The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 09-03-A August 20, 2009

Investigation by the Department of Public Utilities to Develop Tariffs Governing Net Metering Under An Act Relative to Green Communities, St. 2008, c. 169, § 78.

ORDER ADOPTING MODEL NET METERING TARIFF

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I. INTRODUCTION

On March 6, 2009, the Department of Public Utilities ("Department") issued an Order opening an investigation into tariffs that would, in conjunction with regulations, govern net metering as envisioned in § 78 of Chapter 169 of the Acts of 2008, an Act Relative to Green Communities ("Green Communities Act"). Order Opening Investigation, D.P.U. 09-03 (2009). On June 26, 2009, the Department issued an Order adopting final net metering regulations, promulgated at 220 C.M.R. § 18.00. Order Adopting Final Regulations, D.P.U. 08-75-A (2009). With this Order, the Department approves a model net metering tariff[1] and revisions to the Model Tariff to Accompany Standards for Interconnecting Distributed Generation ("Model Interconnection Tariff").[2] These tariffs will, in conjunction with the net metering regulations adopted in D.P.U. 08-75-A, govern the provision of net metering services pursuant to G.L. c. 164, §§ 138-142.

II. PROCEDURAL HISTORY

On March 27, 2009, Fitchburg Gas and Electric Light Company, d/b/a Unitil ("Unitil"), Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid ("National Grid"), NSTAR Electric Company ("NSTAR"), and Western Massachusetts Electric Company ("WMECo") (together, the "Distribution Companies") submitted to the Department a proposed model net metering tariff in compliance with the Department's

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1 The model net metering tariff is attached to this Order as Appendix A.

2 The revised Model Interconnection Tariff is attached to this Order as Appendix B. The initial Model Interconnection Tariff was issued by the Department on February 24, 2004. Order On Model Distributed Generation Interconnection Standards And Procedures Tariff, D.T.E. 02-38-B (2004).

directive in D.P.U. 09-03. On April 7, 2009, the Department held a technical conference to discuss the proposed model net metering tariff. On April 17, 2009, the Distribution Companies filed a revised, proposed model net metering tariff and a proposed application for net metering services entitled "Schedule Z" to accompany the Model Interconnection Tariff ("Schedule Z").[3] On June 2, 2009, the Department held a second technical conference to discuss the revised, proposed model net metering tariff and proposed Schedule Z.

On June 10, 2009, the Distribution Companies submitted a second revised, proposed model net metering tariff and proposed revisions to the Model Interconnection Tariff needed to accommodate net metering. On June 11, 2009, the Department issued for comment a Department-proposed model net metering tariff and a Department-proposed Schedule Z, both of which suggested changes to the Companies' proposals. Initial written comments were due on June 15, 2009.[4] Written reply comments were due on June 30, 2009.[5]

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[3] The final version of Schedule Z is appended to the Model Interconnection Tariff, which is attached to this Order as Appendix B.

[4] The following ten commenters submitted initial written comments: (1) the Attorney General of the Commonwealth ("Attorney General"); (2) Boreal Renewable Energy Development ("Boreal"); (3) Cape & Vineyard Electric Cooperative, Inc. ("CVEC") together with the Cape Light Compact ("Compact"); (4) Department of Agricultural Resources ("DAR"); (5) Department of Energy Resources ("DOER"); (6) Town of Falmouth Energy Committee ("Falmouth Energy"); (7) Massachusetts Net Metering Coalition; (8) National Grid; (9) Sustainable Energy Developments, Inc.; and (10) Town of Wellfleet Energy Committee ("Wellfleet Energy").

[5] The following 15 commenters submitted written reply comments: (1) Attorney General; (2) Boreal; (3) CVEC together with the Compact; (4) DOER; (5) Energy Consumers Alliance of New England d/b/a Massachusetts Energy Consumers Alliance; (6) Falmouth Energy; (7) Unitil; (8) Interstate Renewable Energy Council ("IREC"); (9) National Grid; (10) Nexamp; (11) NOTUS Clean Energy, LLC; (12) NSTAR;

On July 16, 2009, the Department issued for consideration a revised, Department-proposed model net metering tariff and Schedule Z. On July 21, 2009, the Department held a third technical conference to discuss the Department's proposed revisions to the model net metering tariff and Schedule Z, and the Distribution Companies' proposed revisions to the Model Interconnection Tariff.

III. SCOPE OF INVESTIGATION

A. Introduction

The Department stated that this investigation would provide an effective and efficient forum for engaging a diverse group of stakeholders in developing comprehensive terms and conditions that could apply uniformly to the Distribution Companies. D.P.U. 09-03, at 1-2. Through a broadly-represented stakeholder process, the Department hoped to reduce the areas of disagreement and identify terms and conditions that reflect consensus positions. Id. at 2. The goal is to develop a model net metering tariff that would, to the maximum extent possible, result in conforming company tariffs that are the same for customers across the Commonwealth. Id. at 2.

B. Stakeholder Process

Due to the tireless efforts of stakeholders throughout this proceeding, the Department is able to adopt tariffs that will allow net metering to be implemented in Massachusetts in an appropriate manner consistent with the Green Communities Act. The Department appreciates

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(13) Solar Energy Business Association of New England ("SEBANE"); (14) Wellfleet Energy; and (15) WMECo. Wellfleet Energy also filed a second set of reply comments.

the time, commitment of resources, careful consideration, and thoughtful comments provided by participants in analyzing the issues large and small. The Department especially appreciates the willingness of participants to consider opposing arguments and work toward compromise. This participation has enabled the Department to develop comprehensive terms and conditions that will facilitate the implementation of net metering.

C. Overview

In adopting a model net metering tariff and approving revisions to the Model Interconnection Tariff, the Department seeks to provide clarity, guidance and uniformity to Distribution Companies, Customers,[6] renewable energy developers, and other stakeholders regarding the process for receiving Net Metering services pursuant to § 78 of the Green Communities Act. The Department has reviewed the model net metering tariff and the revisions to the Model Interconnection Tariff to determine whether they appropriately implement the net metering provisions of the Green Communities Act. In addition, the Department has reviewed the tariffs to determine whether they are consistent with applicable law, Department precedent, and the public interest. Order On Model Distributed Generation Interconnection Standards And Procedures Tariff, D.T.E. 02-38-B at 5-6 (2004), citing Street Restoration Standards, D.T.E. 98-22, at 4 (1999); The Berkshire Gas Company, D.P.U. 96-92, at 8 (1996); Boston Gas Company, D.P.U 96-50 (Phase I) at 7 (1996);

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[6] Unless the context otherwise requires, capitalized terms used in this Order have the meanings provided in 220 C.M.R. §§ 18.00 et seq.

Massachusetts Electric Company, D.P.U. 96-59, at 7 (1996). We discuss below the issues that we have determined require explanation.

IV. MODEL NET METERING TARIFF

A. Allocation of Net Metering Credits

1. Introduction

In the net metering tariffs proposed by the Distribution Companies, Host Customers (not Distribution Companies) were responsible for allocating Net Metering Credits.[7] The Distribution Companies proposed to apply Net Metering Credits to the Host Customer's account or to make a monetary payment for the value of the credit to the Host Customer. The Host Customer would then be responsible for allocating credits to eligible Customers.[8] In opposing an allocation requirement, the Distribution Companies stated, among other things, that it would be administratively burdensome and costly.[9] The Distribution Companies

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[7] The model net metering tariff defines Net Metering Credit as "the monetary value of the excess electricity generated by a Net Metering facility, calculated pursuant to Section 1.06 [of this tariff]." See Appendix A, § 1.01.

[8] In this instance, the term "eligible Customers" refers to Customers that are located in the same Distribution Company service territory and ISO New England Inc. load zone as the Host Customer. 220 C.M.R. § 18.05.

[9] D.P.U. 08-75-A at 8-9. The administrative burden and costs associated with the allocation of credits include modifications to the billing systems, management of the Customer information data base, and managing Customer inquiries and disputes regarding the credits. Id. at 8 n.12.

asserted that paying Host Customers for the value of the Net Metering Credits would reduce the costs and burden associated with allocation.[10]

In D.P.U. 08-75-A, the Department determined that the Green Communities Act requires the Distribution Companies to allocate Net Metering Credits to eligible Customers, as designated by a Host Customer.[11] The Department also determined that the only exception to allocation is for Class III Net Metering Facilities, in which case the Distribution Company may choose to purchase the Net Metering Credits rather than allocating them. D.P.U. 08-75-A at 10. Nevertheless, the Department stated that it would explore, in the instant proceeding, suggestions to minimize the administrative burden associated with allocation by, for example, limiting the number of Customers to whom credits may be allocated. Id. at 8-9 & n.13.

Accordingly, on June 11, 2009, the Department proposed a model net metering tariff that established limits on the number of Customers to whom Host Customers could allocate Net Metering Credits.[12] On July 16, 2009, following the receipt of written comments, the Department issued for purposes of discussion at a technical conference a revised net metering

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[10] D.P.U. 08-75-A at 8. Although the Green Communities Act allows Distribution Companies to issue checks to Class III Net Metering Facilities for Net Metering Credits, the Distribution Companies asserted that nothing prohibited them from similarly issuing checks to Class I or II Net Metering Facilities for their Net Metering Credits. Id. at 8 n.11.

[11] D.P.U. 08-75-A at 9-10, citing G. L. c. 164, §§ 139(a)(1), 139(b)(1). The allocation requirement is contained in 220 C.M.R. § 18.05.

[12] Specifically, the Department proposed to limit the number of allocation designees to: (1) five customers for Class I Net Metering Facilities; (2) ten customers for Class II Net Metering Facilities; and (3) 50 customers for Class III Net Metering Facilities. There was no proposed designee limit for Neighborhood Net Metering Facilities.

tariff that removed limitations on allocation. On July 21, 2009, the Department held a technical conference during which participants discussed the issue of allocating Net Metering Credits.

2. Positions of the Parties

The Distribution Companies and IREC support the imposition of limits on the number of Customers to whom Host Customers may allocate Net Metering Credits (National Grid Initial Comments at 1; WMECo Comments at 1-2; Unitil Comments at 1; NSTAR Reply Comments at 3; IREC Comments at 2). The Distribution Companies assert that allocating Net Metering Credits will be a significant expense because their billing systems cannot currently accommodate allocation and therefore the allocation must be done manually (National Grid Initial Comments at 1; WMECo Comments at 1-2; Unitil Comments at 1; NSTAR Reply Comments at 2-3).[13] The Distribution Companies anticipate that allocation will require the hiring of additional full-time staff to handle the manual accounting of allocation and eventually a change to the billing system to provide for automatic allocation (National Grid Initial Comments at 1; Unitil Comments at 1; NSTAR Reply Comments at 2-3).[14]

To mitigate costs associated with the allocation of Net Metering Credits, the Distribution Companies request that the Department impose even tighter restrictions on the number of designees for all net metering facilities than those proposed on June 11, 2009

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[13] NSTAR contends that the costs of these manual transactions will be several hundred thousand dollars annually (NSTAR Reply Comments at 2-3).

[14] NSTAR states that upgrades to its billing system to accommodate allocation would cost approximately $2.8 million (NSTAR Reply Comments at 3).

(National Grid Initial Comments at 1-2; NSTAR Reply Comments at 3; Unitil Comments at 1; WMECo Comments at 1-2). In addition, NSTAR contends that Host Customers should pay for the administrative and billing costs associated with net metering up to the exogenous cost trigger outlined in NSTAR Electric, D.T.E. 05-85 (NSTAR Reply Comments at 3). Similarly, Falmouth Energy suggests that Distribution Companies should charge a modest fee for allocation services, something less than the current customer charge (Falmouth Energy Reply Comments at 1).

Other commenters oppose restrictions on the allocation of Net Metering Credits, contending they exceed the statutory authority of the Green Communities Act (CVEC/Compact Reply Comments at 2; DOER Initial Comments at 1; DOER Reply Comments at 1; DAR Initial Comments at 1; Falmouth Energy Reply Comments at 1; Wellfleet Energy First Reply Comments at 1). DOER also opposes allocation restrictions on Class III Net Metering Facilities as unnecessary because the Distribution Companies may, at their sole discretion, choose to issue a check rather than allocate credits (DOER Reply Comments at 1-2). If the Department maintains allocation restrictions, commenters argue that they should be much broader than those proposed on June 11, 2009 and should apply to customers and not individual accounts (CVEC/Compact Reply Comments at 2-3; Falmouth Energy Reply Comments at 1).[15]

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[15] CVEC and the Compact state that some municipal customers have hundreds of individual accounts (CVEC/Compact Reply Comments at 2-3). If allocation is limited to accounts, they argue that allocation of credits to municipal customers may be too limited to be useful or effective, which would be contrary to the intent of the Green Communities Act (id. at 3).

The Attorney General observes that not allowing Distribution Companies to buy Net Metering Credits from Class I and II Net Metering Facilities is a significant departure from previous drafts of the model net metering tariff (Attorney General Initial Comments at 3-4). The Attorney General contends that allocation of Net Metering Credits by the Distribution Companies could result in potentially significant administrative and information technology costs being passed on to ratepayers (id. at 4). The Attorney General argues that ratepayers should not have to bear the burden of paying costs associated with tracking, carrying forward and allocating credits when it would be more efficient and inexpensive to allow payments (id.).

3. Analysis and Findings

The model net metering tariff we adopt today contains no restrictions on the number of allocations of Net Metering Credits a Host Customer may designate. Although the Department recognizes that Distribution Companies may incur costs associated with the allocation of Net Metering Credits, we find that there is not sufficient certainty at this time as to the potential scale and scope of these costs to warrant restrictions on the number of allocations. In particular, we cannot predict with any certainty how many Host Customers will request allocation or how many Customers the Host Customers will designate if they opt for allocation. In the absence of such information, the Department cannot anticipate the extent or type of administrative costs necessary to accommodate such allocation. For these reasons, we decline at this time to impose limitations on the number of allocations of Net Metering Credits a Host Customer may designate.

The model net metering tariff we adopt today likewise contains no mechanism by which Distribution Companies may recover costs associated with the allocation of Net Metering Credits. Although the issue of cost recovery was discussed during this proceeding, there was disagreement about who should pay for these costs and thus how they should be recovered. As discussed above, however, the underlying uncertainty about the extent of these costs persuades us that it would be premature to consider a cost recovery mechanism at this time. So that we might have better data available for future consideration of a possible cost recovery mechanism, we direct the Distribution Companies to track any incremental costs associated with the allocation of Net Metering Credits and report back to the Department no more than one year after the effective date of their individual conforming net metering tariff.[16]

B. Metering and Reporting of Generation

1. Introduction

In D.P.U. 08-75-A at 6-7, the Department concluded that the output of all net metering facilities must flow through a Host Customer's meter.[17] In this proceeding, the focus of discussion and comments was the need for a second meter to measure the electricity generated by net metering facilities. Total generation data is necessary for Distribution Companies to calculate the distribution revenue lost as a result of Net Metering, which the Green

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[16] Such data may better position the Department to consider a possible cost recovery mechanism, including but not limited to whether Host Customers and those Customers who receive allocated Net Metering Credits should pay a customer charge for such service.

[17] This requirement is contained in 220 C.M.R. § 18.02 (definition of Host Customer) and § 18.03(3) (meter on Host Customer's consumption is needed to calculate Net Metering Credits).

Communities Act allows them to recover from Customers. G. L. c. 164, § 139(c); 220 C.M.R. § 18.09(4).[18]

In considering how to measure total generation, the participants discussed the advantages and disadvantages of metering or estimating generation, reporting requirements, costs associated with reading and installing generation meters and who should bear them, and the impact of decoupling. Ultimately, there was consensus among a broadly represented group of stakeholders that Class II and III Net Metering Facilities should install revenue-grade meters at the Host Customer's expense. In addition, there was consensus that inverter[19] data should be used to derive the revenues displaced by Class I Net Metering Facilities and, if such information was not available, that the generation should be estimated using the best available data.

2. Positions of the Parties

The Attorney General asserts that all net metering facilities should be required to have revenue-grade meters[20] to record total generation (Attorney General Initial Comments at 3; Attorney General Reply Comments, Att. B at 3-4).[21] She reasons that meters will allow for the

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[18] The Distribution Companies proposed to recover these lost revenues as part of the Net Metering Recovery Surcharge, which we discuss subsequently. See infra section IV.C.

[19] An inverter is a device that changes direct current power at its input to alternating current at its output. For example, the inverter is the link between the solar modules and the electricity grid in solar generating facilities.

[20] A revenue-grade meter is one that meets the accuracy requirements of the Model Interconnection Tariff. See Appendix B, § 8.1.

[21] Falmouth Energy agrees that the Department should require meters for Class I Net Metering Facilities, but suggests requiring meters that are less expensive than

accurate calculation of Net Metering Credits and lost revenues, thus ensuring that ratepayers subsidize actual, not estimated, net metering costs (Attorney General Initial Comments at 2-3; Attorney General Reply Comments, Att. A). In addition, she asserts that meters are necessary to enable net metering facilities to sell Renewable Energy Certificates ("RECs"), which should be sold to the Distribution Companies and used to offset the net metering costs to be recovered from Customers (Attorney General Initial Comments at 3). The Attorney General states, however, that ratepayers should not have to pay for these meters (Attorney General Initial Comments at 2).

WMECo disagrees with the Attorney General, asserting that requiring meters for Class II and III Net Metering Facilities represents a consensus position "after careful consideration of all the issues surrounding metering functionality and should not be modified" (WMECo Comments at 2). National Grid argues that additional metering and reporting requirements for smaller systems would be an undue burden on those Customers (National Grid Reply Comments at 2). DAR contends that if the Host Customer does not install a generation meter for other purposes, the Distribution Companies should pay for generation meters without ratepayer compensation (DAR Initial Comments at 1).

IREC supports the use of inverter readings to estimate the output of Class I Net Metering Facilities, arguing such an approach is consistent with the Green Community Act's prohibition against additional fees and costs for such systems (IREC Comments at 2). In the

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revenue-grade meters (Falmouth Energy Reply Comments at 1). Falmouth Energy maintains that the less expensive meters would be much more accurate than estimated output (id.).

absence of inverter or similar data, National Grid suggests that estimates be calculated on a case-by-case basis with the best available data for all Class I Net Metering Facilities (National Grid Initial Comments at 2-3).[22]

3. Analysis and Findings

The model net metering tariff we adopt today requires Host Customers with Class II and III Net Metering Facilities to install at their expense revenue-grade meters to measure kilowatt-hour ("kWh") output. We agree that requiring meters for all classes of net metering facilities would allow for an accurate calculation of the revenues lost as the result of net metering.[23] Nevertheless, we are not persuaded that the installation of a generation meter on Class I Net Metering Facilities would result in incrementally accurate generation data sufficient to justify the added expense of a meter on these smaller systems.

It may be that only a small number of Class I Net Metering Facilities have unmetered generation. We anticipate that many Class I Net Metering Facilities will install generation meters so that they may pursue revenue streams associated with the renewable and

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[22] On June 11, 2009, the Department proposed a net metering tariff that specified the means of estimating the generation of wind and solar net metering facilities, but left nonrenewable technologies to be calculated on a case-by-case basis.

[23] Net Metering Credits will be calculated based upon readings of the meter that measures a Host Customer's consumption of electricity (i.e., retail meter). Net Metering Credits are calculated only when a net metering facility's generation exceeds a Host Customer's consumption of electricity as measured through the retail meter. D.P.U. 08-75-A at 6, citing 220 C.M.R. § 18.03(3). Accordingly, meters to record total generation are not necessary for the accurate calculation of Net Metering Credits.

environmental attributes of their systems.[24] We are nevertheless reluctant to require any net metering facility to participate in the REC or other similar markets at this time because, as discussed below, Host Customers may have reason not to participate in these markets.[25]

In addition, we expect that metering of generation to enable Distribution Companies to calculate revenues displaced by net metering facilities for recovery from Customers may be a short-term issue. We anticipate that this calculation will be unnecessary to the extent that Distribution Companies decouple their sales from their revenues. A decoupling mechanism could separate a distribution company's revenues from all changes in consumption, regardless of the underlying cause of the changes. Investigation into Rate Structures that will Promote Efficient Deployment of Demand Resources, 07-50-A, at 31 (2008). Pursuant to a decoupling mechanism, a distribution company could be allowed a specified annual revenue requirement, whereby, to the extent the Distribution Company has undercollected, it would be allowed to recover its target revenues without regard to whether sales decreased because of the deployment of net metering facilities or other demand resources (i.e., energy efficiency, demand response, and combined heat and power). See Investigation into Rate Structures that will Promote Efficient Deployment of Demand Resources, D.P.U. 07-50, at 1, 4, 14-16 (2007). If such a mechanism is implemented for a Distribution Company, it may not need to

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[24] For this reason, we find that requiring Host Customers with Class II and III Net Metering Facilities to install generation meters at their expense is not an undue burden. It is probable that these larger facilities will participate in the REC market, which will require the installation of a generation meter.

[25] See infra Section IV.D (discussing RECs).

know the amount of kWh generated by net metering facilities because any displaced revenues would be captured in the annual decoupling reconciliation. Since we anticipate that all Distribution Companies will file a decoupling rate proposal by December 2012, the metering of generation for purposes of determining displaced revenue could diminish in importance or become irrelevant for the purposes of calculating displaced revenues.

For all these reasons, we conclude that requiring generation meters for Class II and III Net Metering Facilities and using estimated generation for Class I Net Metering Facilities where metered data is unavailable strikes an appropriate balance between protecting customers and minimizing costs to Host Customers.

C. Net Metering Recovery Surcharge

1. Introduction

In addition to distribution revenue lost as a result of Net Metering, the Green Communities Act allows Distribution Companies to recover the Net Metering Credits they are required to pay for excess generation. G. L. c. 164, § 139(c); 220 C.M.R. § 18.09(4).[26] To calculate and recover these costs, the Distribution Companies proposed in their model net metering tariff a formula entitled the Net Metering Recovery Surcharge ("NMRS."). The NMRS as proposed by the Distribution Companies is based on a prospective approach, relying upon forecasts for the upcoming year of the Net Metering Credits to be paid and the non-

[26] Distribution Companies may recover "the aggregate of the distribution portion of any Class I, II, or III Net Metering credits and the Distribution Company delivery charges displaced by a Class I, II or III Net Metering Facility through a uniform per kilowatt-hour surcharge or surcharges billed to all of its Customers on an annual basis." 220 C.M.R. § 18.09(4).

reconciling distribution portion of revenue to be displaced by net metering facilities. In addition, the proposed NMRS is designed to recover the reconciling components of Net Metering Credits through the usual annual reconciliation processes in place for such charges. The proposed NMRS will apply any energy market payments received from ISO New England Inc. ("ISO-NE") for the electricity generated by Class II or III Net Metering Facilities in the company's annual reconciliation of default service costs. These issues and the NMRS in general were discussed at the three technical sessions and various modifications were suggested in the Department-proposed net metering tariffs.

2. Positions of the Parties

The Attorney General contends that the NMRS should be retrospective, using available actual data for both the Net Metering Credits paid and the displaced revenues (Attorney General Reply Comments, Att. A, Att. B at 7). To derive the revenues displaced by net metering in the absence of metered data, the Attorney General proposes that the Department review and approve any means of estimating output (Attorney General Reply Comments, Att. A, Att. B at 8). In addition, the Attorney General seeks to modify the NMRS to recover all Net Metering Credits paid to Customers, not just the non-reconciling distribution portion (Attorney General Reply Comments, Att. A, Att. B at 6).

In the absence of inverter or similar data, National Grid suggests that estimates for purposes of displaced revenues be calculated on a case-by-case basis with the best available

data for all Class I Net Metering Facilities (National Grid Initial Comments at 2).[27] National Grid also suggests that, in addition to energy revenues, Distribution Companies should have the right to capacity revenues associated with the excess electricity generated by Class II and III Net Metering Facilities (id. at 3). During the July 21, 2009 technical conference, participants discussed who should have the right to capacity payments from ISO-NE. Given the risks inherent in the Forward Capacity Market ("FCM"), the Distribution Companies were reluctant to be obligated to bid in the capacity. Others argued that Host Customers should have the opportunity to bid the capacity for their facility and obtain that revenue stream.

3. Analysis and Findings

The model net metering tariff we adopt today includes a NMRS that is retrospective in nature. We find that such an approach is consistent with other annual reconciliations and will better allow for the use of actual data. In addition, the NMRS we adopt requires the reconciliation of both the reconciling and non-reconciling components of Net Metering Credits. This should allow for greater transparency of the costs associated with net metering because they will all be included in the annual NMRS reconciliation rather than being split between the NMRS and the Distribution Company's other annual reconciliation of costs.

The DDR component of the NMRS is designed to calculate the revenues displaced by the net metering facilities. Consistent with the metering requirements discussed above, the Distribution Companies are to use actual metered data from Class II and III Net Metering

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[27] On June 11, 2009, the Department proposed a net metering tariff that specified the means of estimating the generation of wind and solar net metering facilities, but left nonrenewable technologies to be calculated on a case-by-case basis.

Facilities in calculating DDR. For Class I Net Metering Facilities, the Distribution Companies are to use generation data from an inverter or similar device. If such information is unavailable, however, the tariff we adopt today allows the Distribution Company in the first instance to identify the appropriate means of estimating generation for purposes of DDR. During the annual NMRS reconciliation proceeding, there will be an opportunity for parties to comment on, and for the Department to investigate, the estimation methods used. Finally, for the reasons discussed above, the Department acknowledges that the DDR component of the NMRS could become obsolete once a Distribution Company implements a decoupling mechanism.

The net metering tariff that we adopt today requires Distribution Companies to apply any energy market payments received from ISO-NE for the electricity generated by Class II or III Net Metering Facilities in the company's annual NMRS reconciliation. The net metering tariff also allows, but does not require, Distribution Companies to bid the capacity of Class II and III Net Metering Facilities into the FCM. We find that it is appropriate for Distribution Companies to have the right to the energy and capacity payments for the purposes of reconciliation in the NMRS. First, the Distribution Companies will use those payments to offset the total NMRS to be recovered from Customers. Second, most Net Metering Credits are calculated using the default service charge, in which is embedded the costs of energy and capacity associated with generation. In other words, Host Customers receiving such credits are being compensated for the cost of energy and capacity.

We nevertheless do not require the Distribution Companies to obtain the revenue stream associated with capacity. We recognize the administrative difficulties of bidding the capacity of Class II and III Net Metering Facilities into the FCM. We also recognize the associated risks of bidding into a market three years in advance for generation that is owned and operated by third parties who are not contractually bound to the Distribution Company. We will therefore leave to the reasonable judgment of the Distribution Companies whether to seek to obtain these capacity payments. However, if a Distribution Company opts to bid such capacity into the FCM, it must declare its intent to seek capacity payments when a Host Customer applies for net metering services. In addition, the Distribution Company is then obligated to act in a commercially reasonable manner to obtain such capacity payments, which will be applied to offset any NMRS.

D. Renewable Energy and Environmental Attributes

1. Introduction

In D.P.U. 08-75-A at 22, the Department determined that Distribution Companies are not entitled, as the result of providing net metering services, to the renewable energy or environmental attributes associated with a net metering facility.[28] The net metering regulations do not, however, specify what – if anything – a Host Customer is required to do with RECs or other attributes. On April 17, 2009, the Distribution Companies proposed a model net metering tariff requiring all Class II and Class III Net-Metering Facilities to participate in the

[28] This clarification is included in 220 C.M.R. § 18.09(1).

