



# The Commonwealth of Massachusetts

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## DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 11-75-E

March 13, 2013

Investigation by the Department of Public Utilities on its own Motion into Distributed Generation Interconnection.

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ORDER ON THE DISTRIBUTED GENERATION WORKING GROUP'S REDLINED  
TARIFF AND NON-TARIFF RECOMMENDATIONS

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## I. INTRODUCTION<sup>1</sup>

On September 14, 2012, the distributed generation working group<sup>2</sup> (“Working Group”) issued its final report, Proposed Changes to the Uniform Standards for Interconnecting Distributed Generation in Massachusetts (“Report”), and submitted it to the Department of Public Utilities (“Department”). The Report contains many recommendations for changes in the Uniform Standards for Interconnection Standards for Distributed Generation (“Tariff”) and additional recommendations that do not fall squarely within the Tariff. On October 24, 2012, the Department held a technical conference on the Report. On October 31, 2012, the Working Group filed with the Department a redlined, strikeout version of the Tariff identifying the recommended changes (“Redlined Tariff”).<sup>3</sup> On November 26, 2012, the Department requested comments on both the Report and the Redlined Tariff. On December 13, 2012 the Department requested reply comments. On December 7, 2012, the following entities submitted comments: the Attorney General of the Commonwealth of Massachusetts (“Attorney General”); Cape Air; the Interstate Renewable Energy Council, Inc. (“IREC”); the

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<sup>1</sup> For a more complete procedural history, see the Department’s Order in D.P.U. 11-75-D (2012).

<sup>2</sup> On January 23, 2012, the Department convened the Working Group and tasked it with (1) determining what issues should be resolved regarding the current distributed generation interconnection standards and application procedure to ensure an efficient and effective interconnection process; and (2) deliberating with the goal, to the extent possible, of reaching a consensus on a resolution of such issues for Department review and approval. D.P.U. 11-75-A at 4, 7 (2012). The Working Group members are listed in Appendix A of the Report (Report at 34).

<sup>3</sup> The Department has reformatted the Redlined Tariff and made corrections for typographical errors; this modified Redlined Tariff (“Formatted Redlined Tariff”) is attached to this Order as Appendix A.

Solar Energy Industries Association (“SEIA”); and the Working Group. NSTAR Electric Company, Western Massachusetts Electric Company, Massachusetts Electric Company and Nantucket Electric Company each d/b/a National Grid, and Fitchburg Gas and Electric Light Company d/b/a Unitil (collectively “Distribution Companies”) submitted joint comments. On December 28, 2012, the Distribution Companies, IREC, and SEIA submitted reply comments.

## II. WORKING GROUP RECOMMENDATIONS

The Report contains many recommendations for changes in the Tariff, as well as non-Tariff recommendations. The Working Group included some of these recommendations in a list of transition tasks,<sup>4</sup> and made additional recommendations throughout the Report. We discuss the non-Tariff issues and Tariff issues separately.

### A. Non-Tariff Recommendations

The Working Group recommends that it continue to address the following non-Tariff transition tasks: (1) create a technical standards manual and technical standards review group;<sup>5</sup> (2) update the monthly reporting of tracking data to the Department of Energy Resources (“DOER”); (3) update distributed generation (“DG”) information tracking in general; (4) consider a central administrator for information tracking and an online interconnection application; (5) review insurance and tax issues; (6) develop ongoing trainings, including online training modules; (7) consider the use of non-distribution company engineers

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<sup>4</sup> The list of transition tasks includes both Tariff and non-Tariff recommendations (Report at 33).

<sup>5</sup> A full description of the technical standards manual and technical standards review group is on page 30 of the Report.

during the application and construction processes; (8) consider accessible geographic mapping of feeders, circuits, and substations and their associated DG activity; (9) create a group interconnection study process; and (10) standardize communications between each distribution company and customers (Report at 29-30, 32-33). At the technical conference and in a cover letter accompanying the Redlined Tariff, the Working Group requested that the Department approve these non-Tariff recommendations.

B. Redlined Tariff

Consistent with the Department's directives, the Working Group revised the existing Tariff (Report at 5, citing Distributed Generation Interconnection, D.P.U. 11-75-A at 4 (2012)). The structure of the Redlined Tariff is similar to the Tariff, including the framework of simplified, expedited, and standard tracks for the review of interconnection applications. While maintaining the same structure, however, the Working Group recommends the following changes to the substance of the Tariff: (1) creation of an ombudsperson; (2) changes in interconnection timelines; (3) changes in the technical screens; (4) changes to the interconnection fees; (5) removal of certain unresponsive interconnection applications; and (6) creation of an enforcement mechanism to encourage distribution company compliance with interconnection timelines (Report at 10-26, 31-32). We discuss each of the Working Group's recommended Tariff changes below.

1. Ombudsperson

The Working Group recommends that the Department alter the Alternative Dispute Resolution ("ADR") process, as set out in the Tariff, to create an ombudsperson role (Report

at 31). The Working Group recommends that the ombudsperson hear complaints that cannot be resolved during the good faith negotiations process, step 9.1 of ADR (Report at 31). The Working Group proposes that decisions of the ombudsperson can be appealed to the Department (Report at 31). The Working Group recommends that the ombudsperson be a member of Department staff with technical expertise (Report at 31). Alternatively, the Working Group suggests that the Department explore the possibility of having the ombudsperson not be a Department employee (Report at 31).

## 2. Timelines

The Redlined Tariff establishes timelines for various interconnection tasks in each interconnection track: simplified, expedited, and standard. For each interconnection track, the Redlined Tariff establishes that meeting the timelines is a regulatory obligation for both the distribution company and the applicant (Redlined Tariff at § 3.5). The Redlined Tariff also states that: (1) when a distribution company asks the applicant for supplemental information, all applicable time keeping is suspended until such time as the company receives the requested information from the applicant; (2) if an applicant requests additional time at or near an interconnection milestone, the distribution company will get additional time to achieve that milestone; (3) if an applicant requests a significant project change -- as determined by the distribution company -- the applicant will be required to submit a new interconnection application; and (4) at any time, an applicant may request a review of time-frame compliance by the distribution company, and the distribution company must respond within ten business days (Redlined Tariff at §§ 3.5, 3.8).

a. Simplified Track

The only change the Working Group proposes to the simplified track timelines is to allow the Distribution Companies five additional days to review projects that fail one of the screens (Report at 16). Specifically, the Working Group proposes an extension of the review period for projects that fail a service type screen (“Screen 5”), which reviews the type of electrical service and associated protections provided to the interconnecting customer (Report at 16; Redlined Tariff at § 3.10).

b. Expedited Track

The only change the Working Group proposes to the expedited track timelines is the addition of a section on witness tests<sup>6</sup> (Report at 16, 20). The Working Group proposes that the witness test language be identical to the language included in the simplified track in section 3.1 of the Tariff.

c. Standard Track

The Working Group proposes to change the standard track timelines such that the Distribution Companies be allowed additional time to review complex projects and projects proposing to interconnect in challenging places (collectively “Complex Projects”) (Report at 16). Such projects typically need extensive system upgrades, which require more study time than is currently allowed under the standard track timelines (Report at 16). The proposed timelines for these projects are summarized in Table 1 below. The Working Group notes that the distribution company will inform applicants within 20 days after commencement of the

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<sup>6</sup> A witness test is the distribution company’s right to witness the commissioning testing, and/or the customer’s communication system (Redlined Tariff at § 1.2).



impact study if extensions are needed because the application is for a Complex Project (Report at 16).

