Narragansett Electric
A National Grid Company

Laura S. Olton
General Counsel

December 29, 2004

VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket 3628 - The Narragansett Electric Company's Service Quality Plan
Settlement Agreement and Supplemental Testimony and Exhibits

Dear Ms. Massaro:

Enclosed on behalf of The Narragansett Electric Company ("Narragansett" or the "Company") please find ten copies of the Service Quality Plan Settlement Agreement entered into between the Company and the Division of Public Utilities and Carriers containing a new Service Quality Plan for the period beginning with the 2005 calendar year and extending through and including the 2009 calendar year. This filing also contains the Supplemental Testimony and Exhibits of Robert H. McLaren, Cheryl A. Warren, and Mark N. Sorgman in support of the new Service Quality Plan.

Thank you for your attention to this matter. If you have any questions regarding this transmittal, please feel free to contact me at (401) 784-7667.

Very truly yours,

Laura S. Olton

Laura S. Olton

Enclosures

cc: Docket 3628 Service List

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Providence, RI 02907
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The Narragansett Electric Company

Service Quality Plan
Settlement Agreement

and

Supplemental Testimony
and Exhibits in Support

December 29, 2004

Submitted to:
Rhode Island Public Utilities Commission
R.I.P.U.C. Docket No. 3628

Submitted by:

Narragansett Electric
A National Grid Company

Settlement
Agreement

State of Rhode Island and Providence Plantations
Public Utilities Commission

The Narragansett Electric Company	)	R.I.P.U.C. No. 3628

Settlement Agreement

WHEREAS, under the Third Amended Stipulation and Settlement approved in Docket No. 2930 ("Docket No. 2930 Settlement"), The Narragansett Electric Company ("Narragansett" or the "Company") implemented a service quality ("SQ") plan that has been in effect since the 2000 calendar year ("2930 SQ Plan").

WHEREAS, under the terms of the Docket No. 2930 Settlement, the parties to that settlement can seek to change or terminate the 2930 SQ Plan for the period after 2004; however, if not otherwise changed, that SQ plan remains in effect beyond 2004 unless modified by the Commission.

WHEREAS, on August 2, 2004, at the direction of the Commission, Narragansett filed a proposal to amend its existing SQ plan effective January 1, 2005, and the Commission subsequently established this Docket No. 3628 to evaluate the Company's filing.

WHEREAS, in its August 2 proposal, Narragansett proposed a SQ plan that built upon the 2930 SQ Plan, but with a number of updates to better reflect the current operating circumstances, recently adopted reporting standards, and the implementation of new technologies.

WHEREAS, under the Second Amended Stipulation and Settlement in Docket No. 3617 ("Docket No. 3617 Settlement"), the Commission approved a number of changes in the parameters of an SQ plan that would follow the 2930 SQ Plan.

WHEREAS, subsequent to Commission approval of the Docket No. 3617 Settlement, Narragansett and the Division of Public Utilities and Carriers ("Division") engaged in negotiations aimed at structuring a new SQ plan that achieved the complementary objectives of each party; i.e., the implementation of stringent SQ standards that encourage the Company to maintain and improve its service quality performance, including through the implementation of new practices and technologies, while imposing appropriate penalties for performance that is below average.

WHEREAS, as of the date of this filing, no other party has sought to intervene or to participate in this docket.

NOW THEREFORE, in consideration of the exchange of promises and covenants hereinafter contained, Narragansett enters into this Settlement Agreement ("Settlement") with the Division to resolve all issues associated with Narragansett's proposed service quality plan for the period beginning with the 2005 calendar year and extending through and including the 2009 calendar year. Except as otherwise provided, upon approval by the Commission, the service quality plan incorporated in this Settlement will supersede in its entirety the 2930 SQ Plan. Based on those negotiations, the parties have reached this settlement agreement founded on the following:

1. Continuation of Basic SQ Plan Structure Approved in Docket No. 2930

The Company and Division agree that the new proposed SQ plan should continue to emphasize reliability and customer service performance standards that underscore the importance of assuring consistent, reliable electric service and high quality customer service for the benefit of customers. Further, the parties believe that customers place significant importance on the reliability of the electric service the Company provides. Therefore, the parties propose to continue the relative weighting of penalties under the new SQ plan that was reflected in the 2930 SQ Plan as well as in the August 2 proposal and in the Docket No. 2930 Settlement. Thus, $1.832 million (or 83%) of the maximum annual penalty of $2.2 million is proposed to be allocated equally between two reliability measures (SAIDI and SAIFI), as approved in the Docket No. 3617 Settlement. The remaining $368 thousand (or 17%) would be allocated equally between customer service metrics (i.e., calls answered within 20 seconds and the customer contact survey).

2. Reliability Standards

a. Combining Coastal and Capital Districts

The Company and Division agree that combining the Capital and Coastal districts for purposes of measuring and reporting reliability results on a statewide basis is appropriate. Accordingly, the Company will implement a SQ plan effective commencing January 1, 2005 that reflects a single statewide SAIDI measure and a single statewide SAIFI measure. The maximum potential penalty for each of the two reliability measures will be $916 thousand.

b. Historical Performance Benchmark

The Company and Division agree that in the context of a comprehensive settlement of this docket that it is reasonable to update the historical benchmark period for evaluating SAIDI and SAIFI. Accordingly, the parties agree to establish the reliability performance benchmark based on results for the years 1995-2002.

c. Use of Logarithmic Data

The parties agree that the historical reliability performance data used to establish the minimum and maximum target levels shall be calculated using the natural logarithm of the historical SAIDI and SAIFI values for this period (i.e., 1995 through 2002).

d. Extraordinary Event Criteria

The parties agree that the Company shall continue to apply the current Extraordinary Event criteria when reporting its reliability results. In addition, the Company shall also annually report, for information purposes, annual SAIDI and SAIFI values calculated under the Institute of Electrical and Electronics Engineers, Inc. ("IEEE") Standard 1366-2003, *Guide for Electric Power Distribution Reliability Indices* ("IEEE Std. 1366-2003") methodology, including the segmentation of those days that would qualify as Major Event Days under that standard. The parties also agree that the Company may petition the Commission no sooner than two years after the date of this Agreement to modify the Company's SQ plan to reflect the adoption of the applicable IEEE Std. 1366 reliability reporting methodology. The Company shall have the burden of proof with respect to any such petition, and the Division shall be free to take any position on such petition.

3. Customer Service Standards

a. Historical Performance Benchmark

The parties agree that it is appropriate to expand the period used to establish the historical performance benchmarks for the two customer service standards to include additional years. Doing so provides a more robust historic data set against which to assess the Company's performance, and takes into account the implementation of improved practices and technologies that affect the Company's performance going forward. Accordingly, the benchmarking periods for both measures will be updated up to and through the end of 2004 (1996-2004 for calls answered; 1997-2004 for customer contact survey).

b. Inclusion of VRU Calls

In 2000, Narragansett implemented a voice response unit ("VRU") in its customer service call center. The VRU allows customers the option of speaking directly with a customer service representative, or, alternatively, customers may elect to complete their respective transactions through the automated options offered by the VRU. In the past few years, the Company has seen an increase in the number of calls that customers complete through the VRU. Therefore, in order to more accurately reflect the totality, and true nature, of the calls being handled by the Company's customer service call center, the parties have agreed that calls completed through the VRU should be included in the measure of calls answered within 20 seconds.

4. Reduction of Offsets

The parties also agree that as part of the comprehensive settlement of all of the issues in this docket, the maximum potential offset that can be earned with respect to any

performance metric shall be set at 25% of the maximum penalty for that metric. This is a substantial reduction from the maximum potential offset of 75% under the 2930 SQ Plan. Other than the reduction in the maximum potential offset, the parties do not propose to change any other provision affecting the SQ plan from what was approved in the Docket No. 3617 Settlement, including the allocation between metrics of the maximum penalty amount (83%, or $1.832 million, to reliability, and 17%, or $368 thousand, to customer service), and the provision that offsets can be used only in the year in which they are earned.

5. Proposed New Service Quality Plan

As described above, Narragansett and the Division have reached agreement on a new SQ plan to become effective January 1, 2005. Attachment 1 hereto contains the detailed provisions of the Company's new proposed SQ plan. Those provisions reflect a full and complete description of the plan. Such new SQ plan reflects several changes and updates from the currently effective SQ plan, and adoption of the new SQ plan would resolve all outstanding issues in this docket.

A summary of the SQ plan agreed to by the Company and the Division is set forth in the following table.