REC market in order to provide resources for Distribution Companies to meet existing and future Renewable Portfolio Standard ("RPS") requirements.

2. Positions of the Parties

The Attorney General argues that "all net metering facilities should be required to sell [their] RECs in order to offset their investment and ratepayers should be able to receive the benefit of RECs by having [Distribution] Companies purchase them from net metering facilities" (Attorney General Initial Comments at 3). She reasons that "ratepayers should receive some relief through the purchase of net metering facilities' RECs" because they are subsidizing net metering customers, and providing lost revenue recovery (id. at 3).

Many participants oppose any tariff provision that would require Host Customers to participate in the REC market or dispose of them in any particular way, especially to Distribution Companies (CVEC/Compact Initial Comments at 7-8; IREC Comments at 2; SED Comments at 2). They assert that there is no language in the Green Communities Act to support such requirements (CVEC/Compact Initial Comments at 9-10; IREC Comments at 2). They argue that RECs result from a Host Customer's investment in renewable energy and that the Host Customer should have an unfettered right to dispose of RECs through retirement or sale or otherwise (CVEC/Compact Initial Comments at 7-10; IREC Comments at 2). As to RPS requirements, they contend that nothing in the Green Communities Act indicates that net metering should facilitate RPS compliance of Distribution Companies (CVEC/Compact Initial Comments at 9). They further assert that net metering RECs should be available to other

entities that have RPS requirements like competitive suppliers and to voluntary REC markets and programs (id.).

3. Analysis and Findings

The model net metering tariff we adopt today does not require Host Customers to participate in the REC market and does not otherwise restrict their disposal of RECs or other renewable or environmental attributes associated with the generation of their net metering facilities. We recognize that Host Customers, by receiving net metering services, will receive significant benefits as specified by the Green Communities Act. There is, however, no corresponding language in the Green Communities Act that supports requiring Host Customers to participate in the REC market by selling RECs to the Distribution Companies or any other entity. In addition, we recognize that the deployment of these renewable resources is an important part of mitigating the vulnerability of all customers to significant increases in energy commodity prices and preparing for a carbon-constrained energy industry. D.P.U. 07-50-A at 1-4. We therefore find no basis for regulating Host Customers' use of RECs. By leaving the decision to participate in markets to the Host Customers, we conclude that the model net metering tariff we adopt today appropriately balances the interests of Customers and Host Customers. In addition, we find that it will ensure that the Department's implementation of the net metering provisions of the Green Communities Act does not interfere with the development of markets associated with the renewable and environmental attributes of net metering facilities.

E. Queuing of Net Metering Applications

1. Introduction

In D.P.U. 08-75, at 20-21, the Department declined to address the issue of a queue in the net metering regulations. The Department instead decided to track participation and trends in net metering so that we may later ascertain whether adjustments such as queue requirements are necessary. Id.; 220 C.M.R. § 18.08. Throughout its various iterations, the model net metering tariff has been designed so that, provided a potential net metering facility has achieved administrative completion of the interconnection application,[29] it would be eligible for net metering if service under the tariff has not closed as a result of the aggregate of operating net metering facilities reaching the Distribution Company's one percent cap. 220 C.M.R. § 18.07; Appendix A, § 1.09. With each iteration, commenters have suggested that the Department regulate eligibility for net metering through a process that is separate and apart from the aggregate cap provisions of the net metering tariff and the relevant requirements of the interconnection tariff.

2. Positions of the Parties

The commenters argue that the Department, not Distribution Companies, should determine what projects are eligible for net metering (Boreal Initial Comments at 1; CVEC/Compact Initial Comments at 5). Leaving eligibility to Distribution Companies through the interconnection process, they reason, will, contrary to the intent of the Green Communities

[29] In order for a net metering facility to become operable, it must interconnect to a Distribution Company's electric distribution system. This interconnection process is governed by the Standards for Interconnecting Distributed Generation and the associated Interconnection Tariff approved by the Department.

Act, discourage projects that require net metering eligibility to obtain financing, add to the administrative burden of all the parties, and create problems in general (Boreal Initial Comments at 1; CVEC/Compact Initial Comments at 5-7; CVEC/Compact Reply Comments at 4-5). They predict that queuing issues will ultimately need to be resolved by the Department (Boreal Initial Comments at 1; CVEC/Compact Initial Comments at 5-7).

They explain that a successful queue process should include more milestones than just the interconnection application (Boreal Initial Comments at 2; CVEC/Compact Initial Comments at 5-6; Wellfleet Energy First Reply Comments at 2-3). They ask the Department to promulgate regulations to govern queue eligibility and placement and perhaps assign management of the queue to a third party (CVEC/Compact Reply Comments at 5-6, 8-9; DAR Initial Comments at 1).

3. Analysis and Findings

The model net metering tariff we adopt today makes no reference to the queuing of applications for net metering services. We stated in D.P.U. 08-75-A at 21, that the reporting provisions contained in the net metering regulations will provide the Department and stakeholders with sufficient information to monitor the development of net metering within the requirements and limitations of the Green Communities Act. Despite the participants' thoughtful analysis of the queuing issues, we remain convinced that the reporting requirements adopted in D.P.U. 08-75-A represent a reasonable approach at this time for regulating the deployment of net metering facilities.

F. Dispute Resolution

The model net metering tariff we adopt today incorporates by reference the comprehensive dispute resolution provisions of the Model Interconnection Tariff. During the development of the model tariff, the Distribution Companies asserted that Host Customers, and not Distribution Companies, should be responsible for resolving disputes associated with the allocation of Net Metering Credits (National Grid Initial Comments at 1-2; WMECo Comments at 1-2; Unitil Comments at 1). We agree. As adopted today, the model net metering tariff clarifies that Distribution Companies are not responsible for resolving disputes between Host Customers and those to whom they are allocating Net Metering Credits.[30]

V. MODEL INTERCONNECTION TARIFF

A. Net Metering Application "Schedule Z"

To apply for net metering services, a Host Customer must complete Schedule Z as part of completing its interconnection application. The purpose of Schedule Z is to obtain information from the Host Customer sufficient for the Distribution Company to determine eligibility for net metering and, upon interconnection, to provide net metering services. The purpose of Schedule Z is also to provide certain information to Host Customers so that they may obtain financing and make other business decisions as early in the interconnection process as possible. For example, within 30 days of the filing of Schedule Z, the Distribution Company must notify the Host Customer of a Class III Net Metering Facility whether it will purchase the Host Customer's Net Metering Credits or allocate them. The Distribution

[30] This clarification is contained in Appendix A, § 1.11.

Company must similarly notify Host Customers with Class II and III Net Metering Facilities whether it will seek to obtain capacity payments from ISO-NE for their electric generation.

There was vigorous discussion about the appropriate content of Schedule Z during the various technical conferences and in the comments. Schedule Z as adopted today represents in large part consensus among the stakeholders and we find it will appropriately allow for the implementation of net metering.

B. Revisions to the Model Interconnection Tariff

1. Introduction

During this proceeding, it became clear that, in order to facilitate the implementation of the net metering provisions of the Green Communities Act, the Model Interconnection Tariff would need to be revised. The technical conferences and comments focused primarily on revisions necessary to conform to 220 C.M.R. § 18.00 and 220 C.M.R. § 8.00, as revised.

2. Positions of the Parties

DOER states that two insurance provisions contained in the Model Interconnection Tariff will apply to net metering facilities and create unnecessary barriers to distributed generation in general and net metering facilities in particular (DOER Initial Comments at 2). DOER explains that one provision requires a Distribution Company to be an additional insured[31] and the other requires insurance for governmental entities[32] (id. at 3). As to the first,

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[31] DOER explains that section 11.2 of the Model Interconnection Tariff provides that "all insurance shall, (a) include Company as additional insured," but also allows for a waiver of this requirement (DOER Initial Comments at 3).

[32] DOER states that the Massachusetts Tort Claims Act, G.L. c. 258, § 2, imposes a $100,000 cap on damages in actions against governmental entities (DOER Initial

DOER asserts it creates needless and burdensome requirements for net metering customers and other distributed generation owners (id.). DOER argues that Distribution Companies are already well protected against the minimal risk that small renewable generation poses (id.). As to the second, DOER maintains that it creates barriers for governmental entities that would otherwise be eligible for net metering (id.). DOER contends that the Model Interconnection Tariff should instead adopt a special contract approach in which the Distribution Company assumes the risk and charge the governmental entity for doing so (id.). DOER explains that this approach has been effective in the past and is consistent with the Green Communities Act's directive to remove barriers to the development of renewables (id. at 3-4). In addition, DOER states it would avoid the necessity of creating a special contract every time an otherwise eligible governmental entity seeks interconnection (id. at 4).

WMECo and National Grid oppose DOER's proposed insurance revisions (National Grid Reply Comments at 1; WMECo Comments at 2). They state that, in their experience, these provisions have worked effectively and have not been unduly burdensome (National Grid Reply Comments at 1; WMECo Comments at 2). WMECo explains that "the insurance provisions in the interconnection tariff were the result of extensive negotiations and collaborative agreement by all parties in D.T.E. 02-38" (WMECo Comments at 2). NSTAR does not oppose DOER's proposed special contract approach so long as NSTAR is able to "to

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Comments at 3). Because of this cap, DOER explains, the Model Interconnection Tariff requires governmental entities to obtain insurance coverage prior to interconnection with a Distribution Company's distribution system in an amount higher than the damages cap (id.). DOER contends that the cost of such insurance creates barriers to the installation of net metering facilities (id.).

charge the governmental entity for such commercially available insurance" (NSTAR Reply Comments at 4).

3. Analysis and Findings

We stated that the purpose of this investigation is to develop a net metering tariff and changes to the interconnection tariff to implement the provision of net metering services pursuant to G.L. c. 164, §§ 138-142. D.P.U. 09-03, at 1. It was in this context that we reviewed the Model Interconnection Tariff to determine what changes would be necessary to accommodate the implementation of net metering. We recognize that the Model Interconnection Tariff resulted from a comprehensive, collaborative process. However, certain changes are necessary to conform the Model Interconnection Tariff to the net metering tariff and regulations. For example, definitions and Schedule Z have been added, the metering requirements revised, and certain citations relating to insurance updated. See Appendix B, §§ 1.2, 8.1, 11.1(b). Nevertheless, we decline to adopt the insurance changes suggested by DOER at this time. We recognize that the insurance provisions of the interconnection tariff could present barriers to the development of renewable generation that otherwise would be eligible for net metering, particularly in the case of such development by governmental entities. Accordingly, we encourage the Distribution Companies to continue to work with appropriate stakeholders to address any insurance coverage barriers for governmental entities.

VI. CONCLUSION

The attached model net metering tariff and Model Interconnection Tariff shall serve as the basis for the Distribution Company filings with the Department. It is the Department's

goal to achieve uniformity across the Commonwealth in the provision of net metering services. Distribution Companies therefore bear the burden of demonstrating the reasonableness of any proposed modifications to the model tariffs when submitting compliance tariffs. Each Distribution Company must file its proposed compliance tariffs with the Department for review no later than ten days following the issuance of this Order.

VII. ORDER

Accordingly, after due notice, opportunity for comment, and consideration it is

ORDERED: That the model net metering tariff, as appended to this Order, be and hereby is approved; and it is

FURTHER ORDERED: That no later than ten days following the issuance of this Order, Fitchburg Gas and Electric Light Company, d/b/a Unitil, Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid, NSTAR Electric Company, and Western Massachusetts Electric Company shall submit individual net metering tariffs consistent with this Order; and it

FURTHER ORDERED: That the Model Tariff to Accompany Standards for Interconnecting Distributed Generation, as appended to this Order, be and hereby is approved; and it

FURTHER ORDERED: That no later than ten days following the issuance of this Order, Fitchburg Gas and Electric Light Company, d/b/a Unitil, Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid, NSTAR Electric Company,

and Western Massachusetts Electric Company shall submit individual interconnection tariffs consistent with this Order; and it

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company, d/b/a Unitil, Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid, NSTAR Electric Company, and Western Massachusetts Electric Company shall comply with all directives contained in this Order.

By Order of the Department,

_____/s/_____
Paul J. Hibbard, Chairman

_____/s/_____
Tim Woolf, Commissioner

_____/s/_____
Jolette A. Westbrook, Commissioner

[Name of Utility]

NET METERING

[Tariff No.]

Effective: [Date]

Applicability

The following tariff provisions shall be applicable to a Host Customer, as defined herein, that requests net metering services from the Distribution Company, with the exception of a Host Customer that is an electric company, generation company, aggregator, supplier, energy marketer, or energy broker, as those terms are used in M.G.L. c. 164, §§ 1 and 1F and 220 C.M.R. 11.00. Service under this rate to any Host Customer is subject to the Distribution Company's printed requirements and the Distribution Company's Terms and Conditions – Distribution Service, each as in effect from time to time. The interconnection date of a facility shall have no bearing on a Host Customer's eligibility to request net metering services under the following tariff.

Section 1.01 Definitions

The terms set forth below shall be defined as follows, unless the context otherwise requires.

Agricultural Net Metering Facility means a Renewable Energy generating facility that is operated as part of an agricultural business, generates electricity, does not have a generation capacity of more than two megawatts, is located on land owned or controlled by the agricultural business, and is used to provide energy to metered accounts of the business. "Agriculture" has the same meaning as provided in M.G.L. c. 128, § 1A; provided that, when necessary, the Commissioner of the Department of Agricultural Resources shall determine if a business is an agricultural business and whether the facility is operated as part of that business.

Billing Period means the period of time set forth in the Distribution Company's terms and conditions for which the Distribution Company bills a Customer for its electricity consumed or estimated to have been consumed.

Class I Net Metering Facility means a plant or equipment that is used to produce, manufacture, or otherwise generate electricity and that is not a transmission facility and that has a design capacity of 60 kilowatts or less.

Class II Net Metering Facility means an Agricultural Net Metering Facility, Solar Net Metering Facility, or Wind Net Metering Facility with a generating capacity of more than 60 kilowatts but less than or equal to one megawatt; provided, however, that a Class II Net Metering Facility owned or operated by a Customer which is a municipality or other governmental entity may have a generating capacity of more than 60 kilowatts but less than or equal to one megawatt per unit.

Class III Net Metering Facility means an Agricultural Net Metering Facility, Solar Net Metering Facility, or Wind Net Metering Facility with a generating capacity of more than one megawatt but less than or equal to two megawatts; provided, however, that a Class III Net Metering Facility owned or operated by a Customer which is a municipality or other governmental entity may have a generating capacity of more than one megawatt but less than or equal to two megawatts per unit.

Customer means any person, partnership, corporation, or any other entity, whether public or private, who obtains distribution service at a customer delivery point and who is a customer of record of the Distribution Company for its own electricity consumption.

Distribution Company means _____.

Host Customer means a Customer with a Class I, II, or III Net Metering Facility or Neighborhood Net Metering Facility that generates electricity on the Customer's side of the meter.

Interconnection Tariff means the Distribution Company's Standards for Interconnecting Distributed Generation, M.D.T.E. No_____.

ISO-NE means ISO New England Inc., the independent system operator for New England, or its successor, authorized by the Federal Energy Regulatory Commission to operate the New England bulk power system and administer New England's organized wholesale electricity market pursuant to the ISO-NE Tariff and operation agreements with transmission owners.

Neighborhood means a geographic area within a municipality, subject to the right of the Department to grant exceptions pursuant to 220 CMR 18.09(6), that:

(a) is recognized by the residents as including a unique community of interests;

(b) falls within the service territory of the Distribution Company and within a single ISO-NE load zone; and

(c) may encompass residential, commercial, and undeveloped properties.

Neighborhood Net Metering Facility means a Class I, II, or III Net Metering Facility that:

(a) is owned by, or serves the energy needs of, a group of ten or more residential Customers that reside in a single Neighborhood and are served by a single Distribution Company;

(b) may also be owned by, or serve the energy needs of, other Customers who reside in the same Neighborhood and are served by the same Distribution Company as the residential Customers that own or are served by the facility; and

(c) is located within the same Neighborhood as the Customers that own or are served by the facility.

Net Metering means the process of measuring the difference between electricity delivered by a Distribution Company and electricity generated by a Class I, Class II, Class III or Neighborhood Net Metering Facility and fed back to the Distribution Company.

Net Metering Credit means the monetary value of the excess electricity generated by a net metering facility, calculated pursuant to Section 1.06, below.

Renewable Energy means energy generated from any source that qualifies as a Class I or Class II Renewable Energy generating source under M.G.L. c. 25A, § 11F; provided, however, that after conducting administrative proceedings, the Department of Energy Resources, in consultation with the Department of Agricultural Resources, may add technologies or technology categories.

Solar Net Metering Facility means a facility for the production of electrical energy that uses sunlight to generate electricity and is interconnected to the Distribution Company.

Wind Net Metering Facility means a facility for the production of electrical energy that uses wind to generate electricity and is interconnected to the Distribution Company.

Section 1.02 Interconnection

Interconnection of net metering facilities is governed by the terms of the Distribution Company's Interconnection Tariff, which sets forth the following information for net metering services:

(a) Application procedures;

(b) Information necessary for requests;

(c) Metering and technical requirements; and

(d) Termination and suspension provisions.

The Customer shall indicate its request for net metering on its application pursuant to the Interconnection Tariff.

Section 1.03 Metering and Reporting of Generation

1. Host Customers with a Class II or III Net Metering Facility shall install at the Host Customer's expense revenue-grade meters to measure the generator's kilowatt-hour ("kWh") output. Unless otherwise agreed in writing with the Distribution Company, the Host Customer will provide the actual metered output to the Distribution Company twice per calendar year: on or before January 31 and on or before September 30.

2. Unless otherwise agreed in writing with the Distribution Company, a Host Customer with a Class I Net Metering Facility, who does not have a generation information system ("GIS") account at ISO-NE, will provide, if available, the inverter's generation information to the Distribution Company twice per calendar year: on or before January 31 and on or before September 30.

3. Unless otherwise agreed in writing with the Distribution Company, a Host Customer with a Class I Net Metering Facility, who does not have a GIS account at ISO-NE and does not otherwise have generation information available, shall provide all necessary information to, and cooperate with, the Distribution Company to enable the Distribution Company to estimate the annual generation.

Section 1.04 Qualifications for Neighborhood Net Metering Facilities

The Host Customer of a Neighborhood Net Metering Facility shall fulfill the requirements of the Distribution Company's Interconnection Tariff, as noted in Section 1.02, above, and shall further provide and maintain on file with the Distribution Company written documentation demonstrating that all parties eligible to receive Net Metering Credits from the Neighborhood Net Metering Facility meet the terms of the definition of a Neighborhood Net Metering Facility, as provided herein and in the Department's regulations at 220 C.M.R. 18.02.

Section 1.05 Administration of Net Metering Credits

1. The Distribution Company shall calculate a Net Metering Credit as set forth in Section 1.06 below, and not bill a Host Customer for kWh usage, for any Billing Period in which the kWh generated by a Class I, II, or III Net Metering Facility or a Neighborhood Net Metering Facility exceed the kWh usage of the Host Customer.

2. Each Distribution Company shall bill a Host Customer for excess consumption for any Billing Period in which the kWh consumed by a Host Customer exceed the kWh generated by a Class I, II or III Net Metering Facility or Neighborhood Net Metering Facility.

Section 1.06 Calculation of Net Metering Credits

1. For a Class I Wind Net Metering Facility, Class I Solar Net Metering Facility, Class I Agricultural Net Metering Facility, Class II Net Metering Facility, and Class III Net Metering Facility where the Host Customer is a municipality or other governmental entity, the Distribution Company shall calculate for each Billing Period a Net Metering Credit equal to the product of the:

   (a) excess kWh, by time-of-use if applicable; and

   (b) sum of the following Distribution Company charges applicable to the rate class under which the Host Customer takes service:

      (i) the default service kWh charge (in the ISO-NE load zone where the Host Customer is located);

      (ii) the distribution kWh charge, which includes [identify all company-specific distribution-related reconciling mechanism charges that comprise this charge];

      (iii) the transmission kWh charge; and

      (iv) the transition kWh charge.

2. For a Class I Net Metering Facility other than a Class I Wind Net Metering Facility, Class I Agricultural Net Metering Facility, or a Class I Solar Net Metering Facility, the Distribution Company shall calculate a Net Metering Credit for each Billing Period as the product of the:

   (a) excess kWh, by time-of-use if applicable; and

   (b) average monthly clearing price at the ISO-NE.

3. For a Neighborhood Net Metering Facility or a Class III Net Metering Facility where the Host Customer is not a municipality or governmental entity, the Distribution Company shall calculate a Net Metering Credit for each Billing Period as the product of the:

   (a) excess kWh, by time-of-use if applicable; and

   (b) sum of the following Distribution Company charges applicable to the rate class under which the Host Customer takes service:

      (i) the default service kWh charge (in the ISO-NE load zone where the Host Customer is located);

(ii) the transmission kWh charge; and

(iii) the transition kWh charge.

4. The calculation of Net Metering Credits under this section shall not include the demand side management and renewable energy kWh charges set forth in M.G.L. c. 25, §§ 19-20.

5. For any Billing Period for which the Distribution Company calculates a Net Metering Credit for a Host Customer, the Distribution Company shall apply the Net Metering Credit to the Host Customer's account, unless the Host Customer provides otherwise pursuant to Section 1.07. The Distribution Company shall carry forward, from Billing Period to Billing Period, any remaining Net Metering Credit balance.

Section 1.07 Allocation of Net Metering Credits

1. For a Class I or II Wind Net Metering Facility, Solar Net Metering Facility, or Agricultural Net Metering Facility; Class III Net Metering Facility; or Neighborhood Net Metering Facility, the Distribution Company shall allocate Net Metering Credits, as designated in writing by the Host Customer, to other Customers who are in the Distribution Company's service territory and are located in the same ISO-NE load zone.

2. For a Neighborhood Net Metering Facility, the Distribution Company may only allocate Net Metering Credits to residential or other Customers who reside in the same Neighborhood in which the Neighborhood Net Metering Facility is located and have an ownership interest in, or are served by, the Neighborhood Net Metering Facility.

3. For any Billing Period that a Host Customer earns Net Metering Credits, the Distribution Company shall allocate Net Metering Credits by applying them to a designated Customer's account. The Distribution Company shall carry forward, from Billing Period to Billing Period, any remaining Net Metering Credit balance.

4. For a Class III Net Metering Facility, the Distribution Company may elect to purchase Net Metering Credits from the Host Customer, rather than allocating such Credits. The Distribution Company must provide written notice to the Host Customer of its election to either purchase or allocate Net Metering Credits within 30 days of the Host Customer's request for Net Metering Services. For Net Metering Credits purchased under this provision, the Distribution Company will make payment by issuing a check to the Host Customer each Billing Period, unless otherwise agreed in writing with the Host Customer. In addition, the Distribution Company shall continue to purchase such credits for so long as the Host Customer takes service under this tariff or as mutually agreed in writing by the Distribution Company and the Host Customer.

5. The Distribution Company is responsible for accurately allocating Net Metering Credits consistent with a Host Customer's written designation in Schedule Z to the Distribution Company's Interconnection Tariff.

Section 1.08 Net Metering Recovery Surcharge

The charges listed below are non-bypassable and shall be applied to all kWh delivered by the Distribution Company to a Customer. The operation of the Net Metering Recovery Surcharge ("NMRS") is subject to all powers of suspension and investigation vested in the Department.

1) Rates

The purpose of the NMRS is to recover the Net Metering Credits applied to Customers and the non-reconciling distribution portion of revenue displaced by Customers who have installed on-site generation facilities in accordance with G.L. c. 164, §§ 138 and 139. This surcharge provides the Distribution Company with a mechanism to recover such Credits and displaced revenue, and to reconcile actual NMRS revenue amounts recovered from customers with actual recoverable amounts.

2) Applicability of NMRS

The NMRS shall be applicable to all firm distribution of electricity, as measured in kWh, delivered by the Distribution Company. Although the NMRS is a separate surcharge, it may be included in the Distribution Company's Distribution Charge for billing purposes.

3) Effective Date of Annual Surcharge

The date on which the annual NMRS becomes effective shall be the first day of each calendar year, unless otherwise ordered by the Department. The Distribution Company shall submit NMRS filings as outlined in Section 1.08(6) of this tariff at least 30 days before the NMRS is proposed to take effect.

4) NMRS Formula

$$NMRS_x = (NMC_{x-1} + DDR_{x-1} + PPRA_{x-2})/FkWh_x,$$

where

x = The year over which the surcharge applies;

$NMRS_x$ = The Net Metering Recovery Surcharge for year x;

NMC_{x-1} = The Net Metering Credits for year x-1, based on actual data where available and estimated for the period where actual data is unavailable;

DDR_{x-1} = The non-reconciling distribution portion of revenue displaced, as defined in Section 1.08(5), by net metering facilities for year x-1, based on actual data where available and estimated for the period where actual data is unavailable;

$PPRA_{x-2}$ = The Past Period Reconciliation Amount defined as the ending balance including interest, calculated on the average monthly reconciling balance using the customer deposit rate as outlined in 220 C.M.R. 26.09, of the difference between (a) the sum of the NMC and DDR based on actual data for year x-2 and (b) the revenues collected through the NMRS as approved by the Department for year x-1, based on actual data where available and estimated for the period where actual data is unavailable;

$FkWh_x$ = The Forecasted kWh for year x, defined as the forecasted amount of electricity to be distributed to the Distribution Company's distribution customers.

5) Determination of Revenue Displaced by Net Metering Facilities

a) The revenue displaced by net metering facilities is the non-reconciling distribution revenue associated with the displaced kWh. The quantity of displaced kWh is equal to the kWh generated by the net metering facility minus the excess kWh, if any, delivered to the Distribution Company's distribution system. The kWh generated by the net metering facility shall be determined by:

i) actual metering of the kWh output of the generating facility; or

ii) estimating the kWh output of a generating facility when actual metering is not feasible.

b) In determining DDR, the Distribution Company shall use actual metered data for those Host Customers with Class II and III Net Metering Facilities and for those Host Customers with a Class I Net Metering Facility when such data is available.

c) In determining DDR, the Distribution Company shall estimate the generator kWh output for those Host Customers that do not have actual metered data for the output of their Class I Net Metering Facility. These estimates will be based upon available monthly capacity factor information associated with the size and type of net metering facility installed, or as otherwise specified below. Such

information shall be obtained from publicly available sources such as ISO-NE, the Massachusetts Renewable Energy Trust and weather data outlets as determined by the Distribution Company and subject to Department review and approval.

i) For Class I Solar Net Metering Facilities, the estimate shall come directly from the generation information of the Solar Net Metering Facility's inverter if available. If no data is available to the Distribution Company, the estimate shall be calculated on a case-by-case basis with the best available data.

ii) For Class I Wind Net Metering Facilities:

(1) the estimate shall come directly from the generation information of the Wind Net Metering Facility's meter, inverter, or other generator system if available; or

(2) if generation information is not available, or no data is provided, the estimate shall be calculated on a case-by-case basis with the best available data.

iii) For all non-wind and non-solar Class I Net Metering Facilities, the estimate shall be calculated on a case-by-case basis with the best available data.

