D.T.E. 99-84

Investigation by the Department of Telecommunications and Energy on its own Motion to Establish Guidelines for Service Quality Standards for Electric Distribution Companies and Local Gas Distribution Companies Pursuant to G.L. c. 164, § 1E.

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I. INTRODUCTION

On August 17, 2000, the Department issued an Order proposing service quality ("SQ") standards and penalties to be included in performance-based regulation ("PBR") plans for electric and gas distribution companies pursuant to G.L. c. 164, § 1E. Service Quality Standards for Electric Distribution Companies and Local Gas Distribution Companies, D.T.E. 99-84 ("August 17th Order"). Specifically, the August 17th Order established (1) performance measures for customer service and billing, customer satisfaction, staffing levels, safety, and reliability, (2) benchmarks for each category, which, with a few exceptions, are based on the historical performance of each gas and electric distribution, and (3) a penalty formula for each category.

In its August 17th Order, the Department also requested further comments on certain issues, including standardization, customer surveys, system average interruption frequency index performance, and the allocation of penalties mechanism. Later, on April 4, 2001, the Department sought answers to specific questions ("April 4th Request") regarding (1) the penalty mechanism; (2) individual customer protection mechanisms; (3) a restricted work-day reporting requirement; (4) a property loss damage reporting requirement; and (5) technological changes. This Order addresses these remaining issues. Attachment 1 sets forth the Department's final guidelines on SQ categories and measures as well as penalties.

II. PROCEDURAL HISTORY

On October 29, 1999, the Department instituted a Notice of Inquiry/Generic Proceeding ("NOI") to develop SQ standards and revenue penalties to be included in PBR plans for

electric and gas distribution companies pursuant to G.L. c. 164, § 1E.[1] The proceeding was docketed as D.T.E. 99-84.

On November 5, 1999, the Department issued questions and solicited two rounds of comments regarding SQ performance benchmarks, SQ categories and measures, and penalties. Thirteen entities submitted comments. August 17th Order at 1-2. The Department then issued the August 17th Order, which proposed SQ categories and measures and a penalty formula and also requested additional comments on certain topics.[2] The Department received comments from seven entities. Applied Resources Group, Inc. ("ARG") as well as Massachusetts Electric Company and Nantucket Electric Company (collectively "MECo") filed comments individually ("ARG Comments" and "MECo Comments," respectively). The Attorney General of the Commonwealth, the Division of Energy Resources, Associated Industries of Massachusetts, Inc., and The Energy Consortium commented jointly ("Customer Group Comments"). Ten gas and five electric distribution companies[3] ("Joint Utilities") submitted

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1 "An Act Relative to Restructuring the Electric Utility Industry in the Commonwealth, Regulating the Provision of Electricity and Other Services, and Promoting Enhanced Consumer Protection Therein," signed by the Governor on November 25, 1997 ("Restructuring Act") St. 1997, c. 164.

2 The Department initially requested comments by September 14, 2000. The Department granted two requests for extension of time from a group of utility companies, ultimately setting November 9, 2000 as the deadline for comments.

3 The local gas distribution companies are: Bay State Gas Company; The Berkshire Gas Company; Blackstone Gas Company; Boston Gas Company; Colonial Gas Company; Commonwealth Gas Company; Essex Gas Company; Fall River Gas Company; Fitchburg Gas and Electric Light Company; and North Attleboro Gas Company. The electric distribution companies are: Boston Edison Company; Cambridge Electric Light Company; Commonwealth Electric Light Company; Fitchburg Gas and Electric Light

(continued…)

joint comments ("Joint Utilities Comments"). Western Massachusetts Electric Company ("WMECo") and the NSTAR Companies,[4] while members of the Joint Utilities, filed separate comments ("WMECo Comments" and "NSTAR Comments," respectively). The Utility Workers Union of America ("UWUA") filed comments on both September 13, 2000 ("UWUA September Comments") and November 8, 2000 ("UWUA November Comments").

The Department held a technical conference on November 24, 2000. The Joint Utilities and MECo filed additional comments on December 1, 2000 ("Joint Utilities December Comments" and "MECo December Comments," respectively).

On April 4, 2001, the Department sought additional information from the commenters regarding five topics: (1) the penalty formula; (2) individual customer protection mechanisms; (3) the restricted work-day reporting requirement; (4) the property loss damage reporting requirement; and (5) technological changes. On May 24, 2001, the Joint Utilities, MECo, NSTAR, and UWUA responded ("Joint Utilities 2001 Comments," "MECo 2001 Comments," "NSTAR 2001 Comments," and "UWUA 2001 Comments," respectively).

III. PERFORMANCE BENCHMARKS

In the August 17th Order at 7-8, the Department stated that SQ performance benchmarks would be established by using the historical performance of each gas and electric distribution company on the respective performance measures. The Department required,

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[3](…continued)
Company; and Western Massachusetts Electric Company.

[4] The NSTAR Companies include Boston Edison Company, Cambridge Electric Light Company, Commonwealth Electric Company, and Commonwealth Gas Company.

however, that all gas and electric distribution companies collect any data that may be necessary for the Department to revisit, in the future, the issue of using benchmarks based on nationwide, regionwide, or statewide data. Although the Department gave the gas and electric distribution companies the opportunity to inform us as to what additional data should be collected or what data resources were available, the commenters did not avail themselves of this opportunity nor did they explain their failure to do so.

The Department remains committed to examining the potential use of nationwide, regionwide, or statewide data. Use of such data may allow the Department and other parties the ability to gauge service quality on a cross-company, comparative basis. Such a comparison may allow the Department to ascertain if service levels being provided in the Commonwealth are comparable to those found in other areas of New England and other regions of the country.

The Department directs each gas and electric distribution company to provide a written report to the Department that (1) details its individual data collection efforts, (2) identifies what nationwide, regionwide, and statewide performance data is potentially available for a comprehensive database, and (3) assesses the feasibility of establishing a co-operative approach to comparative benchmarking, under which all gas and electric companies would develop jointly a data-gathering/data-sharing consortium that would compile comparative data. The Department directs each gas and electric distribution company to provide this report to the Department no later than 18 months from the date of this Order.

IV. SERVICE QUALITY PERFORMANCE CATEGORIES AND MEASURES

A. Customer Service and Billing Performance Measures

In the August 17th Order at 9-11, the Department proposed three performance measures for customer and billing services: (1) telephone calls answered within a specified time; (2) service appointments met on the same day as requested; and (3) on-cycle meter readings. The Joint Utilities requested that the Department provide companies with significant latitude in terms of the specific design of some of these measures (Joint Utilities Comments at 8). The Joint Utilities reason that many gas and electric distribution companies have already adopted company-specific SQ measures (Joint Utilities December Comments at 9).[5] The Joint Utilities argue that by allowing the gas and electric distribution companies to use their individual historic data, benchmarks may be put into place without the delay that would result from the need to develop standardized benchmarks (id. at 8-9).