Metric	Max. Penalty ($000)	Max. Offset ($000)	Historical Benchmark Period	Other Proposed Changes
Company Duration (SAIDI)	$916	$229	1995-2002	Use of lognormal data to set performance standards
Company Frequency (SAIFI)	$916	$229	1995-2002	Use of lognormal data to set performance standards
Calls Answered in 20 Seconds	$184	$46	1996-2004	Include VRU calls
Customer Contact Survey	$184	$46	1997-2004	
Total	$2,200	$550		

Table 1: Proposed SQ Plan

6. Other Provisions

(a) Unless expressly stated herein, the making of this Settlement establishes no principles and shall not be deemed to foreclose any Party from making any contention in any other proceeding or investigation.

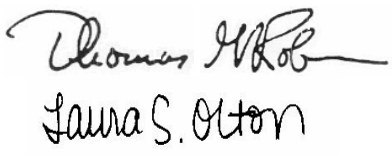
(b) This Settlement is the product of settlement negotiations. The content of those negotiations is privileged and all offers of settlement shall be without prejudice to the position of any Party.

(c) This Settlement is submitted on the condition that it be approved in full by the Commission, and on the further condition that if the Commission does not approve the Settlement in its entirety, the Settlement shall be deemed withdrawn and shall not constitute a part of the record in any proceeding or be used for any purpose, unless all Parties agree to Commission modifications.

(d) Any number of counterparts of this agreement may be executed, and each shall have the same force and effect as an original instrument, and as if all the parties to all the counterparts had signed the same instrument.

Respectfully submitted,

The Narragansett Electric Company
By its Attorneys



Thomas G. Robinson
Laura S. Olton

December 29, 2004

The Division of Public Utilities and Carriers
By its Attorney

Leo Wold, 3613
Special Assistant Attorney General

December 26, 2004

Attachment 1

Proposed New Service Quality Plan
For
The Narragansett Electric Company

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

The Narragansett Electric Company ("Narragansett" or the "Company") shall establish the performance standards for reliability and customer service that are set forth in this document. The standards are designed as a penalty-only approach, under which the Company would be penalized if its performance did not meet the standards. The Company receives no reward for performance which exceeds the standards. However, positive performance in one category can be used to offset penalties in other categories within a given year. The Company shall file annually by May 1 a report of its performance during the prior calendar year under the performance standards in this plan. Any net penalty balance reflected in the Company's annual report shall be credited to customers in a manner determined by the Rhode Island Public Utilities Commission (the "Commission") at that time.

The maximum penalty authorized under the standards set forth below is $2.2 million per year. The performance standards set forth below shall be in effect for the calendar year 2005 and continue through 2009 or until they are modified by the Commission.

NOTE: When interpreting the performance standards that follow, please note that pages 6 through 9 of this Exhibit contain definitions of terms used in the standards.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

FREQUENCY OF INTERRUPTIONS PER CUSTOMER SERVED

Year	SAIFI*
2002	0.98
2001	1.11
2000	1.09
1999	1.05
1998	0.89
1997	0.91
1996	1.03
1995	1.36

		Log Average	0.0433		
		Log Std. Dev.	0.1328		
	-2 Std Dev.	-1 Std Dev.	Mean	+1 Std Dev.	+2 Std Dev.
Log Normal	-0.222	-0.089	0.043	0.176	0.309
SAIFI	0.80	0.91	1.04	1.19	1.36

PERFORMANCE STANDARD – SAIFI (System Average Interruption Frequency Index):

SAIFI Company Target	(Penalty)/ Offset
More than 1.36	($916,000)
1.20 – 1.36	linear interpolation
0.91 – 1.19	$0
0.80 – 0.90	linear interpolation
Less than 0.80	$229,000

* The target bands are calculated considering the lognormal nature of the data. To do this, the lognormal mean and lognormal standard deviation are calculated and applied in lognormal space, which is done by applying the mean, 1 standard deviation, and 2 standard deviations and then converting back to normal space. Interruptions from "extraordinary events" are excluded, as described in the attached criteria.

$$\text{SAIFI} = \frac{\text{Total Number of Customers Interrupted}}{\text{Total Number of Customers Served}}$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

DURATION OF INTERRUPTIONS PER CUSTOMER SERVED

Year	SAIDI*
2002	71.1
2001	69.0
2000	74.4
1999	68.4
1998	42.2
1997	59.5
1996	72.8
1995	63.7

		Log Average	4.1627		
		Log Std. Dev.	0.1851		
	-2 Std Dev.	-1 Std Dev.	Mean	+1 Std Dev.	+2 Std Dev.
Log Normal	3.793	3.978	4.163	4.348	4.533
SAIDI	44.4	53.4	64.2	77.3	93.0

PERFORMANCE STANDARD – SAIDI (System Average Interruption Duration Index):

SAIDI Company Target	(Penalty)/ Offset
More than 93.0	($916,000)
77.4 – 93.0	linear interpolation
53.4 – 77.3	$0
44.4 – 53.3	linear interpolation
Less than 44.4	$229,000

* The target bands are calculated considering the lognormal nature of the data. To do this, the lognormal mean and lognormal standard deviation are calculated and applied in lognormal space, which is done by applying the mean, 1 standard deviation, and 2 standard deviations and then converting back to normal space. Interruptions due to "extraordinary events" are excluded, as described in the attached criteria.

$$\text{SAIDI (minutes)} = \frac{\text{Total Customer Minutes Interrupted}}{\text{Total Number of Customers Served}}$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

CUSTOMER CONTACT SURVEY

Year	% Satisfied*
2004	76.5% (estimated)
2003	79.3%
2002	76.0%
2001	77.3%
2000	83.2%
1999	82.1%
1998	77.8%
1997	79.5%
Mean	79.0%
Standard Deviation	2.4%

PERFORMANCE STANDARD – Customer Contact:

% Satisfied Target	(Penalty)/ Offset
Less than 74.2%	($184,000)
74.2% – 76.5%	linear interpolation
76.6% – 81.4%	$0
81.5% – 83.8%	linear interpolation
More than 83.8%	$46,000

* The calculations are based on responses from customers of Narragansett based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. Eight types of transactions are included in the survey, and the overall results are weighted based on the number of these transactions actually performed at the call center during the year.

The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven-point scale, where 1=extremely dissatisfied and 7=extremely satisfied.

The results for 2004 are estimated based on actual results through November 2004 and projected results for December 2004. This will be revised to reflect final results through December 2004 in a filing to be made with the Commission prior to May 1, 2005.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS

Year	Percent of Calls Answered Within 20 Secs*
2004	93.0% (estimated)
2003	93.3%
2002	84.0%
2001	50.4%
2000	76.7%
1999	76.9%
1998	80.9%
1997	76.7%
1996	70.2%
Mean	78.0%
Standard Deviation	12.2%

PERFORMANCE STANDARD – Telephone Calls Answered within 20 Seconds:

% Calls Answ Within 20 Seconds Target	(Penalty)/ Offset
Less than 53.6%	($184,000)
53.6% – 65.7%	linear interpolation
65.8% – 90.2%	$0
90.3% – 100.0%	linear interpolation, to a maximum of $46,000 at 100.0%

* The percent of calls answered within 20 seconds is calculated by dividing the number of calls answered within 20 seconds by the total number of calls answered during the year. "Calls answered" include calls answered by a customer service representative (“CSR”) and calls completed within the Voice Response Unit (“VRU”). The time to answer is measured once the customer makes a selection to either speak with a CSR or use the VRU. VRU calls are included beginning in the year 2000.

The results for 2004 are estimated based on actual results through November 2004 and projected results for December 2004. This will be revised to reflect final results through December 2004 in a filing to be made with the Commission prior to May 1, 2005.

$$\text{Percent of Calls Answered Within 20 Seconds} = \frac{\text{Total Calls Answered Within 20 Seconds}}{\text{Total Calls Answered}}$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

DEFINITIONS OF
PERFORMANCE STANDARD
MEASUREMENTS

INTERRUPTION EVENT

The loss of service to more than one (1) customer for more than one (1) minute.

INTERRUPTION DURATION

The period of time, measured in minutes, from the initial notification of the interruption event to the time when service has been restored to the customers.

CUSTOMER

An active bill account with an active meter at a premise.

CUSTOMER COUNT

The number of customers either served or interrupted depending on usage.

TOTAL NUMBER OF CUSTOMERS SERVED

The average number of customers served during the reporting period. If a different customer total is used, it must be clearly defined within the report.

TOTAL NUMBER OF CUSTOMERS INTERRUPTED

The sum of the customers losing electric service for any defined grouping of interruption events during the reporting period.