Table 1: Summary of Timelines for Complex Standard Track Projects

<b>Criteria</b>	<b>Timeline Activity</b>	<b>Timeline (Business Days)</b>
Substation modifications are required	Impact Study	75 days in 2013 and 2014; 70 days in 2015; 60 days in 2016 and thereafter
System modifications > \$200,000 according to Impact Study	Detailed Study	75 days in 2013 and 2014; 70 days in 2015; 60 days in 2016 and thereafter
Electric Power System upgrades > \$1 million	Impact Study, Detailed Study	Timelines by mutual agreement

(Report at 16; Redlined Tariff at § 3.5)

In addition to the above proposed changes to the standard track timelines, the Working Group also proposes to revise the witness test language contained in section 3.3.i of the Tariff, in order to clarify the process and the responsibilities of both the interconnection customer and the distribution company (Report at 20; Redlined Tariff at § 3.3.i).

d. Construction Timelines

The Working Group recommends that the interconnection process include construction timelines, and that compliance with construction timelines be tracked (Report at 17).

Furthermore, the Working Group asserts that the construction milestones should be missed only for reasonable cause (Report at 17). The Working Group proposes protocols for situations in which either the distribution company or the customer misses a milestone (Report at 17; Redlined Tariff at §§ 3.1, 3.1.1).

### 3. Force Majeure

The Working Group proposes a revision to the definition of force majeure (Report at 19; Redlined Tariff at § 3.7). The Working Group explicitly states that both volume of applications and changes in local, state, or federal laws<sup>7</sup> shall not constitute force majeure events (Report at 19; Redlined Tariff at § 3.7.b). The Working Group also recommends deleting the language about complying with timelines only under “normal work conditions” in the Tariff (Report at 19; Redlined Tariff at §§ 3.0, 3.45, 3.10).

### 4. Pre-Application Report

For all projects larger than 500 kilowatts (“kW”), the Working Group recommends that each distribution company provide the applicant with a mandatory pre-application report (Report at 27; Redlined Tariff at §§ 3.0, 3.2).<sup>8</sup> The Working Group notes that the pre-application report would be available at the applicant’s option for projects less than 500 kW (Report at 27; Redlined Tariff at § 3.2).<sup>9</sup> According to the Working Group, the purpose of the pre-application report is to provide applicants with basic information about the electric distribution system at the proposed location (Report at 27). The pre-application report

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<sup>7</sup> The Working Group does note, however, that changes in law may impact timelines, and therefore those changes may be considered a “mitigating factor” (Report at 19).

<sup>8</sup> Applicants with projects over 500 kW would not be able to submit an interconnection application until a pre-application report has been received from the distribution company (Report at 27).

<sup>9</sup> We note that the Report suggests that the pre-application report is to be made available by the distribution company at the applicant’s option but the Redlined Tariff language is not clear on this point (Report at 27; Redlined Tariff at § 3.2). We direct the Working Group to clarify this point in a future revision of the Tariff. See Section V of this Order, below.

would therefore provide applicants with both (a) a sense as to whether the proposed location is practical, and (b) the ability to prioritize multiple potential locations if the applicant has requested multiple pre-application reports (Report at 27). The Working Group notes, however, that the pre-application reports would be non-binding and would be merely a snapshot in time (Report at 27; Redlined Tariff at § 3.2). The Working Group contends that pre-application reports will reduce the number of speculative interconnection applications, thereby increasing the likelihood of viable interconnection applications (Report at 27).

According to the Working Group and the Redlined Tariff, the Distribution Companies will have ten business days from the date of a request by an interconnecting customer to prepare pre-application reports (Report at 27; Redlined Tariff at § 3.2). The pre-application report, as proposed by the Working Group, will include the following information: (1) circuit voltage; (2) circuit name; (3) voltage at proposed location; (4) single- or three-phase service availability; (5) distance from three-phase service if only single-phase service is available; (6) aggregate installed capacity of DG on a particular circuit; (7) aggregate pending capacity (submitted interconnection applications that are not yet interconnected) of DG on a particular circuit; (8) whether the site is served by a radial network, spot network, or a radial distribution system; (9) description of available feeders within 0.25 miles of the proposed location; and (10) other potential constraints or critical items that may jeopardize the project (Report at 28; Redlined Tariff at § 3.2).

## 5. Screens

The Tariff includes many screens to determine through what track -- simplified, expedited or standard -- an interconnection application will proceed. The Working Group proposes to modify and add screens. (Report at 10-15; Redlined Tariff at §§ 3.0-3.4, Figure 1, Figure 2).

### a. Simplified Track Eligibility

The Working Group proposes two changes to simplified track eligibility: (1) increase the allowable capacity on single-phase service from ten kW to 15 kW; and (2) allow projects that fail screen five -- which compares the capacity of the DG to the attributes of the feeder -- to stay in the simplified track, but give the distribution company an additional five days to review said projects (Report at 10; Redlined Tariff at § 3.1). Both of the proposed changes would result in many projects proceeding through the simplified track that otherwise would take longer to interconnect (Report at 10).

### b. Simplified Track and Networks

The Working Group notes that the Distribution Companies are studying area networks in order to develop appropriate and safe screens (Report at 10).<sup>10</sup> In the meantime, the Working Group proposes to apply the proposed spot network screens to area networks<sup>11</sup> so

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<sup>10</sup> We direct the Distribution Companies to report to the technical standards review group, by July 1<sup>st</sup> of each year, the progress of these studies.