6) Information Required to be Filed with the Department

Information pertaining to the annual NMRS shall be filed with the Department at least thirty (30) days before the date on which a new NMRS is requested to be effective. Such filing shall include preliminary reconciliation data for the year in which the filing is made, with final reconciliation amounts to be submitted the subsequent year. The reconciliation data will reflect detailed accounting of distribution Net Metering Credits paid to customers and displaced distribution revenue resulting from net metering facilities. This information will be submitted with each annual NMRS filing, along with complete documentation of the reconciliation-adjustment calculations.

7) Customer Notification

The Distribution Company will notify Customers in simple terms of changes to the NMRS, including the nature of the change and the manner in which the NMRS is applied to the bill. In the absence of a standard format, the Distribution Company will submit this notice for approval at the time of each NMRS filing. Upon approval by the Department, the Distribution Company must immediately distribute these notices to all of its Customers either through direct mail or with its bills.

8) Commodity Reconciliation

The Distribution Company will include the energy market payments received from ISO-NE for the electricity generated by Class II and III Net Metering Facilities in the Distribution Company's annual reconciliation of the NMRS. Host Customers with a Class II or III Net Metering Facility shall provide all necessary information to, and cooperate with, the Distribution Company to enable the Distribution Company to obtain the appropriate asset identification for reporting generation to ISO-NE. The Distribution Company will report all exported power to the ISO-NE as a settlement only generator and net this reported usage and credits earned against the amount of default service commodity earned as a portion of the Net Metering Credits. The resulting amount will then be filed within the Distribution Company's annual NMRS reconciliation proceeding.

The Distribution Company may elect to seek to obtain capacity payments from ISO-NE for the electricity generated by Class II and III Net Metering Facilities, in which case it will include any capacity payments received from ISO-NE in the Company's annual NMRS reconciliation.

Section 1.09 Closure of Tariff to New Customers

Service under this tariff is closed to new applicants upon determination by the Distribution Company that the aggregate capacity of all Class I, II, III, and Neighborhood Net Metering Facilities, whose Host Customers are receiving net metering services under this net metering tariff, has reached one percent of the Distribution Company's highest historical peak load. Immediately following approval of this tariff by the Department, the Distribution Company will post, to the Distribution Company's website, the Distribution Company's highest historical peak load. Each year by February 1 the Distribution Company will update the Distribution Company's highest historical peak load on the Distribution Company's website and with an informational filing to the Department. Additional applications may be accepted, for incremental aggregated capacity associated with one percent of prospective increases in the Distribution Company's peak load. The calculation of aggregated capacity shall be in accordance with 220 C.M.R. 18.07.

Section 1.10 Renewable Energy and Environmental Attributes

The provision of net metering services does not entitle Distribution Companies to ownership of, or title to, the renewable energy or environmental attributes, including renewable energy certificates, associated with any electricity produced by a net metering facility.

Section 1.11 Dispute Resolution

The Dispute Resolution provisions included in the Distribution Company's Interconnection Tariff in Section 9.0 shall be available for the purpose of resolving disputes related to the

operation of this tariff between the Distribution Company and Host Customers, including whether the Distribution Company has accurately allocated Net Metering Credits consistent with a Host Customer's written designation in Schedule Z to the Distribution Company's Interconnection Tariff. The Distribution Company shall not be responsible for resolving disputes between the Host Customer and those Customers to whom the Host Customer is allocating Net Metering Credits.

[Name of Utility]

Standards for Interconnecting Distributed Generation

[Tariff No.]

Effective: [Date]

TABLE OF CONTENTS

1.0 Introduction

1.1 Applicability

This document ("Interconnection Tariff") describes the process and requirements for an Interconnecting Customer to connect a power-generating facility to the Company's Electric Power System ("Company EPS"), including discussion of technical and operating requirements, metering and billing options, and other matters, except as provided under the applicable ISO-NE tariff and/or under the Qualifying Facility regulations in 220 CMR 8.04.

The procedure for momentary paralleling to the Company EPS with back-up generation is described within Section 4.0 Interconnection Requirements.

If the Facility will always be isolated from the Company's EPS, (i.e., it will never operate in parallel to the Company's EPS), then this Interconnection Tariff does not apply.

1.2 Definitions

The following words and terms shall be understood to have the following meanings when used in this Interconnection Tariff:

Affected System: Any neighboring EPS not under the control of the Company (i.e., a municipal electric light company or other regulated utility).

Affiliate: A person or entity controlling, controlled by or under common control with a Party.

Anti-Islanding: Describes the ability of a Facility to avoid unintentional islanding through some form of active control technique.

Application: The notice (which will serve as the Notice of Intent to Interconnect under 220 C.M.R. §§ 8.0 et seq. when required) provided by the Interconnecting Customer to the Company in the form shown in Exhibits A and B, which initiates the interconnection process.

Area EPS: The Company EPS. This term is used in the Institute of Electrical and Electronics Engineers (IEEE) Standard 1547-2003, "IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems" ("IEEE Standard 1547-2003").

Class I Net Metering Facility shall mean a plant or equipment that is used to produce, manufacture, or otherwise generate electricity and that is not a transmission facility and that has a design capacity of 60 kilowatts or less.

Class II Net Metering Facility shall mean an Agricultural Net Metering Facility, Solar Net Metering Facility, or Wind Net Metering Facility with a generating capacity of more than 60 kilowatts but less than or equal to one megawatt; provided, however, that a Class

II Net Metering Facility owned or operated by a Customer which is a municipality or other governmental entity may have a generating capacity of more than 60 kilowatts but less than or equal to one megawatt per unit.

Class III Net Metering Facility shall mean an Agricultural Net Metering Facility, Solar Net Metering Facility, or Wind Net Metering Facility with a generating capacity of more than one megawatt but less than or equal to two megawatts; provided, however, that a Class III Net Metering Facility owned or operated by a Customer which is a municipality or other governmental entity may have a generating capacity of more than one megawatt but less than or equal to two megawatts per unit.

Company: [Utility Name], as applicable.

Company EPS: The electric power system owned, controlled or operated by the Company used to provide distribution service to its Customers.

Customer: Company's retail customer; host site or premises, may be the same as Interconnecting Customer.

Department: The Massachusetts Department of Telecommunications and Energy.

Detailed Study: The final phase of engineering study, if necessary, conducted by the Company to determine substantial System Modifications to its EPS, resulting in project cost estimates for such modifications that will be required to provide the requested interconnection service.

DG: Distributed Generation.

DR: The Facility. This term is used in IEEE Standard 1547-2003.

Expedited Process: As described in Section 3.2, process steps for Listed Facilities from initial application to final written authorization, using a set of technical screens to determine grid impact.

Facility: A source of electricity owned and/or operated by the Interconnecting Customer that is located on the Customer's side of the PCC, and all facilities ancillary and appurtenant thereto, including interconnection equipment, which the Interconnecting Customer requests to interconnect to the Company EPS.

FERC: Federal Energy Regulatory Commission.

Good Utility Practice: Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to

accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Impact Study: The engineering study conducted by the Company under the Standard Process to determine the scope of the required modifications to its EPS and/or the Facility to provide the requested interconnection service.

In-Service Date: The date on which the Facility and System Modifications (if applicable) are complete and ready for service, even if the Facility is not placed in service on or by that date.

Interconnecting Customer: Entity that owns and/or operates the Facility interconnected to the Company EPS, with legal authority to enter into agreements regarding the construction or operation of the Facility.[1]

Interconnection Service Agreement: An agreement for interconnection service, the form of which is provided in Exhibit F, between the Interconnecting Customer and the Company. The agreement also includes any amendments or supplements thereto entered into by the Interconnecting Customer and the Company.

Islanding: A situation where electrical power remains in a portion of an electrical power system when the Company's transmission or distribution system has ceased providing power for whatever reason (emergency conditions, maintenance, etc.) Islanding may be intentional, such as when certain segregated loads in a Customer's premises are provided power by a Facility after being isolated from the Company EPS after a power failure. Unintentional Islanding, especially past the PCC, is to be strictly avoided.

ISO-New England, Inc ("ISO-NE"): The Independent System Operator established in accordance with the NEPOOL Agreement and applicable FERC approvals, which is responsible for managing the bulk power generation and transmission systems in New England.

Isolated: The state of operating the Facility when electrically disconnected from the Company EPS on the Interconnecting Customer's side of the PCC.

Local EPS: The customer premises within which are contained the Facility. This term is used in the IEEE Standard 1547-2003.

1 An entity which owns the Facility interconnected to the Company EPS solely as part of a financing arrangement, which could include the acquisition of the tax credits related to the Facility, but is neither the Customer nor the operator of that Facility, shall not be considered the Interconnecting Customer hereunder.

Listed: A Facility that has successfully passed all pertinent tests to conform with IEEE 1547.1.

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

NEPOOL: New England Power Pool.

Net Metering shall mean the process of measuring the difference between electricity delivered by a Distribution Company and electricity generated by a Class I, Class II, Class III or Neighborhood Net Metering Facility and fed back to the Distribution Company.

Network Distribution System (Area or Spot): Electrical service from an EPS consisting of one or more primary circuits from one or more substations or transmission supply points arranged such that they collectively feed secondary circuits serving one (a spot network) or more (an area network) Interconnecting Customers.

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

NPCC: Northeast Power Coordinating Council.

On-Site Generating Facility: A class of Interconnecting Customer-owned generating Facilities with peak capacity of 60 kW or less, as defined in 220 C.M.R. § 8.00.

Parallel: The state of operating the Facility when electrically connected to the Company EPS (sometimes known as grid-parallel).

Parties: The Company and the Interconnecting Customer.

Point of Common Coupling (PCC): The point where the Interconnecting Customer's local electric power system connects to the Company EPS, such as the electric power revenue meter or premises service transformer. See the Company for the location at a particular Interconnecting Customer site.

Point of Delivery: A point on the Company EPS where the Interconnecting Customer makes capacity and energy available to the Company. The Point of Delivery shall be specified in the Interconnection Service Agreement.

Point of Receipt: A point on the Company EPS where the Company delivers capacity and energy to the Interconnecting Customer. The Point of Receipt shall be specified in the Interconnection Service Agreement.

Qualifying Facility: A generation Facility that has received certification as a Qualifying Facility from the FERC in accordance with the Federal Power Act, as amended by the Public Utility Regulatory Policies Act of 1978, as defined in 220 C.M.R. § 11.04.

Radial Distribution Circuit: Electrical service from an EPS consisting of one primary circuit extending from a single substation or transmission supply point arranged such that the primary circuit serves Interconnecting Customers in a particular local area.

Screen(s): Criteria by which the Company will determine if a proposed Facility's installation will adversely impact the Company EPS in the Simplified and Expedited Processes as set forth in Section 3.0.

Simplified Process: As described in Section 3.1, process steps from initial application to final written authorization for certain inverter-based Facilities of limited scale and minimal apparent grid impact.

Standard Process: As described in Section 3.3, process steps from initial application to final written authorization for Facilities that do not qualify for Simplified or Expedited treatment.

Supplemental Review: Additional engineering study to evaluate the potential impact of the Facility on the Company EPS so as to determine any requirements for processing the application through the Expedited Process.

System Modification: Modifications or additions to distribution-related Company facilities that are integrated with the Company EPS for the benefit of the Interconnecting Customer.

Unintentional Islanding: A situation where the electrical power from the Facility continues to supply a portion of the Company EPS past the PCC when the Company's transmission or distribution system has ceased providing power for whatever reason (emergency conditions, maintenance, etc.).

Witness Test: The Company's right to witness the commissioning testing. Commissioning testing is defined in IEEE Standard 1547-2003.

1.3 Forms and Agreements

The following documents for the interconnection process are included as Exhibits:

1. Interconnection Service Agreement for Expedited and Standard Process (Exhibit F) referencing Attachments 1 – 6 (Attachments 1 – 5 to be developed and included as appropriate for each specific Interconnection Service Agreement) as follows:

    Attachment 1: Definitions (Section 1.2)

Attachment 2: Description of Facilities, including demarcation of PCC

Attachment 3: Description of System Modifications

Attachment 4: Costs of System Modifications and Payment Terms

Attachment 5: Special Operating Requirements, if any

Attachment 6: Agreement between the Company and the Company's Retail Customer (to be signed by the Company's retail customer where DG installation and interconnection will be placed, when retail customer is not the owner and/or operator of the distributed generation facility -- Exhibit G)

2. Application forms:

   a. Simplified Process (Facilities meeting the requirements of Section 3.1) application form and service agreement (Exhibit A)

   b. Expedited and Standard Process application form (Exhibit B)

3. Supplemental Review Agreement for those projects which have failed one or more screens in the Expedited Process (Exhibit C)

4. Impact Study Agreement under the Standard Process (Exhibit D)

5. Detailed Study Agreement for the more detailed study under the Standard Process which requires substantial System Modifications (Exhibit E)

2.0 Basic Understandings

Interconnecting Customer intends to install a Facility on the Customer's side of the PCC that will be connected electrically to the Company EPS and operate in parallel, synchronized with the voltage and frequency maintained by the Company during all operating conditions. It is the responsibility of the Interconnecting Customer to design, procure, install, operate, and maintain all necessary equipment on its property for connection to the Company EPS. The Interconnecting Customer and the Company shall enter into an Interconnection Service Agreement to provide for parallel operation of an Interconnecting Customer's Facility with Company EPS. A form of this agreement is attached as Exhibit F to this Interconnection Tariff. If the Interconnecting Customer is not the Customer, an Agreement between the Company and the Company's Customer must be signed and included as an attachment to the Interconnection Service Agreement; a form of this agreement is attached as Exhibit G.

The interconnection of the Facility with the Company EPS must be reviewed for potential impact on the Company EPS under the process described in Section 3.0 and meet the technical requirements in Section 4.0, and must be operated as described under Section 6.0 In order to meet these requirements, an upgrade or other modifications to the Company EPS may be necessary. Subject to the requirements contained in this Interconnection Tariff, the Company or its Affiliate shall modify the Company EPS accordingly. Unless otherwise specified, the Company will build and own, as part of the Company EPS, all facilities necessary to interconnect the Company EPS with the Facility up to and including terminations at the PCC. The Interconnecting Customer shall pay all System Modification costs as set forth in Section 5.0.

The Interconnecting Customer should consult the Company before designing, purchasing and installing any generation equipment, in order to verify the nominal utilization voltages, frequency, and phase characteristics of the service to be supplied, the capacity available, and the suitability of the proposed equipment for operation at the intended location. Attempting to operate a generator at other than its nameplate characteristics may result in unsatisfactory performance or, in certain instances, injury to personnel and/or damage to equipment. The Interconnecting Customer will be responsible for ascertaining from the Company, and the Company will diligently cooperate in providing, the service characteristics of the Company EPS at the proposed PCC. The Company will in no way be responsible for damages sustained as a result of the Interconnecting Customer's failure to ascertain the service characteristics at the proposed PCC.

The Facility should operate in such a manner that does not compromise, or conflict with, the safety or reliability of the Company EPS. The Interconnecting Customer should design its equipment in such a manner that faults or other disturbances on the Company EPS do not cause damage to the Interconnecting Customer's equipment.

Authorization to interconnect will be provided once the Interconnecting Customer has met all terms of the interconnection process as outlined below.

This Interconnection Tariff does not cover general distribution service needed to serve the Interconnecting Customer. Please refer to the Company's Terms and Conditions for Distribution Service. This Interconnection Tariff does not cover the use of the distribution system to export power, or the purchase of excess power unless covered under 220 C.M.R. §§ 8.00 et seq.

3.0 Process Overview

There are three basic paths for interconnection of the Interconnecting Customer's Facility in Massachusetts. They are described below and detailed in Figures 1 and 2 with their accompanying notes. Tables 1 and 2, respectively, describe the timelines and fees for these paths. Unless otherwise noted, all times in the Interconnection Tariff reference Company business days under normal work conditions.

1. **Simplified** – This is for Listed inverter-based Facilities with a power rating of 10 kW or less single phase or 25 kW or less three-phase depending on the service configuration, and located on radial EPSs under certain conditions. A Listed inverter-based Facility with a power rating of 15 kW or less single phase located on a spot network EPS under certain conditions would also be eligible.

2. **Expedited** – This is for Listed Facilities that pass certain pre-specified screens on a radial EPS.

3. **Standard** – This is for all facilities not qualifying for either the Simplified or Expedited interconnection processes on radial and spot network EPSs, and for all Facilities on area network EPSs.

All proposed new sources of electric power without respect to generator ownership, dispatch control, or prime mover that plan to operate in parallel with the Company EPS must submit a completed application and pay the appropriate application fee to the Company with which it wishes to interconnect. The application will be acknowledged by the Company, and the Interconnecting Customer will be notified of the application's completeness. Interconnecting Customers who are not likely to qualify for Simplified or Expedited Process may opt to go directly into the Standard Process path. Interconnecting Customers proposing to interconnect on area networks will also go directly to the Standard Process. All other Interconnecting Customers must proceed through a series of screens to determine their ultimate interconnection path. (Interconnecting Customers not sure whether a particular location is on a radial circuit, spot network, or area network should check with the Company serving the proposed Facility location prior to filing and the Company will verify the circuit type upon filing.)

If the Interconnecting Customer has not yet selected the generation equipment, the Interconnecting Customer may submit an interconnection application to the Company with generator data for up to three different suppliers for review and acceptance for interconnection by the Company. Upon completion of the initial review of such an application, Company may increase the cost to screen each option submitted and, if an increase is warranted, Company will notify the applicant in writing of the Company's additional cost for reviewing all options submitted by the applicant. Interconnecting Customer's application will be on hold until applicant responds with written authorization to either proceed with the original application submittal for the additional quoted cost or to proceed with reviewing only the "worst case" option at no additional cost for which the Company will provide "worst case" interconnection

requirements and associated costs that apply to all the generators included in the application. For the multiple generator review, the Company will screen each generator and provide the Interconnecting Customer with the interconnection requirements and associated cost for interconnecting each generator included in the application. Prior to the Company preparing a final Interconnection Agreement, the Interconnecting Customer will provide the Company written confirmation of which generator the Interconnecting Customer will install at the Interconnecting Customer's Facility and, if the "worst case" option was not selected by the applicant, the interconnection requirements previously determined for that specific generator will be included in the final Interconnection Agreement.

3.1 Simplified Process

Interconnecting Customers using Listed single-phase inverter-based Facilities with power ratings of 10 kW or less at locations receiving single-phase service from a single-phase transformer, or using Listed three-phase inverter-based Facilities with power ratings of 25 kW or less at locations receiving three-phase service from a three-phase transformer configuration, and requesting an interconnection on radial EPSs where the aggregate Facility capacity on the circuit is less than 7.5% of circuit annual peak load qualify for Simplified interconnection. This is the fastest and least costly interconnection path. There is also a Simplified interconnection path for Listed single-phase inverter-based Facilities with power ratings of 15 kW or less requesting an interconnection on spot networks when the aggregate Facility capacity is less than one-fifteenth of the Customer’s minimum load.

The Simplified Process is as follows:

a. Application process:

   i. Interconnecting Customer submits a Simplified Process application filled out properly and completely (Exhibit A).

   ii. Company acknowledges to the Interconnecting Customer receipt of the application within 3 business days of receipt.

   iii. Company evaluates the application for completeness and notifies the Interconnecting Customer within 10 business days of receipt that the application is or is not complete and, if not, advises what is missing.

b. Company verifies Facility equipment passes screens 1, 2, and 3 in Figure 1 if a radial EPS, or the screens in Figure 2 if a network EPS.

c. If approved, the Company signs the application approval line and sends to the Interconnecting Customer. In certain rare circumstances, the Company may require the Interconnecting Customer to pay for minor System Modifications. If so, a description of work and an estimate will be sent back to the Interconnecting Customer for approval. The Interconnecting Customer would then approve via a signature and payment for the

minor System Modifications. If the Interconnecting Customer approves, the Company performs the System Modifications. Then, the Company signs the application approval line and sends to the Interconnecting Customer.

d. Upon receipt of signed application, the Interconnecting Customer installs the Facility. Then the Interconnecting Customer arranges for inspection of the completed installation by the local electrical wiring inspector, or other authority having jurisdiction, and this person signs the Certificate of Completion. If the Facility was installed by an electrical contractor, this person also fills out the Certificate of Completion.

e. The Interconnecting Customer returns Certificate of Completion to the Company.

f. Following receipt of the Certificate of Completion, the Company may inspect the Facility for compliance with standards by arranging for a Witness Test. The Interconnecting Customer has no right to operate in parallel until a Witness Test has been performed or has been previously waived on the Application Form. The Company is obligated to complete this Witness Test within 10 business days of the receipt of the Certificate of Completion. If the Company does not inspect in 10 business days or by mutual agreement of the Parties, the Witness Test is deemed waived.

g. Assuming the wiring inspection and/or Witness Test is satisfactory, the Company notifies the Interconnecting Customer in writing that interconnection is authorized. If the Witness Test is not satisfactory, the Company has the right to disconnect the Facility, and will provide information to the Interconnecting Customer describing clearly what is required for approval.

If the Interconnecting Customer does not substantially complete construction within 12 months after receiving approval from the Company, the Company will require the Interconnecting Customer to reapply for interconnection.

3.2 Expedited Process

Other Interconnecting Customers not qualifying for the Simplified Process or not in the Standard Process must pass a series of screens before qualifying for Expedited interconnection. Depending on whether one or more screens are passed, additional steps may be required.

The Expedited Process is as follows:

a. Application process:

   i. Interconnecting Customer submits an Expedited/Standard application filled out properly and completely (Exhibit B).

   ii. Company acknowledges to the Interconnecting Customer receipt of the application within 3 business days of receipt.

iii. Company evaluates the application for completeness and notifies the Interconnecting Customer within 10 business days of receipt that the application is or is not complete and, if not, advises what is missing.

b. Company then conducts an initial review which includes applying the screening methodology (Screens 1 through 8 in Figure 1).

c. The Company reserves the right to conduct internal studies if deemed necessary and at no additional cost to the Interconnecting Customer, such as but not limited to: protection review, aggregate harmonics analysis review, aggregate power factor review and voltage regulation review. Likewise, when the proposed interconnection may result in reversed load flow through the Company's load tap changing transformer(s), line voltage regulator(s), control modifications necessary to mitigate the effects may be made to these devices by the Company at the Interconnecting Customer's expense or the Facility may be required to limit its output so reverse load flow cannot occur or to provide reverse power relaying that trips the Facility.

As part of the Expedited Process, the Company will assess whether any System Modifications are required for interconnection, even if the project passes all of the applicable Screens. If the needed modifications are minor, that is, the requirement can be determined within the time allotted through the application fee and any internal studies, then the modification requirements, reasoning, and costs for these minor modifications will be identified and included in the executable Interconnection Service Agreement. If the requirements cannot be determined within the time and cost alloted in the initial review and any internal studies, the Company may require that the project undergo additional review to determine those requirements. The time allocated for additional review is a maximum of 10 hours of engineering time.

If after this review, the Company still cannot determine the requirements, the Company will document the reasons why and will meet with the Interconnecting Customer to determine how to move the process forward to the Parties' mutual satisfaction. In all cases, the Interconnecting Customer will pay for the cost of modifications as discussed in Section 5.0.

d. Assuming all applicable Screens are passed, Company sends the Interconnecting Customer an executable Interconnection Service Agreement and a quote for any required System Modifications or reasonable Witness Test costs.

e. If one or more Screens are not passed, the Company will provide a Supplemental Review Agreement. If the Interconnecting Customer executes the agreement, the Company will conduct the review. If the Supplemental Review determines the requirements for processing the application through the Expedited Process including any System Modifications, then the modification requirements, reasoning, and costs for these modifications as defined in Section 5.0 will be identified and included in an executable

Interconnection Service Agreement sent to the Interconnecting Customer for execution. If the Supplemental Review does not determine the requirements, it will include a proposed Impact Study Agreement as part of the Standard Process which will include an estimate of the cost of the study. Even if a proposed project initially fails a particular Screen in the Expedited Process, if Supplemental Review shows that it can return to the Expedited Process then it will do so. Supplemental Review includes up to 10 hours of engineering time.

f. Interconnecting Customer returns the signed Interconnection Service Agreement which is then executed by the Company.

g. Interconnecting Customer completes installation and, upon receipt of payment, the Company completes System Modifications, if required.

h. Company inspects completed installation for compliance with standards and attends Witness Test, if required.

i. Interconnecting Customer sends Certificate of Completion to Company.

j. Assuming inspection is satisfactory, Company notifies Interconnecting Customer in writing that interconnection is authorized.

3.3 Standard Process

The Standard Process has the longest maximum time period and highest potential costs. There are three ways to enter the Standard Process:

1. Interconnecting Customers may choose to proceed immediately to the Standard Process. Application process:

    i. Interconnecting Customer submits an Expedited/Standard Application filled out properly and completely (Exhibit B).

    ii. Company acknowledges to the Interconnecting Customer receipt of the application within 3 business days.

    iii. Company evaluates the application for completeness and notifies the Interconnecting Customer within 10 business days of receipt that the application is or is not complete and, if not, advises what is missing.

2. Based upon the results of the initial and Supplemental Reviews, Interconnecting Customers may be required to enter the Standard Process.

3. Based on the results of the Screens in Figure 2 for networks, Interconnecting Customers may be required to enter the Standard Process.

The Standard Process is as follows:

a. The Company will conduct an initial review that includes a scoping meeting/discussion with the Interconnecting Customer (if necessary) to review the application. At the scoping meeting the Company will provide pertinent information such as:
    - The available fault current at the proposed location;
    - The existing peak loading on the lines in the general vicinity of the Facility;
    - The configuration of the distribution lines.

b. Company provides an Impact Study Agreement, including a cost estimate for the study. Where there are other potentially Affected Systems, and no single Party is in a position to prepare an Impact Study covering all potentially Affected Systems, the Company will coordinate but not be responsible for the timing of any studies required to determine the impact of the interconnection request on other potentially Affected Systems. The Interconnecting Customer will be directly responsible to the potentially Affected System operators for all costs of any additional studies required to evaluate the impact of the interconnection on the potentially Affected Systems. The timelines in Table 1 will be affected if ISO-NE determines that a system impact study is required. This will occur if the Interconnecting Customer's Facility is greater than 5 MW and may occur if the Interconnecting Customer's Facility is greater than 1 MW.

c. Once the Interconnecting Customer executes the Impact Study Agreement and pays pursuant to the terms thereof, the Company will conduct the Impact Study.

d. If the Company determines, in accordance with Good Utility Practice, that the System Modifications to the Company EPS are not substantial, the Impact Study will determine the scope and cost of the modifications as defined in Section 5.0. If the Company determines, in accordance with Good Utility Practice, that the System Modifications to the Company EPS are substantial, the Impact Study will produce an estimate for the modification costs (within ±25%) and a Detailed Study Agreement and cost for Interconnecting Customer's approval.

e. Once the Interconnecting Customer executes the Detailed Study Agreement and pays pursuant to the terms thereof, the Company will conduct the Detailed Study.

f. Upon completion of any necessary studies, the Company shall send the Interconnecting Customer an executable Interconnection Service Agreement including a quote for any required System Modifications and reasonable Witness Test costs.

g. Interconnecting Customer returns signed Interconnection Service Agreement.

h. Interconnecting Customer completes installation and Company completes System Modifications, if required.

i. Company inspects completed installation for compliance with requirements and attends Witness Test, if required.

j. Interconnecting Customer sends Certificate of Completion to Company.

k. Assuming inspection is satisfactory, Company notifies Interconnecting Customer in writing that interconnection is authorized.