TOTAL CUSTOMER MINUTES INTERRUPTED

The product of the number of customers interrupted and the interruption duration for any interruption event. Also, the sum of those products for any defined grouping of interruption events.

EXTRAORDINARY EVENTS

A particular interruption event will be considered extraordinary, and will not count towards the Reliability Performance Standards, if it meets one of the following criteria:

(1) It was the result of a major weather event which causes more than 10% of a district or the total company customers to be without service at a given time.

(2) It was due to the failure of other companies' supply or transmission to Narragansett Electric customers and restoration of service was beyond the reasonable control of the Company and its employees.

(3) It occurred because of an extraordinary circumstance, including, without limitation, a major disaster, earthquake, wild fire, flood, terrorism, or any other event beyond the reasonable control of the Company.

MAJOR EVENT

Designates an event that exceeds reasonable design and or operational limits of the electric power system. A Major Event includes at least one Major Event Day.

MAJOR EVENT DAY

A day in which the daily system SAIDI exceeds a threshold value, T_{MED}. For the purposes of calculating daily system SAIDI, any interruption that spans multiple calendar days is accrued to the day on which the interruption began. Statistically, days having a daily system SAIDI greater than T_{MED} are days on which the energy delivery system experienced stresses beyond that normally expected (such as severe weather). Activities that occur on major event days should be separately analyzed and reported.

i denotes an interruption event
r_i = Restoration Time for each Interruption Event
CI = Customers Interrupted
CMI = Customer Minutes Interrupted
N_T = Total Number of Customers Served for the Area

SAIFI (System Average Interruption Frequency Index)

The system average interruption frequency index indicates how often the average customer experiences a sustained interruption over a predefined period of time. Mathematically, this equation is given in (1).

$$SAIFI = \frac{\sum \text{Total Number of Customers Interrupted}}{\text{Total Number of Customers Served}} \quad (1)$$

To calculate the index, use equation (2) below.

$$SAIFI = \frac{\Sigma N_i}{N_T} = \frac{CI}{N_T} \quad (2)$$

SAIDI (System Average Interruption Duration Index)

This index indicates the total duration of interruption for the average customer during a predefined period of time. It is commonly measured in customer minutes or customer hours of interruption. Mathematically, this equation is given in (3).

$$SAIDI = \frac{\sum \text{ Customer Interruption Durations}}{\text{Total Number of Customers Served}} \qquad (3)$$

To calculate the index, use equation (4).

$$SAIDI = \frac{\sum r_i N_i}{N_T} = \frac{CMI}{N_T} \qquad (4)$$

CUSTOMER CONTACT SURVEY

The calculations are based on responses from customers of Narragansett, based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. The Company will maintain the same levels of statistical precision of the results as in prior surveys. Eight types of transactions are included in the survey, and the overall results are weighted based on the number of these transactions actually performed at the call center during the year. The eight types of transactions are power interruptions, meter on, meter off, meter exchange, collection, payment plan, meter reread, and meter test.

The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven-point scale, where 1=extremely dissatisfied and 7=extremely satisfied.

TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS

The percent of calls answered within 20 seconds is calculated by dividing the number of calls answered within 20 seconds by the total number of calls answered during the year. "Calls answered" include calls answered by a customer service representative ("CSR") and calls completed within the voice response unit ("VRU"). Abandoned calls are not considered. The time to answer is measured once the customer makes a selection to either speak with a CSR or use the VRU. VRU calls are included beginning in the year 2000.

LINEAR INTERPOLATION

(1) The actual performance or penalty each year will be calculated and the result will be scaled or interpolated linearly between the relevant two points of the results range and the relevant two points on the dollar range.

(2) The method of determining the actual penalty, or offset, of each performance standard is determined by multiplying the value of the penalty, or offset, by the absolute value of the actual performance indicator minus the value of the first standard deviation from the mean of that indicator, divided by the value of the second standard deviation of the mean of that indicator minus the value of the first standard deviation from the mean of that indicator.

$$\$ \text{ Penalty or Offset} = \text{Penalty or Offset } \$ \text{ Value} \times \frac{\text{Actual} - 1^{st} \text{ standard deviation}}{2^{nd} \text{ standard deviation} - 1^{st} \text{ standard deviation}}.$$

ADDITIONAL REPORTING CRITERIA

1. Each quarter, the Company will file a report of 5% of all circuits designated as worst performing on the basis of customer frequency.

   Included in the report will be:
   1. The circuit id and location.
   2. The number of customers served.
   3. The towns served.
   4. The number of events.
   5. The average duration.
   6. The total customer minutes.
   7. A discussion of the cause or causes of events.
   8. A discussion of the action plan for improvements including timing.

2. The Company will track and report monthly the number of calls it receives in the category of Trouble, Non-Outage. This includes inquiries about dim lights, low voltage, half-power, flickering lights, reduced TV picture size, high voltage, frequently burned out bulbs, motor running problems, damaged appliances and equipment, computer operation problems and other non-Interruptions related inquiries.

3. The Company will report its annual meter reading performance as an average of monthly percentage of meters read.

4. The Company will also report annually the annual SAIDI and SAIFI values calculated under the Institute of Electrical and Electronics Engineers, Inc. ("IEEE") Std. 1366-2003 methodology, including the segmentation of those days that would qualify as Major Event Days under that standard.

Testimony of
Robert H. McLaren

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: McLaren

DIRECT SUPPLEMENTAL TESTIMONY

OF

Robert H. McLaren

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: McLaren

Table of Contents

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: McLaren

Exhibits

Table of Contents

I. Introduction and Qualifications

Q. Please state your full name and business address.

A. Robert H. McLaren, 55 Bearfoot Road, Northborough, Massachusetts 01532.

Q. Have you previously submitted testimony in this proceeding?

A. Yes. I submitted pre-filed testimony on August 2, 2004 in support of The Narragansett Electric Company's ("Narragansett" or the "Company") Service Quality ("SQ") Plan Filing in this docket ("August 2 Filing").

II. Purpose of Testimony

Q. What is the purpose of your testimony as it relates to the Company's filing?

A. As the result of a settlement reached with the Division of Public Utilities and Carriers ("Division"), the Company proposes to implement a new overall SQ plan ("New SQ Plan"). My testimony describes how the New SQ Plan differs from the Company's proposal under its August 2 Filing, and the benefits of the New SQ Plan. The accompanying testimony of Mrs. Cheryl A. Warren and Mr. Mark N. Sorgman address these changes and the benefits of the New SQ Plan in more detail.

III. Existing SQ Plan

Q. Please provide a brief description of the Company's existing SQ Plan.

A. Under the Third Amended Stipulation and Settlement approved in Docket No. 2930 ("Docket No. 2930 Settlement"), Narragansett implemented a SQ plan that has been in effect since 2000 ("Original SQ Plan"). Under the terms of the Docket No. 2930 Settlement, the parties to that settlement could seek to change or terminate the Original SQ Plan for the period after 2004; however, if not otherwise changed, that SQ plan would remain in effect beyond 2004 unless modified by the Rhode Island Public Utilities Commission ("Commission"). The Original SQ Plan consists of the following performance standards and associated penalty/offset allocations:

Performance Standard	Max. Penalty ($000)	Max. Offset ($000)	Historical Benchmark Period
Capital Duration (SAIDI)	$500	$375	1993-1999
Capital Frequency (SAIFI)	$500	$375	1993-1999
Coastal Duration (SAIDI)	$500	$375	1993-1999
Coastal Frequency (SAIFI)	$500	$375	1993-1999
Calls Answered Within 20 Seconds	$200	$150	1996-1999
Customer Contact Survey	$200	$150	1997-1999
Total	$2,400	$1,800	

Table 1: Original SQ Plan

IV. August 2, 2004 Proposed SQ Plan

Q. Please describe the proposed SQ plan under the Company's August 2 Filing.

A. On August 2, 2004, at the direction of the Commission, Narragansett filed a proposal to amend its SQ plan as defined under the Original SQ Plan effective January 1, 2005. The Commission established this Docket No. 3628 to evaluate the Company's August 2 Filing, which was supported by the direct testimony and exhibits of Robert H. McLaren, Cheryl A. Warren, and Mark N. Sorgman.