The Department agrees that allowing the gas and electric distribution companies to use their individual historic data allows benchmarks to be put into place more readily. The use of company-specific performance data at this time facilitates the implementation of SQ programs that are a necessary element of PBR, which the Department has endorsed. Incentive Regulation, D.P.U. 94-158, at 40-41 (1995). The Department considers this preferable to the alternative, which is waiting until uniform data is collected from all gas and electric distribution company to establish benchmarks. Therefore, the gas and electric distribution companies are

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5 For example, some gas and electric distribution companies have measured telephone answering using a 25 second interval, others a 35 second interval, and still others have used a 40 second interval (Joint Utilities Comments at 9).

directed to continue to track and report their own individually designed measures for each of the above categories.[6]

The Department, however, intends to move in the future to uniform customer and billing measures. Therefore, the Department directs the gas and electric distribution companies who have not previously collected performance measure data to use the new standardized measures set forth in Attachment 1, § II.A-C. The Department directs the gas and electric distribution companies that have collected performance data previously, commencing January 1, 2002, to collect data on both sets of measures (the historical measure unique to each company and the new standardized measure), in parallel, until such time as five years of new data are collected. At that time, the gas and electric distribution companies with historic data will be required to shift from their company-specific measures to the new standardized measures.

B. Customer Satisfaction Performance Measures - Customer Surveys

In the August 17th Order at 14-15, the Department established a reporting requirement for customer satisfaction through customer surveys. The Department originally proposed that gas and electric distribution companies employ an independent third party to perform these functions. August 17th Order, Att. A, § III.B. The Joint Utilities, however, proposed that the Department eliminate the requirement that gas and electric distribution companies employ independent survey firms (Joint Utilities Comments at 34). The Joint Utilities argue that third-party survey research is expensive and, if gas and electric distribution companies possess

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6 The Department is adopting a "case-by-case" approach to enable the use of historical data that many of the gas and electric distribution companies have collected for each of the measures. In some cases, this amounts to five years of data.

the capability to perform the research internally, they should be able to exercise this option (id. at 34).

The Department recognizes the need to control costs that may be associated with an independent entity conducting the required surveys. On the other hand, the Department acknowledges the need for objectivity in the conduct of survey research and the possibility that "experimental bias" in survey research may exert an influence on research results. In view of the potential costs, the Department will not require that the consumer surveys be performed, analyzed, and reported by an independent third party (see Att. 1, § III.C). Surveys conducted internally, however, will be subjected to a higher level of scrutiny to insure the integrity of the survey. Should the Department find that the validity or reliability of the data is in any way suspect or imperiled, we will implement corrective action beginning with a review of the particular gas or electric company's survey data collection methods, data analysis procedures and data reporting procedures as permitted under G.L. c. 164, §§ 83, 85. The Department may modify the survey process or, if appropriate, require an independent, third-party audit of the gas or electric company's survey research program.

C. Restricted Work-Days

1. Summary of Comments

In the August 17th Order at 19-20, the Department adopted a performance measure for lost work time due to accidents, but rejected using a restricted work-day measure. UWUA renewed its previous request that the Department include restricted work-days as a performance

measure (UWUA November Comments at 2-3).[7] UWUA emphasizes that such information is "a valid and quite significant indicator of workplace safety" (UWUA 2001 Comments at 11). In addition, UWUA states that providing restricted work-day data to the Department as a reporting requirement is feasible because the data are readily available and currently being reported to the Occupational Safety and Health Administration ("OSHA") (id. at 10-11).

The Joint Utilities maintain their objection to the use of the restricted work time measure (Joint Utilities December Comments at 7-8). The Joint Utilities contend that the measure is not reliable since, in many instances, employees are provided "restricted assignments" for non-safety related reasons (id. at 7-8). Although the Joint Utilities argue that the restricted work-day is not an accurate measure of safety performance, it does not object the use of restricted work-day data as a reporting requirement since the data are publicly available (Joint Utilities 2001 Comment at 24).

2. Analysis

The Department recognizes that employees may be assigned restricted work duties for reasons other than safety-related causes.[8] The Department also recognizes that if gas and electric distribution companies are subject to monetary penalties (or rewards) for restricted work-days, they may be less willing to use restricted assignments as an option. For example, if the restricted work-day measure is subject to penalties (or rewards), gas and electric distribution

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[7] The proposed restricted work-days measure assesses the number of days (per 200,000 employee hours) that employees are reassigned to different duties as a result of injury. Massachusetts Electric Company/Eastern Edison Company, D.T.E. 99-47, at 82 (2000).

[8] For instance, an employee may have an injury that is not related to a safety deficiency of the employer.

companies may be reluctant to assign restricted work duties to anyone other than the most unhealthy employees. Therefore, the Department reaffirms its decision to adopt a performance measure for lost work time due to accidents and rejects a restricted work-day measure. Nonetheless, we recognize that the restricted work-day data may have some value in evaluating a company's overall safety performance. In addition, because the data are readily and publicly available, requiring gas and electric distribution companies to report such information on an annual basis is not cumbersome. Accordingly, the Department directs the gas and electric distribution companies to report restricted work-day data as detailed in Attachment 1, § VIII. H.

D. Reliability Measures

1. SAIDI and SAIFI

a. Introduction

General Laws c. 164, § 1E(a) authorizes the Department to promulgate rules and regulations to establish SQ measures for service outages, distribution facility upgrades, and repair and maintenance. In the August 17th Order at 25, 29-34, the Department proposed that a system average interruption duration index ("SAIDI") be used as a SQ penalty measure and that other reliability data, such as a system average interruption frequency index ("SAIFI"), would only be collected and reported to the Department. The Department sought further comments, however, including whether a SAIFI should be a SQ penalty measure. Id. at 25.

b. Summary of Comments

The Customer Group, MECo, and UWUA support the use of both SAIDI and SAIFI as an electric reliability measure (Customer Group Comments at 3-4; MECo Comments at 9-11; UWUA September Comments at 2-3; UWUA November Comments at 3-4). MECo argues that if a gas or electric distribution company were to change its practices and policies to maintain SAIDI only, it could allow SAIFI to worsen at the expense of its customers (MECo Comments at 11).[9]

In contrast, the Joint Utilities support only SAIDI as a electric reliability performance measure (Joint Utilities Comments at 33). The Joint Utilities state that the frequency and duration of electric service outages, as measured by SAIFI and SAIDI, respectively, are interrelated electric reliability indices that provide similar data regarding a company's electric service (id).

ARG proposes that the Department also consider a third electric reliability measure, the customer average interruption duration index ("CAIDI"), expressed as minutes of outage per average interruption (ARG Comments at 2). ARG states that other state public utility commissions, including New York, New Jersey and Illinois, use CAIDI data (ARG Comments at 2). ARG argues that CAIDI and another index, the customer average interruption frequency

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9 For example, an electric distribution company could choose to emphasize responses to outages at the expense of overall system reliability, thereby over-allocating capital to those assets that support a faster response time in order to minimize the duration of outages (measured by the SAIDI measurement), as opposed to their frequency (measured by the SAIFI measurement) (MECo Comments at 11).

index[10] ("CAIFI"), assess customer impact rather than just total system interruptions measured by SAIDI and SAIFI (id. at 2).