<sup>11</sup> Networks refer to electrical service 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 (Redlined Tariff at § 3.1.1)

long as (a) the applicant has interval meter data for an appropriate time period, and (b) there is minimum load data available to the distribution company (Report at 10; Redlined Tariff at § 3.1.1).<sup>12</sup> Furthermore, the Working Group proposes to remove the requirement that the DG system be less than or equal to 15 kW, so long as its installed capacity is less than or equal to 1/15<sup>th</sup> of the customer's minimum load (Report at 10; Redlined Tariff at §§ 3.0, 3.1.1).

c. Simplified and Expedited Track Screen: Percentage of Annual Peak Load ("Screen Two")

The Working Group recommends a change to Screen Two (Report at 10). Screen Two determines if the aggregate generating facility capacity is less than 15 percent of the annual peak load of the feeder, circuit, or line segment if the line segment data is available. The Working Group proposes that the percentage in Screen Two be increased from 7.5 percent to 15 percent, so that the screen reads: "[i]s the aggregate generating Facility capacity less than 15 % of feeder/circuit annual peak load and, if available, line segment?" (Report at 10; Redlined Tariff at §§ 3.1, 3.3). The purpose of this change is to allow more interconnection applications to proceed through the Simplified and Expedited tracks (Report at 10)

d. Expedited Track Screens

In order to allow more projects to proceed through the expedited track -- as opposed to the standard track -- the Working Group proposes several changes to the expedited track

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<sup>12</sup> We note that neither the Report nor the Redlined Tariff defines "appropriate time" nor do they require the distribution company to acquire minimum load data where it is not already available (Report at 10; Redlined Tariff at § 3.1.1). As these measures are intended as interim solutions only, we direct the Working Group to clarify these points when it proposes a future revision of the Tariff. See Section V of this Order, below.

process (Report at 11; Redlined Tariff at § 3.3). By allowing many projects that would otherwise interconnect with the standard track to utilize the faster expedited track, all projects should move more quickly through the interconnection process (Report at 10-11).

First, the Working Group proposes to increase the supplemental review time for the Distribution Companies from ten hours to 30 hours (Report at 15; Redlined Tariff at § 3.3). With this change, a project would be moved from the expedited track to the standard track only if (a) the project fails one of the supplemental review screens (discussed below), or (b) the distribution company expends more than 30 hours of engineering time during the supplemental review (Report at 15).

Second, as part of the supplemental review proposed by the Working Group, the distribution company must contact the applicant within five business days of the applicant's request for a meeting to assess the supplemental review results (Report at 15; Redlined Tariff at § 3.3). This meeting is an opportunity to discuss what modifications, if any, would allow the project to interconnect without being moved to the standard track (Report at 15; Redlined Tariff at § 3.3).

Third, the Working Group proposes to add three supplemental review screens to the expedited track: (A) a penetration test; (B) a power quality and voltage test; and (C) a safety and reliability test (Report at 11-15; Redlined Tariff at Figure 1). We discuss here the three proposed supplemental review screens for the expedited track.

i. Penetration Test

Although the Working Group agreed on implementing a penetration test, the Working Group could not agree on the threshold penetration level to be included in the penetration test (Report at 11). The penetration test (Screen A)<sup>13</sup> as drafted by the Working Group states that:

Where 12 months of line section minimum load data is available, can be calculated, can be estimated from existing data, or determined from a power flow model, is the aggregate Generating Facility capacity on the Line Section less than (67 or 100)% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the Generating Facility?

(Report at 11; Redlined Tariff at Figure 1). The Working Group notes that the penetration of DG installations that do not result in power flow from the circuit back toward the substation will have minimal impact on the distribution system (Report at 12). Since the Working Group could not agree on an appropriate percentage to include in the screen, the Working Group included two opposing positions on the topic, both of which are discussed below (Report at 11, 41-44).

(A) 67 Percent Minimum Load

In order to maintain system reliability, the Distribution Companies support a DG installed capacity of 67 percent or less of feeder (or line segment) minimum load in the penetration test (Report at 41).<sup>14</sup> According to the Distribution Companies, penetrations in

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<sup>13</sup> The penetration test determines if the aggregate DG capacity on the line section is less than a certain percentage of the minimum load on certain other line sections upstream of the DG facility (Report at 11; Redlined Tariff at Figure 1).

<sup>14</sup> All members of the Working Group propose this standard only for inverter-based DG (Report at 41-42).

excess of 67 percent can result in the violation of anti-islanding requirements (Report at 41).<sup>15</sup>

The Distribution Companies assert that the analysis is supported by studies of over a dozen photovoltaic DG interconnections in National Grid's Massachusetts service territory (Report at 41).

The Distribution Companies assert that at the time of the Report, the 100 percent minimum load screen was not in use anywhere in the United States (Report at 41). The Distribution Companies contend that a 100 percent minimum load screen will limit their ability to manage customer loads during both normal and abnormal conditions (Report at 41). The Distribution Companies therefore propose to use "vetted technical standards" such as the Institute for Electrical and Electronics Engineers, Inc. ("IEEE") 1547 "Standard for Distributed Resources Interconnected with Electric Power Systems" instead of the 100 percent minimum load screen (Report at 41).<sup>16</sup>

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<sup>15</sup> The Distribution Companies cite to the Sandia Report SAND2012-1365, February 2012 "Suggested Guidelines for Anti-Islanding Screening," M. Ropp, Northern Plains Power Technologies and A. Ellis, Sandia National laboratories ("Sandia Report") (Report at 41).

<sup>16</sup> Pursuant to IEEE Std. 1547 and Underwriter's Laboratory ("UL") 1741, DG is forbidden from islanding – remaining operational and electrically interconnected with the electric power system ("EPS") while the EPS is de-energized – for more than two seconds (Report at 41).



(B) 100 Percent Minimum Load

The non-utility members of the Working Group<sup>17</sup> state that a 100 percent of minimum load screen is safe and reliable in the context of the three supplemental review screens (Report at 43). The non-utility parties contend that the 100 percent minimum load screen is supported in “Updating Interconnection Screens for PV Integration,” (“NREL Report”) a report issued by the National Renewable Energy Laboratory (“NREL”), the United States Department of Energy (“USDOE”), Sandia National Laboratories (“Sandia”), and the Electric Power Research Institute (“EPRI”) in February, 2012 (Report at 43).<sup>18</sup> According to the non-utility parties, the NREL Report is the cornerstone of new and innovative interconnection approaches that reduce time and costs, while maintaining safety and reliability (Report at 43).

The non-utility parties note that the Federal Energy Regulatory Commission (“FERC”) is considering adopting the 100 percent minimum load screen (Report at 43). Furthermore, the non-utility parties assert that the 100 percent minimum load screen reflects an emerging best practice nationwide, including in California (Report at 43). The non-utility parties contend that

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<sup>17</sup> The non-utility parties include Blue Wave Capital, Borrego Solar, Exelon/Constellation, My Generation Energy, the Solar Energy Business Association of New England, the Solar Energy Industries Association, Spire Solar Systems, the Northeast Clean Heat and Power Initiative, U.S. Clean Heat and Power Association, Harvard University, Prime Solutions, United States Clean Heat and Power Association, Source One, Veolia, Cape Light Compact and Cape and Vineyard Electric Cooperative, the Massachusetts Clean Energy Center, DOER, IREC, and the City of Boston (Report at 43). Although IREC and the City of Boston presented their positions on this issue, they were not Working Group members (Report at 6, n.1, 43).