In its August 2 Filing, Narragansett proposed a SQ plan that built upon the principal objective of the Original SQ Plan, which was to encourage the Company to maintain or improve the quality of service to its customers. To that end, the Company proposed to retain the same basic measures of SQ (i.e., reliability metrics assessing outage frequency and duration, and customer service metrics assessing call answering times and customer contact satisfaction), so as to underscore the importance of assuring consistent, reliable electric service and high quality customer service for the benefit of customers. In addition, the August 2 Filing included a number of updates to better reflect the current operating circumstances, recently adopted reliability reporting standards, and the implementation of new customer service technologies. For all performance standards, the Company also proposed to expand the historical

time period used to develop the performance benchmarks to include the four most recent years (2000 through 2003) and to use a "rolling average" approach (using the ten most recent years' performance once available) to establish future performance benchmarks.

Q. What changes did the Company propose in the August 2 Filing with respect to the reliability performance standards from the Original SQ Plan?

A. In its August 2 Filing, the Company proposed using the recently adopted Institute of Electrical and Electronics Engineers ("IEEE") Standard 1366-2003, *Guide for Electric Power Distribution Reliability Indices* ("IEEE Std. 1366-2003") to establish the reliability performance standards. The Company also proposed that the historical reliability performance data used to establish the minimum and maximum target levels be analyzed using the natural logarithm of the historical SAIDI (system average interruption duration index) and SAIFI (system average interruption frequency index) values. This proposed change was based on the fact that the distribution of historical reliability performance is not Gaussian (i.e., it is not represented by a "bell-shaped" curve), but rather is asymmetrical, and is reflected more accurately as a lognormal distribution. Finally, with respect to the reliability metrics, the Company proposed to aggregate the historical reliability performance data for the whole Company, rather than continue to report separate results for the former Coastal and

Capital districts. This combination into a single area better reflects how the Company now operates its distribution system.

Q. Did the Company propose changes to its customer service performance standards in the August 2 Filing?

A. Yes. In terms of customer service metrics, the Company proposed in the August 2 Filing to include calls to the Voice Response Unit ("VRU") in its telephone calls answered within 20 seconds performance ("Call Answering"). This proposed change was based on the fact that in recent years, the Company has expanded and improved the services offered to customers through its VRU and, as a result, has experienced a significant increase in the number of customer calls handled by the VRU.

Q. Did the Company propose any modifications to the maximum penalty or offset amounts?

A. No. The Company did not propose any modifications to the maximum penalty or offset amounts, or to the allocation of penalties/offsets among the SQ performance measures that were established under the Original SQ Plan. In summary, the August 2 Filing reflected the following:

Performance Measure	Max. Penalty ($000)	Max. Offset ($000)	Historical Benchmark Period*	Other Proposed Changes
Company Duration (SAIDI)	$1,000	$750	1994-2003	IEEE 1366-2003 Lognormal data
Company Frequency (SAIFI)	$1,000	$750	1994-2003	IEEE 1366-2003 Lognormal data
Calls Answered Within in 20 Seconds	$200	$150	1996-2003	Include VRU calls
Customer Contact Survey	$200	$150	1997-2003	
Total	$2,400	$1,800		

Table 2: August 2 Filing - SQ plan proposal

* Initial benchmark; once 10 years of data available, use 10-year rolling average to set benchmark.

V. The Second Amended Stipulation and Settlement in Docket No. 3617

Q. Please describe any changes to the Original SQ Plan as a result of the Second Amended Stipulation and Settlement approved by the Commission in Docket No. 3617 ("Docket No. 3617 Settlement").

A. As with the Docket No. 2930 Settlement, the Docket No. 3617 Settlement also included a SQ plan so as to make certain that both reasonable, stable delivery rates and strong service quality were maintained over the period of the new rate freeze. However, under the Docket No. 3617 Settlement, the Commission also approved a number of changes in the parameters of the SQ plan that would follow the Original SQ Plan. Specifically, the Docket No. 3617 Settlement provided that (1) the Original SQ Plan would continue until

the Commission completes its review in Docket No. 3628, (2) the performance standards under any new SQ plan shall continue to be derived using the Company's historical performance, (3) any new SQ plan would assess the Company's performance annually on a calendar year basis in a Company report filed by May 1st of the following year, (4) any penalty offsets could be applied only in the year in which they are earned, (5) the maximum potential aggregate penalty amounts in each year should be set at $2.2 million, or approximately 1% of the Company's distribution revenues, and (6) any resulting performance penalties would be credited to customers in the year after they accrue in a manner approved by the Commission. Based on there being no change in the number and relative weighting of the Original SQ Plan performance measures, the effect on maximum penalties and offsets under the Docket No. 3617 Settlement is reflected in the following table:

Performance Measure	Max. Penalty ($000)	Max. Offset ($000)*
Capital Duration (SAIDI)	$458	$343.5
Capital Frequency (SAIFI)	$458	$343.5
Coastal Duration (SAIDI)	$458	$343.5
Coastal Frequency (SAIFI)	$458	$343.5
Calls Answered Within 20 Seconds	$184	$138
Customer Contact Survey	$184	$138
Total	$2,200	$1,650

Table 3: Maximum Penalties and Offsets from Docket No. 3617 Settlement

* Maximum offsets maintained at 75% of maximum penalty amounts.

Q. Did the Docket No. 3617 Settlement specify any other changes from the Original SQ Plan?

A. Yes. The Docket No. 3617 Settlement eliminated the provision for the potential doubling of penalties in the event of a significant and persistent deterioration in performance.

VI. Settlement Agreement Containing the New SQ Plan

Q. Please describe the settlement agreement between the Company and the Division regarding a New SQ Plan ("New SQ Plan Settlement").

A. Subsequent to the approval of the Docket No. 3617 Settlement, Narragansett and the Division engaged in negotiations aimed at structuring a new SQ plan that achieved the complementary objectives of each party; i.e., the implementation of stringent SQ standards that encourage the Company to maintain and improve its SQ performance, including through the implementation of new practices and technologies, while imposing appropriate penalties for poor performance. Based on those negotiations, Narragansett and the Division entered into the New SQ Plan Settlement as reflected in Exhibit RHM-1.

VII. Proposed New SQ Plan

Q. Please describe the proposed New SQ Plan embodied in the New SQ Plan Settlement.

A. Briefly, the New SQ Plan agreed to by Narragansett and the Division would build upon the intent and basic structure of the Company's Original SQ plan, and would also reflect a number of changes and updates designed to enhance the plan. In terms of reliability performance standards, the parties agreed to a number of changes. First, the parties agreed to combine the Capital and Coastal districts into a single statewide reporting area to better match how the Company now operates its distribution system. In addition, the reliability performance targets would be calculated based on the natural logarithm of the historical reliability performance data in order to better reflect the lognormal distribution of that data. The resulting statistical means and standard deviations would be used to establish the reliability performance benchmarks. Mrs. Cheryl A. Warren describes these changes in more detail in her supplemental testimony.

Furthermore, Mr. Mark Sorgman describes in his supplemental testimony that, in the area of customer service, the Call Answering standard would be modified to include those calls which are completed using the Company's VRU.

In addition to these changes, the historical performance periods used to set the benchmarks for all standards would be updated to include more recent performance data. Finally, the maximum potential offsets that can be earned with respect to any individual performance standard would be reduced from the current 75% level of the maximum penalty for the respective performance standard to 25%.

Q. How is the proposed New SQ Plan similar to the Original SQ Plan in Docket No. 2930?

A. The proposed New SQ Plan effectively continues the same basic SQ plan structure as the Original SQ Plan approved in Docket No. 2930. That is, the Company and Division agreed that the proposed New SQ Plan should continue to emphasize reliability and customer service performance standards that underscore the importance of assuring consistent, reliable electric service and high quality customer service for the benefit of customers. Further, the parties believe that customers place significant importance on the reliability of the electric service the Company provides. Therefore, the parties propose to continue the same performance measures and the same relative weighting of penalties under the New SQ Plan as were reflected in the Original SQ Plan, as well as in the August 2 Filing. Thus, $1.832 million (or 83%) of the maximum annual penalty of $2.2 million is proposed to be allocated equally

between two reliability measures (SAIDI and SAIFI), as approved in the Docket No. 3617 Settlement. The remaining $368 thousand would be allocated equally between customer service metrics (i.e., Call Answering and the customer contact survey ("Customer Contact")).

Q. In terms of the reliability performance standards, please describe this proposed New SQ Plan, noting any differences from the SQ plan proposed by the Company in its August 2 Filing in Docket No. 3628, as well as improvements over the Original SQ Plan and/or the August 2 Filing.