Finally, the Joint Utilities propose a revision to the guidelines set forth in the August 17th Order regarding the use of uniform definitions (Joint Utilities Comments at 12-13). The Joint Utilities propose that the electric companies be allowed to use company-specific definitions in determining electric reliability data (id.). The Joint Utilities state the revision is necessary because the electric companies do not currently use the uniform definition for "sustained outages or interruptions," "momentary outages," or "excludable major events" set forth in Attachment A, § I.B of the August 17th Order (id.). They maintain that "any inconsistency between the Department's definitions and a company's measurement criteria would render . . . [a] company's historic . . . data irrelevant" (id.).

c. Analysis

The Department stated in the August 17th Order at 24-25 that, based on the reliability data provided by the electric distribution companies, SAIFI data is a good indicator of SAIDI performance and may, in fact, double-count the SAIDI information. Despite this potential for double-counting, we recognize that there may be technological or operational changes in the future that might result in periods where the frequency of outages measured by SAIFI would not track the duration of outages measured by SAIDI. Furthermore, we agree with MECo that

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[10] ARG proposes CAIFI as a reliability measure as well. CAIFI measures the frequency of outages only for customers interrupted rather than the frequency of outages across the entire system (ARG Comments at 2).

if only SAIDI is used as a performance measure, an electric distribution company could "game" its practices to meet only the standard adopted for that reliability measure, to the detriment of its customers. Therefore, the Department concludes that SAIFI also shall be measured, collected, reported, and employed as a SQ measure with a monetary penalty attached to it (see Att. 1, §§ I.C, V, VI.A, and VIII.C).

With regard to CAIDI, the Department recognizes the merit in reporting this information, as suggested by ARG. Because CAIDI is becoming a more-widely reported reliability index in the industry, the collection of this data would permit the Department and other parties to engage in cross-company comparisons. Also, there would be very little burden on the companies to collect and report this information. Therefore, we conclude that CAIDI data should be collected and reported on an annual basis.[11]

With respect to CAIFI, the Department notes that CAIFI is less widely used in the industry. Because it is not widely used, CAIFI does not provide the same opportunity for cross-company comparison that CAIDI does. Therefore, the Department concludes that CAIFI data need not be reported to the Department at this time.

We now turn to the issue of uniform definitions within SAIDI and SAIFI in developing the appropriate benchmarks. The Department recognizes the potential difficulty in converting historic data to meet different definitions than those that were used by each gas or electric

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[11] The Department has not been asked and declines to use CAIDI as a SQ measure. Because CAIDI is simply the derivation of SAIDI divided by SAIFI (and because SAIDI and SAIFI will be employed as performance standards), there is no reason to include CAIDI as a measure. CAIDI's inclusion as a reporting requirement is detailed in Attachment 1, §§ V.A-G and VIII.A.

distribution company during the time the data was originally collected. Accordingly, for the sole purpose of establishing benchmarks for SAIDI and SAIFI performance standards, the Department will allow electric distribution companies to use their own company-specific definitions. A gas or electric company, however, that chooses to use company-specific definitions must demonstrate why it cannot reasonably convert the data to the uniform definitions described in Attachment 1, § V.A-I.[12]

The August 17th Order at 25 specified that the SAIDI and, possibly SAIFI, benchmarks be based on a ten-year average of company-specific data. The Department recognizes, however, that approximately five years ago, some electric distribution companies made substantial investments in their distribution infrastructure that resulted in significant improvement in electric reliability. Using a ten-year average, therefore, to establish benchmarks would not accurately reflect the current state of electric reliability and would undermine the legislative intent of G.L. c. 164, § 1F(7) that SQ remain the same as or better than the levels that existed as of November 1, 1997. Therefore, the Department concludes that benchmarks for SAIFI and SAIDI shall be based on a fixed, five-year average of data using years 1996-2000. The Department directs the electric distribution companies to calculate their benchmarks in this fashion (see Att. 1, § I.C).

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[12] Attachment 1, § VI.A describes the use of uniform and company-specific definitions in more detail.

2. Other Reliability Measures

a. Summary of Comments

Many of the commenters suggested additional revisions to the August 17th Order regarding gas and electric reliability. These comments included the following topics: property losses; line losses, short-term outages, bill inserts, and capital expenditure reporting.

The Customer Group and UWUA recommend that the SQ guidelines include a property damage reporting requirement for electric distribution companies similar to that required by the Department's Pipeline Safety and Engineering Division of gas distribution companies (Customer Group Comments at 3; UWUA September Comments at 2; UWUA 2001 Comments at 12).[13,14] The Customer Group and UWUA propose that electric distribution companies be required to report incidents when the property damage exceeds $5,000 (Customer Group Comments at 3; UWUA 2001 Comments at 12).

The Joint Utilities and MECo do not oppose extending the property damage reporting requirement to electric distribution companies (Joint Utilities 2001 Comments at 25; MECo 2001 Comments at V). They request, however, that the electric distribution companies be required to report incidents when the property damage exceeds $50,000, leaving the gas distribution companies' obligations unchanged (id.). In addition, the Joint Utilities request that

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13 The Department has not been asked to use property loss as a SQ measure.

14 The Department currently requires that a gas distribution company promptly notify the Department of an incident that results in estimated property damage of $5,000 or more and that a written report is required to be submitted to the Department within seven days of such an incident (Letter from Pipeline Safety and Engineering Division to gas distribution companies dated April 25, 2000).

such information be filed on an annual basis (Joint Utilities 2001 Comments at 25). The Joint Utilities and MECO claim that a lower threshold value for electric utilities and prompt reporting, such as the required by Pipeline Safety and Engineering Division of gas distribution companies, would impose an unnecessary administrative burden on the electric distribution companies and would inundate the Department with relatively insignificant damage information having little relevance to SQ because of the design and cost differences between gas and electric distribution companies (id.; MECo 2001 Comments at V). The Joint Utilities also state that the $50,000 value would be consistent with the U.S. Department of Transportation's requirement that gas companies report property damage in excess of $50,000 (Joint Utilities 2001 Comments at 24-25).

With respect to distribution line losses, commenters expressed reservations regarding the use of distribution line loss as a performance measure (Joint Utilities Comments at 33; MECo Comments at 12). MECo argues that measuring electric distribution line loss is difficult (MECo Comments at 12). As an alternative, the Joint Utilities advocate that the Department accept the gas and electric distribution companies current procedures[15] regarding line losses (Joint Utilities Comments at 33).

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[15] Gas distribution companies manage their unaccounted for gas consistent with the provisions of the Model Terms and Conditions established D.P.U./D.T.E. 97-65 (1998) (Joint Utilities Comments at 33). Electric distribution companies report line loss data on an annual basis in FERC 1 filings (id.).

The Joint Utilities and MECo also commented on the difficulty of measuring short-term outages,[16] as reflected by the Momentary Average Interruption Frequency Index ("MAIFI") (Joint Utilities December Comments at 2-5; MECo December Comments at 1-2). The Joint Utilities and MECo state that electric distribution companies are unable to measure MAIFI with current technology (Joint Utility December Comments at 5; MECo December Comments at 1-2). They assert that radio-controlled devices would have to be added to existing switch reclosing devices, which they represent would be prohibitively costly (Joint Utilities December Comments at 2-5; MECo December Comments at 1-2). MECo estimate that it would cost between $1.2 million and $4.5 million to install the technology required to measure MAIFI for its own system (MECo December Comments at 1-2).