<sup>18</sup> The non-utility parties note that the NREL Report was peer-reviewed by utility engineers from Pacific Gas and Electric Company, Southern California Edison, San Diego Gas & Electric, and the Sacramento Municipal Utility District (Report at 43).

in addition to benefiting applicants by reducing review time and costs, the 100 percent minimum load screen should significantly reduce utility workloads by reducing the number of applications requiring more detailed review (Report at 44). The non-utility parties argue that without the 100 percent minimum load screen, the Distribution Companies might have a hard time adhering to the modified timelines contained in the Report (Report at 44).

ii. Power Quality and Voltage Tests

The power quality and voltage tests, as proposed by the Working Group, ask:

In aggregate with existing generation on the line section,

- a) Can it be determined within the Supplemental Review that the voltage regulation on the line section can be maintained in compliance with current voltage regulation requirements under all system conditions?
- b) Can it be determined within the Supplemental Review that the voltage fluctuation is within acceptable limits as defined by IEEE 1453 or utility practice similar to IEEE 1453?
- c) Can it be determined within the Supplemental Review that the harmonic levels meet IEEE 519 limits at the Point of Common Coupling (PCC)?

(Report at 12; Redlined Tariff at Figure 1). The Working Group states that the above tests, if they are each passed, protect other customers from adverse voltages and undesirable interference (Report at 12).

iii. Safety and Reliability Tests

The safety and reliability tests, as proposed by the Working Group, ask:

Does the location of the proposed Generating Facility or the aggregate generation capacity on the Line Section create impacts to safety or reliability that cannot be adequately addressed without a group or Impact Study?

(Report at 13; Redlined Tariff at Figure 1). According to the Working Group, there are several factors that may impact safety and reliability, including (1) generation energy source; (2) modes of synchronization; (3) unique system topology; and (4) possible impacts to critical load customers (Report at 13). The Working Group contends that the specific combination of factors will determine if a study is required (Report at 13).

6. Standard Track Changes

The Working Group proposes to maintain the standard track essentially unchanged (Report at 15). The Working Group suggests that two unique circumstances require special treatment in the standard track: (1) Complex Projects; and (2) group studies (Report at 15-16). These circumstances are discussed below.

a. Complex Projects

The Working Group maintains that Complex Projects require more studies and more study time than currently allowed under the standard track (Report at 15). According to the Working Group, there has been an increase in applications for Complex Projects (Report at 15). In order to account for Complex Projects, the Working Group proposes to provide the Distribution Companies with additional review time (Report at 15). The additional review time is discussed in Section II.B.2.c, above.

b. Group Studies<sup>19</sup>

The Working Group recommends that a group study process be finalized by the Working Group during the next six to twelve months (Report at 15, 33). Until then, the Working Group recommends that Distribution Companies continue to offer optional group studies when appropriate (Report at 15). As discussed in Section II.B.7.e below, the Working Group has agreed on how costs should be allocated in group studies (Report at 15, 26).

7. Application Fees, Study Costs, System Upgrade Costs

a. Pre-Application Report

The Working Group recommends that there be no fee associated with the required pre-application report (Report at 26). The Working Group notes that the expected costs of pre-application reports were taken into account when determining the new expedited and standard track fees (Report at 26).

b. Simplified Track

Consistent with the Tariff and the current fee schedule, the Working Group proposes no application fee for simplified interconnection applications (Report at 26; Redlined Tariff at § 3.10, Table 6).

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<sup>19</sup> “Group studies” refers to studying multiple interconnection applications simultaneously where those applications are on a single feeder that would require extensive system upgrades (Report at 15).

c. Expedited and Standard Tracks

According to the Working Group, current application fees for the expedited and standard tracks need to be updated and do not cover the costs to process applications (Report at 26).

Accordingly, the Working Group proposes application fees for the expedited and standard tracks of \$4.50 per kW, with a \$300 minimum and a \$7,500 maximum (Report at 26;

Table 2: Summary of Proposed Fee Changes for Expedited and Standard Tracks

Application Fee	Current Fee		
	Fee	Minimum	Maximum
	\$3.00/kW	\$300	\$2,500
	Proposed Fee		
Supplemental Review Engineering Hours	Fee	Minimum	Maximum
	\$4.50/kW	\$300	\$7,500
	Current Fee		
	\$125/Hour, up to 10 Hours		
Proposed Fee			
\$150/Hour, up to 30 Hours			

(Report at 26; Redlined Tariff at § 3.10, Table 6).

Redlined Tariff at § 3.10, Table 6). For supplemental review engineering hours, the Working Group proposes a fee of \$150 per hour (Report at 26; Redlined Tariff at § 3.10, Table 6).

d. Payment for System Upgrades

Under the Working Group’s proposal, for projects in both the expedited and standard tracks, after the execution of an interconnection service agreement (“ISA”) by a distribution company and an applicant, the applicant will have 120 business days to pay 25 percent of any system upgrade costs based on an estimate provided by the distribution company (Redlined Tariff at §§ 3.3, 3.4). If the applicant makes this payment on time, it will have an additional 120 business days to pay the remainder of the system upgrade cost estimate (Redlined Tariff at §§ 3.3, 3.4). In addition, the distribution company has the right to reassess the system upgrade costs and construction timeline if the applicant fails to pay the system upgrade costs

within 60 business days of the distribution company's delivery of the system upgrade cost estimate (Redlined Tariff at §§ 3.3, 3.4). Furthermore, the distribution company is not obligated to order equipment or begin construction without payment of the estimated costs by the applicant (Redlined Tariff at §§ 3.3, 3.4).

e. Allocation of Costs

When multiple applications are submitted for the same location (e.g. feeder or line segment), and the distribution company conducts a group study of these applications, the Working Group proposes an allocation of costs to the applicants on a pro rata basis (i.e. by the proposed MW capacity of each project) (Report at 26; Redlined Tariff at § 3.10). The pro rata sharing of costs applies both to studies and system upgrades (Report at 26; Redlined Tariff at §§ 3.10, 5.3). Furthermore, this cost allocation proposal also applies to non-simplified track applications that are added to the circuit within five years (Report at 26; Redlined Tariff at § 5.3).<sup>20</sup>

8. Management of Unresponsive Projects

The Working Group states that certain projects have missed milestones to provide the distribution company with information or have failed to indicate to the distribution company the intention to proceed with interconnection ("Unresponsive Projects"). The Working Group asserts that these Unresponsive Projects: (1) delay other projects behind them in the

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<sup>20</sup> We note that neither the Report nor the Redlined Tariff specify exactly from what event the five years are measured (e.g., the authorization to interconnect of the first member of the group, the last member of the group, the installation of the upgrades, etc.). We direct the Working Group to clarify this point in a future revision of the Tariff. See Section V of this Order, below.

interconnection queue; (2) unduly burden distribution company resources; and (3) inaccurately portray -- in aggregate -- interconnection activity (Report at 21). Accordingly, the Working Group proposes steps for removing Unresponsive Projects from the interconnection process, including a one-time, “initial withdrawal” of certain pending applications and on-going compliance requirements (Report at 21-23; Redlined Tariff at § 3.6).

