (including court costs and attorneys' fees) relating to, arising from or connected to this Agreement.
- 11.4 Term and Termination. This Agreement shall be effective from the Effective Date until the earlier of (a) one year from the Effective Date and (b) the withdrawal of the Generator's Interconnection Request, unless extended in writing by the Parties. Notwithstanding the foregoing, PSNH may terminate this Agreement fifteen (15) days after providing written notice to the Generator that it has breached any of its obligations hereunder, if such breach has not been cured within such fifteen (15) day period.
- 11.5 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New Hampshire applicable to contracts made and performed in such State and without regard to conflicts of law doctrines.
- 11.6 Severability. If any provision of this Agreement is held to be unenforceable for any reason, such provision shall be adjusted rather than voided, if possible, to achieve the intent of the Parties. If no such adjustment is

ATTACHMENT IV FACILITY STUDY AGREEMENT

possible, such provision shall be fully severable and severed, and all other provisions of this Agreement will be deemed valid and enforceable to the extent possible.

- 11.7 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all counterparts so executed shall constitute one agreement binding on all of the Parties hereto, notwithstanding that all of the Parties are not signatories to the same counterpart. Facsimile counterparts may be delivered by any Party, with the intention that they shall have the same effect as an original counterpart hereof.
- 11.8 Amendment. No amendment, modification or waiver of any term hereof shall be effective unless set forth in writing and signed by the Parties hereto.
- 11.9 Survival. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination.
- 11.10 Independent Contractor. EDC shall at all times be deemed to be an independent contractor of the Generator, and none of PSNH's employees, contractors or the employees of its contractors shall be deemed to be employees of the Generator as a result of this Agreement.
- 11.11 No Implied Waivers. No failure on the part of any Party to exercise or delay in exercising any right hereunder shall be deemed a waiver thereof, nor shall any single or partial exercise of any right hereunder preclude any further or other exercise of such or any other right.
- 11.12 Successors and Assigns. Neither Party may assign this Agreement, by operation of law or otherwise, without the prior written consent of the other Party, which consent shall not be unreasonably withheld. In the event of an assignment authorized hereunder, each and every term and condition hereof shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns.
- 11.13 Due Authorization. Each Party represents and warrants to the other that (a) it has full power and authority to enter into this Agreement and to perform its obligations hereunder, (b) execution of this Agreement will not violate any other agreement with a third party, and (c) the individual signing this Agreement on its behalf has been properly authorized and empowered to enter into this Agreement.

[Signature page follows.]

**ATTACHMENT IV
FACILITY STUDY AGREEMENT**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of the Generator]

Signed _____

Name (Printed):

Title _____

[Insert name of PSNH]

Signed _____

Name (Printed):

Title _____

ATTACHMENT IV FACILITY STUDY AGREEMENT

EXHIBIT A

The Facility Study shall be based upon the conclusions of the System Impact Study(ies) and the following assumptions:

1) Designation of Point of Interconnection and configuration to be studied:

2) Other assumptions (listed below) are to be provided by the Generator and PSNH.

3) Scope of Work:

4) Cost Estimate:

5) Estimated Completion Date:

ATTACHMENT V

GLOSSARY

ANSI: American National Standards Institute.

Affected Party or Parties: The entity that owns, operates or controls an Affected System, or any other entity that otherwise may be a necessary party to the Interconnection process.

Affected System: Any electric system that is within PSNH service territory, including, but not limited to generator owned electric facilities, or any other electric system that is not within PSNH service territory that may be affected by the proposed Interconnection.

Applicable Laws and Regulations: All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Applicable Reliability Standards: The requirements and guidelines of NERC, NPCC and the New England Control Area, ISO, ISO-NE, including publicly available local reliability requirements of Interconnecting EDC or other Affected Systems, and any successor documents.

Application Review: A review by PSNH of the completed Interconnection Request Form to determine if a Feasibility, Impact and Facility Studies are required.

Business Day: Monday through Friday, excluding Federal Holidays.

Calendar Day: Shall mean any day including Saturday, Sunday, Federal and State Holidays.

Commercial Operation Date: The date on which the Generator commences commercial operation of the unit after the unit has been commissioned and likely to be associated with a specific date that is identified in a purchase power agreement or the date that the power transaction starts.