With regard to reporting requirements, ARG proposed that the electric distribution companies issue bill inserts that include pertinent reliability information to customers (ARG Comments at 3). The Joint Utilities stated that the $500,000 value threshold for reporting capital expenditure projects is too high a value (Joint Utilities Comments at 34-35). The Joint Utilities argue that many capital expenditures that relate to maintaining transmission and distribution facilities and infrastructure are below $500,000 (id.).

b. Analysis

The Department did not propose a property damage measure or reporting requirement in the August 17th Order for electric distribution companies. In the past, the Department has

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16 A short-term or momentary outage (interruption of service) has a duration that is less than a sustained outage. A sustained outage typically has a duration of one minute or longer.

not established a SQ measure for property damage for electric distribution companies in any company-specific proceeding; similarly, to our knowledge, other public utility commissions[17] have not established such a SQ measure for property damage. Because we and other public utility commissions have not used this measure for electric distribution companies in the past, there is neither data on which to base a measure nor data on which to determine the effectiveness of such a measure. Therefore, the Department declines to adopt a SQ measure for property damage at this time for the electric distribution companies.

The Department recognizes, however, that reporting damage to company-owned property is likely to contribute to assessing company safety performance. In addition, the commenters did not express opposition to reporting this type of information. Therefore, the Department shall include the electric distribution companies in the reporting requirement regarding losses related to damage of company-owned property as detailed in Attachment 1, § VIII.I. The Department is sensitive, however, to the reporting burden that a $5,000 threshold might impose on the electric distribution companies. In contrast, a $5,000 threshold requirement for gas distribution companies serves the public interest because incidents of damage to company-owned property in the gas industry pose greater public safety concerns. Consequently, the Department directs the electric distribution companies to file property

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[17] The Department conducted an informal survey of the following state public utility commissions: Arkansas, California, Connecticut, Georgia, Illinois, Indiana, Kansas, Maine, Michigan, New Jersey, New York, Ohio, Texas, and Wisconsin. None of these states use a SQ measure for property loss. These states have been identified in various national surveys as being the only states that have adopted or will be adopting SQ measures.

damage reports only when the damage to company-owned property exceeds $50,000 per incident. Such filings shall be made on an annual basis. The Department directs the gas distribution companies to continue filing reports in accordance with the April 25, 2000 letter from the Pipeline Safety and Engineering Division.

With regard to distribution line losses, the Department acknowledges that an electric distribution company may experience percentage variations in line losses from year to year unrelated to SQ degradation. In fact, much of the annual variation in line losses stems from the effects of electrical load on a system. Furthermore, the amount of load on a system is not entirely within the control of electric distribution companies.[18] These factors make it difficult to reliably assess line losses at present time. Therefore, the Department declines to adopt a SQ measure for line loss at this time.

Nevertheless, line losses have a real impact on costs to ratepayers. Electricity lost through distribution line loss is not metered, and therefore, the cost of this electricity is borne by all ratepayers. Therefore, to monitor line losses by companies and to enable the Department to propose a measure for line losses in the future, the Department directs the electric distribution companies to report annual line loss data, using company-specific methods. The reports must include a detailed description of the electric distribution companies' method employed to measure line loss as described in Attachment 1, § VIII.A.

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[18] Customers greatly influence electrical load of the system. For example, a regional economic downturn would likely cause a reduction of load on the system.

With regard to short-term outages, the Department proposed in the August 17th Order at 29-30 to require electric distribution companies to collect and report MAIFI data. We recognize that momentary interruptions, by their nature, are difficult and costly to monitor and count; also, they are not routinely recorded (MECo December Comments at 1-2). Therefore, the Department will not require electric distribution companies to collect or report MAIFI data at this time.

The Department notes, however, that electric distribution companies currently report to the Department outages affecting a certain number of customers. Many companies provide more inclusive information on outages, including information on short-term outages. The Department directs the electric distribution companies to collect and report momentary outages consistent with Attachment 1, § VIII.H.

With regard to reliability reporting to customers, ARG proposes that electric distribution companies issue bill inserts that include pertinent reliability information to customers (ARG Comment at 3). The Department agrees that there is value in providing service quality information to customers, particularly service interruption information that is specific to each individual customer. As described in detail in Attachment 1 to this Order, gas and electric distribution companies will be submitting a significant amount of SQ information to the Department. Much of this information will be filed electronically. Because the Department plans to post this information on our website,[19] we will require gas and electric distribution

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[19] The Department plans to post on our website all outage and reliability information that the companies provide to the Department.

companies to insert our website address on bills. The directive regarding the website address is in addition to the directive set forth in the August 17th Order at 33-34 that electric distribution companies insert a message on the bills informing customers that they can contact the Department if they have service quality problems or disputes. The Department now extends the SQ bill insert directive to gas distribution companies as well (see Att. 1, § XI.)

The Department also requested further input on severe weather event reporting. August 17th Order at 37. Based on additional input from the Customer Group and UWUA, the Department has made adjustments in the reporting requirements in Attachment 1, §§ VIII.D and VIII.H, to require electric distribution companies to file pertinent tree trimming information and to allow companies to make any necessary report revisions, respectively.

With regard to the capital expenditure reporting requirement, the Department proposed in its August 17th Order at 32-33 that each gas and electric distribution company provide the Department with a capital expenditure history of its transmission and distribution systems from the last three years and once a year thereafter. The Department further proposed that a list of capital expenditure projects costing more than $500,000 be included in its annual report. Id. at 33 n.4. The Joint Utilities suggest that a lower value be considered because many capital expenditures that are smaller directly relate to maintaining the reliability of transmission and distribution facilities and infrastructure (Joint Utilities Comments at 34-35). Accordingly, the Department concludes that there should be no minimum threshold value and that a list of all major capital expenditure projects that relate to maintain transmission and distribution reliability should be reported in summary form as detailed in Attachment 1, § VIII.E. In addition, the

Department shall require ten years, rather than three years, worth of information to be consistent with the requirements established for reporting companies' spare parts policy (see Att. 1, § VIII.F).

V. PENALTIES

A. Introduction

General Laws c. 164, § 1E(c) authorizes the Department to levy a penalty against any distribution, transmission, or gas company that fails to meet the SQ standards established under G.L. c. 164, § 1E(a), up to and including the equivalent of two percent of the utility's transmission and distribution service revenues for the previous calendar year.[20] In the August 17th Order at 47-48, the Department proposed a penalty formula using a performance deadband based on a standard deviation ("standard deviation approach"), to offset the effects of random statistical variations in performance. The Department also proposed a non-linear penalty mechanism, in which the revenue penalty is applied in a parabolic relationship to the variation from the average historical performance for a particular SQ measure, such that the maximum revenue penalty permitted under G.L. c. 164, § 1E(c) would be incurred at a SQ level equal to two standard deviations from the historical performance for that category. August 17th Order at 46-47. The Department sought further information this proposal in its April 4th Request.

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[20] This proceeding addresses only gas and electric distribution companies as the Department does not regulate transmission companies.

In the August 17th Order at 50-51, the Department sought comments on the weighting system for all SQ categories and measures as well as the feasibility of developing and implementing customer service guarantees. The Department sought further information on the customer service guarantees in its April 4th Request. Finally, the Department solicited comments on the appropriate penalty calculation for gas company Class I and Class II odor call measures. August 17th Order at 20.