3.4 Time Frames

Unless otherwise noted, all days in the Interconnection Tariff reference Company business days under normal work conditions.

Table 1 lays out the maximum timeframes allowed under the Simplified, Expedited, and Standard Review processes. The maximum time allowed for the Company to execute the entire Simplified Process is 15 days. The maximum time allowed for the Company to execute the entire Expedited Process on a radial system is 40 days where no Supplemental Review is needed and 60 days where it is needed. The maximum time allowed for the Company to execute the entire Standard Process is 125 days for the Standard Review Process if the Customer goes directly to Standard Review and 150 days if the Customer goes from the Expedited Process into Standard Review. For Customers qualifying for the Simplified Process on a spot network, the maximum time is 40 days if load data is available and 100 days if it is not. The Company clock is stopped when awaiting information from Customers. Any delays caused by Customer will interrupt the applicable clock. Moreover, if an Interconnecting Customer fails to act expeditiously to continue the interconnection process or delays the process by failing to provide necessary information within the longer of 15 days or half the time allotted to the Company to perform a given step, or as extended by mutual agreement, then the Company may terminate the application and the Interconnecting Customer must re-apply. However, the Company will be required to retain the work previously performed in order to reduce the initial and Supplemental Review costs incurred for a period of no less than 1 year. If the Interconnecting Customer does not initiate construction within twelve (12) months of signing the Interconnection Agreement, the Company may require the customer to provide evidence that the project is moving toward construction. In the event that the Customer cannot provide such evidence, the Company reserves the right to require additional study or require the Customer to reapply for interconnection. Situations that could trigger enforcement of this time limit are: (1) material changes on the distribution circuits (e.g. load changes, circuit reconfiguration) or (2) a second application for interconnection received by the Company on a circuit from the same substation. The same rights of the Company to require the customer to reapply for interconnection pertains if the interconnecting customer, after initiating construction, does not complete construction within twenty-four months. Notwithstanding these maximum time frames, the Company shall endeavor to meet the Customer’s needs.

3.5 Fee Schedules

Table 2 lays out the fees required for Interconnecting Customers to apply for interconnection. There are no fees for those facilities that qualify for the Simplified Process on a radial EPS (except in certain unique cases where a System Modification would be needed which would be covered by the Interconnecting Customer). Those qualifying for the Expedited Process will pay a $3/kW application fee (minimum of $300 and maximum of $2,500) plus $125/hour up to 10 hours ($1,250) for Supplemental Review, when applicable, plus the actual cost as defined in Section 5.0 of any required System Modifications. Those on the Standard Process path would pay the same application fee as in the Expedited Process path as well as the actual cost as defined in Section 5.0 of any required System Modifications, plus the actual cost of any Impact and Facility Studies, if required. Facilities qualifying for the Simplified Process on a spot network will pay a flat application fee of $100 for 3 kW or less, and $300 for Facilities larger than 3 kW up to and including 10 kW, plus any System Modification costs.

Figure 1 – Schematic of Massachusetts DG Interconnection Process

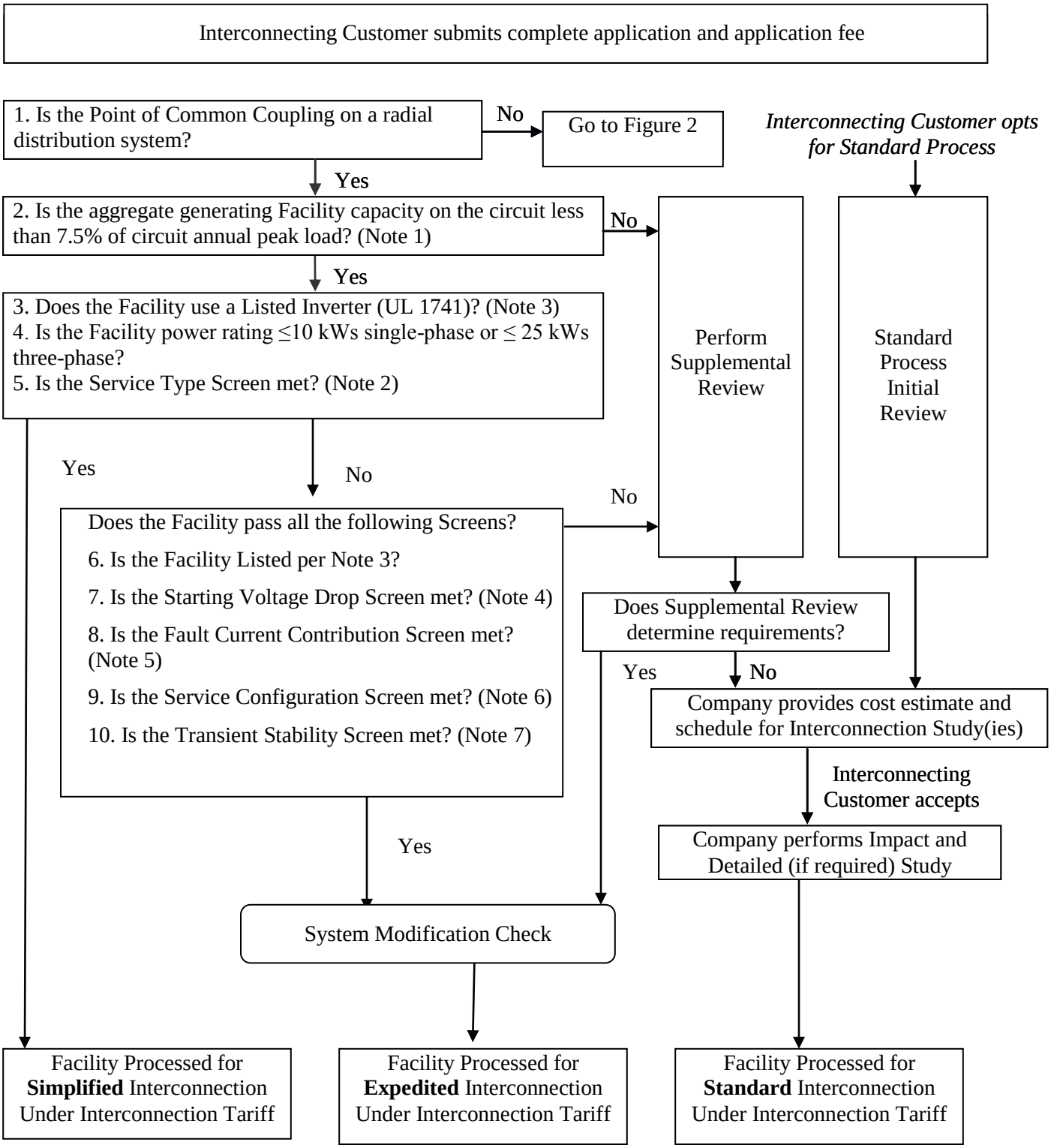
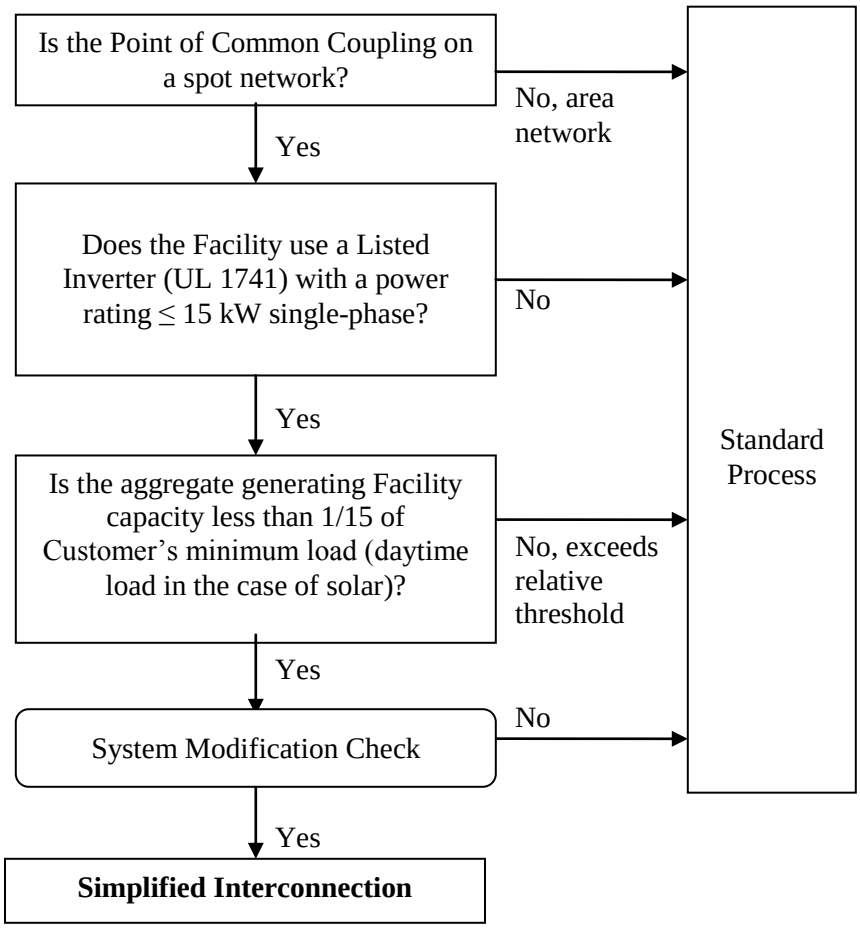


Figure 2 – Simplified Interconnection to Networks



Explanatory Notes to Accompany Figure 1

Note 1. On a typical radial distribution EPS circuit ("feeder") the annual peak load is measured at the substation circuit breaker, which corresponds to the supply point of the circuit. A circuit may also be supplied from a tap on a higher-voltage line, sometimes called a subtransmission line. On more complex radial EPSs, where bidirectional power flow is possible due to alternative circuit supply options ("loop service"), the normal supply point is the loop tap.

Note 2. This screen includes a review of the type of electrical service provided to the Interconnection Customer, including the service transformer configuration and service type to limit the potential for creating unacceptable voltage imbalance, over-voltage or under-voltage conditions, or service equipment overloads on the Company EPS due to a mismatch between the size and phasing of the energy source, the service loads fed from the service transformer(s), and the service equipment ratings.

To be eligible for the Simplified Process, a Listed inverter-based Facility must be either (1) a single-phase unit on a customer's local EPS receiving single-phase secondary service at the PCC from a single-phase service transformer, or (2) a three-phase unit on a customer's local EPS receiving three-phase secondary service at the PCC from a three-phase transformer configuration.

Note 3. A Listed Facility has successfully passed all pertinent tests to conform with IEEE Standard 1547. IEEE Standard 1547 includes design specifications, operational requirements, and a list of tests that are required for Facilities. IEEE Standard 1547.1 describes how to conduct tests to show compliance with provisions of IEEE Standard 1547. To meet Screen 3 or 4, Interconnecting Customers must provide information or documentation that demonstrates how the Facility is in compliance with the IEEE Standard 1547.1 A Facility will be deemed to be in compliance with the IEEE Standard 1547.1 if the Company previously determined it was in compliance. Applicants who can demonstrate Facility compliance with IEEE Standard 1547.1, with the testing done by a nationally recognized testing laboratory, will be eligible for the Expedited Process, and may be eligible for the Simplified process upon review by the utility.

Massachusetts has adopted UL1741 (Inverters, Converters and Charge Controllers for Use in Independent Power Systems) and UL2200 (Stationary Engine Generator Assemblies) as the standard for power systems to comply with IEEE Std 1547 and 1547.1. Equipment listed to UL1741 or UL2200 by a nationally recognized testing laboratory will be considered in compliance with IEEE Std 1547 and 1547.1. An Interconnecting Customer should contact the Facility supplier(s) to determine if it has been listed to either of these standards.

In addition, California and New York have adopted rules for expediting application review and approval of Facility interconnections onto electric distribution systems. Facilities in these states must meet the applicable commission approved tests and/or criteria for expedited procedures in these states. The Company will accept a Facility as eligible for "Listed" and a candidate for the Massachusetts Simplified or Expedited Process if it has been approved for such expedited procedures, or approved for interconnection, in California or New York.

It is the Interconnecting Customer's responsibility to determine if, and submit verification that, the proposed Facility has been so approved in California or New York..

Note 4. This Screen only applies to Facilities that start by motoring the generating unit(s) or the act of connecting synchronous generators. The voltage drops should be less than the criteria below. There are two options in determining whether Starting Voltage Drop could be a problem. The option to be used is at the Company's discretion:

> **Option 1:** The Company may determine that the Facility's starting inrush current is equal to or less than the continuous ampere rating of the Facility's service equipment.
>
> **Option 2:** The Company may determine the impedances of the service distribution transformer (if present) and the secondary conductors to the Facility's service equipment and perform a voltage drop calculation. Alternatively, the Company may use tables or nomographs to determine the voltage drop. Voltage drops caused by starting a generating unit as a motor must be less than 2.5% for primary interconnections and 5% for secondary interconnections.

Note 5. The purpose of this Screen is to ensure that fault (short-circuit) current contributions from all Facilities will have no significant impact on the Company's protective devices and EPS. All of the following criteria must be met when applicable:

a. The proposed Facility, in aggregation with other generation on the distribution circuit, will not contribute more than 10% to the distribution circuit's maximum fault current under normal operating conditions at the point on the high voltage (primary) level nearest the proposed PCC.

b. The proposed Facility, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or Interconnecting Customer equipment on the EPS to exceed 85% of the short-circuit interrupting capability. In addition, the proposed Facility will not be installed on a circuit that already exceeds 85% of the short-circuit interrupting capability.

c. When measured at the secondary side (low side) of a shared distribution transformer, the short-circuit contribution of the proposed Facility must be less than or equal to 2.5% of the interrupting rating of the Company's service equipment.

Coordination of fault-current protection devices and systems will be examined as part of this Screen.

Note 6. This Screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over voltages on the Company EPS due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	**Type of Interconnection to Primary Distribution Line**	**Result/Criteria**
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass Screen
Three-phase, four wire	Effectively-grounded 3 phase or single-phase, line-to-neutral	Pass Screen

If the proposed generator is to be interconnected on a single-phase transformer shared secondary, the aggregate generation capacity on the shared secondary, including the proposed generator, will not exceed 20 kilovolt-ampere ("kVA").

If the proposed generator is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition will not create an imbalance between the two sides of the 240 volt service of more than 20% of nameplate rating of the service transformer.

Note 7. The proposed Facility, in aggregate with other Facilities interconnected to the distribution low voltage side of the substation transformer feeding the distribution circuit where the Facility proposes to interconnect, will not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., 3 or 4 transmission voltage level buses from the PCC).

Table 1 – Time Frames (Note 1)

Review Process	Simplified	Expedited	Standard	Simplified Spot Network
Eligible Facilities	**Listed Small Inverter**	**Listed DG**	**Any DG**	**Listed Inverter ≤ 15 kW single-phase**
Acknowledge receipt of Application	(3 days)	(3 days)	(3 days)	(3 days)
Review Application for completeness	10 days	10 days	10 days	10 days
Complete Review of all screens	10 days	25 days		Site review 30/90 days (Note 2)
Complete Supplemental Review (if needed)		20 days		
Complete Standard Process Initial Review			20 days	
Send Follow-on Studies Cost/Agreement			5 days	
Complete Impact Study (if needed)			55 days	
Complete Detailed Study (if needed)			30 days	
Send Executable Agreement (Note 3)	Done	10 days	15 days	Done (comparable to Simplified for radial)
Total Maximum Days (Note 4)	15 days	40/ 60 days (Note 5)	125/150 days (Note 6)	40/ 100 days
Notice/ Witness Test	< 1 day with 10 day notice or by mutual agreement	1-2 days with 10 day notice or by mutual agreement	By mutual agreement	1 day with 10- day notice or by mutual agreement

Table 2 – Fee Schedules

	Simplified	Expedited	Standard	Simplified Spot Network
	Listed Small Inverter	**Listed DG**	**Any DG**	**Listed Inverter ≤ 15 kW**
Application Fee (covers Screens)	0 (Note 1)	$3/kW, minimum $300, maximum $2,500	$3/kW, minimum $300, maximum $2,500	≤$3/kW $100, >3 kW $300
Supplemental Review or Additional Review (if applicable)	N/A	Up to 10 engineering hours at $125/hr ($1,250 maximum) (Note2)	N/A	N/A
Standard Interconnection Initial Review	N/A	N/A	Included in application fee (if applicable)	N/A
Impact and Detailed Study (if required)	N/A	N/A	Actual cost (Note 3)	N/A
Facility Upgrades	N/A (Note 4)	Actual cost	Actual cost	N/A
O&M (Note 5)	N/A	TBD	TBD	N/A
Witness Test	0	Actual cost, up to $300 + travel time (Note 6)	Actual Cost	0 (Note 7)

Explanatory Notes to Accompany Tables 1 and 2

Table 1 – Time Frames

Note 1. All days listed apply to Company business days under normal work conditions. All numbers in this table assume a reasonable number of applicants under review. All timelines may be extended by mutual agreement. Any delays caused by Interconnecting Customer will interrupt the applicable clock. Moreover, if an Interconnecting Customer fails to act expeditiously to continue the interconnection process or delays the process by failing to provide necessary information within the longer of 15 days or half the time allotted to the Company to perform a given step, or as extended by mutual agreement, then the Company may terminate the application and the Interconnecting Customer must reapply. However, the Company will be required to retain the work previously performed in order to reduce the initial and Supplemental Review costs incurred for a period of no less than 1 year. The timelines in Table 1 will be affected if ISO-NE determines that a system impact study is required. This will occur if the Interconnecting Customer's Facility is greater than 5 MW and may occur if the Interconnecting Customer's Facility is greater than 1 MW.

Note 2. 30 days if load is known or can be reasonably determined, 90 days if it has to be metered.

Note 3. Company delivers an executable agreement form. Once the Interconnection Service Agreement is delivered by the Company, any further modification and timetable will be established by mutual agreement.

Note 4. Actual totals laid out in columns exceed the maximum target. The Parties further agree that average days (fewer than maximum days) is a performance metric that will be tracked.

Note 5. Shorter time applies to Expedited Process without Supplemental Review, longer time applies to Expedited Process with Supplemental Review.

Note 6. 125 day maximum applies to an Interconnecting Customer opting to begin directly in Standard Process, and 150 days is for an Interconnecting Customer who goes through initial Expedited Process first. In both cases this assumes that both the Impact and Facilities Studies are needed. If the Detailed Study is not needed, the timelines will be shorter.

Table 2 – Fee Schedules

Note 1. If the Company determines that the Facility does not qualify for the Simplified Process, it will let the Interconnecting Customer know what the appropriate fee is.

Note 2. Supplemental Review and additional review are defined in Section 3.2.

Note 3. This is the actual cost only attributable to the applicant. Any costs not expended from the application fee previously collected will go toward the costs of these studies.

Note 4. Not applicable except in certain rare cases where a System Modification would be needed. If so, the modifications are the Interconnecting Customer's responsibility.

Note 5. O & M is defined as the Company's operations and maintenance carrying charges on the incremental costs associated with serving the Interconnecting Customer.

Note 6. The fee will be based on actual cost up to $300 plus driving time, unless Company representatives are required to do additional work due to extraordinary circumstances or due to problems on the Interconnecting Customer's side of the PCC (e.g., Company representative required to make two trips to the site), in which case Interconnecting Customer will cover the additional cost.

Note 7. Unless extraordinary circumstances.

4.0 Interconnection Requirements

4.1 General Design Considerations

Interconnecting Customer shall design and construct the Facility in accordance with the applicable manufacturer's recommended maintenance schedule, in compliance with all aspects of the Company's Interconnection Tariff. Interconnecting Customer agrees to cause its Facility to be constructed in accordance with applicable specifications that meet or exceed those provided under this Section of the Interconnection Tariff.

4.1.1 Transient Voltage Conditions

Because of unusual events in the Company's EPS, there will be transient voltage fluctuations, which will result in voltages exceeding the limits of the stated ranges. These transient voltage fluctuations, which generally last only a few milliseconds, arise due to EPS disturbances including, but not limited to, lightning strikes, clearing of faults, and other switching operations. The magnitude of transient voltage fluctuations varies with EPS configuration, grounding methods utilized, local short circuit availability, and other parameters, which vary from point-to-point and from time-to-time on the distribution EPS.

The fluctuations may result in voltages exceeding the limits of the stated ranges and occur because of EPS disturbance, clearing of faults and other switching operations. These unavoidable transients are generally of too short duration and insufficient magnitude to have any adverse effects on general service applications. They may, however, cause malfunctions in equipment highly sensitive to voltage changes, and protective devices may operate to shut down such devices. The magnitude, duration and frequency of transient fluctuations will vary due to EPS configuration and/or circuit arrangement. In addition, disturbances of indeterminate magnitude and duration may occur on infrequent occasions due to short circuits, faults, and other unpredictable conditions.

Transient voltages should be evaluated in the design of the Facility.

4.1.2 Noise and Harmonics

The introduction of abnormal noise/harmonics can cause abnormal neutral current flow, and excessive heating of electrical equipment. Harmonics may also cause distortion in TV pictures, telephone interference, and malfunctions in digital equipment such as computers. The permissible level of harmonics is dependent upon the voltage level and short circuit ratio at a given location. IEEE Standard 1547-2003 provides these levels at the PCC. In requiring adherence to IEEE Standard 1547-2003 the Company is in no way making a recommendation regarding the level of harmonics that a given piece of equipment can

tolerate nor is it making a recommendation as to the permissible level in the Interconnecting Customer's Facility.

4.1.3 Frequency

The interconnected electric power system in North America, which is maintained at 60 hertz ("Hz") frequency on its alternating current services, is subject to certain deviations. The usual maximum instantaneous deviation from the standard 60 Hz is ±2/10 cycle (±0.33%), except on infrequent occasions when the deviation may reach ±1/10 cycle (±0.17%). The usual normal deviation is approximately ±1/20 cycle (±0.083%). These conditions are subject to occur at any time of the day or night and should be considered in the design of the Facility. All are measured on a 60 Hz base.

4.1.4 Voltage Level

All electricity flow across the PCC shall be in the form of single-phase or three-phase 60 Hz alternating current at a voltage class determined by mutual agreement of the Parties.

4.1.5 Machine Reactive Capability

Facilities less than 1 megawatt ("MW") will not be required to provide reactive capability, except as may be provided by the retail rate schedule and Terms and Conditions for Distribution Services under which the Customer takes service.

Facilities greater than or equal to 1 MW interconnected with the Company EPS shall be required to provide reactive capability to regulate and maintain EPS voltage at the PCC as per NEPOOL requirements. The Company and NEPOOL shall establish a scheduled range of voltages to be maintained by the Facility. The reactive capability requirements shall be reviewed as part of the Impact Study and Facilities Study.

4.2 Protection Requirements for New or Modified Facility Interconnections with the EPS

4.2.1 General Requirements

Any Facility desiring to interconnect with the Company EPS or modify an existing interconnection must meet minimum specifications, where applicable, as set forth in the following documents and standards and requirements in this Section.

- IEEE Standard 1547-2003, "IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems."

- UL Standard 1741, "Inverters, Converters and Charge Controllers for Use in Independent Power Systems."

- IEEE Standard 929-2000, "IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems."

The specifications and requirements listed herein are intended to mitigate possible adverse impacts caused by the Facility on the Company's equipment and personnel and on other Interconnecting Customers of the Company. They are not intended to address protection of the Facility itself or its internal load. It is the responsibility of the Facility to comply with the requirements of all appropriate standards, codes, statutes and authorities to protect itself and its loads.

The Company shall not be responsible for the protection of the Facility. The Facility shall be responsible for protection of its system against possible damage resulting from parallel operation with the Company so long as the Company adheres to Good Utility Practice. If requested by the Interconnecting Customer, the Company will provide system protection information for the line terminal(s) directly related to the interconnection. This protection information contained herein is provided exclusively for use by the Interconnecting Customer to evaluate protection of its Facility during parallel operation.

At its sole discretion, the Company may consider approving alternatives that satisfy the intent of the requirements contained in this Section.

4.2.2 Facility Classification

To determine the protection requirements for a given Facility, the following Groups have been established:

Group	Type of Interconnection
1	Facilities Qualified for Simplified Interconnection
2	All Facilities Not Qualified for Simplified Interconnection

4.2.3 Protection Requirements

All Facilities must meet performance requirements set forth in relevant sections of IEEE Standard 1547-2003. **The following italicized text is excerpted from IEEE Standard 1547-2003 and applies to Section 4.2.3 only. The numbering is also from IEEE Standard 1547-2003 and therefore is not in sequence with the Interconnection Tariff numbering.**

> ***4.1.1 Voltage regulation***
> *The DR* [distributed resource] *shall not actively regulate the voltage at the PCC* [unless required by NEPOOL's operating procedures]. *The DR shall not cause the Area EPS service voltage at other Local EPSs to go outside the requirements of ANSI C84.1-1995, Range A.*

4.1.2 Integration with Area EPS grounding
The grounding scheme of the DR interconnection shall not cause overvoltages that exceed the rating of the equipment connected to the Area EPS and shall not disrupt the coordination of the ground fault protection on the Area EPS.

4.1.3 Synchronization
The DR unit shall parallel with the Area EPS without causing a voltage fluctuation at the PCC greater than ± 5% of the prevailing voltage level of the Area EPS at the PCC, and meet the flicker requirements of 4.3.2.

4.1.8.2 Surge withstand performance
The interconnection system shall have the capability to withstand voltage and current surges in accordance with the environments defined in IEEE Std C62.41.2-2002 or IEEE C37.90.1-2002 as applicable.

4.2 Response to Area EPS abnormal conditions[10]
Abnormal conditions can arise on the Area EPS that require a response from the connected DR. This response contributes to the safety of utility maintenance personnel and the general public, as well as the avoidance of damage to connected equipment, including the DR. All voltage and frequency parameters specified in these subclauses shall be met at the PCC, unless otherwise stated.

4.2.1 Area EPS faults
The DR unit shall cease to energize the Area EPS for faults on the Area EPS circuit to which it is connected.

4.2.2 Area EPS reclosing coordination
The DR shall cease to energize the Area EPS circuit to which it is connected prior to reclosure by the Area EPS.

[10] *The isolation of a portion of the Area EPS, presenting the potential for an unintended DR island, is a special concern and is addressed in 4.4.1. Setting adjustments may only be made as approved by the authority who has jurisdiction over the DR interconnection.*

4.2.3 Voltage

The protection functions of the interconnection system shall detect the effective (rms) or fundamental frequency value of each phase-to-phase voltage, except where the transformer connecting the Local EPS to the Area EPS is a grounded wye-wye configuration, or single phase installation, the phase-to-neutral voltage shall be detected. When any voltage is in a range given in Table 1, the DR shall cease to energize the Area EPS within the clearing time as indicated. Clearing time is the time between the start of the abnormal condition and the DR ceasing to energize the Area EPS. For DR less than or equal to 30 kW in peak capacity, the voltage set points and clearing times shall be either fixed or field adjustable. For DR greater than 30 kW the voltage set points shall be field adjustable.