Communications Costs: Any costs associated with installing, testing, and maintaining the communications infrastructure necessary to provide protection and/or monitoring for the generating facility.

Contract Path: A specific contiguous electrical path from a point of receipt to a point of delivery for which EPS rights have been contracted.

Distribution System: PSNH's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries. The voltage levels at which Distribution Systems generally operate at 34.5 kV and less.

NHPUC: New Hampshire Public Utility Commission.

EDC: An electric distribution company, e.g. PSNH.

ATTACHMENT V

GLOSSARY

EPS: The electric power system, consisting of all electrical wires, equipment, and other facilities owned or provided by PSNH to provide distribution service to PSNH's customers.

Facility Study: The study conducted by PSNH to determine the scope and costs of required modifications and upgrades to the EPS and/or a Generating Facility necessary for an Interconnection of such Generating Facility.

Fault: An equipment failure, short circuit, or other condition resulting from abnormally high amounts of current from the power source.

Feasibility Study: A preliminary study to assess the feasibility of interconnecting the Generating Facility to the EPS. The Feasibility Study is typically a joint effort between PSNH System Planning & Strategy (phase 1 of the effort) and PSNH Protection & Control Engineering (perform phase 2). Phase 1 is an initial identification of any thermal overload or voltage limit violations resulting from the Interconnection. Phase 2 includes initial identification of any circuit breaker or other facility short circuit capability limits exceeded as a result of the Interconnection and an initial review of grounding requirements and electric system protection. Both phases include a non-binding estimate of the cost (including a description thereof) of facilities required to interconnect the proposed Generating Facility. The Feasibility Study will also determine whether or not a Distribution Stability Study shall be required as part of the System Impact Study. The Feasibility Study may also determine whether or not a separate Transmission System Impact Study shall be required

FERC: Federal Energy Regulatory Commission.

Generator: The owner and/or operator of a Generating Facility.

Generating Facility: The device used for the production of electricity identified in the Interconnection Request, but shall not include the Generating Facility's Interconnection Facilities.

Guidelines: The "Guidelines for Generator Interconnection," prepared by PSNH to describe the protocols and procedures for interconnecting to the EPS.

IEEE: Institute of Electrical and Electronics Engineers.

Independent System Operator (ISO): An entity supervising the collective transmission facilities of a power region; the ISO is charged with nondiscriminatory coordination of market transactions, system-wide transmission planning, and bulk power network reliability.

Induction Generator: An induction generator is a rotating AC machine that operates above synchronous speed over its range of power output. The faster it is driven above synchronous speed by a prime mover, the more electrical power is generated. Excitation is provided by the utility in the form of reactive power. The induction generator normally loses its ability to produce voltage and power output when it is isolated from the utility since it loses its source of excitation.

ATTACHMENT V

GLOSSARY

In-Service Date: The date on which the Generating Facility and system modification (if applicable) are complete and ready for service, even if the Generating Facility is not placed in service on such date.

Intentional Islanding: Intentional Islanding occurs when the Generating Facility has been isolated from the EPS by planned operation of disconnecting means consistent with the Technical Requirements and the Generating Facility as a result is serving segregated load(s) on the Generating Facility's side of the Point of Interconnection.

Interconnection: The physical connection of a Generating Facility to the EPS so that parallel operation can occur.

Interconnection Agreement: A written agreement between a Generator and PSNH setting forth the terms, conditions, obligations and rights with respect to an Interconnection. An Interconnection Agreement is required to be signed by the Generator and PSNH before parallel operation of the Generating Facility may commence. Note: the form of Interconnection Agreement is attached to these Guidelines as Exhibit B.

Interconnection Facilities: Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Distribution System. PSNH and the Generator may each own Interconnection Facilities with respect to the Generating Facility.

Interconnection Request: A Generator's request, in the form of Attachment I, to interconnect a new Generating Facility to the EPS or increase the capacity or operating characteristics an existing Generating Facility currently interconnected to the EPS.

Interconnection Service: The service provided by PSNH associated with interconnecting the Generating Facility to the EPS and enabling the delivery of electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Interconnection Agreement.

Inverter: A machine, device or system that changes direct-current power to alternating-current power.

Islanding: A situation where electrical power remains in a portion of an EPS when the EPS has ceased providing power for whatever reason (emergency conditions, maintenance, etc.) to that portion of the EPS.