A. The New SQ Plan proposes the following changes for the reliability performance standards:

1. <u>Combining Coastal and Capital Districts</u>

As part of the comprehensive settlement, the Company and Division agreed that combining the Capital and Coastal districts for purposes of measuring and reporting reliability results on a statewide basis, as proposed in the August 2 Filing, is appropriate. As previously noted, doing so better reflects how the Company currently operates since, in 2002, subsequent to the Original SQ Plan, the Company changed the manner in which it operates its distribution system – from a district basis to a total company basis. Accordingly, the Company will implement a SQ plan effective commencing January 1, 2005 that reflects a single

statewide SAIDI measure and a single statewide SAIFI measure. The maximum potential penalty for each of the two reliability measures will be $916 thousand as a result of the changes in penalty amounts per the Docket No. 3617 Settlement.

2. Historical Performance Benchmark

The Company and Division also agreed that in the context of a comprehensive settlement for a New SQ Plan that it is reasonable to update the historical benchmark period for evaluating SAIDI and SAIFI. Accordingly, the parties agreed to establish the reliability performance benchmarks based on results for the years 1995-2002. This is slightly different from the benchmark period of 1994-2003 proposed in the August 2 Filing. Based upon combining the actual Capital and Coastal district reliability results into Company results using the percent of customers in each district (61% Capital / 39% Coastal), this change benefits customers from the standpoint that the performance targets at which penalties would be applied are stricter than those targets which would exist if they were to include the years 1993, 1994 and 2003.

3. Use of Logarithmic Data

In addition, the parties agreed that the historical reliability performance data used to establish the minimum and maximum target levels shall be calculated using the natural logarithm of the historical SAIDI and SAIFI values, as also proposed in the August 2 Filing, for this period (i.e., 1995 through 2002). Using the natural logarithm of the historical SAIDI and SAIFI values better reflects the actual distribution of the data, thus leading to a more accurate approach for evaluating reliability performance and setting expectations upon which SQ performance targets can be established.

4. Extraordinary Event Criteria

Finally, the August 2 Filing had proposed adoption of IEEE Std. 1366-2003 for calculation of SQ performance benchmarks for reliability, including the application of Major Event Day ("MED") definitions rather than the existing Extraordinary Event criteria as defined under the Original SQ Plan. Under the New SQ Plan, the parties instead agree that the Company shall continue to apply the current Extraordinary Event criteria when reporting its reliability results in order to allow additional time to review the impact of such a change. To that end, the Company shall also annually report, for informational purposes, annual

SAIDI and SAIFI values calculated under the IEEE Std. 1366-2003 methodology, including the segmentation of those days that would qualify as MEDs under that standard. The parties also agree that the Company may petition the Commission no sooner than two years after the date of this Agreement to modify the New SQ Plan to reflect the adoption of the applicable IEEE Std. 1366 reliability reporting methodology. The Company shall have the burden of proof with respect to any such petition, and the Division shall be free to take any position on such petition.

Q. Please describe the customer service performance standards under the proposed New SQ Plan, noting any differences from the SQ plan proposed by the Company in the August 2 Filing, as well as any improvements over the Original SQ Plan and/or the August 2 Filing.

A. The New SQ Plan proposes the following changes for the customer service performance standards:

1. <u>Historical Performance Benchmark</u>

In the context of the comprehensive settlement, the Company and the Division agreed that it is appropriate to expand the period used to establish the historical performance benchmarks for the two customer service standards to include additional years. Doing so provides a more

robust historic data set against which to assess the Company's performance, takes into account the implementation of improved practices and technologies that affect the Company's performance going forward, and generally makes it more difficult to earn penalty offsets. As the Commission is aware, the Company has earned offsets in the area of Call Answering in the last two full years that the Original SQ Plan has been in effect, and also anticipates earning an offset in this area in 2004. Accordingly, the benchmark periods for both measures will be updated up to and through the end of 2004 (1996-2004 for Call Answering; 1997-2004 for the Customer Contact), which is slightly different from the benchmark periods proposed in the August 2 Filing. Because final 2004 results are not known at this point, the 2004 results reflected in Attachment RHM-1, pages 4 and 5 set forth the amended proposed performance measures based on projected results (actual results through November 2004, with December 2004 projected). The performance benchmarks will be revised to reflect final results through December 2004 in a filing to be made with the Commission prior to May 1, 2005.

2. Inclusion of VRU Calls

When calling Narragansett for service, customers have the option of speaking directly with a customer service representative, or, alternatively, customers may elect to complete their transactions through the automated VRU system. In the past few years, the Company has seen an increase in the number of calls that customers complete through the VRU. Therefore, in order to more accurately reflect the totality, and true nature, of the calls being handled by the Company's customer service call center, the parties agreed that the Original Service Quality would be enhanced such that calls completed through the VRU should be included in the Call Answering performance measure beginning in the year 2000, which is the first year in which the Company tracked the number of VRU calls. As previously noted, this change makes it more difficult to earn penalty offsets.

Q. Are there any other changes proposed in the New SQ plan which differ from the SQ plan proposed in the August 2 Filing?

A. Yes. The parties also agreed that as part of the comprehensive settlement of all of the issues in this Docket No. 3628, the maximum potential offset that can be earned with respect to any performance metric shall be set at 25% of the maximum penalty for that metric. This is a substantial reduction from the

maximum potential offset of 75% under the Original SQ Plan. Other than the reduction in the maximum potential offset, the parties do not propose to change any other provision affecting the SQ plan from what was approved in the Docket No. 3617 Settlement, including the allocation between metrics of the maximum penalty amount (83%, or $1.832 million, to reliability, and 17%, or $0.368 million, to customer service), and the provision that offsets can be used only in the year in which they are earned.

Q. Please summarize the New SQ Plan agreed to by Narragansett and the Division.

A. A summary of the proposed New SQ Plan agreed to by Narragansett and the Division is set forth in the following table:

Performance Measure	Max. Penalty ($000)	Max. Offset ($000)	Historical Benchmark Period	Other Proposed Changes
Company Duration (SAIDI)	$916	$229	1995-2002	Use of lognormal data to set performance standards
Company Frequency (SAIFI)	$916	$229	1995-2002	Use of lognormal data to set performance standards
Calls Answered Within 20 Seconds	$184	$46	1996-2004	Include VRU calls
Customer Contact Survey	$184	$46	1997-2004	
Total	$2,200	$550		

Table 4: Proposed New SQ Plan

Q. Please describe the attachments to the Company's filing.

A. Exhibit RHM-1 sets forth the proposed New SQ Plan for the Company. The New SQ Plan reflected in RHM-1 is identical to the New SQ Plan included as Attachment 1 to the Settlement Agreement with the Division in this docket. Exhibit RHM-2 shows the New SQ Plan marked to show changes from the proposed SQ plan in the August 2 Filing. Exhibit RHM-3 shows the New SQ Plan marked to show changes from the Original SQ Plan. Finally, Exhibit RHM-4 contains the Original SQ Plan.

VIII. Conclusion

Q. Does this conclude your testimony?

A. Yes it does.

Exhibit RHM-1

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: McLaren

Exhibit RHM-1

Proposed New Service Quality Plan

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

The Narragansett Electric Company ("Narragansett" or the "Company") shall establish the performance standards for reliability and customer service that are set forth in this document. The standards are designed as a penalty-only approach, under which the Company would be penalized if its performance did not meet the standards. The Company receives no reward for performance which exceeds the standards. However, positive performance in one category can be used to offset penalties in other categories within a given year. The Company shall file annually by May 1 a report of its performance during the prior calendar year under the performance standards in this plan. Any net penalty balance reflected in the Company's annual report shall be credited to customers in a manner determined by the Rhode Island Public Utilities Commission (the "Commission") at that time.

The maximum penalty authorized under the standards set forth below is $2.2 million per year. The performance standards set forth below shall be in effect for the calendar year 2005 and continue through 2009 or until they are modified by the Commission.