B. Determination of Deadband

1. Summary of Comments

Although the Joint Utilities support the overall design of the Department's proposed penalty formula, they request a modification related to the calculation of the deadband (Joint Utilities Comments at 22; Joint Utilities 2001 Comments at 3). The Joint Utilities argue that while a penalty "deadband" reduces the likelihood that random variations in performance measures will be mistaken for actual deterioration in SQ, the use of the standard deviation approach to establish the deadband, as proposed by the Department, would not produce statistically valid results (Joint Utilities Comments at 25-26; Joint Utilities 2001 Comments at 3-7). According to the Joint Utilities, if a sample size is less than 30, use of the standard deviation approach produces less statistical confidence that the sample data is a true representation of the population being sampled (Joint Utilities Comments at 26). The Joint Utilities maintain that because the historical data presently available for SQ measures is limited, there would be an insufficiently small sample size. This small sample size renders a standard

deviation approach statistically invalid and increases the risk of Type 1 errors[21] (Joint Utilities Comments at 25-26; NStar Comments at 3; Joint Utilities December Comments at 8; Joint Utilities 2001 Comments at 3-4). The Joint Utilities consider the need to avoid Type 1 errors especially critical given the asymmetrical penalty structure of the Department's proposal (Joint Utilities Comments at 25; Joint Utilities 2001 Comments at 3-5).

To compensate for the limited data available with SQ measures, the Joint Utilities propose that performance deadbands should be established using a test statistic approach rather than a standard deviation approach (Joint Utilities Comments at 25-27; Joint Utilities 2001 Comments at 3-4, 7-8). The test statistic approach, which represents a refinement of the standard deviation approach, considers the sample size being used to estimate the population mean and to compensate for uncertainties associated with the sample size (Joint Utilities Comments at 26-27). Under the test statistic approach, a small sample size is considered theoretically valid to establish a deadband, as compared to the 30 data points necessary with the standard deviation approach (id.; Joint Utilities 2001 Comments at 7-8). Using the test statistic approach, the Joint Utilities state that a deadband is created based on a statistically valid confidence level of 95 percent (e.g., there is a 95 percent probability that the deadband will capture the random variations associated with the data (Joint Utilities Comments at 26-27). As a result of the deadband, the Joint Utilities maintain that if a gas or electric distribution

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[21] A Type 1 error is a form of statistical error where a company is incorrectly penalized even though its actual performance is not inferior. A Type 2 error is a form of statistical error where a company is incorrectly assumed to have met SQ standards even though its actual performance had failed to meet those standards (Joint Utilities Comments, App. B at 4).

company's performance falls within or is equal to the parameters of the deadband, no penalty would be imposed (Joint Utilities Comments at 28). The Joint Utilities consider this modification of the penalty formula necessary to create a valid deadband and preserve the Department's parabolic penalty formula (id. at 28-29). In support of the use of the test statistic approach, the Joint Utilities point to the prior use of this approach by both the Department and the Federal Communications Commission (id. at 27, citing Verizon MA, D.T.E. 99-271, at 26-27 (2000); In the Matter of Bell Atlantic New York, CC Docket 99-295, Memorandum Opinion and Order, FCC 099-404 (December 22, 1999)).

The Joint Utilities consider an important feature of the test-statistic approach to be that, as more sample data become available over time, SQ performance estimates become more precise and the deadbands should become narrower (Joint Utilities 2001 Comments at 7). The Joint Utilities contrast this with the lack of sensitivity to sample size exhibited by the standard deviation approach, which results in no changes in the deadbands over time over time, even with the existence of more sample data (id. at 8). The Joint Utilities also observe that the test statistic approach imposes the maximum penalty at an interval that is less than two times the deadband created by their formula (Joint Utilities 2001 Comments at 13). Thus, the Joint Utilities consider the test statistic approach superior to the standard deviation approach, in that the test statistic approach accounts for the understated variability of the sample standard deviation, while imposing a more stringent penalty for SQ degradation than offered by the standard deviation approach (Joint Utilities 2001 Comments at 13-14).

In the alternative, the Joint Utilities and NSTAR propose that if the Department rejects the test statistic approach, a system of rewards and penalties should be incorporated into the standard deviation approach (id. at 5; NSTAR 2001 Comments at 4). The Joint Utilities state that a symmetrical system would provide companies both monetary rewards and penalties, thus enabling gas and electric distribution companies to "offset" monetary penalties with monetary rewards (Joint Utilities 2001 Comments at 5).

In contrast to the Joint Utilities's support for the use of a test statistic approach, Massachusetts Electric Company ("MECo") advocates that the Department retain the standard deviation approach.[22] MECo argues that the standard deviation approach is simple: easily creating defined performance benchmarks and readily establishing whether these benchmarks have been met (MECo December Comments at 3). Although MECo concedes that the standard deviation approach is statistically less accurate than the test statistic approach, the standard deviation approach is easier for both customers and the utilities to understand, and would allow gas and electric distribution companies, as well as others, to determine whether targets have been met at any point during the year, as opposed to the need to wait until after the end of the review period that would be afforded under the test statistic approach (id.).

Both MECo and WMECo request that the Department reassess its decision in the August 17th Order not to establish incentives for improved performance (MECo Comments

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22 MECO supports the use of the test-statistic approach if the Department does not adopt a symmetrical penalty system consisting of both rewards and penalties, as described below (MECo 2001 Comments, Cover Letter at 1).

at 1-4; WMECo Comments at 1-2).[23] According to MECo, the Department's decision not to incorporate incentives into the penalty formula is inequitable because (1) the asymmetrical penalty structure proposed results in a 16 percent chance that a gas or electric distribution company will incur a penalty in any given year for random performance, and (2) it will result in a perverse incentive to avoid any adverse financial results at the expense of service quality improvements (MECo Comments at 2-4; MECo December Comments at 3). MECo states that one advantage of a symmetrical system of incentives and penalties is that Type 1 errors, which are unavoidable, would be balanced between incorrect determinations of superior and inferior performance (MECo 2001 Comments at II.A.1-3). Another advantage claimed by MECo is that a symmetrical system will create an incentive for the utility to improve its performance and be innovative as opposed to holding steady to a historical benchmark (id.). At the very least, MECo and WMECo ask that the Department not foreclose the use of incentive features in future PBR proceedings, particularly in the case where incentive mechanisms have been offered as part of a settlement or through a collaborative process (MECo Comments at 4 n.1, 5-6; WMECo Comments at 1-2).

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[23] NStar adds that, regardless of the Department's decision on whether to revisit the issue of incentives, the narrower deadband found in the Department's proposed penalty structure: (1) is more equitable when used in conjunction with a penalty structure that encompasses incentives as well as penalties; and (2) has implications in the choice of an appropriate statistically-determined penalty structure deadband (NStar Comments at 3 n.4).

2. Analysis

The Department must determine whether to use the standard deviation approach or the test statistic approach to determine performance deadbands. To decide which approach to use, the Department must assess the risk of making both Type 1 or Type 2 errors.[24] In the August 17th Order at 7-8, the Department determined that the data used to generate the benchmarks for SQ measures will be company-specific, historical data. These data will necessarily result in sample sizes of ten or less. Such small sample sizes will diminish the statistical power[25] of the test statistic approach proposed by the Joint Utilities. With insufficient statistical power, performance variations that might exist can be masked, thus resulting in an increased probability of a Type 2 error. In our context, this means that the test statistic approach would not demonstrate actual service quality deterioration. Analysis of the Joint Utilities' historical data indicates that the test statistic approach could mask as much as a 30 percent degradation in service (Joint Utilities 2001 Comments, App. A). Because the intent of this proceeding and G.L. c. 164, § 1E(c) is to ensure adequate service, the Department finds that the Joint Utilities' proposed test statistic approach is inappropriate.