As proposed by the Working Group, the initial withdrawal consists of a three-step process: (Step 1) identify all projects for which the distribution company has been waiting for the customer to act for more than 30 business days; (Step 2) distribution company notifies<sup>21</sup> the customer that if it does not take action within 30 business days of the notice, its applications will be considered withdrawn; and (Step 3) if the customer does not take any action within 30 business days of the notice, its application will be deemed withdrawn (Report at 21; Redlined Tariff at § 3.6.a). The Working Group proposes a forfeiture of fees with the initial withdrawal (Report at 21; Redlined Tariff at § 3.6.a). In addition, the Working Group proposes that communications with customers should explicitly state that this process is approved by the Department (Report at 21; Redlined Tariff at § 3.6.a).

The Working Group also proposes a process to eliminate the accumulation of Unresponsive Projects in the future (Report at 21-23; Redlined Tariff at § 3.6.b). The proposed process includes: (1) deadlines for the submission of information by applicants; (2) the opportunity for deadline extensions; (3) an opportunity for longer timelines for the

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<sup>21</sup> Notice will be made by letter and by email, or by letter and by phone if there is no email address (Report at 21).

distribution company if an application is granted an extension; and (4) deadlines for paying for infrastructure upgrades, if applicable (Report at 21-23; Redlined Tariff at § 3.6.b). The Working Group notes that the implementation of this process will coincide with the implementation of the interconnection tracking system, described in Section II.A above (Report at 23).

#### 9. Adherence to Timelines

The Working Group proposes several measures to encourage and require the Distribution Companies to meet their interconnection timelines as discussed in the Report (Report at 23-25). The Working Group proposes: (1) the use of service quality metrics; (2) refund of application fees for a distribution company's failure to meet milestones;<sup>22</sup> (3) availability of an ombudsperson, as discussed in Section II.B.1 above; (4) a timeline review process; and (5) annual reporting (Report at 23-25; Redlined Tariff at §§ 3.8, 3.9). The Working Group agrees to a service quality metric in principle, and proposes to submit a draft service quality metric for Department review in time to be put into effect by January 1, 2014 (Report at 23-24). The Working Group asserts that a service quality metric must be based on empirical data and appropriately designed (Report at 23-24).

Until the implementation of a service quality metric, or other timeline enforcement mechanism,<sup>23</sup> the Working Group proposes an interim measure of refunding application fees

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<sup>22</sup> Since simplified projects are not required to pay an application fee, only applicants with expedited and standard projects would be eligible for refunds (Report at 24).

<sup>23</sup> The Department is required to develop an enforceable standard timeline for the interconnection of DG. The Department must enforce the established timeline either as



(Report at 24; Redlined Tariff at § 3.9). The refunding of application fees would be dependent on (i) the non-delivery of an ISA in the allotted time or (ii) non-compliance by the distribution company with the ISA interconnection timeline (Report at 24; Redlined Tariff at § 3.9).

The Working Group proposes that a customer may request a distribution company review of the company's adherence to the interconnection timelines (Report at 24; Redlined Tariff at § 3.8). Pursuant to this process, the distribution company must provide, within ten business days of the request, a written response that outlines the reason for a missed timeline and anticipated date when the step will be completed (Report at 24; Redlined Tariff at § 3.8). The Working Group notes that, at any time during this process, the Department may request additional information about a specific missed deadline or a pattern of missed deadlines (Report at 25).

Finally, the Working Group proposes annual reporting by the Distribution Companies of their compliance with interconnection timelines (Report at 25). The Working Group explains that individual distribution company reports would be submitted to the Department by April 1<sup>st</sup> and would include: (1) the percent of projects for which the company complied with all timelines within each track; (2) information on compliance with each step in the timeline; (3) the number of times ADR was initiated, including the resolution; (4) the number of times a customer requested a review of the timeline and if the application fee was refunded; and (5) any additional Department requirements (Report at 25).

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part of a service quality metric under G.L. c. 164, § 1I or "by whatever enforcement mechanism is determined appropriate by the [D]epartment." St. 2012, c. 209, § 49.

10. Othera. Accelerating Signing of ISAs

The Working Group recommends allowing applicants to request and sign an ISA at the end of the impact study, rather than requiring applicants to wait until the end of the detailed study (Report at 15; Redlined Tariff at § 3.4). If an applicant elects the accelerated option, it must agree to accept a margin of error in the construction cost estimate of plus or minus 25 percent (Report at 15; Redlined Tariff at § 3.4). In addition, the distribution company will provide the applicant with a detailed work schedule after the company completes the design engineering in the detailed study (Report at 15; Redlined Tariff at § 3.4).

b. Definitions

The Redlined Tariff includes several new and amended definitions (Redlined Tariff at § 1.2). The Working Group added the following defined terms to the Redlined Tariff: (1) Interconnection Application; (2) Authorization to Interconnect; (3) Business Day; (4) Certificate of Completion; (5) Conditional Approval to Interconnect; (6) Force Majeure Event; (7) Interconnection Tariff; (8) Pre-Application Report; (9) Public Facility; (10) Solar Facility; and (11) Time Frame (Redlined Tariff at § 1.2). The Working Group amended the following definitions in the Redlined Tariff: (1) Class II Net Metering Facility; (2) Class III Net Metering Facility; (3) Department; (4) Detailed Study; (5) Expedited Process; (6) Interconnection Service Agreement; (7) Islanding; (8) Local EPS; and (9) Witness Test

(Redlined Tariff at § 1.2). Finally, the Working Group deleted the definition of “Application” in the Redlined Tariff (Redlined Tariff at § 1.2).<sup>24</sup>

c. Assignment

Pursuant to Section 12 of the Redlined Tariff, an applicant may not assign its rights or obligations without the distribution company’s written consent (Redlined Tariff at § 12). Furthermore, any assignment without the distribution company’s knowledge is invalid (Redlined Tariff at § 12).

III. COMMENTS

The comments focused almost exclusively on matters related to the Tariff.<sup>25</sup> To the extent that comments addressed the Working Group’s non-Tariff recommendations, the commenters were either in support or not in opposition (IREC Comments at 2; SEIA Comments at 1; Working Group Comments at 1-2). The Tariff related comments focused on (1) the penetration test; (2) fees and costs; (3) construction payment policy; (4) service quality metrics; and (5) group studies.

A. The Penetration Test

IREC and SEIA support using 100 percent of the minimum load for the penetration test (IREC Comments at 3; SEIA Comments at 4-5, 6; SEIA Reply Comments at 1). SEIA argues that using 67 percent of the minimum load for the penetration test is not supported by the Sandia Report (SEIA Comments at 8-9). SEIA argues that the Sandia Report states that the 67

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<sup>24</sup> The definition of Application was replaced with the definition of Interconnection Application (Redlined Tariff at § 1.2)

<sup>25</sup> The Working Group provided minor corrections to the Report and the Redlined Tariff (Working Group Comments at 1-2).

percent of the minimum load for the penetration test should be used only where interconnection studies are contemplated and not in an expedited process (SEIA Comments at 8).

IREC provided an update to the NREL Report (“Updated NREL Report”) (IREC Reply Comments at 1). IREC states that the Updated NREL Report calls for a penetration test screen based on 100 percent of the minimum load, similar to what IREC, SEIA and other members of the Working Group support (IREC Reply Comments at 2).