NOTE: When interpreting the performance standards that follow, please note that pages 6 through 9 of this Exhibit contain definitions of terms used in the standards.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

FREQUENCY OF INTERRUPTIONS PER CUSTOMER SERVED

Year	SAIFI*
2002	0.98
2001	1.11
2000	1.09
1999	1.05
1998	0.89
1997	0.91
1996	1.03
1995	1.36

		Log Average	0.0433		
		Log Std. Dev.	0.1328		
	-2 Std Dev.	-1 Std Dev.	Mean	+1 Std Dev.	+2 Std Dev.
Log Normal	-0.222	-0.089	0.043	0.176	0.309
SAIFI	0.80	0.91	1.04	1.19	1.36

PERFORMANCE STANDARD – SAIFI (System Average Interruption Frequency Index):

SAIFI Company Target	(Penalty)/ Offset
More than 1.36	($916,000)
1.20 – 1.36	linear interpolation
0.91 – 1.19	$0
0.80 – 0.90	linear interpolation
Less than 0.80	$229,000

* The target bands are calculated considering the lognormal nature of the data. To do this, the lognormal mean and lognormal standard deviation are calculated and applied in lognormal space, which is done by applying the mean, 1 standard deviation, and 2 standard deviations and then converting back to normal space. Interruptions from "extraordinary events" are excluded, as described in the attached criteria.

$$\text{SAIFI} = \frac{\text{Total Number of Customers Interrupted}}{\text{Total Number of Customers Served}}$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

DURATION OF INTERRUPTIONS PER CUSTOMER SERVED

Year	SAIDI*
2002	71.1
2001	69.0
2000	74.4
1999	68.4
1998	42.2
1997	59.5
1996	72.8
1995	63.7

		Log Average	4.1627		
		Log Std. Dev.	0.1851		
	-2 Std Dev.	-1 Std Dev.	Mean	+1 Std Dev.	+2 Std Dev.
Log Normal	3.793	3.978	4.163	4.348	4.533
SAIDI	44.4	53.4	64.2	77.3	93.0

PERFORMANCE STANDARD – SAIDI (System Average Interruption Duration Index):

SAIDI Company Target	(Penalty)/ Offset
More than 93.0	($916,000)
77.4 – 93.0	linear interpolation
53.4 – 77.3	$0
44.4 – 53.3	linear interpolation
Less than 44.4	$229,000

* The target bands are calculated considering the lognormal nature of the data. To do this, the lognormal mean and lognormal standard deviation are calculated and applied in lognormal space, which is done by applying the mean, 1 standard deviation, and 2 standard deviations and then converting back to normal space. Interruptions due to "extraordinary events" are excluded, as described in the attached criteria.

$$\text{SAIDI (minutes)} = \frac{\text{Total Customer Minutes Interrupted}}{\text{Total Number of Customers Served}}$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

CUSTOMER CONTACT SURVEY

Year	% Satisfied*
2004	76.5% (estimated)
2003	79.3%
2002	76.0%
2001	77.3%
2000	83.2%
1999	82.1%
1998	77.8%
1997	79.5%
Mean	79.0%
Standard Deviation	2.4%

PERFORMANCE STANDARD – Customer Contact:

% Satisfied Target	(Penalty)/ Offset
Less than 74.2%	($184,000)
74.2% – 76.5%	linear interpolation
76.6% – 81.4%	$0
81.5% – 83.8%	linear interpolation
More than 83.8%	$46,000

* The calculations are based on responses from customers of Narragansett based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. Eight types of transactions are included in the survey, and the overall results are weighted based on the number of these transactions actually performed at the call center during the year.

The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven-point scale, where 1=extremely dissatisfied and 7=extremely satisfied.

The results for 2004 are estimated based on actual results through November 2004 and projected results for December 2004. This will be revised to reflect final results through December 2004 in a filing to be made with the Commission prior to May 1, 2005.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS

Year	Percent of Calls Answered Within 20 Secs*
2004	93.0% (estimated)
2003	93.3%
2002	84.0%
2001	50.4%
2000	76.7%
1999	76.9%
1998	80.9%
1997	76.7%
1996	70.2%
Mean	78.0%
Standard Deviation	12.2%

PERFORMANCE STANDARD – Telephone Calls Answered within 20 Seconds:

% Calls Answ Within 20 Seconds Target	(Penalty)/ Offset
Less than 53.6%	($184,000)
53.6% – 65.7%	linear interpolation
65.8% – 90.2%	$0
90.3% – 100.0%	linear interpolation, to a maximum of $46,000 at 100.0%

* The percent of calls answered within 20 seconds is calculated by dividing the number of calls answered within 20 seconds by the total number of calls answered during the year. "Calls answered" include calls answered by a customer service representative (“CSR”) and calls completed within the Voice Response Unit (“VRU”). The time to answer is measured once the customer makes a selection to either speak with a CSR or use the VRU. VRU calls are included beginning in the year 2000.

The results for 2004 are estimated based on actual results through November 2004 and projected results for December 2004. This will be revised to reflect final results through December 2004 in a filing to be made with the Commission prior to May 1, 2005.

$$\text{Percent of Calls Answered Within 20 Seconds} = \frac{\text{Total Calls Answered Within 20 Seconds}}{\text{Total Calls Answered}}$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

DEFINITIONS OF
PERFORMANCE STANDARD
MEASUREMENTS

INTERRUPTION EVENT

The loss of service to more than one (1) customer for more than one (1) minute.

INTERRUPTION DURATION

The period of time, measured in minutes, from the initial notification of the interruption event to the time when service has been restored to the customers.

CUSTOMER

An active bill account with an active meter at a premise.

CUSTOMER COUNT

The number of customers either served or interrupted depending on usage.

TOTAL NUMBER OF CUSTOMERS SERVED

The average number of customers served during the reporting period. If a different customer total is used, it must be clearly defined within the report.

TOTAL NUMBER OF CUSTOMERS INTERRUPTED

The sum of the customers losing electric service for any defined grouping of interruption events during the reporting period.

TOTAL CUSTOMER MINUTES INTERRUPTED

The product of the number of customers interrupted and the interruption duration for any interruption event. Also, the sum of those products for any defined grouping of interruption events.

EXTRAORDINARY EVENTS

A particular interruption event will be considered extraordinary, and will not count towards the Reliability Performance Standards, if it meets one of the following criteria:

(1) It was the result of a major weather event which causes more than 10% of a district or the total company customers to be without service at a given time.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

(2) It was due to the failure of other companies' supply or transmission to Narragansett Electric customers and restoration of service was beyond the reasonable control of the Company and its employees.

(3) It occurred because of an extraordinary circumstance, including, without limitation, a major disaster, earthquake, wild fire, flood, terrorism, or any other event beyond the reasonable control of the Company.

MAJOR EVENT

Designates an event that exceeds reasonable design and or operational limits of the electric power system. A Major Event includes at least one Major Event Day.

MAJOR EVENT DAY

A day in which the daily system SAIDI exceeds a threshold value, T_{MED}. For the purposes of calculating daily system SAIDI, any interruption that spans multiple calendar days is accrued to the day on which the interruption began. Statistically, days having a daily system SAIDI greater than T_{MED} are days on which the energy delivery system experienced stresses beyond that normally expected (such as severe weather). Activities that occur on major event days should be separately analyzed and reported.

i denotes an interruption event
r_i = Restoration Time for each Interruption Event
CI = Customers Interrupted
CMI = Customer Minutes Interrupted
N_T = Total Number of Customers Served for the Area

SAIFI (System Average Interruption Frequency Index)

The system average interruption frequency index indicates how often the average customer experiences a sustained interruption over a predefined period of time. Mathematically, this equation is given in (1).

$$SAIFI = \frac{\sum \text{Total Number of Customers Interrupted}}{\text{Total Number of Customers Served}} \quad (1)$$

To calculate the index, use equation (2) below.

$$SAIFI = \frac{\Sigma N_i}{N_T} = \frac{CI}{N_T} \quad (2)$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

SAIDI (System Average Interruption Duration Index)

This index indicates the total duration of interruption for the average customer during a predefined period of time. It is commonly measured in customer minutes or customer hours of interruption. Mathematically, this equation is given in (3).

$$SAIDI = \frac{\sum \text{ Customer Interruption Durations}}{\text{Total Number of Customers Served}} \qquad (3)$$

To calculate the index, use equation (4).

$$SAIDI = \frac{\sum r_i N_i}{N_T} = \frac{CMI}{N_T} \qquad (4)$$

CUSTOMER CONTACT SURVEY

The calculations are based on responses from customers of Narragansett, based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. The Company will maintain the same levels of statistical precision of the results as in prior surveys. Eight types of transactions are included in the survey, and the overall results are weighted based on the number of these transactions actually performed at the call center during the year. The eight types of transactions are power interruptions, meter on, meter off, meter exchange, collection, payment plan, meter reread, and meter test.

The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven-point scale, where 1=extremely dissatisfied and 7=extremely satisfied.

TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS

The percent of calls answered within 20 seconds is calculated by dividing the number of calls answered within 20 seconds by the total number of calls answered during the year. "Calls answered" include calls answered by a customer service representative ("CSR") and calls completed within the voice response unit ("VRU"). Abandoned calls are not considered. The time to answer is measured once the customer makes a selection to either speak with a CSR or use the VRU. VRU calls are included beginning in the year 2000.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

LINEAR INTERPOLATION

(1) The actual performance or penalty each year will be calculated and the result will be scaled or interpolated linearly between the relevant two points of the results range and the relevant two points on the dollar range.