The voltages shall be detected at either the PCC or the point of DR connection when any of the following conditions exist:

(a) The aggregate capacity of DR systems connected to a single PCC is less than or equal to 30 kW,
(b) the interconnection equipment is certified to pass a non-islanding test for the system to which it is to be connected,
(c) the aggregate DR capacity is less than 50% of the total Local EPS minimum annual integrated electrical demand for a 15 minute time period, and export of real or reactive power by the DR to the Area EPS is not permitted.

Table 1 – Interconnection system response to abnormal voltages	
Voltage range(% of base voltage[a])	*Clearing time (s)[b]*
V < 50	*0.16*
50 ≤V < 88	*2.00*
110 < V <120	*1.00*
V ≥ 120	*0.16*

[a] Base voltages are the nominal system voltages stated in ANSI C84.1-1995, Table 1.
[b] DR ≤30 kW, maximum clearing times; DR > 30 kW, default clearing times

4.2.4 Frequency

When the system frequency is in a range given in Table 2, the DR shall cease to energize the Area EPS within the clearing time as indicated. Clearing time is the time between the start of the abnormal condition and the DR ceasing to energize the Area EPS. For DR less than or equal to 30 kW in peak capacity, the frequency set points and clearing times shall be either fixed or field adjustable. For DR greater than 30 kW, the frequency set points shall be field adjustable.

Adjustable under-frequency trip settings shall be coordinated with Area EPS operations.

Table 2 – Interconnection system response to abnormal frequencies		
DR size	***Frequency range (Hz)***	***Clearing time (s)[a]***
≤ 30 kW	*> 60.5*	*0.16*
	< 59.3	*0.16*
> 30 kW	*> 60.5*	*0.16*
	< {59.8 - 57.0} (adjustable setpoint)	*Adjustable 0.16 to 300*
	< 57.0	*0.16*
[a] DR ≤ 30 kW, maximum clearing times; DR > 30 kW, default clearing times		

4.2.5 Loss of synchronism
Loss of synchronism protection is not required except as necessary to meet 4.3.2.

4.2.6 Reconnection to Area EPS
After an Area EPS disturbance, no DR reconnection shall take place until the Area EPS voltage is within Range B of ANSI C84.1-1995, Table 1, and frequency range of 59.3Hz to 60.5Hz.

The DR interconnection system shall include an adjustable delay (or a fixed delay of five minutes) that may delay reconnection for up to five minutes after the Area EPS steady-state voltage and frequency are restored to the ranges identified above.

4.3.1 Limitation of dc injection
The DR and its interconnection system shall not inject dc current greater than 0.5% of the full rated output current at the point of DR connection.

4.3.2 Limitation of flicker induced by the DR
The DR shall not create objectionable flicker for other customers on the Area EPS.[11]

4.3.3 Harmonics
When the DR is serving balanced linear loads, harmonic current injection into the Area EPS at the PCC shall not exceed the limits stated below in Table 3. The harmonic current injections shall be exclusive of any harmonic currents

[11] *Flicker is considered objectionable when it either causes a modulation of the light level of lamps sufficient to be irritating to humans, or causes equipment misoperation. For guidance, refer to IEEE Std 519™-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems; IEEE P1453 ™, Draft Recommended Practice for Measurement and Limits of Voltage Flicker on AC Power Systems; International Electrotechnical Commission IEC/TR3 61000-3-7Assessment of Emission Limits for Fluctuating Loads in MV and HV Power Systems, IEC 61000-4-15 Flickermeter - Functional and Design Specifications, IEC 61400-21 IEC 61400-21, Wind Turbine Generator Systems - Part 21: Measurement and assessment of power quality characteristics of grid connected wind turbines - Ed. 1.0 (2000-12).*

due to harmonic voltage distortion present in the Area EPS without the DR connected.

Table 3 – Maximum harmonic current distortion in percent of current (I)[a]						
Individual harmonic order h (odd harmonics)[b]	***h < 11***	***11 ≤ h < 17***	***17 ≤ h < 23***	***23 ≤ h < 35***	***35 ≤ h***	***Total Demand Distortion (TDD)***
Percent (%)	*4.0*	*2.0*	*1.5*	*0.6*	*0.3*	*5.0*

[a] I = the greater of the Local EPS maximum load current integrated demand (15 or 30 minutes) without the DR unit, or the DR unit rated current capacity (transformed to the PCC when a transformer exists between the DR unit and the PCC).
[b] Even harmonics are limited to 25% of the odd harmonic limits above.

4.4.1 Unintentional islanding
For an unintentional island in which the DR energizes a portion of the Area EPS through the PCC, the DR interconnection system shall detect the island and cease to energize the Area EPS within two seconds of the formation of an island.[12]

4.2.3.1 Group 1 Facilities

a. The inverter-based Facility shall be considered *Listed* if it meets requirements set forth in Section 3.1 "Simplified Process".

b. **External Disconnect Switch:** For Listed inverters, the Company may require an external disconnect switch (or comparable device by mutual agreement of the Parties) at the PCC with the Company or at another mutually agreeable point that is accessible to Company personnel at all times and that can be opened for isolation if the switch is required. The switch shall be gang operated, have a visible break when open, be rated to interrupt the maximum generator output and be capable of being locked open, tagged and grounded on the Company side by Company personnel. The visible break requirement can be met by opening the enclosure to observe the contact separation. The Company shall have the right to open this disconnect switch in accordance with this Interconnection Tariff.

[12] *Some examples by which this requirement may be met are:*
1. *The DR aggregate capacity is less than one-third of the minimum load of the Local EPS.*
2. *The DR is Listed to pass an applicable non-islanding test.*
3. *The DR installation contains reverse or minimum power flow protection, sensed between the Point of DR Connection and the PCC, which will disconnect or isolate the DR if power flow from the Area EPS to the Local EPS reverses or falls below a set threshold.*
4. *The DR contains other non-islanding means such as a) forced frequency or voltage shifting, b) transfer trip, or c) governor and excitation controls that maintain constant power and constant power factor.*

4.2.3.2 Group 2 Facilities

4.2.3.2.1 General Requirements

a. **Non Export Power:** If the Parties mutually agree that non-export functionality will be part of the interconnection protection equipment then it will include one of the following: (1) a reverse power relay with mutually agreed upon delay intervals, or (2) a minimum power function with mutually agreed upon delay intervals, or (3) other mutually agreeable approaches, for example, a comparison of nameplate rating versus certified minimum Customer premises load.

b. The ISO-NE is responsible for assuring compliance with NPCC criteria. For the interconnection of some larger units, the NPCC criteria may additionally require:

NPCC Protective Relaying Requirements: The Company may require the Facility to be equipped with two independent, redundant relaying systems in accordance with NPCC criteria, where applicable, for the protection of the bulk power system if the interconnection is to the bulk power system or if it is determined that delayed clearing of faults within the Facility adversely affects the bulk power system.

NPCC Requirements: During system conditions where local area load exceeds system generation, NPCC Emergency Operation Criteria requires a program of phased automatic under frequency load shedding of up to 25% of area load to assist in arresting frequency decay and to minimize the possibility of system collapse. Depending on the point of connection of the Facility to the Company's EPS and in conformance with the NPCC Emergency Operating Criteria, the Facility may be required to remain connected to the EPS during the frequency decline to allow the objectives of the automatic load shedding program to be achieved, or to otherwise provide compensatory load reduction, equivalent to the Facility's generation lost to the system, if the Interconnecting Customer elects to disconnect the Facility at a higher under-frequency set point.

c. **Disconnect Switch:** The Facility shall provide a disconnect switch (or comparable device mutually agreed upon by the Parties) at the point of Facility interconnection that can be opened for isolation. The switch shall be in a location easily accessible to Company personnel at all times. The switch shall be gang operated, have a visible break when open, be rated to interrupt the maximum generator output and be capable of being locked open, tagged and grounded on the Company side by Company personnel. The visible break requirement can be met by opening the enclosure to observe the contact separation. The Company shall exercise such right in accordance with Section 7.0 of this Interconnection Tariff.

d. **Transfer Tripping:** A direct transfer tripping system, if one is required by either the Interconnecting Customer or by the Company, shall use equipment generally

accepted for use by the Company and shall, at the option of the Company, use dual channels.

4.2.3.2.2 Requirements for Induction and Synchronous Generator Facilities

a. **Interconnection Interrupting Device:** An interconnection Interrupting Device such as a circuit breaker shall be installed to isolate the Facility from the Company's EPS. If there is more than one Interrupting Device, this requirement applies to each one individually. The Interconnection Interrupting Device must be capable of interrupting the current produced when the Facility is connected out of phase with the Company's EPS, consistent with Section 4.1.8.3 of IEEE Standard 1547-2003 which states, "the interconnection system paralleling-device shall be capable of withstanding 220% of the interconnection system rated voltage."

b. **Synchronizing Devices:** The Interconnecting Customer shall designate one or more Synchronizing Devices such as motorized breakers, contactor/breaker combinations, or a fused contactor (if mutually agreeable) to be used to connect the Facility's generator to the Company's EPS. This Synchronizing Device could be a device other than the interconnection Interrupting Device. The Synchronizing Device must be capable of interrupting the current produced when the Facility is connected out of phase with the Company's EPS, consistent with Section 4.1.8.3 of IEEE Standard 1547-2003 which states, "the interconnection system paralleling-device shall be capable of withstanding 220% of the interconnection system rated voltage."

c. **Transformers:** The Company reserves the right to specify the winding connections for the transformer between the Company's voltage and the Facility's voltage ("Step-Up Transformer") as well as whether it is to be grounded or ungrounded at the Company's voltage. In the event that the transformer winding connection is grounded-wye/grounded-wye the Company reserves the right to specify whether the generator stator is to be grounded or not grounded. The Interconnecting Customer shall be responsible for procuring equipment with a level of insulation and fault-withstand capability compatible with the specified grounding method.

d. **Voltage relays:** Voltage relays shall be frequency compensated to provide a uniform response in the range of 40 to 70 Hz.

e. **Protective Relaying Redundancy:** For induction generators greater than 1/15 of on-site minimum verifiable load that is not equipped with on-site capacitors or that is greater than 200 kW, and for all synchronous generators, protective relays utilized by the Facility shall be sufficiently redundant and functionally separate so as to provide adequate protection, consistent with Company practices and standards, upon the failure of any one component.

f. **Protective Relay Hard-Wire Requirement:** Unless authorized otherwise by the Company, protective relays must be hardwired to the device they are tripping.

Further, interposing computer or programmable logic controller or the like is not permitted in the trip chain between the relay and the device being tripped.

g. **Protective Relay Supply:** Where protective relays are required in this Section, their control circuits shall be DC powered from a battery/charger system or a UPS. Solid-state relays shall be self-powered, or DC powered from a battery/charger system or a UPS. If the Facility uses a Company-acceptable non-latching interconnection contactor, AC powered relaying shall be allowed provided the relay and its method of application are fail safe, meaning that if the relay fails or if the voltage and/or frequency of its AC power source deviate from the relay's design requirements for power, the relay or a separate fail-safe power monitoring relay acceptable to the Company will immediately trip the generator by opening the coil circuit of the interconnection contactor.

h. **Current Transformers ("CT"):** CT ratios and accuracy classes shall be chosen such that secondary current is less than 100 amperes and transformation errors are consistent with Company practices. CTs used for revenue class metering must have a secondary current of 20 amperes or less.

i. **Voltage Transformers ("VT")s and Connections:** The Facility shall be equipped with a direct voltage connection or a VT, connected to the Company side of the Interrupting Device. The voltage from this VT shall be used in an interlock scheme, if required by the Company. For three-phase applications, a VT for each phase is required. All three phases must be sensed either by three individual relays or by one relay that contains three elements. If the voltage on any of the three phases is outside the bounds specified by the Company the unit shall be tripped. If the Facility's Step-Up Transformer is ungrounded at the Company voltage, this VT shall be a single three-phase device or three single-phase devices connected from each phase to ground on the Company's side of the Facility's Step-Up Transformer, rated for phase-to-phase voltage and provided with two secondary windings. One winding shall be connected in open delta, have a loading resistor to prevent ferroresonance, and be used for the relay specified in these requirements.

4.2.3.2.3 Additional Requirements for Induction Generator Facilities

a. **Self-Excitation:** A Facility using induction generators connected in the vicinity of capacitance sufficient to self-excite the generator(s) shall meet the requirements for synchronous machines. The capacitors that enable self-excitation may actually be external to the Facility. The Company will not restrict its existing or future application of capacitors on its lines nor restrict their use by other Interconnecting Customers of the Company to accommodate a Facility with induction machines. If self-excitation becomes possible due to the installation of or presence of capacitance, the protection requirements of the Facility may need to be reviewed and revised, if applicable.

The Facility may be required to install capacitors to limit the adverse effects of drawing reactive power from the EPS for excitation of the generator. Capacitors for supply of reactive power at or near the induction generator with a kilovolts-ampere reactive ("kVAr") rating greater than 30% of the generator's kW rating may cause the generator to become self-excited. (If self-excitation can occur, the Facility shall be required to provide protection as specified in synchronous machines requirements.)

4.2.3.2.4 Additional Requirements for Synchronous Generator Facilities

a. **Ungrounded Transformers:** If the Facility's Step-Up Transformer connection is ungrounded, the Facility shall be equipped with a zero sequence over-voltage relay fed from the open delta of the three-phase VT specified in the Voltage Transformers and Connections Section 4.2.3.2.2.i.

b. **High-Speed Protection:** The Facility may be required to use high-speed protection if time-delayed protection would result in degradation in the existing sensitivity or speed of the protection systems on the Company's EPS.

c. **Breaker Failure Protection:** The Facility may be required to be equipped to provide local breaker failure protection which may include direct transfer tripping to the Company's line terminal(s) in order to detect and clear faults within the Facility that cannot be detected by the Company's back-up protection.

d. **Communications Channels:** The Interconnecting Customer is responsible for procuring any communications channels necessary between the Facility and the Company's stations, and for providing protection from transients and over-voltages at all ends of these communication channels. The Interconnecting Customer will also bear the ongoing cost to lease these communication channels. Examples include, but are not limited to, connection to a line using high-speed protection, transfer tripping, generators located in areas with low-fault currents, or back up for generator breaker failure.

4.2.4 Protection System Testing and Maintenance

The Company shall have the right to witness the commissioning testing as defined in IEEE Standard 1547-2003 at the completion of construction and to receive a copy of all test data. The Facility shall be equipped with whatever equipment is required to perform this test.

Testing typically includes, but is not limited to:

- CT and CT circuit polarity, ratio, insulation, excitation, continuity and burden tests,
- 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.

Prior to final approval by the Company or anytime thereafter, the Company reserves the right to test the generator relaying and control related to the protection of the Company's EPS.

The Interconnecting Customer has the full responsibility for the proper periodic maintenance of its generating equipment and its associated control, protective equipment and interrupting devices.

The Interconnecting Customer is responsible for the periodic maintenance of those relays, interrupting devices, control schemes, and batteries that involve the protection of the Company's EPS. A periodic maintenance program, mutually agreeable to both the Company and to the Interconnecting Customer is to be established in each case. The Company shall have the right to monitor the periodic maintenance performed.

For relays installed in accordance with the NPCC Criteria for the Protection of the Bulk Power System, maintenance intervals shall be in accordance with such criteria. The results of these tests shall be summarized by the Interconnecting Customer and reported in writing to the Company.

The Company reserves the right to install special test equipment as may be required to monitor the operation of the Facility and its control or for evaluating the quality of power produced by the Facility at a mutually agreed upon location. The cost of this testing will be borne by the Company unless there is shown to be a problem associated with the Facility or if the test was performed at the request of the Interconnecting Customer.

Each routine check shall include both a calibration check and an actual trip of the circuit breaker or contactor from the device being tested. Visually setting a calibration dial, index or tap is not considered an adequate calibration check.

Inverters with field adjustable settings for their internal protective elements shall be periodically tested if those internal elements are being used by the Facility to satisfy the requirements of this Section.

4.2.5 Protection Requirements – Momentary Paralleling of Standby Generators

Protective relays to isolate the Facility for faults in the Company EPS are not required if the paralleling operation is automatic and takes place for less than one-half of a second. An Interrupting Device with a half-second timer (30 cycles) is required as a fail-safe mechanism.

Parallel operation of the Facility with the Company EPS shall be prevented when the Company's line is dead or out of phase with the Facility.

The control scheme for automatic paralleling must be submitted by the Interconnecting Customer for review and acceptance by the Company prior to the Facility being allowed to interconnect with the Company EPS.

4.2.6 Protection System Changes

The Interconnecting Customer must provide the Company with reasonable advance notice of any proposed changes to be made to the protective relay system, relay settings, operating procedures or equipment that affect the interconnection. The Company will determine if such proposed changes require re-acceptance of the interconnection per the requirements of this Section.

In the future, should the Company implement changes to the EPS to which the Facility is interconnected, the Interconnecting Customer will be responsible at its own expense for identifying and incorporating any necessary changes to its protection equipment. These changes to the Facility's protection equipment are subject to review and approval by the Company.

5.0 Responsibility for Costs of Interconnecting a Facility

5.1 Review and Study Costs

The Interconnecting Customer shall be responsible for the reasonably incurred costs of the review by the Company and any interconnection studies conducted as defined by Table 2 ("Fee Schedules") of Section 3.0 of this Interconnection Tariff solely to determine the requirements of interconnecting a Facility with the Company EPS.

5.2 Interconnection Equipment Costs

The Interconnecting Customer shall be responsible for all costs associated with the installation and construction of the Facility and associated interconnection equipment on the Interconnecting Customer's side of the PCC.

5.3 System Modification Costs

The Interconnecting Customer shall also be responsible for all costs reasonably incurred by Company attributable to the proposed interconnection project in designing, constructing, operating and maintaining the System Modifications. At the time that the Company provides an Interconnecting Customer with any Impact Study or Detailed Study, the Company shall also provide, along with that Study, a statement of the Company's policies on collection of tax gross-ups. To the extent that Company Terms and Conditions and/or tariffs allow, the Company will refund the appropriate portion of System Modification costs to the Interconnecting Customer as required by the applicable tariff.

5.4 Separation of Costs

Should the Company combine the installation of System Modifications with additions to the Company's EPS to serve other customers or interconnecting customers, the Company shall not include the costs of such separate or incremental facilities in the amounts billed to the Interconnecting Customer for the System Modifications required pursuant to this Interconnection Tariff.

The Interconnecting Customer shall only pay for that portion of the interconnection costs resulting solely from the System Modifications required to allow for safe, reliable parallel operation of the Facility with the Company EPS.

5.5 Normal Payment Procedure

All application, study fees and System Modification costs (except as noted below) are due in full prior to the execution of the work as outlined in this Interconnection Tariff. If the anticipated costs exceed $25,000 the Interconnecting Customer is eligible for a payment plan, including a payment and construction schedule with milestones for both parties. At the

request of the Interconnecting Customer, the Company will break the costs into phases in which the costs will be collected prior to Company expenditures for each phase of the study and/or construction including ordering equipment. The payment plan will be attached as an exhibit to the Interconnection Service Agreement or relevant study agreements.

5.6 Security and Creditworthiness

In order for the Company to agree to any payment plan where some work may be performed in advance of payment, the Company may require the Interconnecting Customer to provide evidence of creditworthiness. In the event that Interconnecting Customer cannot provide such evidence to the satisfaction of the Company, then the Company may require the Interconnecting Customer to provide sufficient security in order to take advantage of a payment plan. Interconnecting Customer acknowledges that it will be responsible for the actual costs of the System Modifications described in the attached exhibit to the Interconnection Service Agreement, whether greater or lesser than the amount of the payment security provided under this section.

6.0 Operating Requirements

6.1 General Operating Requirements

Interconnecting Customer shall operate and maintain the Facility in accordance with the applicable manufacturer's recommended maintenance schedule, in compliance with all aspects of the Company's Interconnection Tariff. The Interconnecting Customer will continue to comply with all applicable laws and requirements after interconnection has occurred. In the event the Company has reason to believe that the Interconnecting Customer's installation may be the source of problems on the Company EPS, the Company has the right to install monitoring equipment at a mutually agreed upon location to determine the source of the problems. If the Facility is determined to be the source of the problems, the Company may require disconnection as outlined in Section 7.0 of this Interconnection Tariff. The cost of this testing will be borne by the Company unless the Company demonstrates that the problem or problems are caused by the Facility or if the test was performed at the request of the Interconnecting Customer.

6.2 No Adverse Effects; Non-interference

Company shall notify Interconnecting Customer if there is evidence that the operation of the Facility could cause disruption or deterioration of service to other Customers served from the same Company EPS or if operation of the Facility could cause damage to Company EPS or Affected Systems. The deterioration of service could be, but is not limited to, harmonic injection in excess of IEEE Standard 1547-2003, as well as voltage fluctuations caused by large step changes in loading at the Facility. Each Party will notify the other of any emergency or hazardous condition or occurrence with its equipment or facilities which could affect safe operation of the other Party's equipment or facilities. Each Party shall use reasonable efforts to provide the other Party with advance notice of such conditions.

The Company will operate the EPS in such a manner so as to not unreasonably interfere with the operation of the Facility. The Interconnecting Customer will protect itself from normal disturbances propagating through the Company EPS, and such normal disturbances shall not constitute unreasonable interference unless the Company has deviated from Good Utility Practice. Examples of such disturbances could be, but are not limited to, single-phasing events, voltage sags from remote faults on the Company EPS, and outages on the Company EPS. If the Interconnecting Customer demonstrates that the Company EPS is adversely affecting the operation of the Facility and if the adverse effect is a result of a Company deviation from Good Utility Practice, the Company shall take appropriate action to eliminate the adverse effect.

6.3 Safe Operations and Maintenance

Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for, the facility or facilities that it now or hereafter may own unless otherwise specified in this

Agreement. Each Party shall be responsible for the maintenance, repair and condition of its respective lines and appurtenances on their respective side of the PCC. The Company and the Interconnecting Customer shall each provide equipment on its respective side of the PCC that adequately protects the Company's EPS, personnel, and other persons from damage and injury.

6.4 Access

The Company shall have access to the disconnect switch of the Facility at all times.

6.4.1 Company and Interconnecting Customer Representatives

Each Party shall provide and update as necessary the telephone number that can be used at all times to allow either Party to report an emergency.

6.4.2 Company Right to Access Company-Owned Facilities and Equipment

If necessary for the purposes of this Interconnection Tariff and in the manner it describes, the Interconnecting Customer shall allow the Company access to the Company's equipment and the Company's facilities located on the Interconnecting Customer's or Customer's premises. To the extent that the Interconnecting Customer does not own all or any part of the property on which the Company is required to locate its equipment or facilities to serve the Interconnecting Customer under this Interconnection Tariff, the Interconnecting Customer shall secure and provide in favor of the Company the necessary rights to obtain access to such equipment or facilities, including easements if the circumstances so require.

6.4.3 Right to Review Information

The Company shall have the right to review and obtain copies of Interconnecting Customer's operations and maintenance records, logs, or other information such as, unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Interconnecting Customer's Facility or its interconnection with the Company EPS. This information will be treated as customer-confidential and only used for the purposes of meeting the requirements of Section 4.2.4.

7.0 Disconnection

7.1 Temporary Disconnection

a. **Emergency Conditions.** Company shall have the right to immediately and temporarily disconnect the Facility without prior notification in cases where, in the reasonable judgment of Company, continuance of such service to Interconnecting Customer is imminently likely to (i) endanger persons or damage property or (ii) cause a material adverse effect on the integrity or security of, or damage to, Company EPS or to the electric systems of others to which the Company EPS is directly connected. Company shall notify Interconnecting Customer promptly of the emergency condition. Interconnecting Customer shall notify Company promptly when it becomes aware of an emergency condition that affects the Facility that may reasonably be expected to affect the Company EPS. To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, or the expected effect on the operation of both Parties' facilities and operations, its anticipated duration and the necessary corrective action.

b. Routine Maintenance, Construction and Repair. Company shall have the right to disconnect the Facility from the Company EPS when necessary for routine maintenance, construction and repairs on the Company EPS. The Company shall provide the Interconnecting Customer with a minimum of seven calendar days planned outage notification consistent with the Company's planned outage notification protocols. If the Interconnecting Customer requests disconnection by the Company at the PCC, the Interconnecting Customer will provide a minimum of seven days notice to the Company. Any additional notification requirements will be specified by mutual agreement in the Interconnection Service Agreement. Company shall make an effort to schedule such curtailment or temporary disconnection with Interconnecting Customer.

c. **Forced Outages.** During any forced outage, Company shall have the right to suspend interconnection service to effect immediate repairs on the Company EPS; provided, however, Company shall use reasonable efforts to provide the Interconnecting Customer with prior notice. Where circumstances do not permit such prior notice to Interconnecting Customer, Company may interrupt Interconnection Service and disconnect the Facility from the Company EPS without such notice.

d. **Non-Emergency Adverse Operating Effects.** The Company may disconnect the Facility if the Facility is having an adverse operating effect on the Company EPS or other customers that is not an emergency, and the Interconnecting Customer fails to correct such adverse operating effect after written notice has been provided and a maximum of 45 days to correct such adverse operating effect has elapsed.

e. **Modification of the Facility.** Company shall notify Interconnecting Customer if there is evidence of a material modification to the Facility and shall have the right to immediately suspend interconnection service in cases where such material modification has been implemented without prior written authorization from the Company.

f. **Re-connection.** Any curtailment, reduction or disconnection shall continue only for so long as reasonably necessary. The Interconnecting Customer and the Company shall cooperate with each other to restore the Facility and the Company EPS, respectively, to their normal operating state as soon as reasonably practicable following the cessation or remedy of the event that led to the temporary disconnection.

7.2 Permanent Disconnection

The Interconnecting Customer has the right to permanently disconnect at any time with 30 days written notice to the Company.

The Company may permanently disconnect the Facility upon termination of the Interconnection Service Agreement in accordance with the terms thereof.

8.0 Metering, Monitoring, and Communication

This Section sets forth the rules, procedures and requirements for metering, monitoring and communication between the Facility and the Company EPS where the Facility exports power or is net metered or is otherwise subject to NEPOOL requirements. Interconnecting Customer will be responsible for reasonable and necessary costs incurred by Company for the purchase, installation, operation, maintenance, testing, repair and replacement of metering and data acquisition equipment specified in the Attachments to the Interconnection Service Agreement. Interconnecting Customer's metering (and data acquisition, as required) equipment shall conform to rules and applicable operating requirements.

8.1 Metering, Related Equipment and Billing Options

The Company shall furnish, read and maintain all revenue metering equipment. The Interconnecting Customer shall furnish and maintain all meter mounting equipment such as or including meter sockets, test switches, conduits, and enclosures. Except as provided below, the Company shall own the meter and the Interconnecting Customer shall pay to the Company a monthly charge to cover taxes, meter maintenance, incremental reading and billing costs, the allowable return on the invoice cost of the meter and the depreciation of the meter. These charges are set forth in the applicable Company tariff(s), as amended from time to time. If the Facility is a Qualifying Facility or On-Site Generating Facility the Interconnecting Customer may elect to own the meter, in which case, the Interconnecting Customer shall pay to the Company a monthly charge to cover meter maintenance and incremental reading and billing costs. Metering requirements and associated charges for Qualifying Facilities and On-Site Generating Facilities are set forth in the applicable Company tariff(s), as amended from time to time. If the Interconnecting Customer elects to install its own meter under the terms of 220 CMR 8.0, the Interconnecting Customer shall be responsible for purchasing and installing software, hardware and/or other technology that may be required by the Company to read billing meters.