SEIA urges the Department to implement the Redlined Tariff prior to initiating any cost investigations, contrary to the comments of the Attorney General (SEIA Reply Comments at 2). SEIA argues that there is sufficient evidence in the record for the Department to decide between 100 percent and 67 percent minimum load thresholds for the penetration test screens but does not object to further process to bolster the record (SEIA Reply Comments at 2-3).

The Distribution Companies support using 67 percent of the minimum load for the penetration test (Distribution Companies Comments at 2). In support of this position, the Distribution Companies rely on the Sandia Report and IEEE Std.1547 (Distribution Companies Comments at 2). The Distribution Companies assert that California’s adoption of the 100 percent test is only four months old and was part of a larger settlement with significant benefits for California distribution companies (Distribution Companies Reply Comments at 3). The Distribution Companies also assert that other jurisdictions that have considered the 100 percent penetration test (e.g., the Federal Energy Regulatory Commission (“FERC”) and New Jersey) have yet to adopt it (Distribution Companies Reply Comments at 3). The Distribution Companies argue that a 100 percent penetration test would threaten the safety and

reliability of their distribution systems and also their flexibility to expand their distribution systems in the future (Distribution Companies Reply Comments at 4).

The Distribution Companies assert that the 67 percent penetration test is based on their collective experience and will strike the right balance of expanding distributed generation and maintaining safe and reliable service (Distribution Companies Reply Comments at 5). Finally, the Distribution Companies suggest that they work with the technical standards review group to evaluate the 67 percent penetration test as they gain experience with it (Distribution Companies Reply Comments at 5).

B. Fees and Costs

The Attorney General asserts that the Working Group's proposed application fees are below actual distribution company costs, and that application fees should reflect actual interconnection costs (Attorney General Comments at 3). The Attorney General cautions that at least one distribution company seemingly admitted that it does not fully recover upgrade costs from interconnecting customers (Attorney General Comments at 3-4). The Attorney General cautions that DG customers should bear the costs for any changes to the interconnection process that will cause the Distribution Companies to incur additional costs related to DG interconnection, including the creation of an ombudsperson (Attorney General Comments at 4). The Attorney General argues that the Department should: (1) establish a procedural schedule in this proceeding to investigate cost issues that allows for discovery, testimony, hearings and briefing; and (2) direct each distribution company, in its next rate

case, to demonstrate that ratepayers are not inappropriately paying for DG interconnection-related costs (Attorney General Comments at 2-4).

The Distribution Companies argue that the fees in the Redlined Tariff are based on negotiations of the Working Group and analysis provided by the Distribution Companies (Distribution Companies Reply Comments at 6-7). The Distribution Companies urge the Department to approve the Redlined Tariff, with its fees, promptly and, if necessary, subsequently to investigate costs (Distribution Companies Reply Comments at 6-7).

C. Construction Payment Policy

Cape Air argues that the Working Group's proposed system of payment for upgrades, where full payment is due before construction begins, does not provide the correct incentives to promote either the initiation or completion of construction (Cape Air Comments at 3). Cape Air urges the Department to include liquidated damages to help promote timely initiation and completion of construction (Cape Air Comments at 3).

The Distribution Companies state that there is a system for a payment plan in both the Tariff and the Redlined Tariff for projects whose anticipated interconnection costs exceed \$25,000 (Distribution Companies Reply Comments at 7-8). The Distribution Companies argue that requiring full payment for interconnection upgrades in advance protects the Distribution Companies and their customers from the risk of default (Distribution Companies Reply Comments at 8). The Distribution Companies further argue that requiring advance payment for interconnection upgrades does not discourage adherence to timelines, and that withholding

payment would not promote adherence to timelines (Distribution Companies Reply Comments at 8).

D. Adherence to Timelines

The Attorney General argues that the Department should establish a process to enforce interconnection timelines outside of existing service quality guidelines, because that system is designed for the benefit of all customers, not individual customers (Attorney General Comments at 4). Cape Air cautions that service quality metrics would not apply until 2013, and that the design of any service quality metrics must be based on the Distribution Companies' having sufficient levels of staffing and resources (Cape Air Comments at 2-3). The Distribution Companies suggest that the Attorney General and Cape Air's arguments regarding service quality metrics are best addressed in the existing Department investigation, D.P.U. 12-120<sup>26</sup> (Distribution Companies Reply Comments at 7).

E. Group Studies

IREC supports the Working Group's plan to develop a group study process, and requests that the timeline for doing so be shortened (IREC Comments at 3). The Distribution Companies urge the Department not to adopt the accelerated timeline for group study proposals advanced by IREC (Distribution Companies Reply Comments at 8). Instead, the Distribution Companies request that the Department approve the Working Group's consensus position on

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<sup>26</sup> On December 12, 2012, the Department opened an investigation into Service Quality Standards for gas and electric distribution companies, which, among other things, sought input on the possible establishment of Service Quality Metrics regarding electric distribution companies' compliance with interconnection timelines. See Service Quality Guidelines, D.P.U. 12-120 at 3 (2012).

timelines (i.e., finalize a group studies process within the next six to twelve months)

(Distribution Companies Reply Comments at 8, citing Report at 33).

#### IV. ANALYSIS AND FINDINGS

The Working Group proposed both non-Tariff and Tariff recommendations, which we address below.

##### A. Non-Tariff Recommendations

No commenter addressed the non-Tariff recommendations contained in the Report and listed above in Section II.A, with the exception of the timeline for the development of the group interconnection studies. We find all of the uncontested non-Tariff recommendations to be reasonable and worthy of additional collaboration by the Working Group.

IREC proposes that the Department set a deadline of June 2013 for the delivery of the group study transition task. The Working Group proposed a deadline of between six and twelve months (Report at 33). The Distribution Companies oppose the accelerated timeline, and instead encourage the Department to accept the timeline proposed by the Working Group. We recognize the importance of a group study process. Nevertheless, the Working Group has many important transition tasks to resolve. IREC has not demonstrated a compelling reason to override the Working Group's consensus and to accelerate the group study transition task. Although we eagerly await the Working Group's group study proposal, we decline to accelerate this transition task.

After due consideration of the non-Tariff recommendations, we hereby approve of and accept the non-Tariff recommendations. We direct the Distribution Companies and the



Working Group to proceed with the non-Tariff items and deliver the associated work products them to the Department by the transition task timelines included in the Report and set forth in Section V of this Order, below. Regarding the monthly tracking data that the Distribution Companies will report to DOER, we direct the Distribution Companies to maintain that data and make it available to the Department upon request.