(2) The method of determining the actual penalty, or offset, of each performance standard is determined by multiplying the value of the penalty, or offset, by the absolute value of the actual performance indicator minus the value of the first standard deviation from the mean of that indicator, divided by the value of the second standard deviation of the mean of that indicator minus the value of the first standard deviation from the mean of that indicator.

$$\$ \text{ Penalty or Offset} = \text{Penalty or Offset } \$ \text{ Value} \times \frac{\text{Actual} - 1^{st} \text{ standard deviation}}{2^{nd} \text{ standard deviation} - 1^{st} \text{ standard deviation}}.$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

ADDITIONAL REPORTING CRITERIA

1. Each quarter, the Company will file a report of 5% of all circuits designated as worst performing on the basis of customer frequency.

   Included in the report will be:
   1. The circuit id and location.
   2. The number of customers served.
   3. The towns served.
   4. The number of events.
   5. The average duration.
   6. The total customer minutes.
   7. A discussion of the cause or causes of events.
   8. A discussion of the action plan for improvements including timing.

2. The Company will track and report monthly the number of calls it receives in the category of Trouble, Non-Outage. This includes inquiries about dim lights, low voltage, half-power, flickering lights, reduced TV picture size, high voltage, frequently burned out bulbs, motor running problems, damaged appliances and equipment, computer operation problems and other non-Interruptions related inquiries.

3. The Company will report its annual meter reading performance as an average of monthly percentage of meters read.

4. The Company will also report annually the annual SAIDI and SAIFI values calculated under the Institute of Electrical and Electronics Engineers, Inc. ("IEEE") Std. 1366-2003 methodology, including the segmentation of those days that would qualify as Major Event Days under that standard.

Exhibit RHM-2

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: McLaren

Exhibit RHM-2

Proposed New Service Quality Plan
Marked to Show Changes
From the August 2, 2004 proposed Service Quality Plan

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

The Narragansett Electric Company ("Narragansett" or the "Company") shall establish the performance standards for reliability and customer service that are set forth in this document. The standards are designed as a penalty-only approach, under which the Company would be penalized if its performance did not meet the standards. The Company receives no reward for performance which exceeds the standards. However, positive performance in one category can be used to offset penalties in other categories within a given year. The Company shall file annually by May 1 a report of its performance during the prior calendar year under the performance standards in this plan. Any net penalty balance reflected in the Company's annual report shall be credited to customers in a manner determined by the Rhode Island Public Utilities Commission (the "Commission") at that time.

The maximum penalty authorized under the standards set forth below is $2.2 million per year. The performance standards set forth below shall be in effect for the calendar year 2005 and continue through 2009 or until they are modified by the Commission.

NOTE: When interpreting the performance standards that follow, please note that pages 6 through 9 of this Exhibit contain definitions of terms used in the standards.

Deleted: , measured on a cumulative basis

Deleted: in any

Deleted: , except that offsets earned for

Deleted: two customer service standards can only be used in the

Deleted: earned to offset any other standard, and offsets earned in the two reliability

Deleted: can either be used in the year earned or in the following year. If there are negative balances or penalties

Deleted: cumulative balance as of December 31, 2009, the entire balance

Deleted: . The

Deleted: in which the penalty is credited to customers will be

Deleted: The performance standards under this service quality plan shall be updated each year based upon the Company's ten most recent years' performance, provided that, if there are less than ten years of historical performance, then the available years of data shall be used. For example, for calendar year 2005, the reliability performance standards shall be based upon historical performance for 1995 through 2004. ¶

Deleted: The maximum penalty authorized under the standards set forth below is $2.4 million per year. The Performance Standards set forth herein shall be in effect for the calendar year 2005 and continue through 2009 or until modified by the Commission.¶
¶

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THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

FREQUENCY OF INTERRUPTIONS PER CUSTOMER SERVED

Year	SAIFI*
2002	0.98
2001	1.11
2000	1.09
1999	1.05
1998	0.89
1997	0.91
1996	1.03
1995	1.36

Log Average	0.0433
Log Std. Dev.	0.1328

	-2 Std Dev.	-1 Std Dev.	Mean	+1 Std Dev.	+2 Std Dev.
Log Normal	-0.222	-0.089	0.043	0.176	0.309
SAIFI	0.80	0.91	1.04	1.19	1.36

PERFORMANCE STANDARD – SAIFI (System Average Interruption Frequency Index):

SAIFI Company Target	(Penalty)/ Offset
More than 1.36	($916,000)
1.20 – 1.36	linear interpolation
0.91 – 1.19	$0
0.80 – 0.90	linear interpolation
Less than 0.80	$229,000

* The target bands are calculated considering the lognormal nature of the data. To do this, the lognormal mean and lognormal standard deviation are calculated and applied in lognormal space, which is done by applying the mean, 1 standard deviation, and 2 standard deviations and then converting back to normal space. Interruptions from "extraordinary events" are excluded, as described in the attached criteria.

$$\text{SAIFI} = \frac{\text{Total Number of Customers Interrupted}}{\text{Total Number of Customers Served}}$$

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THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

DURATION OF INTERRUPTIONS PER CUSTOMER SERVED

Year	SAIDI*
2002	71.1
2001	69.0
2000	74.4
1999	68.4
1998	42.2
1997	59.5
1996	72.8
1995	63.7

Log Average	4.1627
Log Std. Dev.	0.1851

	-2 Std Dev.	-1 Std Dev.	Mean	+1 Std Dev.	+2 Std Dev.
Log Normal	3.793	3.978	4.163	4.348	4.533
SAIDI	44.4	53.4	64.2	77.3	93.0

PERFORMANCE STANDARD – SAIDI (System Average Interruption Duration Index):

SAIDI Company Target	(Penalty)/ Offset
More than 93.0	($916,000)
77.4 – 93.0	linear interpolation
53.4 – 77.3	$0
44.4 – 53.3	linear interpolation
Less than 44.4	$229,000

* The target bands are calculated considering the lognormal nature of the data. To do this, the lognormal mean and lognormal standard deviation are calculated and applied in lognormal space, which is done by applying the mean, 1 standard deviation, and 2 standard deviations and then converting back to normal space. Interruptions due to "extraordinary events" are excluded, as described in the attached criteria.

SAIDI (minutes) = Total Customer Minutes Interrupted / Total Number of Customers Served

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THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

CUSTOMER CONTACT SURVEY

Year	% Satisfied*
2004	76.5% (estimated)
2003	79.3%
2002	76.0%
2001	77.3%
2000	83.2%
1999	82.1%
1998	77.8%
1997	79.5%
Mean	79.0%
Standard Deviation	2.4%

PERFORMANCE STANDARD – Customer Contact:

% Satisfied Target	(Penalty)/ Offset
Less than 74.2%	($184,000)
74.2% – 76.5%	linear interpolation
76.6% – 81.4%	$0
81.5% – 83.8%	linear interpolation
More than 83.8%	$46,000

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* The calculations are based on responses from customers of Narragansett based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. Eight types of transactions are included in the survey, and the overall results are weighted based on the number of these transactions actually performed at the call center during the year.

The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven-point scale, where 1=extremely dissatisfied and 7=extremely satisfied.

The results for 2004 are estimated based on actual results through November 2004 and projected results for December 2004. This will be revised to reflect final results through December 2004 in a filing to be made with the Commission prior to May 1, 2005.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS

Year	Percent of Calls Answered Within 20 Secs*
2004	93.0% (estimated)
2003	93.3%
2002	84.0%
2001	50.4%
2000	76.7%
1999	76.9%
1998	80.9%
1997	76.7%
1996	70.2%
Mean	78.0%
Standard Deviation	12.2%

PERFORMANCE STANDARD – Telephone Calls Answered within 20 Seconds:

% Calls Answ Within 20 Seconds Target	(Penalty)/ Offset
Less than 53.6%	($184,000)
53.6% – 65.7%	linear interpolation
65.8% – 90.2%	$0
90.3% – 100.0%	linear interpolation, to a maximum of $46,000 at 100.0%

* The percent of calls answered within 20 seconds is calculated by dividing the number of calls answered within 20 seconds by the total number of calls answered during the year. "Calls answered" include calls answered by a customer service representative ("CSR") and calls completed within the Voice Response Unit ("VRU"). The time to answer is measured once the customer makes a selection to either speak with a CSR or use the VRU. VRU calls are included beginning in the year 2000.