The Interconnecting Customer shall provide suitable space within the Facility for installation of the metering, and communication equipment at no cost to the Company.

All metering equipment installed pursuant to this Interconnection Tariff and associated with the Facility shall be routinely tested by the Company at Interconnecting Customer's expense, in accordance with applicable Company and/or ISO-NE criteria, rules and standards. If, at any time, any metering equipment is found to be inaccurate by a margin greater than that allowed under applicable criteria, rules and standards, the Company shall cause such metering equipment to be made accurate or replaced. The cost to repair or replace the meter shall be borne by the Company, if the Company owns the meter, or by the Interconnecting Customer if the Interconnecting Customer owns the meter. Meter readings for the period of inaccuracy shall be adjusted so far as the same can be reasonably ascertained; provided, however, no adjustment prior to the beginning of the preceding month shall be made except by agreement of the Parties. Each Party shall comply with any reasonable request of the

other concerning the sealing of meters, the presence of a representative of the other Party when the seals are broken and the tests are made, and other matters affecting the accuracy of the measurement of electricity delivered from the Facility. If either Party believes that there has been a meter failure or stoppage, it shall immediately notify the other.

If the Metering Point and the Point of Receipt or Point of Delivery are not at the same location, the metering equipment shall record delivery of electricity in a manner that accounts for losses occurring between the Metering Point and the Point of Receipt or Point of Delivery. Losses between the Metering Point and Point of Receipt will be reflected pursuant to applicable Company, NEPOOL or ISO-NE criteria, rules or standards.

The type of metering equipment to be installed at a Facility is dependent on the size of the Facility and how and if the Facility plans to export power or net meter. For those that will export power or net meter, the available equipment options and associated requirements are:

- For Facilities 60 kW or less, unless the Interconnecting Customer elects another form of metering, the Facilities will be equipped with net metering in which metering equivalent to or replicating that of a standard distribution class meter is installed and is enabled to run in a normal direction during periods of net consumption and to run backwards during periods of net generator output. All metering equipment included in this type of installation, including self-contained meters and instrument transformers and meters, shall meet ANSI C12.1 Metering Accuracy Standards and ANSI C57.13 accuracy requirements for instrument transformers.
- For Facilities larger than 60 kW up to [the kW demand where the Distribution Companies' C/I time-of-use rates begin], the Facilities will be equipped with bi-directional, non-interval meter without remote access – in which a distribution class meter with multiple registers is installed. One set of registers will record energy flows from the Company to the Facility during periods when the Facility is a net consumer of energy (the other register will record no flow during these periods) and a second set of registers will record energy flows from the Facility to the Company during periods when the Facility is a net producer of energy (the other register will record no flow during these periods). Each set of registers will record total flows only and will not record flows during specific intervals. All metering equipment included in this type of installation, including self-contained meters and instrument transformers and meters, shall meet ANSI C12.1 Metering Accuracy Standards and ANSI C57.13 accuracy requirements for instrument transformers.
- For Facilities larger than [the kW demand where the Distribution Companies' C/I time-of-use rates begin], the Facilities will be equipped with bi-directional, interval meter with remote access – in which a distribution class meter with multiple registers is installed. One set of registers will record energy flows from the Company to the Facility during periods when the Facility is a net consumer of energy (the other register will record no flow during these periods) and a second set of registers will record energy flows from the Facility to the Company during periods when the Facility is a net producer of energy (the other register will record no flow during these periods). Each set of registers will record total flows as well as flows during hourly intervals. In addition, the meters will be equipped with remote access capability that may include communication to the extent

required by applicable NEPOOL standards. All metering equipment included in this type of installation shall meet the requirements contained in NEPOOL Operating Procedure No. 18, "Metering and Telemetering Criteria" and the Company's "Policy and Practices for Metering and Telemetering Requirements for New or Modified Interconnections." Copies of both publications are available from the Company upon request. The Interconnecting Customer shall be responsible for providing all necessary leased telephone lines (or other Company approved communication means) and any necessary protection for leased lines and shall furthermore be responsible for all communication required by ISO-NE, or by ISO-NE's designated satellite. The Interconnecting Customer shall maintain all communication and transducer equipment at the Facility in accordance with ISO-NE criteria, rules and standards. The Company will purchase, own and maintain all communication equipment located on the Interconnecting Customer's Facilities, if the Interconnecting Customer desires, at the Interconnecting Customer's expense. The Interconnecting Customer shall provide, install and own Company-approved or Company-specified test switches in the transducer circuits.

- In addition, Facilities which are 5 MW or greater are required by NEPOOL Operating Procedure No. 18 to provide communication equipment and to supply accurate and reliable information to system operators regarding metered values for MW, MVAR, volt, amp, frequency, breaker status and all other information deemed necessary by ISO-NE and the NEPOOL Satellite (REMVEC).

8.2 Additional Monitoring and Communication Requirements

As the amount of distributed generation on the Company EPS grows significantly, additional monitoring and communication may be required by the Department pursuant to a future proceeding.

9.0 Dispute Resolution Process

The Dispute Resolution Process is a multi-stage process described below, beginning with negotiation, then mediation, followed by non-binding arbitration and then adjudication. All days in this Section are calendar days.

9.1 Good Faith Negotiation

a. One party submits a request in writing to the other party for initiation of Step 9.1 of the Dispute Resolution Process. The Parties will elevate the dispute to a Vice President or senior management with sufficient authority to make a decision.

b. If, after 8 days, the dispute is still not resolved, one or both Parties may initiate Section 9.2.a

9.2 Mediation/Non-binding Arbitration

a. One party to the dispute requests dispute resolution assistance by submitting a written request to the Department, with a summary of the situation. The other party may also submit a summary.

b. The Parties will meet with a Department hearing officer or other Department staff person within 14 days to convene the Dispute Resolution Process. During that meeting, the Department staff person may assist the Parties in attempting to resolve outstanding differences.

c. If the differences are not resolved in Step 9.2.b, the Department will provide a list of qualified neutrals and manage the selection of individual neutrals for the case. The Department will use a list of pre-qualified neutrals maintained at the Department and, the Parties will select a mutually agreeable mediator pursuant to a reverse-strike-out process[1] or another mutually-agreeable method. If either party requests a technical expert, both a mediator and a technical expert will be selected, and the technical expert will be selected using the same strike out process or another mutually-agreeable method as that used for selection of the mediator.

d. Parties will complete the neutral selection process with the Department within seven days. This timetable will only be possible if the Department has, during the initial 14 days, identified mediators and technical experts who have the time available to assist the Parties in a timely manner.

[1] A "reverse strike out process" involves each party eliminating the least desirable mediator until one is left standing.

e. The Department will arrange for the selected mediator to contact Parties.

f. The Parties will contract with neutrals for services, splitting the fees 50/50.

g. The mediator begins by discussing the case with the disputing Parties to assess the scope of issues and understand the Parties' positions and interests. The mediator and Parties will establish a schedule for completion of mediation within 30 days. Ten days after the 30-day time period begins, the Department will issue a public notice of the proceeding and will schedule a pre-hearing conference for Section 9.3. The mediator will assist the Parties in developing a scope of work for the technical expert if one is needed. The mediator will also assist the Parties in estimating the Dispute Resolution Process costs and addressing any concerns about those costs.

h. Mediation meeting or meetings are held.

i. If the Parties reach agreement, the Dispute Resolution Process ends here.

j. If the Parties do not reach a mediated agreement, the neutral(s) will issue a brief recommended solution or decision.

k. If the Parties accept the neutral's recommendation, the Dispute Resolution Process ends here.

l. If one or both Parties do not accept the neutral recommendation and there is still no agreement, the dispute proceeds to Step 9.3.

9.3 Department Adjudicatory Hearing

The goal of this Step is an adjudicatory hearing at the Department, with witnesses, evidence, etc. that results in a binding precedential decision, appealable to the Massachusetts Supreme Judicial Court.

a. In the event a party does not accept the recommendation in Step 9.2, it may request, in writing, a Department adjudication.

b. The Department holds a pre-hearing conference for which notice has been provided in accordance with Section 9.2.g. The Parties, to the extent desirable and feasible, exchange information and establish an expedited schedule during the pre-hearing conference.

c. The Department and the Parties engage in pre-hearing discovery, as needed in the specific case, building on the information developed in Step 9.2, including the mediator's recommendation.

d. The Department conducts a hearing.

e. The Parties file briefs, if one or both desire to do so or the Department requests they do so. The Parties and the Department will complete Step 9.3.b through 9.3.e in 90 days.

f. The Department issues its order within 20 days. If it is unable to do so, it will notify the Parties and provide a revised decision date.

The Department will appoint a hearing officer or other Department staff person familiar with the DG interconnection process in Massachusetts to oversee the selection of private neutrals and otherwise serve as a resource for DG cases.

Disputes subject to the Dispute Resolution Process on these issues are not meant to be considered as Interconnecting Customer complaints as part of the Company's service quality plan. The docket number for this plan is D.T.E. 01-71. This does not preclude the Interconnecting Customer from filing Interconnecting Customer complaints for which they are otherwise eligible.

10.0 Confidentiality Statement

Information including identifying information and specific Facility information may be shared with the Department. A list of all executed DG Interconnection Service Agreements will be submitted to the Department annually. Interconnecting Customers may elect to petition the Department to maintain confidentiality with their information, however, the Department is under no obligation to grant this confidentiality.

In an ongoing effort to improve the interconnection process for Interconnecting Customer-owned Facilities, the information provided by Interconnecting Customers and the results of the application process will be aggregated with the information of other applicants and periodically reviewed by a DG Collaborative authorized by the Department consisting of industry participants. The aggregation process will not reveal specific details for any one Interconnecting Customer. In addition to this process, Interconnecting Customers may choose to allow non-identifying information specific to their applications to be shared with the Collaborative by answering "Yes" to the Confidentiality Statement question on the first page of the application form.

11.0 Insurance Requirements

11.1 General Liability

11.1(a) In connection with Interconnecting Customer's performance of its duties and obligations under the Interconnection Service Agreement, Interconnecting Customer shall maintain, during the term of the Agreement, general liability insurance with a combined single limit of not less than:

i. Five million dollars ($5,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than five (5) MW;

ii. Two million dollars ($2,000,000) for each occurrence and five million dollars ($5,000,000) in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one (1) MW and less than or equal to five (5) MW;

iii. One million dollars ($1,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one hundred (100) kW and less than or equal to one (1) MW;

iv. Five hundred thousand dollars ($500,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than ten (10) kW and less than or equal to one hundred (100) kW, except as provided below in subsection 11.1(b).

11.1(b) Pursuant to 220 CMR 18.03(2), no insurance is required for customers with facilities eligible for Class I Net Metering (facilities less than or equal to sixty (60)kw). However, the Company recommends that the Interconnecting Customer obtain adequate insurance to cover potential liabilities.

11.1(c) Any combination of General Liability and Umbrella/Excess Liability policy limits can be used to satisfy the limit requirements stated above.

11.1(d) The general liability insurance required to be purchased in this Section 11 may be purchased for the direct benefit of the Company and shall respond to third party claims asserted against the Company (hereinafter known as "Owners Protective Liability"). Should this option be chosen, the requirement of Section 11.2(a) will not apply but the Owners Protective Liability policy will be purchased for the direct benefit of the Company and the Company will be designated as the primary and "Named Insured" under the policy.

11.1(e) The insurance hereunder is intended to provide coverage for the Company solely with respect to claims made by third parties against the Company.

11.1(f) In the event the Commonwealth of Massachusetts, or any other governmental subdivision thereof subject to the claims limits of the Massachusetts Tort Claims Act, G.L. c. 258 (hereinafter referred to as the "Governmental Entity") is the Interconnecting Customer, any insurance maintained by the Governmental Entity shall contain an endorsement that strictly prohibits the applicable insurance company from interposing the claims limits of G.L. c. 258 as a defense in either the adjustment of any claim, or in the defense of any lawsuit directly asserted against the insurer by the Company. Nothing herein is intended to constitute a waiver or indication of an intent to waive the protections of G.L. c. 258 by the Governmental Entity.

11.2 Insurer Requirements and Endorsements

All required insurance shall be carried by reputable insurers qualified to underwrite insurance in MA having a Best Rating of "A-". In addition, all insurance shall, (a) include Company as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that Company shall not incur liability to the insurance carrier for payment of premium for such insurance; and (c) provide for thirty (30) calendar days' written notice to Company prior to cancellation, termination, or material change of such –insurance; provided that to the extent the Interconnecting Customer is satisfying the requirements of subpart (d) of this paragraph by means of a presently existing insurance policy, the Interconnecting Customer shall only be required to make good faith efforts to satisfy that requirement and will assume the responsibility for notifying the Company as required above.

If the requirement of clause (a) in the paragraph above prevents Interconnecting Customer from obtaining the insurance required without added cost or due to written refusal by the insurance carrier, then upon Interconnecting Customer's written Notice to Company, the requirements of clause (a) shall be waived.

11.3 Evidence of Insurance

Evidence of the insurance required shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by Interconnecting Customer.

The Interconnecting Customer is responsible for providing the Company with evidence of insurance in compliance with this Interconnection Tariff on an annual basis.

Prior to the Company commencing work on System Modifications, and annually thereafter, the Interconnecting Customer shall have its insurer furnish to the Company certificates of insurance evidencing the insurance coverage required above. The Interconnecting Customer shall notify and send to the Company a certificate of insurance for any policy written on a

"claims-made" basis. The Interconnecting Customer will maintain extended reporting coverage for three years on all policies written on a "claims-made" basis.

In the event that an Owners Protective Liability policy is provided, the original policy shall be provided to the Company.

11.4 Self Insurance

If Interconnecting Customer has a self-insurance program established in accordance with commercially acceptable risk management practices. Interconnecting Customer may comply with the following in lieu of the above requirements as reasonably approved by the Company:

a. Interconnecting Customer shall provide to Company, at least thirty (30) calendar days prior to the Date of Initial Operation, evidence of such program to self-insure to a level of coverage equivalent to that required.

b. If Interconnecting Customer ceases to self-insure to the standards required hereunder, or if Interconnecting Customer is unable to provide continuing evidence of Interconnecting Customer's financial ability to self-insure, Interconnecting Customer agrees to promptly obtain the coverage required under Section 11.1.

This section shall not allow any Governmental Entity to self-insure where the existence of a limitation on damages payable by a Government Entity imposed by the Massachusetts Tort Claims Act, G.L. c. 258, or similar law, could effectively limit recovery (by virtue of a cap on recovery) to an amount lower than that required in Section 11.1(a).

Exhibit A – Simplified Process Interconnection Application

Instructions *(please do not submit this page)*

General Information: If you, the Interconnecting Customer, wish to submit an application to interconnect your generating Facility using the Simplified Process (reference Section 3.1 of the Interconnection Tariff for eligibility) please fill out the attached application form completely (not including this page of instructions), including your signature in the space provided. Interconnections that may be eligible for this Simplified Process include UL 1741-Listed inverter-based Facilities that are either (1) connecting to radial electric power systems with power ratings of ≤10 kW single-phase or ≤25 kW three-phase, or (2) connecting to spot network electric power systems with power ratings of ≤15 kW single-phase. Please attach any documentation provided by the inverter manufacturer concerning the UL 1741 listing provided by the manufacturer.

Mail all material to: COMPANY SPECIFIC ADDRESS

The Simplified Process is as follows:

1. Application process:
   a. Interconnecting Customer submits a Simplified Application filled out properly and completely.
   b. The electric utility (Company) acknowledges to the Interconnecting Customer receipt of the application within 3 business days of receipt.
   c. Company evaluates the application for completeness and notifies the Interconnecting Customer within 10 business days of receipt that the application is or is not complete and, if not, advises what is missing.
2. Company verifies Facility equipment can be interconnected safely and reliably.
3. If approved, the Company signs the application approval line and sends to the Interconnecting Customer. In certain rare circumstances, the Company may require the Interconnecting Customer to pay for minor System Modifications. If so, a description of work and an estimate will be sent back to the Interconnecting Customer for approval. The Interconnecting Customer would then approve via a signature and payment for the minor System Modifications. If the Interconnecting Customer approves, the Company performs the System Modifications. Then, the Company signs the application approval line and sends to the Interconnecting Customer.
4. Upon receipt of the signed application, the Interconnecting Customer installs the Facility. Then the Interconnecting Customer arranges for inspection of the completed installation by the local electrical wiring inspector, or other authority having jurisdiction, and this person signs the Certificate of Completion. If the Facility was installed by an electrical contractor, this person also fills out the Certificate of Completion.
5. The Interconnecting Customer returns the Certificate of Completion to the Company.
6. Following receipt of the Certificate of Completion, the Company may inspect the Facility for compliance with standards by arranging for a Witness Test. The Interconnecting Customer has no right to operate in parallel (interconnect) until a Witness Test has been performed or has been previously waived on the Application Form. The Company is obligated to complete this Witness Test within 10 business days of the receipt of the Certificate of Completion. If the Company does not inspect in 10 business days or by mutual agreement of the Parties, the Witness Test is deemed waived.
7. Assuming the wiring inspection and/or Witness Test is satisfactory, the Company notifies the Interconnecting Customer in writing that interconnection is authorized. If the Witness Test is not satisfactory, the Company has the right to disconnect the Facility, and will provide information to the Interconnecting Customer describing clearly what is required for approval.

Contact Information: You must provide the contact information for the legal applicant (i.e. the Interconnecting Customer). If other parties are responsible for interfacing with the Company, you should provide their contact information as well.

Ownership Information: Please enter the legal names of the owner or owners of the Facility. Include the percentage ownership (if any) by any Company or public utility holding company, or by any entity owned by either.

Generating Facility Information: Please consult an actual electric bill from the Electric Service Company and enter the correct Account Number and Meter Number on this application. If the facility is to be installed in a new location, a temporary number may be assigned by the Electric Company.

Confidentiality Statement: In an ongoing effort to improve the interconnection process for Interconnecting Customers, the information you provide and the results of the application process will be aggregated with the information of other applicants and periodically reviewed by a DG Collaborative of industry participants that has been organized by the Massachusetts Department of Telecommunications and Energy (DTE). The aggregation process mixes the data together so that specific details for one Interconnecting Customer are not revealed. In addition to this process, you may choose to allow the information specific to your application to be shared with the Collaborative by answering "Yes" to the Confidentiality Statement question on the first page. Please note that even in this case your identification information (contact data) and specific Facility location will not be shared.

UL 1741 Listed? The standard UL 1741, "Inverters, Converters, and Controllers for Use in Independent Power Systems," addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers choose to submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL 1741. This term "Listed" is then marked on the equipment and supporting documentation.

Simplified Process Interconnection Application and Service Agreement

Contact Information: Date Prepared: _____

Legal Name and address of Interconnecting Customer (or, Company name, if appropriate)

Customer or Company Name (print): _____ Contact Person, if Company: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Alternative Contact Information (e.g., system installation contractor or coordinating company, if appropriate):

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Electrical Contractor Contact Information (if appropriate):

Name: _____ Telephone: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

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

Confidentiality Statement: "I agree to allow information regarding the processing of my application (without my name and address) to be reviewed by the Massachusetts DG Collaborative that is exploring ways to further expedite future interconnections." Yes____No_____

Facility Information:

Address of Facility: _____

City: _____ State: _____ Zip Code: _____

Electric Service Company: _____ Account Number: _____ Meter Number: _____

Inverter Manufacturer: _____ Model Name and Number: _____ Quantity: ___

Nameplate Rating: _____ (kW) _____ (kVA) _____ (AC Volts) Single____ or Three_____ Phase

System Design Capacity: _____ (kW) _____ (kVA) For Solar PV provide the DC-STC rating: _____(KW)

Prime Mover: Photovoltaic ☐ Reciprocating Engine ☐ Fuel Cell ☐
Turbine ☐ Other _____

Energy Source: Solar ☐ Wind ☐ Hydro ☐ Diesel ☐ Natural Gas ☐ Fuel Oil ☐
Other _____

IEEE 1547.1 (UL 1741) Listed? Yes_____ No _

Estimated Install Date: _____ Estimated In-Service Date: _____

Customer Signature

I hereby certify that, to the best of my knowledge, all of the information provided in this application is true and I agree to the Terms and Conditions on the following page:

Interconnecting Customer Signature: _____ Title: _____ Date: _____

Please attach any documentation provided by the inverter manufacturer describing the inverter's UL 1741 listing.

Approval to Install Facility (For Company use only)

Installation of the Facility is approved contingent upon the terms and conditions of this Agreement, and agreement to any system modifications, if required (Are system modifications required? Yes ___ No ___ To be Determined ___):

Company Signature: _____ Title: _____ Date: _____

Application ID number: _____ Company waives inspection/Witness Test? Yes ____ No____

Terms and Conditions for Simplified Process Interconnections

1. **Construction of the Facility**. The Interconnecting Customer may proceed to construct the Facility once the Approval to Install the Facility has been signed by the Company.
2. **Interconnection and operation**. The Interconnecting Customer may operate Facility and interconnect with the Company's system once the following has occurred:
   2.1. **Municipal Inspection**. Upon completing construction, the Interconnecting Customer will cause the Facility to be inspected or otherwise certified by the local electrical wiring inspector with jurisdiction.
   2.2. **Certificate of Completion**. The Interconnecting Customer returns the Certificate of Completion appearing as Attachment 2 to the Agreement to the Company at address noted.
   2.3. **Company has completed or waived the right to inspection**.
3. **Company Right of Inspection**. Within ten (10) business days after receipt of the Certificate of Completion, the Company may, upon reasonable notice and at a mutually convenient time, conduct an inspection of the Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with the Interconnection Tariff. The Company has the right to disconnect the Facility in the event of improper installation or failure to return Certificate of Completion. If the Company does not inspect in 10 days or by mutual agreement of the Parties, the Witness Test is deemed waived.
4. **Safe Operations and Maintenance**. The Interconnecting Customer shall be fully responsible to operate, maintain, and repair the Facility.
5. **Access**. The Company shall have access to the disconnect switch (if required) of the Facility at all times.
6. **Disconnection**. The Company may temporarily disconnect the Facility to facilitate planned or emergency Company work.
7. **Metering and Billing**. All Facilities approved under this Agreement qualify for net metering, as approved by the Department from time to time, and the following is necessary to implement the net metering provisions:
   7.1. **Interconnecting Customer Provides Meter Socket**. The Interconnecting Customer shall furnish and install, if not already in place, the necessary meter socket and wiring in accordance with accepted electrical standards.
   7.2. **Company Installs Meter**. The Company shall furnish and install a meter capable of net metering within ten (10) business days after receipt of the Certificate of Completion if inspection is waived, or within 10 business days after the inspection is completed, if such meter is not already in place.
8. **Indemnification**. Except as the Commonwealth is precluded from pledging credit by Section 1 of Article 62 of the Amendments to the Constitution of the Commonwealth of Massachusetts, and except as the Commonwealth's cities and towns are precluded by Section 7 of Article 2 of the Amendments to the Massachusetts Constitution from pledging their credit without prior legislative authority, Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, Affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of, or are in any manner connected with, the performance of this Agreement by that party, except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the party seeking indemnification.
9. **Limitation of Liability**. Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.
10. **Termination**. This Agreement may be terminated under the following conditions:
    10.1. **By Mutual Agreement**. The Parties agree in writing to terminate the Agreement.
    10.2. **By Interconnecting Customer**. The Interconnecting Customer may terminate this Agreement by providing written notice to Company.
    10.3. **By Company**. The Company may terminate this Agreement (1) if the Facility fails to operate for any consecutive 12 month period, or (2) in the event that the Facility impairs the operation of the electric distribution system or service to other customers or materially impairs the local circuit and the Interconnecting Customer does not cure the impairment.
11. **Assignment/Transfer of Ownership of the Facility**. This Agreement shall survive the transfer of ownership of the Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

12. **Interconnection Tariff**. These Terms and Conditions are pursuant to the Company's Tariff for the Interconnection of Customer-Owned Generating Facilities, as approved by the Department of Telecommunications and Energy and as the same may be amended from time to time ("Interconnection Tariff"). All defined terms set forth in these Terms and Conditions are as defined in the Interconnection Tariff (see Company's website for complete tariff).

ATTACHMENT 2

Certificate of Completion for Simplified Process Interconnections

Installation Information: ☐ Check if owner-installed

Customer or Company Name (print): _____ Contact Person, if Company: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____

Address of Facility (if different from above): _____
City: _____ State: _____ Zip Code: _____

Electrical Contractor's Name (if appropriate): _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____
License number: _____

Date of approval to install Facility granted by the Company: _____

Application ID number: _____

Inspection:

The system has been installed and inspected in compliance with the local Building/Electrical Code of

_____
(City/County)

Signed (Local Electrical Wiring Inspector, or attach signed electrical inspection):
_____

Name (printed): _____

Date: _____

As a condition of interconnection you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company's name below):

Name: _____
Company: _____
Mail 1: _____
Mail 2: _____
City, State ZIP: _____
Fax No.: _____

Exhibit B – Expedited/Standard Process Interconnection Application

Instructions (*please do not submit this page*)

General Information

If you wish to submit an application to interconnect your generating facility using the Expedited or Standard Process, please fill out all pages of the attached application form (not including this page of instructions). Once complete, please sign, attach the supporting documentation requested and enclose an application fee of $3/kW (minimum of $300 and maximum of $2,500).

Contact Information: You must provide as a minimum the contact information of the legal applicant. If another party is responsible for interfacing with the Company (utility), you may optionally provide their contact information as well.

Ownership Information: Please enter the legal names of the owner or owners of the generating facility. Include the percentage ownership (if any) by any electric service company (utility) or public utility holding company, or by any entity owned by either.

Confidentiality Statement: In an ongoing effort to improve the interconnection process for Interconnecting Customer-owned generating facilities, the information you provide and the results of the application process will be aggregated with the information of other applicants and periodically reviewed by a DG Collaborative of industry participants that has been organized by the Massachusetts Department of Telecommunications and Energy (DTE). The aggregation process mixes the data together so that specific details for one Interconnecting Customer are not revealed. In addition to this process, you may choose to allow the information specific to your application to be shared with the Collaborative by answering "Yes" to the Confidentiality Statement question on the first page. Please note that even in this case your identification information (contact data) and specific generating facility location will not be shared.

Generating Facility Information

Account and Meter Numbers: Please consult an actual electric bill from the Electric Service Company and enter the correct Account Number and Meter Number on this application. If the facility is to be installed in a new location, a temporary number may be assigned by the Electric Company.

UL 1741 Listed? The standard UL 1741, "Inverters, Converters, and Controllers for Use in Independent Power Systems," addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers choose to submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL 1741. This "listing" is then marked on the equipment and supporting documentation.

DEP Air Quality Permit Needed? A generating facility may be considered a point source of emissions of concern by the Massachusetts Department of Environmental Protection (DEP). Therefore, when submitting this application please indicate whether your generating facility will require an Air Quality Permit. You must answer these questions, however, your specific answers will not affect whether your application is deemed complete. Please contact the DEP to determine whether the generating technology planned for your facility qualifies for a DEP waiver or requires a permit.

Generating Facility Expedited/Standard Process Interconnection Application

Contact Information

Date Prepared: _____

Legal Name and address of Interconnecting Customer (or, Company name, if appropriate)

Customer or Company Name: _____ Contact Person, if Company: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Alternative Contact Information (e.g. system installation contractor or coordinating company)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Ownership (include % ownership by any electric utility): .