B. Ombudsperson

After consideration of the ADR proposal submitted by the Working Group, the Department agrees that an ombudsperson is appropriate. Given the potential costs and the unknown level of demand for ombudsperson services, the Department will offer ombudsperson services on a trial basis. The trial period will last for no more than twelve months from the date of this Order. During this trial period, the Department will provide ombudsperson services through its Consumer Division. The ombudsperson will hear the complaints of parties that reach the end of section 9.1, “Good Faith Negotiation,” of the Redlined Tariff without resolution (Redlined Tariff at § 9.1). The Department hereby appoints as ombudsperson the Director of the Consumer Division or such person as she or he may designate. The ombudsperson will (1) be easily accessible; (2) review the written documentation from the Good Faith Negotiations process; (3) conduct independent interviews and investigations as she or he deems necessary; and (4) offer independent problem-solving assistance. Within twelve months from the date of this Order, the Department will provide further guidance regarding what changes, if any, will be made to the ombudsperson role.

The ombudsperson will aim to resolve issues between the interconnecting customer and the distribution company as expeditiously as possible. Complaints to the ombudsperson will include the following steps. First, the complainant must notify in writing the ombudsperson and the other party, the respondent,<sup>27</sup> of its complaint.<sup>28</sup> The respondent will have ten business days to respond in writing with a copy to the complainant and the ombudsperson. The ombudsperson will investigate claims within 20 business days (“Investigation Period”). Such investigation may include additional oral or written communications between the ombudsperson and either or both parties, as the ombudsperson deems appropriate. The ombudsperson may, in her or his sole discretion, elect to request further information from either party or extend the Investigation Period as necessary. At the end of the Investigation Period, the ombudsperson will advise the parties in writing of her or his proposed resolution. The decision of the ombudsperson will be non-binding.

### C. Timelines

As demonstrated by the Massachusetts Distributed Generation Interconnection Report (“DG Report”) prepared by KEMA, Inc. on behalf of DOER and the Massachusetts Clean Energy Center, and further reinforced by the comments of Cape Air, the Distribution Companies have had difficulty meeting the existing interconnection timelines (DG Report at viii-iv, 63; Cape Air Comments at 1). One of the solutions proposed by the Working Group

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<sup>27</sup> Either the interconnecting customer or the distribution company may be the complainant or the respondent.

<sup>28</sup> Written complaints are to be sent to: Nancy Stevens, Director, Consumer Division, Department of Public Utilities, One South Station, Boston, MA 02110.

is to modify some of the timelines. The Department received no comments on the timelines proposed by the Working Group in the Redlined Tariff.

The Working Group's consensus timelines appear to represent reasonable expectations of the time the Distribution Companies need to properly evaluate interconnection applications. We find no reason to amend the consensus position of the Working Group.<sup>29</sup> We therefore approve the timelines as proposed by the Working Group.

D. Screens

1. Non-Penetration Test Screens

Except for the notable disagreement on the penetration test, the Working Group presented a consensus opinion on new and revised screens. The only screen addressed by commenters was the penetration screen. Even the language of the penetration screen, aside

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<sup>29</sup> One element of the timelines proposed by the Working Group is to allow a distribution company and an interconnecting customer the option to execute an ISA at the end of an Impact Study ("Early ISA") instead of at the end of the Detailed Study (Report at 15, Redlined Tariff at § 3.4). As we previously found, an "applicant [to the System of Assurance] with an executed ISA is at an advanced project stage, which makes an executed ISA an appropriate requirement for filing an [application for a cap allocation to the System of Assurance]." Net Metering and Interconnection of Distributed Generation, D.P.U. 11-11-A at 24 (2012). At the time we established that "executed ISA" requirement, Early ISAs did not exist. At this time, the Department does not have sufficient information to determine whether an Early ISA satisfies the "executed ISA" requirement within the net metering regulatory scheme. Therefore, we refer this matter to D.P.U. 11-11 for further investigation into whether an Early ISA would meet the executed ISA requirement for entrance into the net metering System of Assurance. Until such time as the Department reaches a resolution of the issue, Early ISAs shall not meet the executed ISA requirement for entrance into the System of Assurance. In addition, we direct the Distribution Companies to clearly mark Early ISAs on the title page and on the signature page with the words "Early ISA" for identification purposes.

from the penetration level, received unanimous endorsement by the Working Group and no opposition in the comments. Upon review, the Department hereby approves all of the new and revised screens<sup>30</sup> proposed by the Working Group, namely: (1) increasing the 10 kW single-phase maximum size to 15 kW in the Simplified Track; (2) allowing projects that fail Screen number five to remain in the Simplified Track, but allowing the distribution company five additional days to review such applications; (3) increasing the allowable capacity of the Simplified Track and Expedited Track Screen number two from 7.5 to 15 percent of the feeder or circuit's annual peak load and, if available, line segment; (4) applying the existing spot network screens to area networks provided that the applicant has appropriate data; (5) removing the 15 kW limit for DG on an area network, provided that the less than 1/15 of the customer's minimum load screen requirement is met; (6) the penetration screen; (7) the power quality and voltage tests; and (8) the safety and reliability tests. The Department is left only to decide the appropriate penetration level to include in the penetration screen.

2. 67 percent versus 100 percent

In considering the appropriate penetration level, it is important to note that the penetration test is used to determine the track to be used by a distribution company for the review of an interconnection project (Report at 11). The penetration test is not determinative of whether a DG project can interconnect with a distribution company's system.

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<sup>30</sup> Although we approve the penetration screen, we discuss the appropriate penetration level in Section IV.D.2 of this Order, below.

The Distribution Companies and the non-utility parties make strong cases for the use of the 67 percent threshold and the 100 percent threshold, respectively. Both sides of the argument rely heavily on studies, and, to a lesser extent, cite to the practices of other jurisdictions. Neither side presented evidence of how the 100 percent penetration screen works in practice.

Safety and reliability are of paramount importance to the Department. Although the advancement of DG in the Commonwealth is a very important goal, it must not jeopardize the reliability of the electric distribution system, the distribution equipment itself, or the safety of customers and those who maintain the system.

Although the non-utility parties provided strong arguments that the 100 percent threshold may be safe and appropriate, the penetration test is new to the Commonwealth and the Distribution Companies do not have experience with applying it. We therefore elect a conservative, interim approach. The Department will allow the Distribution Companies to gain experience with the penetration test at a maximum penetration level of 67 percent of minimum load.

The Department expects that with the benefit of experience and knowledge, the Distribution Companies, the Working Group, and the DG community at large will be better able to evaluate the appropriate penetration level. To assist in the further evaluation of the appropriate penetration level, the Department directs the technical standards review group to submit to the Department a proposal for the penetration level for the penetration screen. Said proposal shall take into account relevant experience with a penetration screen from other

jurisdictions, e.g. California. If said proposal does not increase the penetration level from 67 percent, it shall be accompanied by sufficient justification. Said proposal shall be accompanied by, at a minimum, the following data from distribution company: (1) how many interconnecting customers failed the penetration screen at the 67 percent level, but would have passed the screen at the 100 percent level; (2) how many customers who failed the penetration screen at the 67 percent level continued with their projects; (3) for each customer that continued with a project after failing the penetration screen, how much did that customer pay for additional studies; (4) for each customer that continued with a project after failing the penetration screen, how much did that customer pay for upgrades; and (5) for each customer that continued with its project, a timeline of the interconnection process. In addition, we direct the Distribution Companies to investigate, via the technical standards working group, the potential of allowing a higher penetration level for DG technologies -- including but not limited to solar photovoltaic -- that only generate electricity at times approximately coincident with feeder or system peak demand. The technical standard group shall submit its proposal on or before February 28, 2014, or such later date as the Department may approve upon written request with sufficient justification and filed before February 28, 2014. The 67 percent penetration level shall serve as an interim standard until such time as the Department establishes a different standard.