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[24] In statistical terms, a Type 1 error occurs when the researcher rejects the null hypothesis (the null hypothesis is the hypothesis that no differences characterize a sample mean from the expected value of the population mean) when, in fact, the null hypothesis is not supported. A Type 2 error occurs when a researcher fails to reject the null hypothesis, when, in fact, a statistically significant difference exists. Sidney Siegel, Nonparametric Statistics: For the Behavioral Sciences, at 9-10 (1956).

[25] Statistical power, as used here, refers to the condition where sample sizes are sufficiently large to permit true significant differences to emerge. Mathematically, it is defined as 1-probability of a Type 2 error.

The Department recognizes, however, the statistical probability that the standard deviation approach will result in a 16 to 18 percent chance of a Type 1 errors. While this probability would intuitively be reduced by the non-random nature of certain SQ activities (e.g., utilities have an intention to answer all telephone calls) and the inherent tendency to implement system improvements for reasons other than maintaining SQ programs (e.g., more efficient operations), these considerations would not wholly eliminate the probability of Type 1 errors. In order to provide an additional safeguard against the probability of a company being subject to a SQ penalty for random variations in performance, the Department shall incorporate an "offset" feature to the penalty mechanism. Under this system, a utility that is subject to a penalty for deficient performance in one SQ measure may apply its superior performance in a second SQ measure as an offset against the penalty, up to the monetary penalty level. This method is described more fully in Appendix 1. It should be emphasized here that the penalty mechanism being adopted here is not a symmetrical system in its purest form, whereby utilities would be eligible to receive monetary rewards for superior service.[26] The offset credits being approved here go towards only reducing monetary penalties; if there are no monetary penalties to be offset, the excess offset credits would have no value.

In conclusion, the Department reaffirms the use of the standard deviation approach and declines to accept the use of a test statistic approach in determining the deadbands for SQ performance measures. The penalty formula adopted here is intended to balance the need for

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[26] A symmetrical penalty and reward mechanism may, at least in the strictest sense, fall outside the scope of the SQ performance mechanism authorized by G.L. c. 164, § 1(E).

an easily-defined and understood system with the need for a system producing reliable results. The Department considers a standard deviation approach that includes a system of monetary offset credits best achieves our goal of balancing the risk of Type 1 errors with the risk of Type 2 errors. As we noted in our August 17th Order at 49, gas and electric distribution companies seeking to avoid penalties have a readily-available remedy; i.e., conduct their business in a manner that maintains SQ measures and avoid the imposition of penalties.[27] Therefore, those utilities that internalize an ethic of providing quality service to their customers have little, if any, need to be concerned with monetary penalties. Boston Gas Company, D.P.U. 96-50-D at 12 n.4 (2001).

C. Allocation of Penalty Among SQ Measures

1. Summary of Comments

The August 17th Order requested comments regarding the allocation of penalties among the SQ measures. A comparison of the various proposals is set forth in Table 1.[28]

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[27] It is worth noting that the purpose of SQ penalties is not to maximize the level of penalties collected, but to provide an impetus for gas and electric distribution companies to conduct themselves in such a way that there is no need to impose monetary penalties in the first place. See August 17th Order at 49 n. 37. This purpose has parallels in monetary fines provided for in many criminal and civil statutes.

[28] Because the Customer Group's proposal was limited to general performance categories, Table 1 only compares the commentors' proposals along general performance categories.

TABLE 1
Proposals of Commenters

Categories	**Customer Group**	**Joint Utilities**[29]	**MECo**
Safety and Reliability	40	55	60
Customer Service and Billing	40	40	30
Consumer Division Statistics	20	5	10

The Customer Group's proposal echos the Department's statement in August 17th Order at 14 that less weight should be given to less objective standards, such as customer satisfaction (Customer Group Comments at 6). Therefore, the Customer Group apportions 20 percent of the maximum revenue penalty to customer satisfaction categories (represented by consumer complaints and billing adjustments) and divides the remaining 80 percent evenly between customer service and billing categories (represented by telephone answering rate, service appointments met, and on-cycle meter readings), and the reliability and safety categories (represented by lost work time for accidents, SAIDI for electric companies, and odor call response rates for gas companies) (Customer Group Comments at 6). The

[29] As noted below, the Joint Utilities identified the emergency call response time measure as a safety and reliability-related category, and the non-emergency call response time measure as a customer service category (Joint Utilities Comments at 30). If both emergency and non-emergency call response times are assigned to the customer service and billing category, a weighting of 40 percent for the safety and reliability group and 55 percent for the customer service and billing group is produced.

Customer Group did not specify how the penalties would be assigned within these three general categories.

The Joint Utilities' proposal takes into account the Department's emphasis on safety and reliability standards as well as the distinction between SQ measures which can be objectively measured and those which require the exercise of subjective judgment. The Joint Utilities suggest the following allocation method:

Safety and Reliability	
Odor Call Response	25 percent (gas only)
SAIDI	25 percent (electric only)
Telephone - Emergency Calls	15 percent
Lost Work Time Accident Rate	15 percent
Customer Service and Billing	
Telephone - Non-Emergency Calls	10 percent
Service Appointments Met	15 percent
On-Cycle Meter Readings	15 percent
Consumer Division Statistics	
Consumer Division Cases	2.5 percent
Billing Adjustments	2.5 percent

(Joint Utilities Comments at 29).

Finally, MECo proposes that the Department use the current SQ plan approved as part of a settlement in Massachusetts Electric Company/Eastern Edison Company, D.T.E. 99-47 (2000), and modified based on the Department's directives in the August 17th Order. MECO states that an appropriate allocation[30] would be as follows:

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[30] MECo objects to the inclusion of service appointments met and billing adjustments as SQ measures (MECo Comments at 16).

Electric Reliability	
SAIDI	45 percent[31]
Customer Service and Billing	
Telephone Answering Rate	15 percent
On-Cycle Meter Readings	15 percent
Consumer Complaint Data	10 percent
Safety	
Lost Time Accidents	15 percent

(MECo Comments at 16).