Confidentiality Statement: "I agree to allow information regarding the processing of my application (without my name and address) to be reviewed by the Massachusetts DG Collaborative that is exploring ways to further expedite future interconnections." Yes _____ No _____

Generating Facility Information

Address of Facility: _____

City: _____ State: _____ Zip Code: _____

Electric Service Company: _____ Account Number: _____ Meter Number: _____

Type of Generating Unit: Synchronous_____ Induction_____ Inverter_____

Manufacturer: _____ Model: _____

Nameplate Rating: _____ (kW) _____ (kVAr) _____ (Volts) Single____ or Three_____ Phase

Prime Mover: Fuel Cell_ Recip Engine____ Gas Turb____ Steam Turb____ Microturbine____ PV__ Other___

Energy Source: Solar_ Wind___ Hydro___ Diesel___ Natural Gas____ Fuel Oil___ Other_____
(Specify)

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

IEEE 1547.1 (UL 1741) Listed? Yes_____ No Need an air quality permit from DEP? Yes_ No _____ Not Sure _____

If "yes", have you applied for it? Yes____ No____

Planning to Export Power? Yes___ No____ A Cogeneration Facility? Yes_____ No_____

Anticipated Export Power Purchaser: _

Export Form? Simultaneous Purchase/Sale____ Net Purchase/Sale_____ Net Metering___ Other_____
(Specify)

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

Application Process

I hereby certify that, to the best of my knowledge, all of the information provided in this application is true:
Interconnecting Customer Signature: _____ Title: _____ Date: _____

The information provided in this application is complete:
Company Signature: _____ Title: _____ Date: _____

Generating Facility Technical Detail

Date: _____

Information on components of the generating facility that are currently Listed:

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

Total Number of Generating Units in Facility? _____

Generator Unit Power Factor Rating: _____

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

Generator Characteristic Data (for all inverter-based machines)

Max Design Fault Contribution Current? _____ Instantaneous _____or RMS? _____

Harmonics Characteristics: _____

Start-up power requirements: _____

Generator Characteristic Data (for all rotating machines)

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

Additional Information for Synchronous Generating Units

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

Subtransient Reactance, X"d: _____ (PU) Neg Sequence Reactance, X_2: _____ (PU)

Zero Sequence Reactance, Xo: _____ (PU) kVA Base: _____

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

Additional information for Induction Generating Units

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

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

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

Exciting Current: _____ Temperature Rise: _____

Frame Size: _____

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

Reactive Power Required In Vars (No Load): _____

Reactive Power Required In Vars (Full Load): _____

Additional information for Induction Generating Units that are started by motoring

Motoring Power: _____ (kW) Design Letter: _____

Interconnection Equipment Technical Detail

Date: _____

Will a transformer be used between the generator and the point of interconnection? Yes_____ No_____

Will the transformer be provided by Interconnecting Customer? Yes_____ No_____

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

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

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

If Three Phase:
Transformer Primary: _____ (Volts) ___Delta ____ Wye _____ Wye Grounded ____ Other

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

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

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

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

Interconnecting Circuit Breaker (if applicable):

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

Interconnection Protective Relays (if applicable):

(If microprocessor-controlled)
List of Functions and Adjustable Setpoints for the protective equipment or software:

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

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

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

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

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

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

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

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

Current Transformer Data (if applicable):

(Enclose copy of Manufacturer's Excitation & 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 Technical Detail

Date: _____

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

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

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

_____

_____

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

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

Please enclose any other information pertinent to this installation.

ATTACHMENT 2

Certificate of Completion for Expedited/Standard Process Interconnections

Installation Information: ☐ Check if owner-installed

Customer or Company Name (print): _____ Contact Person, if Company: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Address of Facility (if different from above): _____

City: _____ State: _____ Zip Code: _____

Electrical Contractor's Name (if appropriate): _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

License number: _____

Date of approval to install Facility granted by the Company: _____

Application ID number: _____

Inspection:

The system has been installed and inspected in compliance with the local Building/Electrical Code of

_____
(City/County)

Signed (Local Electrical Wiring Inspector, or attach signed electrical inspection):
_____

Name (printed): _____

Date: _____

As a condition of interconnection you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company's name below):

Name: _____
Company: _____
Mail 1:_____
Mail 2:_____
City, State ZIP: _____
Fax No.: _____

Exhibit C – Supplemental Review Agreement

This Agreement, dated _____ , is entered into by and between _____ ("Interconnecting Customer") and the Company, for the purpose of setting forth the terms, conditions and costs for conducting a Supplemental Review relative to the Expedited Process as defined in Section 1.0 and outlined in Section 3.0 of the Interconnection Tariff. This Supplemental Review pertains to Application Number _____ (the Interconnecting Customer's application ID number).

If the Supplemental Review determines the requirements for processing the application through the Expedited Process including any System Modifications, then the modification requirements, reasoning, and costs for these modifications will be identified and included in an executable Interconnection Service Agreement sent to the Interconnecting Customer for execution. If the Supplemental Review does not determine the requirements, it will include a proposed Impact Study Agreement as part of the Standard Process which will include an estimate of the cost of the study.

The Interconnecting Customer agrees to provide, in a timely and complete manner, all additional information and technical data necessary for the Company to conduct the Supplemental Review not already provided in the Interconnecting Customer's application.

All work pertaining to the Supplemental Review that is the subject of this Agreement will be approved and coordinated only through designated and authorized representatives of the Company and the Interconnecting Customer. Each party shall inform the other in writing of its designated and authorized representative, if different than what is in the application.

The Company shall perform the Supplemental Review for a fee not to exceed $1,250. The Company anticipates that the Supplemental Review will cost $____. No work will be performed until payment is received.

Please indicate your acceptance of this Agreement by signing below.

_____
Interconnecting Customer

Exhibit D – Impact Study Agreement

This Agreement, dated _____ , is entered into by and between _____ ("Interconnecting Customer') and the Company, for the purpose of setting forth the terms, conditions and costs for conducting an Impact Study relative to the Standard Process as defined in Section 1.0 and outlined in Section 3.0 of the Interconnection Tariff. This Impact Study pertains to Application Number _____ (the Interconnecting Customer's application ID number).

1. The Interconnecting Customer agrees to provide, in a timely and complete manner, all additional information and technical data necessary for the Company to conduct the Impact Study not already provided in the Interconnecting Customer's application.

2. All work pertaining to the Impact Study that is the subject of this Agreement will be approved and coordinated only through designated and authorized representatives of the Company and the Interconnecting Customer. Each party shall inform the other in writing of its designated and authorized representative, if different than what is in the application.

3. Where there are other potentially Affected Systems, and no single Party is in a position to prepare an Impact Study covering all potentially Affected Systems, the Company will coordinate but not be responsible for the timing of any additional studies required to determine the impact of the interconnection request on other potentially Affected Systems. The Interconnecting Customer will be directly responsible to the potentially Affected System operators for all costs of any additional studies required to evaluate the impact of the interconnection on the potentially Affected Systems. The Company will not proceed with this Impact Study without the Interconnecting Customer's consent to have the other studies conducted.

4. If the Company determines, in accordance with Good Utility Practice, that the System Modifications to the Company EPS are not substantial, the Impact Study will determine the scope and cost of the modifications. If the Company determines, in accordance with Good Utility Practice, that the System Modifications to the Company EPS are substantial, the Impact Study will produce an estimate for the modification costs (within ±25%) and a Detailed Study Agreement and its estimated cost.

5. Impact Study, together with any additional studies contemplated in Paragraph 3, shall form the basis for the Interconnecting Customer's proposed use of the Company EPS and shall be furthermore utilized in obtaining necessary third-party approvals of any required facilities and requested distribution services. The Interconnecting Customer understands and acknowledges that any use of study results by the Interconnecting Customer or its agents, whether in preliminary or final form, prior to NEPOOL 18.4 approval, should such approval be required, is completely at the Interconnecting Customer's risk.

6. The Impact Study fee of $XX (except as noted below) is due in full prior to the execution of the Impact Study. If the anticipated cost exceeds $25,000, the Interconnecting Customer is eligible for a payment plan, including a payment and construction schedule with milestones for both parties. At the request of the Interconnecting Customer, the Company will break the costs into phases in which the costs will be collected prior to Company expenditures for each phase of the study. The payment plan will be attached as an exhibit to the Impact Study Agreement.

7. The Company will, in writing, advise the Interconnecting Customer in advance of any cost increase for work to be performed up to a total amount of increase of 10% only. All costs that exceed the 10% increase cap will be borne solely by the Company. Any such changes to the Company's costs for the work shall be subject to the Interconnecting Customer's consent. The Interconnecting Customer shall, within thirty (30) days of the Company's notice of increase, authorize such increase and make payment in the amount up to the 10% increase cap, or the Company will suspend the work and the corresponding agreement will terminate.

Final Accounting. Upon request by the Interconnecting Customer, the Company within ninety (90) business days after completion of the construction and installation of the System Modifications described in an attached exhibit to the Interconnection Service Agreement, shall provide Interconnecting Customer with a final accounting report of any difference between (a) Interconnecting Customer's cost responsibility under the Interconnection Service Agreement for the actual cost of such System Modifications, and (b) Interconnecting Customer's previous aggregate payments to the Company for such System Modifications. To the extent that Interconnecting Customer's cost responsibility in the Interconnection Service Agreement exceeds Interconnecting Customer's previous aggregate payments, the Company shall invoice Interconnecting Customer and Interconnecting Customer shall make payment to the Company within forty-five (45) days. To the extent that Interconnecting Customer's previous aggregate payments exceed Interconnecting Customer's cost responsibility under this agreement, the Company shall refund to Interconnecting Customer an amount equal to the difference within forty-five (45) days of the provision of such final accounting report.

8. In the event this Agreement is terminated for any reason, the Company shall refund to the Interconnecting Customer the portion of the above fee or any subsequent payment to the Company by the Interconnecting Customer that the Company did not expend or commit in performing its obligations under this Agreement. Payments for work performed shall not be subject to refunding except in accordance with Paragraph 10 below.

9. Nothing in this Agreement shall be interpreted to give the Interconnecting Customer immediate rights to wheel over or interconnect with the Company's EPS.

10. Except as the Commonwealth is precluded from pledging credit by Section 1 of Article 62 of the Amendments to the Constitution of the Commonwealth of Massachusetts, and except as the Commonwealth's cities and towns are precluded by Section 7 of Article 2 of the Amendments to the Massachusetts Constitution from pledging their credit without prior legislative authority, Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of, or are in any manner connected with, the performance of this Agreement by that party, except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the party seeking indemnification.

    Notwithstanding the foregoing, the Interconnecting Customer hereby waives recourse against the Company and its Affiliates for, and releases the Company and its Affiliates from, any and all liabilities arising from or attributable to incomplete, inaccurate, or otherwise faulty information supplied by the Interconnecting Customer.

11. If either party materially breaches any of its covenants hereunder, the other party may terminate this Agreement by serving notice of same on the other party to this Agreement.

12. This agreement shall be construed and governed in accordance with the laws of the Commonwealth of Massachusetts.

13. All amendments to this Agreement shall be in written form executed by both Parties.

14. The terms and conditions of this Agreement shall be binding on the successors and assigns of either Party.

15. This Agreement will remain in effect for a period of up to two years from its effective date.

16. This Agreement may be terminated under the following conditions.

a) The Parties agree in writing to terminate the Agreement.

b) The Interconnecting Customer may terminate this agreement at any time by providing written notice to Company.

c) The Company may terminate this Agreement if the Interconnecting Customer either: (1) has not paid the fee or, (2) has not responded to requests for further information in accordance with provisions in the Interconnection Tariff.

Interconnecting Customer:	Company:
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____

Exhibit E – Detailed Study Agreement

This Agreement, dated _____, is entered into by and between _____ ("Interconnecting Customer') and the Company, for the purpose of setting forth the terms, conditions and costs for conducting an Detailed Study relative to the Standard process as defined in Section 1 and outlined in Section 3 of the Interconnection Tariff. This Detailed Study pertains to Application Number _____ (the Interconnecting Customer's application ID number).

1. The Interconnecting Customer agrees to provide, in a timely and complete manner, all additional information and technical data necessary for the Company to conduct the Detailed Study not already provided in the Interconnecting Customer's application.

2. All work pertaining to the Detailed Study that is the subject of this Agreement will be approved and coordinated only through designated and authorized representatives of the Company and the Interconnecting Customer. Each party shall inform the other in writing of its designated and authorized representative, if different than what is in the application.

3. Where there are other Affected Systems identified by the Impact Studies, and no single Party is in a position to prepare a Detailed Study covering all Affected Systems, the Company will coordinate but not be responsible for the timing of any additional studies required to determine the System Modifications of the interconnection request on other Affected Systems. The Interconnecting Customer will be directly responsible to the Affected System operators for all costs of any additional studies required to evaluate the impact of the interconnection on the Affected Systems. The Company will not proceed with this Detailed Study without the Interconnecting Customer's consent to have the other studies conducted.

4. The Company will provide an estimate of the costs of the System Modifications required as a result of the Detailed Study.

5. The Detailed Study, together with any additional studies contemplated in Paragraph 3, shall form the basis for the Interconnecting Customer's proposed use of the Company EPS and shall be furthermore utilized in obtaining necessary third-party approvals of any required facilities and requested distribution services. The Interconnecting Customer understands and acknowledges that any use of study results by the Interconnecting Customer or its agents, whether in preliminary or final form, prior to NEPOOL 18.4 approval, should such approval be required, is completely at the Interconnecting Customer's risk.

6. The Detailed Study fee of $XX (except as noted below) is due in full prior to the execution of the Detailed Study. If the anticipated cost exceeds $25,000, the Interconnecting Customer is eligible for a payment plan, including a payment and construction schedule with milestones for both parties. At the request of the Interconnecting Customer, the Company will break the costs into phases in which the costs will be collected prior to Company expenditures for each phase of the study. The payment plan will be attached as an exhibit to the Detailed Study Agreement.

7. The Company will, in writing, advise the Interconnecting Customer in advance of any cost increase for work to be performed up to a total amount of increase of 10% only. All costs that exceed the 10% increase cap will be borne solely by the Company. Any such changes to the Company's costs for the work shall be subject to the Interconnecting Customer's consent. The Interconnecting Customer shall, within thirty (30) days of the Company's notice of increase, authorize such increase and make payment in the amount up to the 10% increase cap, or the Company will suspend the work and the corresponding agreement will terminate.

Final Accounting. Upon request by the Interconnecting Customer, the Company within ninety (90) business days after completion of the construction and installation of the System Modifications described in an attached exhibit to the Interconnection Service Agreement, shall provide Interconnecting Customer with a final accounting report of any difference between (a) Interconnecting Customer's cost responsibility under the Interconnection Service Agreement for the actual cost of such System Modifications, and (b) Interconnecting Customer's previous aggregate payments to the Company for such System Modifications. To the extent that Interconnecting Customer's cost responsibility in the Interconnection Service Agreement exceeds Interconnecting Customer's previous aggregate payments, the Company shall invoice Interconnecting Customer and Interconnecting Customer shall make payment to the Company within forty-five (45) days. To the extent that Interconnecting Customer's previous aggregate payments exceed Interconnecting Customer's cost responsibility under this agreement, the Company shall refund to Interconnecting Customer an amount equal to the difference within forty-five (45) days of the provision of such final accounting report.

8. In the event this Agreement is terminated for any reason, the Company shall refund to the Interconnecting Customer the portion of the above fee or any subsequent payment to the Company by the Interconnecting Customer that the Company did not expend or commit in performing its obligations under this Agreement. Payments for work performed shall not be subject to refunding except in accordance with Paragraph 9 below.

9. Nothing in this Agreement shall be interpreted to give the Interconnecting Customer immediate rights to wheel over or interconnect with the Company's EPS.

10. Except as the Commonwealth is precluded from pledging credit by Section of Article 62 of the Amendments to the Constitution of the Commonwealth of Massachusetts, and except as the Commonwealth's cities and towns are precluded by Section 7 of Article 2 of the Amendments to the Massachusetts Constitution from pledging their credit without prior legislative authority, Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of, or are in any manner connected with, the performance of this Agreement by that party, except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the party seeking indemnification.

    Notwithstanding the foregoing, the Interconnecting Customer hereby waives recourse against the Company and its Affiliates for, and releases the Company and its Affiliates from, any and all liabilities arising from or attributable to information supplied by the Interconnecting Customer.

11. This agreement shall be construed and governed in accordance with the laws of the Commonwealth of Massachusetts.

12. All amendments to this Agreement shall be in written form executed by both Parties.

13. The terms and conditions of this Agreement shall be binding on the successors and assigns of either Party.

14. This Agreement will remain in effect for a period of up to two years from its effective date.

15. This Agreement may be terminated under the following conditions.

    a) The Parties agree in writing to terminate the Agreement.

    b) The Interconnecting Customer may terminate this agreement at any time by providing written notice to Company.

c) The Company may terminate this Agreement if the Interconnecting Customer either: (1) has not paid the fee or, (2) has not responded to requests for further information in accordance with provisions in the Interconnection Tariff.

Interconnecting Customer:	Company:
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____

Exhibit F – Interconnection Service Agreement

1. **Parties**. This Interconnection Service Agreement ("Agreement"), dated as of _____ ("Effective Date") is entered into, by and between _____, a Massachusetts corporation with a principal place of business at _____ (hereinafter referred to as the "Company"), and _____, a _____ corporation with a principal place of business at _____ ("Interconnecting Customer"). (The Company and Interconnecting Customer are collectively referred to as the "Parties"). Terms used herein without definition shall have the meanings set forth in Section 1.2 of the Interconnection Tariff which is hereby incorporated by reference.

2. **Basic Understandings**. This Agreement provides for parallel operation of an Interconnecting Customer's Facility with the Company EPS to be installed and operated by the Interconnecting Customer at _____ (Facility name, address, and end-use customer account number, if applicable). A description of the Facility is located in Attachment 2. If the Interconnecting Customer is not the Customer, an Agreement between the Company and the Company's Retail Customer, attached as Exhibit G to the Interconnection Tariff, must be signed and included as an Attachment to this Agreement.

   The Interconnecting Customer has the right to operate its Facility in parallel with the Company EPS immediately upon successful completion of the protective relays testing as witnessed by the Company and receipt of written notice from the Company that interconnection with the Company EPS is authorized ("Authorization Date").

3. **Term**. This Agreement shall become effective as of the Effective Date. The Agreement shall continue in full force and effect until terminated pursuant to Section 4 of this Agreement.

4. **Termination**.

   4.1 This Agreement may be terminated under the following conditions.

   4.1.1 The Parties agree in writing to terminate the Agreement.

   4.1.2 The Interconnecting Customer may terminate this agreement at any time by providing sixty (60) days written notice to Company.

   4.1.3 The Company may terminate this Agreement upon the occurrence of an Event of Default by the Interconnecting Customer as provided in Section 18 of this Agreement.

   4.1.4 The Company may terminate this Agreement if the Interconnecting Customer either: (1) fails to energize the Facility within 12 months of the Authorization Date; or, (2) permanently abandons the Facility. Failure to operate the Facility for any consecutive 12 month period after the Authorization Date shall constitute permanent abandonment unless otherwise agreed to in writing between the Parties.

   4.1.5 The Company, upon 30 days notice, may terminate this Agreement if there are any changes in Department regulations or state law that have a material adverse effect on the Company's ability to perform its obligations under the terms of this Agreement.

   4.2 Survival of Obligations. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination. Sections 5, 10, 12, 13, and 25 as it relates to disputes pending or for wrongful termination of this Agreement shall survive the termination of this Agreement.

4.3 Related Agreements. Any agreement attached to and incorporated into this Agreement shall terminate concurrently with this Agreement unless the Parties have agreed otherwise in writing.

5. General Payment Terms. The Interconnecting Customer shall be responsible for the System Modification costs and payment terms identified in Attachment 4 of this Agreement and any approved cost increases pursuant to the terms of the Interconnection Tariff. If the system modifications exceed $25,000, Attachment 4 will include a payment and construction schedule for both parties.

5.1 Cost or Fee Adjustment Procedures. The Company will, in writing, advise the Interconnecting Customer in advance of any cost increase for work to be performed up to a total amount of increase of 10% only. All costs that exceed the 10% increase cap will be borne solely by the Company. Any such changes to the Company's costs for the work shall be subject to the Interconnecting Customer's consent. The Interconnecting Customer shall, within thirty (30) days of the Company's notice of increase, authorize such increase and make payment in the amount up to the 10% increase cap, or the Company will suspend the work and the corresponding agreement will terminate.

5.2 Final Accounting. Upon request by the Interconnecting Customer, the Company within ninety (90) business days after completion of the construction and installation of the System Modifications described in an attached exhibit to the Interconnection Service Agreement, shall provide Interconnecting Customer with a final accounting report of any difference between (a) Interconnecting Customer's cost responsibility under the Interconnection Service Agreement for the actual cost of such System Modifications, and (b) Interconnecting Customer's previous aggregate payments to the Company for such System Modifications. To the extent that Interconnecting Customer's cost responsibility in the Interconnection Service Agreement exceeds Interconnecting Customer's previous aggregate payments, the Company shall invoice Interconnecting Customer and Interconnecting Customer shall make payment to the Company within 45 days. To the extent that Interconnecting Customer's previous aggregate payments exceed Interconnecting Customer's cost responsibility under this agreement, the Company shall refund to Interconnecting Customer an amount equal to the difference within forty five (45) days of the provision of such final accounting report.

6. Operating Requirements

6.1 General Operating Requirements. Interconnecting Customer shall operate and maintain the Facility in accordance with the applicable manufacturer's recommended maintenance schedule, in compliance with all aspects of the Company's Interconnection Tariff. The Interconnecting Customer will continue to comply with all applicable laws and requirements after interconnection has occurred. In the event the Company has reason to believe that the Interconnecting Customer's installation may be the source of problems on the Company EPS, the Company has the right to install monitoring equipment at a mutually agreed upon location to determine the source of the problems. If the Facility is determined to be the source of the problems, the Company may require disconnection as outlined in Section 7.0 of the Interconnection Tariff. The cost of this testing will be borne by the Company unless the Company demonstrates that the problem or problems are caused by the Facility or if the test was performed at the request of the Interconnecting Customer.

6.2 No Adverse Effects; Non-interference. Company shall notify Interconnecting Customer if there is evidence that the operation of the Facility could cause disruption or deterioration of service to other Customers served from the same Company EPS or if operation of the Facility could cause damage to Company EPS or Affected Systems. The deterioration of service could be, but is not limited to, harmonic injection in excess of IEEE Standard 1547-2003, as well as voltage fluctuations caused by large step changes in loading at the Facility. Each Party will notify the other of any emergency or hazardous condition or occurrence with its equipment or facilities which could affect safe operation of the other Party's equipment or facilities. Each Party shall use reasonable efforts to provide the other Party with advance notice of such conditions.

The Company will operate the EPS in such a manner so as to not unreasonably interfere with the operation of the Facility. The Interconnecting Customer will protect itself from normal disturbances propagating

through the Company EPS, and such normal disturbances shall not constitute unreasonable interference unless the Company has deviated from Good Utility Practice. Examples of such disturbances could be, but are not limited to, single-phasing events, voltage sags from remote faults on the Company EPS, and outages on the Company EPS. If the Interconnecting Customer demonstrates that the Company EPS is adversely affecting the operation of the Facility and if the adverse effect is a result of a Company deviation from Good Utility Practice, the Company shall take appropriate action to eliminate the adverse effect.

6.3 Safe Operations and Maintenance. Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for, the facility or facilities that it now or hereafter may own unless otherwise specified in this Agreement. Each Party shall be responsible for the maintenance, repair and condition of its respective lines and appurtenances on their respective side of the PCC. The Company and the Interconnecting Customer shall each provide equipment on its respective side of the PCC that adequately protects the Company's EPS, personnel, and other persons from damage and injury.

6.4 Access. The Company shall have access to the disconnect switch of the Facility at all times.

6.4.1 Company and Interconnecting Customer Representatives. Each Party shall provide and update as necessary the telephone number that can be used at all times to allow either Party to report an emergency.

6.4.2 Company Right to Access Company-Owned Facilities and Equipment. If necessary for the purposes of the Interconnection Tariff and in the manner it describes, the Interconnecting Customer shall allow the Company access to the Company's equipment and the Company's facilities located on the Interconnecting Customer's or Customer's premises. To the extent that the Interconnecting Customer does not own all or any part of the property on which the Company is required to locate its equipment or facilities to serve the Interconnecting Customer under the Interconnection Tariff, the Interconnecting Customer shall secure and provide in favor of the Company the necessary rights to obtain access to such equipment or facilities, including easements if the circumstances so require.

6.4.3 Right to Review Information. The Company shall have the right to review and obtain copies of Interconnecting Customer's operations and maintenance records, logs, or other information such as, unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Interconnecting Customer's Facility or its interconnection with the Company EPS. This information will be treated as customer-confidential and only used for the purposes of meeting the requirements of Section 4.2.4 in the Interconnection Tariff.

7. Disconnection

7.1 Temporary Disconnection

7.1.1 Emergency Conditions. Company shall have the right to immediately and temporarily disconnect the Facility without prior notification in cases where, in the reasonable judgment of Company, continuance of such service to Interconnecting Customer is imminently likely to (i) endanger persons or damage property or (ii) cause a material adverse effect on the integrity or security of, or damage to, Company EPS or to the electric systems of others to which the Company EPS is directly connected. Company shall notify Interconnecting Customer promptly of the emergency condition. Interconnecting Customer shall notify Company promptly when it becomes aware of an emergency condition that affects the Facility that may reasonably be expected to affect the Company EPS. To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, or the expected effect on the operation of both Parties' facilities and operations, its anticipated duration and the necessary corrective action.

7.1.2 Routine Maintenance, Construction and Repair. Company shall have the right to disconnect the Facility from the Company EPS when necessary for routine maintenance, construction and repairs on the Company EPS. The Company shall provide the Interconnecting Customer with a minimum of seven calendar days planned outage notification consistent with the Company's planned outage

notification protocols. If the Interconnecting Customer requests disconnection by the Company at the PCC, the Interconnecting Customer will provide a minimum of seven days notice to the Company. Any additional notification requirements will be specified by mutual agreement in the Interconnection Service Agreement. Company shall make an effort to schedule such curtailment or temporary disconnection with Interconnecting Customer.

7.1.3 Forced Outages. During any forced outage, Company shall have the right to suspend interconnection service to effect immediate repairs on the Company EPS; provided, however, Company shall use reasonable efforts to provide the Interconnecting Customer with prior notice. Where circumstances do not permit such prior notice to Interconnecting Customer, Company may interrupt Interconnection Service and disconnect the Facility from the Company EPS without such notice.

7.1.4 Non-Emergency Adverse Operating Effects. The Company may disconnect the Facility if the Facility is having an adverse operating effect on the Company EPS or other customers that is not an emergency, and the Interconnecting Customer fails to correct such adverse operating effect after written notice has been provided and a maximum of 45 days to correct such adverse operating effect has elapsed.

7.1.5 Modification of the Facility. Company shall notify Interconnecting Customer if there is evidence of a material modification to the Facility and shall have the right to immediately suspend interconnection service in cases where such material modification has been implemented without prior written authorization from the Company.