E. Fees and Costs

The Working Group has proposed updated fees associated with interconnection. The Attorney General contested the appropriateness of the proposed fees (Attorney General

Comments at 2-4). The Attorney General requested a full review of the proposed fees and associated costs (Attorney General Comments at 5). Other parties that addressed the issue of fees support (1) the proposed amounts included in the Working Group proposal; (2) the expeditious adoption of these amounts; and (3) that any investigation of fees and associated costs should occur after Redlined Tariff is adopted (SEIA Reply Comments at 2; Distribution Companies Reply Comments at 6-7).

The issues raised by the Attorney General merit consideration. If the Distribution Companies do not collect enough funds to cover the costs associated with the interconnection of DG, ratepayers risk paying for the unrecovered costs. Such an outcome is inconsistent with the interconnection framework, whereby the interconnecting customers pay for costs associated with the applicable interconnection. Distributed Generation, D.T.E. 02-38-B at 13-14 (2004). In order to ensure that this cost causation principle is followed in the interconnection process, a review of fees and associated costs is appropriate.

Nine years have passed since the Department reviewed and set interconnection fees. D.T.E. 02-38-B (2004). The fees proposed by the Working Group are significantly higher than the current fees (see Table 1, above). If, as the Attorney General asserts, the proposed fees are too low, it is clear the current fees must be too low by an even greater margin and that implementing the proposed fees would reduce the putative gap between the fees charged and actual costs. We find that implementation of the proposed fees as quickly as possible is in the public interest. Accordingly, the Department hereby approves the implementation of the proposed fees, including the cost allocation proposal for group studies. To address the issue

raised by the Attorney General about the adequacy of the proposed fees, the Department will investigate interconnection fees and underlying costs in order to determine if the fees are appropriate. The Hearing Officer will issue a notice of a procedural conference for this cost investigation within five days of the date of this Order.

F. Adherence to Timelines

The Working Group proposed an interim enforcement mechanism to promote distribution company adherence to the timelines in the Redlined Tariff (Report at 24-25; Redlined Tariff at § 3.9). The Working Group also proposed to develop a more substantial mechanism as part of the transition tasks (Report at 23-24). Cape Air proposed that an enforcement structure should be based on the Distribution Companies' achieving sufficient levels of staffing and resources, and include liquated damages (Cape Air Comments at 3). The Attorney General cautioned the Department against using existing service quality guidelines as a method to enforce interconnection timelines (Attorney General Comments at 4).

Although the Department appreciates Cape Air's concerns about adherence to construction timelines, we reject its timeline enforcement proposal. Typically, the Department leaves to the reasonable business judgment of a distribution company such matters as staffing and resource allocation. New England Telephone and Telegraph Company, 327 Mass. 81, 90 (1951). Instead, we rely on outcomes as the appropriate barometer by which to measure distribution company performance. See e.g., Service Quality Standards, D.T.E. 04-116-A (2006). Although the Attorney General did not offer a specific timeline enforcement proposal, she did encourage the Department to consider a mechanism outside of existing service quality



guidelines and metrics because such metrics are “for the benefit of all customers, not any individual customers” (Attorney General Comments at 4). No other parties have proposed an enforcement mechanism.

As an interim enforcement mechanism, the Working Group proposes that a distribution company refund application fees to applicants if the distribution company does not meet the applicable timelines (Report at 24; Redlined Tariff at § 3.9). In addition, according to the Working Group’s proposal, the Distribution Companies are required to report missed milestones to DOER, and, upon request by an applicant, to explain why the timeline was missed and identify an expected completion date (Report at 24-25; Redlined Tariff at §§ 3.8, 3.9). The Department finds that the Working Group’s interim enforcement mechanism is reasonable, and consistent with St. 2012, c. 209 § 49, we hereby adopt it. Consistent with the Working Group’s plan for transition tasks, we direct the Working Group to develop a more substantial timeline enforcement mechanism. The Working Group may consider a model that both rewards outstanding compliance (e.g., completing tasks before deadlines), and discourages poor compliance (e.g., failing to meet deadlines).

The Attorney General raises important concerns regarding the scope of service quality metrics. Existing service quality metrics do not allow incentives or rewards for superior service. Service Quality Standards, D.T.E. 04-116-A at 46 (2006). Given the importance of creating the proper incentives we direct the Working Group to consider potential enforcement

mechanisms that go beyond, or work independently of service quality metrics.<sup>31</sup> Commenters that have addressed the issue of enforcement mechanisms and service quality metrics are encouraged to participate in the Working Group in order to help formulate a proposal for an enforcement mechanism. We direct the Working Group to submit its final proposal for an enforcement mechanism to the Department by October 1, 2013.

G. Conclusion

In conclusion, we adopt the Redlined Tariff attached hereto as Appendix A, as our model interconnection tariff. We direct each distribution company to file, within 30 days of this Order an interconnection tariff that is consistent with the Redlined Tariff. Further, we approve the Working Group's non-Tariff recommendations, as set forth in Section II.A, above, and we direct the Working Group and the Distribution Companies to carry them out within the timeframes set forth below.

V. TRANSITION TASK TIMELINES

We direct the Working Group to complete its transition tasks as set out in the Report, in the associated timeframes (see Report at 33). In addition, we direct the Working Group to carry out the following tasks in the noted timeframes: (1) collaborate to develop a timeline enforcement mechanism to encourage utility adherence to interconnection timelines and report the results to the Department by October 1, 2013; and (2) examine the feasibility of expanding the percentage of minimum load allowed under the penetration test and report the results to the

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<sup>31</sup> We note that Section 49 of Chapter 209 of the Acts of 2012, gives the Department significant discretion to determine the appropriate mechanism for enforcing timelines.

Department by February 28, 2014. This compliance Tariff shall also include the clarifications identified in notes nine, twelve, and 20 and of this Order.

Accordingly, we direct the Working Group to (1) address the foregoing issues in the established timelines; and (2) deliberate with the goal of reaching a consensus on a resolution of such issues for Department review and approval.

VI. ORDER

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

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 implement the non-tariff recommendations contained in the report of the Distributed Generation Working Group submitted on September 14, 2012, and as identified within this Order; and it is

FURTHER ORDERED: 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 each file with the Department of Public Utilities, within 30 days of the date of this Order, an interconnection tariff that is consistent with the attached Uniform Standards for Interconnection Standards for Distributed Generation (i.e., Appendix A); and it is



An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.