2. Analysis

Concerning the apportionment of penalties among the various SQ measures, the Department considers that those performance standards which are critical to a gas and electric distribution companies' safe and efficient operation should carry a greater penalty than others. August 17th Order at 50; Boston Gas Company, D.P.U. 96-50-D at 12 n.3 (2000). The Department has also considered the distinction between quantitative and qualitative SQ measures, the latter of which may be more open to subjective interpretation. Additionally, the Department has taken into consideration the comments from those participants who expressed an opinion on this issue. The ranges of weightings proposed by commenters fell between 40 and 60 percent for safety and reliability measures, between 30 and 45 percent for customer service and billing, and between ten and 20 percent for Consumer Division statistics. Based on

[31] MECo stated that if the Department agrees that SAIFI and SAIDI should be separately measured, then SAIFI should be weighed at 22.5 percent, with SAIFI assigned the remaining 22.5 percent (MECo Comments at 16 n.3).

these considerations, the Department adopts the following guidelines for apportioning monetary penalties among the SQ measures adopted through this proceeding:

Safety and Reliability	
SAIDI	22.5 percent (electric only)
SAIFI	22.5 percent (electric only)
Class I & II Odor Calls	45 percent (gas only)
Lost Work-Time Accident Rate	10 percent
Customer Service and Billing	
Telephone Answering Rate	12.5 percent
Service Appointments Met	12.5 percent
On-Cycle Meter Readings	10 percent
Consumer Division Statistics	
Consumer Division Cases	5.0 percent
Billing Adjustments	5.0 percent

D. Customer Service Guarantees

1. Summary of Comments

UWUA supports the adoption, in this proceeding, of small, targeted payments by gas and electric distribution companies to individual customers directly affected by a utility's failure to meet predetermined, readily-understood service guarantees ("customer service guarantees") (UWUA November Comments at 4; UWUA 2001 Comments at 8-9). In support of its proposal, the UWUA identifies companies in Great Britain and in the United States presently offering customer service guarantees to customers (UWUA November Comments at 4; UWUA 2001 Comments at 4-6). In the United States alone, twenty investor-owned utilities offer customer service guarantees, half of which are operating in the northeastern United States,

including each of NStar's operating subsidiaries (UWUA 2001 Comments at 6-7).[32] UWUA contends that an amended version of NStar's current guarantee program should be used as the benchmark for customer guarantee programs (UWUA 2001 Comments at 9).[33]

UWUA argues that customer service guarantees are a highly effective tool to bring service quality shortcomings to the attention of utility management (UWUA November Comments at 4; UWUA 2001 Comments at 8-9). UWUA contends that experience with these programs in Great Britain, where customer payments dropped well over 50 percent for most electric distribution companies between the split periods 1992-1993 and 1997-1998, demonstrates the effectiveness of these guarantees in changing utility practices (UWUA November Comments at 4; UWUA 2001 Comments at 4).

While the Customer Group supports customer service guarantees and encourage their adoption by gas and electric distribution companies, it maintains that this proceeding would be

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32 NStar's operating affiliates (Boston Edison Company, Cambridge Electric Light Company, Commonwealth Electric Company, and NStar Gas Company) have implemented a customer-targeted penalty program, offering a payment of $25.00 to customers if: (1) a meter reading is inaccurate; (2) if the utility knows that it will be more than 30 minutes late for a service appointment and fails to notify the customer; (3) if there is an error in the utility's direct payment or pay-by-phone billing programs; (4) if the utility fails to respond to a billing question by the next business day; and (5) if the utility fails to notify the customer of a scheduled service interruption (UWUA September Comments at 6).

33 UWUA would add the following guarantees to NSTAR's program: (1) a service restoration guarantee within 24 hours after an outage, barring extreme weather conditions or actions beyond the utility's control; and (2) investigation of meter and power quality complaints, as well as reporting back to the customer, within ten business days (UWUA 2001 Comments at 9). In addition, UWUA proposes an increase in payments from $25 to $50, with escalating payments for delays in service installation and restoration (id.).

more appropriately used to develop the minimum system performance standards to be applied in PBR proposals that would be filed by individual utilities (Customer Group Comments at 6). Therefore, it considers the issue of customer service guarantees to be more appropriately addressed in another forum (id.).

The Joint Utilities and MECo oppose the mandatory adoption of customer service guarantees by the Department, either as part of or separate from a PBR plan (Joint Utilities 2001 Comments at 16; MECo 2001 Comments at III). First, the Joint Utilities maintain that mandatory customer service guarantees are inconsistent with the intent of G.L. c. 164, § 1(E) to prevent deterioration of service following the implementation of a PBR plan (Joint Utilities 2001 Comments at 16-17). Second, the Joint Utilties contend that the SQ mechanisms being developed in this proceeding offer a comprehensive means to penalize gas and electric distribution companies for poor service to individual customers, thus providing benefits to customers of those utilities in the form of lower rates, even if those individual customers had not experienced unsatisfactory service (Joint Utilities Comments at 31-32; Joint Utilities 2001 Comments at 17). The Joint Utilities and MECo argue that mandatory customer service guarantees would compel gas and electric distribution companies to divert service efforts towards individual customers at the expense of comprehensive customer service needs, and result in double penalties for the same service (Joint Utilities 2001 Comments at 16; MECo 2001 Comments at III). Third, the Joint Utilities note that gas and electric companies presently offering customer service guarantees have done so on a voluntary basis, based on their individual financial and operating constraints, customer base, and business approach (Joint

Utilities 2001 Comments at 15-17). The Joint Utilities and MECo express the concern that the cost to implement a mandatory system of customer service guarantees will far exceed any value attained from them (MECo Comments at 17; Joint Utilities 2001 Comments at 17-18; MECo 2001 Comments at III).[34]

2. Analysis

In its August 17th Order at 51, the Department noted the Customer Group's general support of UWUA's proposal for customer service guarantees and solicited comment on the propriety of including customer service guarantees as a component of the broad-based penalty mechanisms associated with SQ measures. Virtually all the commenters on this issue supported their use, at least in concept. In fact, as noted above, a number of gas and electric distribution companies nation-wide, including several in Massachusetts, have voluntarily adopted customer service guarantees.

The SQ revenue penalty provision of G.L. c. 164, § 1E(c) is intended to (1) secure performance by the gas or electric distribution company by identifying in advance the revenue consequences of delinquent performance and (2) stipulate "damages" for delinquent performance, in the form of the sacrifice of a preordained percentage of revenues that would otherwise be collected from the overall customer base. August 17th Order at 44. Similarly, the intent of customer service guarantees is to pay individual customers a pre-estimated level of

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[34] The Department notes that a number of companies represented by the Joint Utilities, as well as those electric utilities in Great Britain owned by MECo's parent, National Grid plc, has such programs (UWUA September Comments at 10-11). Therefore, the Joint Utilities' and MECo's positions on this point are curious.

"damages" arising from SQ failures specifically affecting these customers. Taken together, the Department considers customer service guarantees to be complementary to the revenue penalty provision authorized pursuant to G.L. c. 164, § 1E(c).

Although the Joint Utilities and MECo express a concern that customer service guarantees will serve to "double penalize" utilities, we consider this concern to be misplaced. Unlike the retrospective approach applicable to SQ penalties found in PBR filings, customer-targeted penalty mechanisms are imposed on a near real-time basis. Consequently, a pattern of customer service guarantees associated with a particular SQ performance measure would serve to alert utility management that corrective actions are necessary, thereby averting the imposition of a broad-based SQ penalty in the company's annual PBR filing. Therefore, we consider customer service guarantees to be highly useful in making gas and electric distribution companies directly accountable for their actions and to bring SQ shortcomings to their specific attention so that corrective action may be taken.

The Department reaffirms its support as set forth in the August 17th Order for customer service guarantees. We recognize, however, that there is limited experience by Massachusetts gas and electric distribution companies with customer service guarantees. Therefore, the Department declines at this time to direct gas and electric distribution companies to implement a customer-targeted penalty program of the scope advocated by UWUA. The Department considers that a more modest approach to the use of customer-targeted penalty mechanisms is warranted, at least in this initial stage of PBR and SQ measures.