7.1.6 Re-connection. Any curtailment, reduction or disconnection shall continue only for so long as reasonably necessary. The Interconnecting Customer and the Company shall cooperate with each other to restore the Facility and the Company EPS, respectively, to their normal operating state as soon as reasonably practicable following the cessation or remedy of the event that led to the temporary disconnection.

7.2 Permanent Disconnection. The Interconnecting Customer has the right to permanently disconnect at any time with 30 days written notice to the Company.

7.2.1 The Company may permanently disconnect the Facility upon termination of the Interconnection Service Agreement in accordance with the terms thereof.

8. Metering. Metering of the output from the Facility shall be conducted pursuant to the terms of the Interconnection Tariff.

9. Assignment. Except as provided herein, Interconnecting Customer shall not voluntarily assign its rights or obligations, in whole or in part, under this Agreement without Company's written consent. Any assignment Interconnecting Customer purports to make without Company's written consent shall not be valid. Company shall not unreasonably withhold or delay its consent to Interconnecting Customer's assignment of this Agreement. Notwithstanding the above, Company's consent will not be required for any assignment made by Interconnecting Customer to an Affiliate or as collateral security in connection with a financing transaction. In all events, the Interconnecting Customer will not be relieved of its obligations under this Agreement unless, and until the assignee assumes in writing all obligations of this Agreement and notifies the Company of such assumption.

10. Confidentiality. Company shall maintain confidentiality of all Interconnecting Customer confidential and proprietary information except as otherwise required by applicable laws and regulations, the Interconnection Tariff, or as approved by the Interconnecting Customer in the Simplified or Expedited/Standard Application form or otherwise.

11. Insurance Requirements.

11.1 General Liability.

11.1(a) In connection with Interconnecting Customer's performance of its duties and obligations under the Interconnection Service Agreement, Interconnecting Customer shall maintain, during the term of the Agreement, general liability insurance with a combined single limit of not less than:

i. Five million dollars ($5,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than five (5) MW.

ii. Two million dollars ($2,000,000) for each occurrence and five million dollars ($5,000,000) in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one (1) MW and less than or equal to five (5) MW;

iii. One million dollars ($1,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one hundred (100) kW and less than or equal to one (1) MW;

Five hundred thousand dollars ($500,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than ten (10) kW and less than or equal to one hundred (100) kW, except as provided below in subsection 11.1(b).

11.1(b) Pursuant to 220 CMR 18.03(2), no insurance is required for customers with facilities eligible for Class 1 Net Metering (facilites less than or equal to sixty (60). However, the Company recommends that the Interconnecting Customer obtain adequate insurance to cover potential liabilities.

11.1(c) Any combination of General Liability and Umbrella/Excess Liability policy limits can be used to satisfy the limit requirements stated above.

11.1(d) The general liability insurance required to be purchased in this Section 11 may be purchased for the direct benefit of the Company and shall respond to third party claims asserted against the Company (hereinafter known as "Owners Protective Liability"). Should this option be chosen, the requirement of Section 11.2(a) will not apply but the Owners Protective Liability policy will be purchased for the direct benefit of the Company and the Company will be designated as the primary and "Named Insured" under the policy.

11.1(e) The insurance hereunder is intended to provide coverage for the Company solely with respect to claims made by third parties against the Company.

11.1(f) In the event the Commonwealth of Massachusetts, or any other governmental subdivision thereof subject to the claims limits of the Massachusetts Tort Claims Act, G.L. c. 258 (hereinafter referred to as the "Governmental Entity") is the Interconnecting Customer, any insurance maintained by the Governmental Entity shall contain an endorsement that strictly prohibits the applicable insurance company from interposing the claims limits of G.L. c. 258 as a defense in either the adjustment of any claim, or in the defense of any lawsuit directly asserted against the insurer by the Company. Nothing herein is intended to constitute a waiver or indication of an intent to waive the protections of G.L. c. 258 by the Governmental Entity.

11.2 Insurer Requirements and Endorsements. All required insurance shall be carried by reputable insurers qualified to underwrite insurance in MA having a Best Rating of "A-". In addition, all insurance shall, (a) include Company as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that Company shall not incur liability to the insurance carrier for payment of premium for such insurance; and (c) provide for thirty (30) calendar days' written notice to Company prior to cancellation, termination, or material change of such –insurance; provided that to the extent the Interconnecting Customer is satisfying the requirements of subpart (d) of this paragraph by means of a presently existing insurance policy,

the Interconnecting Customer shall only be required to make good faith efforts to satisfy that requirement and will assume the responsibility for notifying the Company as required above.

If the requirement of clause (a) in the paragraph above prevents Interconnecting Customer from obtaining the insurance required without added cost or due to written refusal by the insurance carrier, then upon Interconnecting Customer's written Notice to Company, the requirements of clause (a) shall be waived.

11.3 Evidence of Insurance. Evidence of the insurance required shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by Interconnecting Customer.

The Interconnecting Customer is responsible for providing the Company with evidence of insurance in compliance with the Interconnection Tariff on an annual basis.

Prior to the Company commencing work on System Modifications and annually thereafter, the Interconnecting Customer shall have its insurer furnish to the Company certificates of insurance evidencing the insurance coverage required above. The Interconnecting Customer shall notify and send to the Company a certificate of insurance for any policy written on a "claims-made" basis. The Interconnecting Customer will maintain extended reporting coverage for three years on all policies written on a "claims-made" basis.

In the event that an Owners Protective Liability policy is provided, the original policy shall be provided to the Company.

11.4 Self Insurance. If Interconnecting Customer has a self-insurance program established in accordance with commercially acceptable risk management practices. Interconnecting Customer may comply with the following in lieu of the above requirements as reasonably approved by the Company:

- Interconnecting Customer shall provide to Company, at least thirty (30) calendar days prior to the Date of Initial Operation, evidence of such program to self-insure to a level of coverage equivalent to that required.

- If Interconnecting Customer ceases to self-insure to the standards required hereunder, or if Interconnecting Customer is unable to provide continuing evidence of Interconnecting Customer's financial ability to self-insure, Interconnecting Customer agrees to promptly obtain the coverage required under Section 11.1.

This section shall not allow any Governmental Entity to self-insure where the existence of a limitation on damages payable by a Government Entity imposed by the Massachusetts Tort Claims Act, G.L. c. 258, or similar law, could effectively limit recovery (by virtue of a cap on recovery) to an amount lower than that required in Section 11.1(a).

11.5 All insurance certificates, statements of self insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to the following:

[Company Name]

Attention: _____

_____

_____

_____ (specific requirements)

12. Indemnification. Except as the Commonwealth is precluded from pledging credit by Section 1 of Article 62 of the Amendments to the Constitution of the Commonwealth of Massachusetts, and except as the Commonwealth's cities and towns are precluded by Section 7 of Article 2 of the Amendments to the Massachusetts Constitution from pledging their credit without prior legislative authority, Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, Affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of or are in any manner connected with the performance of this Agreement by that Party except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the Party seeking indemnification.

13. Limitation of Liability. Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including court costs and reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage or liability actually incurred. In no event shall either Party be liable to the other Party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.

14. Amendments and Modifications. No amendment or modification of this Agreement shall be binding unless in writing and duly executed by both Parties.

15. Permits and Approvals. Interconnecting Customer shall obtain all environmental and other permits lawfully required by governmental authorities for the construction and operation of the Facility. Prior to the construction of System Modifications the interconnecting customer will notify the Company that it has initiated the permitting process. Prior to the commercial operation of the Facility the Customer will notify the Company that it has obtained all permits necessary. Upon request the Interconnecting Customer shall provide copies of one or more of the necessary permits to the Company.

16. Force Majeure. For purposes of this Agreement, "Force Majeure Event" means any event:

a. that is beyond the reasonable control of the affected Party; and

b. that the affected Party is unable to prevent or provide against by exercising commercially reasonable efforts, including the following events or circumstances, but only to the extent they satisfy the preceding requirements: acts of war or terrorism, public disorder, insurrection, or rebellion; floods, hurricanes, earthquakes, lighting, storms, and other natural calamities; explosions or fire; strikes, work stoppages, or labor disputes; embargoes; and sabotage. 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 will 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 will be entitled to 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 reasonable efforts. The affected Party will use reasonable efforts to resume its performance as soon as possible. In no event will the unavailability or inability to obtain funds constitute a Force Majeure Event.

17. Notices.

17.1 Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given on the date actually delivered in person or five (5) business days after being sent by certified mail, e-mail or fax with confirmation of receipt and original follow-up by mail, or any nationally-recognized delivery service with proof of delivery, postage prepaid, to the person specified below:

If to Company: Name _____
Attention: _____
_____
_____
_____
Phone: _____
FAX: _____

If to Interconnecting Customer: Name: _____
Address: _____
City: _____
Phone: _____
FAX: _____

17.2 A Party may change its address for Notices at any time by providing the other Party Notice of the change in accordance with Section 16.1.

17.3 The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's Notice to the other.

18. Default and Remedies

18.1 Defaults. Any one of the following shall constitute "An Event of Default."

(i) One of the Parties shall fail to pay any undisputed bill for charges incurred under this Agreement or other amounts which one Party owes the other Party as and when due, any such failure shall continue for a period of thirty (30) days after written notice of nonpayment from the affected Party to the defaulting Party, or

(ii) One of the Parties fails to comply with any other provision of this Agreement or breaches any representation or warranty in any material respect and fails to cure or remedy that default or breach within sixty (60) days after notice and written demand by the affected Party to cure the same or such longer period reasonably required to cure (not to exceed an additional 90 days unless otherwise mutually agreed upon), provided that the defaulting Party diligently continues to cure until such failure is fully cured.

18.2 Remedies. Upon the occurrence of an Event of Default, the affected Party may at its option, in addition to any remedies available under any other provision herein, do any, or any combination, as appropriate, of the following:

a. Continue to perform and enforce this Agreement;

b. Recover damages from the defaulting Party except as limited by this Agreement;

c. By written notice to the defaulting Party terminate this Agreement;

d. Pursue any other remedies it may have under this Agreement or under applicable law or in equity.

19. Entire Agreement. This Agreement, including any attachments or appendices, is entered into pursuant to the Interconnection Tariff. Together the Agreement and the Interconnection Tariff represent the entire understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each Party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the Company's Interconnection Tariff.

20. Supercedence. In the event of a conflict between this Agreement, the Interconnection Tariff, or the terms of any other tariff, Exhibit or Attachment incorporated by reference, the terms of the Interconnection Tariff, as the same may be amended from time to time, shall control. In the event that the Company files a revised tariff related to interconnection for Department approval after the effective date of this Agreement, the Company shall, not later than the date of such filing, notify the signatories of this Agreement and provide them a copy of said filing.

21. Governing Law. This Agreement shall be interpreted, governed, and construed under the laws of the Commonwealth of Massachusetts without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.

22. Non-waiver. None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

23. Counterparts. This Agreement may be signed in counterparts.

24. No Third Party Beneficiaries. This Agreement is made solely for the benefit of the Parties hereto. Nothing in the Agreement shall be construed to create any rights in or duty to, or standard of care with respect to, or any liability to, any person not a party to this Agreement.

25. Dispute Resolution. Unless otherwise agreed by the Parties, all disputes arising under this Agreement shall be resolved pursuant to the Dispute Resolution Process set forth in the Interconnection Tariff.

26. Severability. If any clause, provision, or section of this Agreement is ruled invalid by any court of competent jurisdiction, the invalidity of such clause, provision, or section, shall not affect any of the remaining provisions herein.

27. Signatures. IN WITNESS WHEREOF, the Parties hereto have caused two (2) originals of this Agreement to be executed under seal by their duly authorized representatives.

	Interconnecting Customer		Company
By:	SAMPLE	By:	SAMPLE
Name:		Name:	
Title:		Title:	

The following attachments would be developed and included as appropriate for each specific Interconnection Service Agreement:

Attachment 1: Description of Facilities, including demarcation of Point of Common Coupling

Attachment 2: Description of System Modifications

Attachment 3: Costs of System Modifications and Payment Terms

Attachment 4: Special Operating Requirements, if any

Attachment 5: Agreement between the Company and the Company's Retail Customer (to be signed by the Company's retail customer where DG installation and interconnection will be placed, when retail customer is not the owner and/or operator of the distributed generation facility -- see Exhibit G of the Interconnection Tariff)

Exhibit G – Agreement between the Company and the Company's Retail Customer

(Note: this Agreement is to be signed by the Company's retail customer where the distributed generation installation and interconnection will be placed, when the retail customer is not the owner and/or operator of the distributed generation facility.)

Parties. This Agreement between the Company and the Company's Retail Customer ("Agreement"), dated as of _____ ("Effective Date" of this Agreement) is entered into, by and between _____, a Massachusetts corporation with a principal place of business at _____ (hereinafter referred to as the "Company"), and _____, a _____ corporation with a principal place of business at _____ ("Customer"). (The Company and Customer are collectively referred to as the "Parties"). Terms used herein without definition shall have the meanings set forth in Section 1.2 of the Interconnection Tariff, which is hereby incorporated by reference.

1. SCOPE, PURPOSE, AND RELATED AGREEMENTS

   This Agreement, in conjunction with the Interconnection Service Agreement identified in Section 2.2 , allows the Interconnecting Customer (as identified in Section 2.3) to utilize Customer's electrical facilities to interconnect and operate the Facility in Parallel with Company's EPS. The purpose of the Facility is to serve the Customer's electrical loads at the location identified in Section 2.1

2. SUMMARY AND DESCRIPTION OF THE PARTIES AND LOCATION OF GENERATING FACILITY

   2.1 The name and address used by Company to locate the Customer or electric service account where the Facility interconnects with Company's EPS is:

   _____
   Attention:
   Address:
   City:
   Phone
   FAX:
   Company Account Number:

   2.2 The Facility shall be Interconnected with the Company's EPS pursuant to an Interconnection Service Agreement between Company and Interconnecting Customer, its successors or assigns ("Interconnecting Customer") dated _____ ("Interconnection Service Agreement").

   2.3 Interconnecting Customer's contact information:

   _____
   Attention:
   Address:
   City:
   Phone
   FAX:

3. CUSTOMER ACKNOWLEDGMENT AND OBLIGATIONS

   3.1 Customer acknowledges that it has authorized the Facility to be installed and operated by Interconnecting Customer in accordance with Company's Interconnection Tariff in or adjacent to Customer's premises. Such Facility shall be used to serve all or a portion of Customer's electrical loads associated with the electric service provided by Company at the location identified in

Section 2.1 above. Customer shall be solely responsible for the terms of any agreement between it and Interconnecting Customer.

3.2 Customer shall be solely responsible for any charges incurred under Company's electric service tariffs, and any other regulations and laws governing the provision of electric services. Customer acknowledges that it has been made aware of the charges and conditions related to the operation of the Facility and that the performance or lack of performance of the Facility may affect the rates and charges billed by Company for the electric power delivered to Customer. Copies of such tariffs are available by request to Company or on the Company's web site.

3.3 Any amount to be paid, or refunded to, Company for the services received by Customer as a result of the Interconnecting Customer failing to operate the Facility in accordance with the terms of the representations and warranties made under the Interconnection Service Agreement shall be paid to Company by the Customer in accordance with Company's electric tariffs.

3.4 Customer shall provide access as necessary to the Customer's premises for Company personnel, contractors or agents to perform Company's duties under the Interconnection Tariff. The Company shall have access to the disconnect switch of the Facility at all times.

4. TERMS AND TERMINATION

4.1 This Agreement shall become effective as of the date referenced in the preamble. The Agreement shall continue in full force and effect until the earliest date that one of the following events occurs:

(a) The Parties agree in writing to terminate the Agreement.

(b) At 12:01 A.M. on the day following the date the Customer's electric service account through which the Generating Facility is interconnected to Company's EPS is closed or terminated.

(c) At 12:01 A.M. on the 31st day following the date the Interconnection Service Agreement is terminated.

(d) At 12:01 A.M. on the 61st day after Company provides written Notice pursuant to Section 6 below to the Customer that Customer is not in compliance with the terms of this Agreement.

5. LIMITATION OF LIABILITY

5.1 Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including court costs and reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage or liability actually incurred. In no event shall either Party be liable to the other Party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.

5.2 Company shall not be liable to Customer in any manner, whether in tort or contract or under any other theory, for loss or damages of any kind sustained by Customer resulting from existence of, operation of, or lack of operation of the Facility, or termination of the Interconnection Service Agreement, provided such termination is consistent with the terms of the Interconnection Service Agreement, except to the extent such loss or damage is caused by the negligence or willful misconduct of the Company.

6. NOTICES

6.1 Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given on the date actually delivered in person or five (5)

business days after being sent by certified mail, e-mail or fax with confirmation of receipt and original follow-up by mail, or any nationally-recognized delivery service with proof of delivery, postage prepaid, to the person specified below:

If to Company: _____

Attention:
Address:
Phone:
FAX:

If to Customer: _____

Attention:
Address:
City:
Phone:
Fax:

6.2 A Party may change its address for Notices at any time by providing the other Party Notice of the change in accordance with Section 6.1.

6.3 The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's Notice to the other.

7. RELEASE OF DATA

Company shall maintain confidentiality of all Customer confidential and proprietary information except as otherwise required by applicable laws and regulations, the Interconnection Tariff, or as approved in writing by the Customer.

8. ASSIGNMENT

Except as provided herein, Customer shall not voluntarily assign its rights or obligations, in whole or in part, under this Agreement without Company's written consent. Any assignment Customer purports to make without Company's written consent shall not be valid. Company shall not unreasonably withhold or delay its consent to Customer's assignment of this Agreement. Notwithstanding the above, Company's consent will not be required for any assignment made by Customer to an Affiliate or as collateral security in connection with a financing transaction. In all events, the Customer will not be relieved of its obligations under this Agreement unless, and until the assignee assumes in writing all obligations of this Agreement and notifies the Company of such assumption.

9. NON-WAIVER

None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

10. GOVERNING LAW, JURISDICTION OF COMMISSION, INCLUSION OF COMPANY'S TARIFFS, DEFINED TERMS

10.1 This Agreement shall be interpreted, governed, and construed under the laws of the Commonwealth of Massachusetts without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.

10.2 The interconnection and services provided under this Agreement shall at all times be subject to terms and conditions set forth in the tariffs applicable to the electric service provided by Company. Copies of such tariffs are available at the Company's web site or by request to Company and are incorporated into this Agreement by this reference.

10.3 Notwithstanding any other provisions of this Agreement, Company shall have the right to unilaterally file with the Department, pursuant to the Department's rules and regulations, an application for change in tariffs, rates, charges, classification, service or any agreement relating thereto.

10.4 When initially capitalized, whether in the singular or in the plural, the terms used herein shall have the meanings assigned to them either in this Agreement or in the Interconnection Tariff.

11. AMENDMENTS AND MODIFICATION

This Agreement can only be amended or modified by a written agreement signed by both Parties.

12. ENTIRE AGREEMENT

This Agreement, including any attachments or appendices, is entered into pursuant to the Interconnection Service Agreement and the Interconnection Tariff. Together this Agreement, the Interconnection Service Agreement, and the Interconnection Tariff represent the entire understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the Company's Interconnection Tariff.

13. INDEMNIFICATION

Except as the Commonwealth is precluded from pledging credit by Section 1 of Article 62 of the Amendments to the Constitution of the Commonwealth of Massachusetts, and except as the Commonwealth's cities and towns are precluded by Section 7 of Article 2 of the Amendments to the Massachusetts Constitution from pledging their credit without prior legislative authority, Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, Affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of or are in any manner connected with the performance of this Agreement by that Party except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the Party seeking indemnification.

14. SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed under seal by their duly authorized representatives.

Customer		Company	
By:	_____	By:	_____
Name:	_____	Name:	_____
Title:	_____	Title:	_____

Schedule Z – Additional Information Required for Net Metering Service

Please fill out the form completely.

A) Is the Host Customer applying for net metering service an electric company, generation company, aggregator, supplier, energy marketer, or energy broker, as those terms are used in M.G.L. c. 164, §§ 1 and 1F and 220 C.M.R. 11.00?

____ No
____ Yes (you are not eligible for net metering service)

NOTE: Definitions are:

"Electric company" means a corporation organized under the laws of the commonwealth for the purpose of making by means of water power, steam power or otherwise and for selling, transmitting, distributing, transmitting and selling, or distributing and selling, electricity within the commonwealth, or authorized by special act so to do, even though subsequently authorized to make or sell gas; provided, however, that electric company shall not mean an alternative energy producer; provided further, that a distribution company shall not include an entity which owns or operates a plant or equipment used to produce electricity, steam and chilled water, or an affiliate engaged solely in the provision of such electricity, steam and chilled water, where the electricity produced by such entity or its affiliate is primarily for the benefit of hospitals and nonprofit educational institutions, and where such plant or equipment was in operation before January 1, 1986; and provided further, that electric company shall not mean a corporation only transmitting and selling, or only transmitting, electricity unless such corporation is affiliated with an electric company organized under the laws of the commonwealth for the purpose of distributing and selling, or distributing only, electricity within the commonwealth. G.L. c. 164, § 1.

"Generation company" means a company engaged in the business of producing, manufacturing or generating electricity or related services or products, including but not limited to, renewable energy generation attributes for retail sale to the public. G.L. c. 164, § 1.

"Aggregator" means an entity which groups together electricity customers for retail sale purposes, except for public entities, quasi-public entities or authorities, or subsidiary organizations thereof, established under the laws of the commonwealth. G.L. c. 164, § 1.

"Supplier" means any supplier of generation service to retail customers, including power marketers, brokers and marketing affiliates of distribution companies, except that no electric company shall be considered a supplier. G.L. c. 164, § 1.

For the terms "energy marketer" and "energy broker," please use the definition for "Electricity Broker," which means an entity, including but not limited to an Aggregator, that facilitates or otherwise arranges for the purchase and sale of electricity and related services to

Retail Customers, but does not sell electricity. Public Aggregators shall not be considered Electricity Brokers. 220 C.M.R. 11.02.

B) If applying for Net Metering as an Agricultural Net Metering Facility, please answer the following questions:

1) Is the Agricultural Net Metering Facility operated as part of an agricultural business?
____ Yes
____ No (the facility is not eligible for Net Metering as an Agricultural Net Metering Facility)
2) Has the Commissioner of the Department of Agriculture recognized the business as an agricultural business?
____ Yes
____ No
3) Is the Agricultural Net Metering Facility located on land owned or controlled by the agricultural business mentioned in Item B.1 above?
____ Yes
____ No (the facility is not eligible for Net Metering as an Agricultural Net Metering Facility)
4) Is the energy from the Agricultural Net Metering Facility used to provide electricity to metered accounts of the agricultural business mentioned in Item B.1 above?
____ Yes
____ No (the facility is not eligible for Net Metering as an Agricultural Net Metering Facility)

C) If applying for neighborhood net metering, please answer the following questions:

1) Are all participants served by the same distribution company? ____Yes ____No
2) Are all participants served by the same ISO-NE load zone? ____Yes ____No
3) Do all participants reside in the same municipality? ____Yes ____No

NOTE: If any of the answers to the questions in Item C are no, then the facility is ineligible for neighborhood net metering unless granted an exception by the Department of Public Utilities under 220 C.M.R. 18.09(6).

D) Please indicate how the Host Customer will report to the Company the amount of electricity generated by the net metering facility. The information is due twice each year: (1) by January 31 for the prior year's generation; (2) by September 30 for the year-to-date generation:

_____ Provide the Company access to their ISO-NE GIS account
_____ Provide the Company access to their metering or inverter data
_____ Provide the Company with a report in writing of the generation by January 31 and again on September 30 each year

E) For any Billing Period in which the Host Customer earns Net Metering Credits, please indicate how the Distribution Company will apply them:

_____ Apply all of the Net Metering Credits to the account of the Host Customer (Skip Items F and G)
_____ Allocate all the Net Metering Credits to the accounts of eligible Customers (Class I and II Net Metering Facilities skip Item F)
_____ Both apply a portion of the Net Metering Credits to the Host Customer's account and allocate a portion to the accounts of eligible Customers (Class I and II Net Metering Facilities skip Item F)

F) If the Host Customer has a Class III Net Metering Facility, please indicate below the range that best represents the number of eligible Customer accounts to which Net Metering Credits would be allocated. Alternatively, please complete Item G. This information will allow the Company to exercise its option to purchase Net Metering Credits from the Host Customer rather than allocating such credits.

The Company will notify the Host Customer within 30 days of the filing of Schedule Z whether it will allocate or purchase Net Metering Credits. If the Company elects to purchase Net Metering Credits, the Company will render payment by issuing a check to the Host Customer each Billing Period, unless otherwise agreed in writing by the Host Customer and Company. If the Company elects to allocate Net Metering Credits, the Host Customer must complete Item G and submit the revised Schedule Z to the Company.

_____ Allocate Net Metering Credits to fewer than 50 eligible Customer accounts (Skip Item G)
_____ Allocate Net Metering Credits to 100 or fewer eligible Customer accounts (Skip Item G)
_____ Allocate Net Metering Credits to more than 100 eligible Customer accounts (Skip Item G)

G) Please state the total percentage of Net Metering Credits to be allocated.

____% Amount of the Net Metering Credit being allocated. The total amount of Net Metering Credits being allocated shall not exceed 100 %. Any remaining percentage will be applied to the Host Customer's account.

Please identify each eligible Customer account to which the Host Customer is allocating Net Metering Credits by providing the following information (attach additional pages as needed):

NOTE: If a designated Customer account closes, the allocated percentage will revert to the Host Customer's account, unless otherwise mutually agreed in writing by the Host Customer and the Company.

Name:
Billing Address:
Account number:
Amount of the Net Metering Credit: ____%

Name:
Billing Address:
Account number:
Amount of the Net Metering Credit: ____%

Name:
Billing Address:
Account number:
Amount of the Net Metering Credit: ____%

Name:
Billing Address:
Account number:
Amount of the Net Metering Credit: ____%

Name:
Billing Address:
Account number:
Amount of the Net Metering Credit: ____%

Name:
Billing Address:
Account number:
Amount of the Net Metering Credit: ____%

Name:
Billing Address:
Account number:
Amount of the Net Metering Credit: ____%

Name:
Billing Address:
Account number:
Amount of the Net Metering Credit: ____%

Name:
Billing Address:
Account number:
Amount of the Net Metering Credit: ____%

Name:
Billing Address:
Account number:
Amount of the Net Metering Credit: ____%

H) The Company may elect to seek to obtain capacity payments from ISO-NE for the electricity generated by Class II and III Net Metering Facilities. The Company will notify the Host Customer within 30 days of the filing of Schedule Z whether it will assert title to the right to seek those capacity payments. If the Company elects to assert title to those capacity payments, the Company will include any capacity payments received from ISO-NE in the Company's annual Net Metering Recovery Surcharge reconciliation.

I) The terms of this Schedule Z shall remain in effect unless and until the Host Customer executes a revised Schedule Z and submits it to the Company. Unless otherwise required herein or mutually agreed to in writing by the Host Customer and the Company, a revised Schedule Z shall not be submitted more than twice in any given calendar year.

J) A signature on the application shall constitute certification that (1) the Host Customer has read the application and knows its contents; (2) the contents are true as stated, to the best knowledge and belief of the Host Customer; and (3) the Host Customer possesses full power and authority to sign the application.

_____
Host Customer

_____
Date