Isolation Device: A device used for isolating a circuit or equipment from a source of power. Also referred to as a "Disconnect Switch".

ISO-NE: The ISO, established in accordance with the NEPOOL Agreement and applicable FERC approvals, that is responsible for managing the bulk power generation and transmission systems in New England, or any successor organization approved by FERC.

ATTACHMENT V GLOSSARY

Material Modification: (i) Any modification to an Interconnection Request submitted by a Generator that is reasonably expected to require significant additional study of the such Interconnection Request, substantially change the Interconnection design and/or have a material impact on the cost or timing of any studies or upgrades associated with any other Interconnection Request with a later queue priority date; (ii) a change to the design or operating characteristics of an existing Generating Facility that is interconnected with the EPS which may have an adverse effect on the reliability of the EPS; or (iii) a significant delay to the Commercial Operation Date or In-Service Date, the reason for which is unrelated to construction schedules or permitting.

Metering Point: The point at which the billing meter is connected (for meters that do not use instrument transformers). For meters that use instrument transformers, the point at which the instrument transformers are connected.

NEC: National Electric Code

NEMA: National Electrical Manufacturers Association.

NERC: North American Electric Reliability Corporation.

NESC: National Electric Safety Code.

NEPOOL: New England Power Pool.

Net Metering: The process, in accordance with the applicable PSNH tariff, whereby the metered electrical energy production by a Generating Facility is subtracted from the metered electrical energy sales to the Generator at such Generating Facility.

Non-Islanding: Describes the ability of a Generating Facility to avoid unintentional islanding through the operation of its Interconnection equipment.

NRTL: An accredited Nationally Recognized Testing Laboratory, which has been approved to perform the certification testing required for Generating Facilities.

Operating Requirements: Any operating and technical requirements that may be required by PSNH, including those set forth in the Interconnection Agreement (Exhibit B), or the Applicable Reliability Standards.

Party: Each of PSNH and the Generator, collectively the “**Parties.**”

Point of Delivery: See Contract Path

Point of Interconnection: The point at which the Generating Facility’s local electric power system connects to the EPS, such as the electric power revenue meter or premises service transformer.

Point of Receipt: See Contract Path

ATTACHMENT V GLOSSARY

Scoping Meeting: A scoping meeting is to discuss the Interconnection Request, review any existing studies relevant to the application, and discuss whether PSNH should perform a Feasibility Study or proceed directly to an Impact Study, or a Facility Study, or an Interconnection Agreement.

Switchgear: Components for switching, protecting, monitoring and controlling the EPS.

Synchronous Generator: A synchronous alternating-current machine which transforms mechanical power into electric power. (A synchronous machine is one in which the average speed of normal operation is exactly proportional to the frequency of the system to which it is connected.)

System Impact Studies: The Transmission System Impact Study and the Distribution System Impact Study. These are engineering studies that evaluate the impact of the proposed Interconnection on the safety and reliability of the EPS. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the adverse system impacts identified in the Interconnection Feasibility Study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting. The Distribution System Impact Study shall incorporate any combination of the following: (a) short circuit analyses; (b) stability analyses; (c) power flow analyses; (d) distribution load flow studies; (e) analyses of equipment interrupting ratings; (f) voltage drop and flicker studies; (g) protection coordination studies; (h) protection and set point coordination studies; and (i) grounding reviews. This is typically performed by Protection & Control Engineering, who will involve other departments as needed. The study results in an Interconnection Report (the Report). The Report may also detail SCADA and metering requirements.

Tariffs: Rates and charges of PSNH for service as filed and approved by the NHPUC.

Technical Requirements: Technical requirements for the Interconnection, attached hereto as Exhibit A.

Telemetry: The transmission of Generating Facility data using telecommunications techniques.

Terms and Conditions: PSNH's terms and conditions for providing electric delivery service as approved by the NHPUC.

Transfer Switch: A switch designed so that it will disconnect the load from one power source and reconnect it to another source.

Transmission System: PSNH's facilities and equipment used to transmit electricity generally at voltage levels greater than 69 kV.

Transmission System Impact Study: An engineering study that evaluates the impact of the proposed Interconnection on the safety and reliability of the Transmission System without project modifications or system modifications, focusing on the adverse system impacts identified in the Feasibility Study and/or at the Scoping Meeting.