Based on the experience of the Department's Consumer Division about customer service from gas and electric distribution companies, the Department determines that there are two particular service categories that require customer guarantees: (1) failures to keep service appointments; and (2) lack of notification of planned service interruptions. Accordingly, the Department directs gas and electric distribution companies to implement a customer service guarantees for these two customer service measures. If a gas or electric distribution company fails to keep a service appointment, or if a scheduled service appointment is more than four hours late, the utility shall pay the customer of record $25.00.[35] If a gas or electric distribution company fails to notify a customer of a scheduled service outage, the company shall pay the customer $25.00.[36]

While the Department has declined to mandate more expansive customer service guarantees, we encourage gas and electric distribution companies to develop customer service guarantees that are tailored to the needs of their customers and propose them as part of their respective PBR filings. As we noted above, gas and electric distribution companies that internalize an ethic of providing high-quality service to their customers and accountability for their actions will fare better in an era of increasing competition than gas or electric distribution companies that perceive customer service obligations as a costly burden.

E. Class I and Class II Odor Call Penalties

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35 The Department will consider exemptions from this requirement in the gas and electric companies' SQ plans filed in compliance with this Order.

36 If there is a dispute regarding whether a customer received notice, requisite proof in favor of the gas and electric distribution companies shall be the gas or electric companies' delivery of notice, not the customer's receipt of such notice.

1. Summary of Comments

The Joint Utilities proposed to establish a Class I and Class II odor call penalty formula similar to that established in Boston Gas Company (Phase One), D.P.U. 96-50, at 311 (1996) (Joint Utilities Comments at 31). Under this penalty formula, for each percentage point that a gas distribution company's performance fell below the Department's benchmark of 95 percent, the utility would be assessed a penalty equal to 20 percent of the total penalty allocated to the odor call standard (id. at 31, App. A at 9). The maximum penalty for this SQ measure would be incurred at a performance level of 90 percent (id. at 31, App. A at 9). Those gas distribution companies serving less than 100,000 customers would be permitted to propose a different percentage increment for the application of revenue penalties in view of the relatively small number of odor calls received by smaller gas distribution companies (id. at 31).

2. Analysis

Public safety considerations make it essential for gas distribution companies to achieve and maintain a high performance standard for odor call response times. The performance level necessary for this aspect of gas distribution company operations makes it appropriate to limit the degree to which performance may deteriorate within the framework of a PBR. Consequently, the Department is concerned that setting the maximum penalty level at a performance level of 90 percent would not fully recognize the importance of this SQ measure. Therefore, the Department will modify the Joint Utilities' proposed penalty structure such that for each percentage point that a gas distribution company's performance falls below the Department's benchmark of 95 percent, the gas distribution company would be assessed a penalty equal to 25

percent of the total penalty allocated to the odor call standard. The maximum penalty for this SQ measure will be incurred at a performance level of 91 percent. See e.g., Bay State Gas Company, D.P.U./D.T.E. 97-97, at 4-5 (1997).

Concerning the Joint Utilities' proposal that smaller gas distribution companies be permitted to propose a different percentage increment in their odor call penalty formula, the Department considers gas companies' performance for odor calls to be of extreme importance to the general public, regardless of the size of the local gas distribution company. The Department is not persuaded that the comparatively smaller number of odor calls received by small gas distribution companies would affect either their odor call response times or the reporting of those response times. Accordingly, the Department declines to adopt the Joint Utilities' proposal that a different percentage increment be applied to odor call response time penalty formula for smaller gas distribution companies.

VI. CONCLUSION

The Department initiated this generic proceeding to develop guidelines for SQ measures to be included in PBR plans to be submitted by gas and electric distribution companies pursuant to G.L. c. 164, § 1E. In the past, the Department has encouraged gas and electric distribution companies to file PBR plans. Electric Industry Restructuring: A Model Plan, D.T.E. 96-100, at 115-116 (1996); Incentive Ratemaking, D.P.U. 94-158, at 65-66 (1995). In fact, we have stated that we expect a PBR proposal to be part of each electric company's next base rate case submitted to the Department. Electric Industry Restructuring, D.T.E. 96-100, at 116. With SQ guidelines established, the Department now directs each gas and electric distribution

company who files a petition under G.L. c. 164, § 94 for a general rate increase to include a PBR plan containing the SQ measures developed in these proceedings. If a gas or electric distribution company submits a PBR plan that deviates from these SQ guidelines, that company shall provide full and complete support for its proposal and the reasons for any departures from the SQ guidelines stated herein.

In our NOI at 4 n.5, the Department specifically directed Fitchburg Gas and Electric Company ("Fitchburg") to refrain from filing a PBR plan with the Department until three months after the date of the Final Order in this Notice of Inquiry/Generic Proceeding. We now further note that Fitchburg's SQ plan, filed as part of its PBR filing, must be in accordance with the guidelines established in this proceeding.

Also, in the NOI at 3 n.4, the Department stated no action would be taken on Bay State Gas Company's ("Bay State") petition in D.T.E. 99-72 to modify its current SQ plan pending the conclusion of this proceeding. We now direct Bay State to file a new petition, which will be assigned a new docket number. Bay State's new petition shall contain a new SQ proposal that complies with the guidelines established in this proceeding. The petition shall be filed within four months of the date of this Order.

The Department recognizes that many gas and electric distribution companies presently have SQ plans that are independent of PBR mechanisms and that vary from the guidelines established in this proceeding. When approving each plan, however, the Department made provision for modification or replacement of the SQ plan pending the outcome of this proceeding. Massachusetts Electric Company/Eastern Edison Company, D.T.E. 99-47,

at 31-32 (2000); BECo-ComElec Acquisition, D.T.E. 99-19, at 101 n.68 (1999); Eastern-Colonial Acquisition, D.T.E. 98-128, at 16 n.20 (1999); Eastern-Essex Acquisition, D.T.E. 98-27, at 32-34 (1999). The Department now seeks implementation of the guidelines established in this proceeding as soon as practicable. Therefore, the Department directs each of the electric or local gas distribution companies who has a SQ plan and who chooses not to petition for a G.L. c. 164, § 94 rate increase, to file a new SQ plan within four months from the date of this Order. If a gas or electric distribution company submits a SQ plan that deviates from these SQ guidelines, that company shall provide full and complete support for its proposal and the reasons for any departures from the SQ guidelines stated in this Order.

The Department notes that experience will be a tool in monitoring and evaluating the the SQ guidelines stated in this Order. Further, the Department anticipates that the value of experience will be most appreciable in the years immediately subsequent to the issuance of this Order. Therefore, the Department directs all gas and electric distribution companies to define the term of their SQ proposal as three years. At that time, the Department may review the SQ guidelines as applied to the gas and electric distribution companies as a group and individually.

Finally, the Department recognizes that no SQ plan in accordance with the guidelines established by this proceeding shall be effective immediately. To facilitate a speedy transition to these guidelines, however, the Department directs each electric and local gas distribution company to begin collecting, as of the date of this Order, all the data necessary to implement a SQ plan based on these guidelines.

By Order of the Department,

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James Connelly, Chairman

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W. Robert Keating, Commissioner

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Paul B. Vasington, Commissioner

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Eugene J. Sullivan, Jr., Commissioner

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Deirdre K. Manning, Commissioner