The results for 2004 are estimated based on actual results through November 2004 and projected results for December 2004. This will be revised to reflect final results through December 2004 in a filing to be made with the Commission prior to May 1, 2005.

$$\text{Percent of Calls Answered Within 20 Seconds} = \frac{\text{Total Calls Answered Within 20 Seconds}}{\text{Total Calls Answered}}$$

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THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

DEFINITIONS OF
PERFORMANCE STANDARD
MEASUREMENTS

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INTERRUPTION EVENT

Deleted: The following reliability definitions used in conjunction with the performance standards are in accordance with the Institute of Electrical end Electronics Engineers, Inc. ("IEEE") Std. 1366-2003. It is assumed that additional reliability-related definitions found in this standard are also implicit in the reliability calculations.¶

The loss of service to more than one (1) customer for more than one (1) minute.

INTERRUPTION DURATION

The period of time, measured in minutes, from the initial notification of the interruption event to the time when service has been restored to the customers.

CUSTOMER

An active bill account with an active meter at a premise.

CUSTOMER COUNT

The number of customers either served or interrupted depending on usage.

TOTAL NUMBER OF CUSTOMERS SERVED

The average number of customers served during the reporting period. If a different customer total is used, it must be clearly defined within the report.

TOTAL NUMBER OF CUSTOMERS INTERRUPTED

The sum of the customers losing electric service for any defined grouping of interruption events during the reporting period.

TOTAL CUSTOMER MINUTES INTERRUPTED

The product of the number of customers interrupted and the interruption duration for any interruption event. Also, the sum of those products for any defined grouping of interruption events.

EXTRAORDINARY EVENTS

A particular interruption event will be considered extraordinary, and will not count towards the Reliability Performance Standards, if it meets one of the following criteria:

(1) It was the result of a major weather event which causes more than 10% of a district or the total company customers to be without service at a given time.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

(2) It was due to the failure of other companies' supply or transmission to Narragansett Electric customers and restoration of service was beyond the reasonable control of the Company and its employees.

(3) It occurred because of an extraordinary circumstance, including, without limitation, a major disaster, earthquake, wild fire, flood, terrorism, or any other event beyond the reasonable control of the Company.

MAJOR EVENT

Designates an event that exceeds reasonable design and or operational limits of the electric power system. A Major Event includes at least one Major Event Day.

MAJOR EVENT DAY

A day in which the daily system SAIDI exceeds a threshold value, T_{MED}. For the purposes of calculating daily system SAIDI, any interruption that spans multiple calendar days is accrued to the day on which the interruption began. Statistically, days having a daily system SAIDI greater than T_{MED} are days on which the energy delivery system experienced stresses beyond that normally expected (such as severe weather). Activities that occur on major event days should be separately analyzed and reported.

i denotes an interruption event
r_i = Restoration Time for each Interruption Event
CI = Customers Interrupted
CMI = Customer Minutes Interrupted
N_T = Total Number of Customers Served for the Area

SAIFI (System Average Interruption Frequency Index)

The system average interruption frequency index indicates how often the average customer experiences a sustained interruption over a predefined period of time. Mathematically, this equation is given in (1).

$$SAIFI = \frac{\sum \text{Total Number of Customers Interrupted}}{\text{Total Number of Customers Served}} \quad (1)$$

To calculate the index, use equation (2) below.

$$SAIFI = \frac{\Sigma N_i}{N_T} = \frac{CI}{N_T} \quad (2)$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

SAIDI (System Average Interruption Duration Index)

This index indicates the total duration of interruption for the average customer during a predefined period of time. It is commonly measured in customer minutes or customer hours of interruption. Mathematically, this equation is given in (3).

$$SAIDI = \frac{\Sigma \text{ Customer Interruption Durations}}{\text{Total Number of Customers Served}} \quad (3)$$

To calculate the index, use equation (4).

$$SAIDI = \frac{\Sigma r_i N_i}{N_T} = \frac{CMI}{N_T} \quad (4)$$

CUSTOMER CONTACT SURVEY

The calculations are based on responses from customers of Narragansett, based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. The Company will maintain the same levels of statistical precision of the results as in prior surveys. Eight types of transactions are included in the survey, and the overall results are weighted based on the number of these transactions actually performed at the call center during the year. The eight types of transactions are power interruptions, meter on, meter off, meter exchange, collection, payment plan, meter reread, and meter test.

The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven-point scale, where 1=extremely dissatisfied and 7=extremely satisfied.

TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS

The percent of calls answered within 20 seconds is calculated by dividing the number of calls answered within 20 seconds by the total number of calls answered during the year. "Calls answered" include calls answered by a customer service representative ("CSR") and calls completed within the voice response unit ("VRU"). Abandoned calls are not considered. The time to answer is measured once the customer makes a selection to either speak with a CSR or use the VRU. VRU calls are included beginning in the year 2000.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

LINEAR INTERPOLATION

(1) The actual performance or penalty each year will be calculated and the result will be scaled or interpolated linearly between the relevant two points of the results range and the relevant two points on the dollar range.

(2) The method of determining the actual penalty, or offset, of each performance standard is determined by multiplying the value of the penalty, or offset, by the absolute value of the actual performance indicator minus the value of the first standard deviation from the mean of that indicator, divided by the value of the second standard deviation of the mean of that indicator minus the value of the first standard deviation from the mean of that indicator.

$$\$ \text{ Penalty or Offset} = \text{Penalty or Offset } \$ \text{ Value} \times \frac{\text{Actual} - 1^{st} \text{ standard deviation}}{2^{nd} \text{ standard deviation} - 1^{st} \text{ standard deviation}}.$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

ADDITIONAL REPORTING CRITERIA

1. Each quarter, the Company will file a report of 5% of all circuits designated as worst performing on the basis of customer frequency.

   Included in the report will be:
   1. The circuit id and location.
   2. The number of customers served.
   3. The towns served.
   4. The number of events.
   5. The average duration.
   6. The total customer minutes.
   7. A discussion of the cause or causes of events.
   8. A discussion of the action plan for improvements including timing.

2. The Company will track and report monthly the number of calls it receives in the category of Trouble, Non-Outage. This includes inquiries about dim lights, low voltage, half-power, flickering lights, reduced TV picture size, high voltage, frequently burned out bulbs, motor running problems, damaged appliances and equipment, computer operation problems and other non-Interruptions related inquiries.

3. The Company will report its annual meter reading performance as an average of monthly percentage of meters read.

4. The Company will also report annually the annual SAIDI and SAIFI values calculated under the Institute of Electrical and Electronics Engineers, Inc. ("IEEE") Std. 1366-2003 methodology, including the segmentation of those days that would qualify as Major Event Days under that standard.

Deleted: <#>For each event defined as a Major Event Day, the Company will prepare a report, which will be filed annually as part of the annual SQ filing, detailing the following information:¶
¶
<#>Start date/Time of event.¶
<#>Number/Location of crews on duty (both internal and external crews).¶
<#>Number of crews assigned to restoration efforts.¶
<#>The first instance of mutual aid coordination.¶
<#>First contact with material suppliers.¶
<#>Inventory levels: pre-event/daily/post-event.¶
<#>Date/Time of request for external crews.¶
<#>Date/Time of external crew assignment.¶
<#># of customers out of service by hour.¶
<#>Impacted area.¶
<#>Cause.¶
<#>Weather impact on restoration.¶
<#>Analysis of protective device operation.¶
<#>Summary of customers impacted.¶
¶

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: McLaren

Exhibit RHM-3

Proposed New Service Quality Plan
Marked to Show Changes
From the Original Service Quality Plan

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

The Narragansett Electric Company ("Narragansett" or the "Company") shall establish the performance standards for reliability and customer service that are set forth in this document. The standards are designed as a penalty-only approach, under which the Company would be penalized if its performance did not meet the standards. The Company receives no reward for performance which exceeds the standards. However, positive performance in one category can be used to offset penalties in other categories within a given year. The Company shall file annually by May 1 a report of its performance during the prior calendar year under the performance standards in this plan. Any net penalty balance reflected in the Company's annual report shall be credited to customers in a manner determined by the Rhode Island Public Utilities Commission (the "Commission") at that time.

The maximum penalty authorized under the standards set forth below is $2.2 million per year. The performance standards set forth below shall be in effect for the calendar year 2005 and continue through 2009 or until they are modified by the Commission.

NOTE: When interpreting the performance standards that follow, please note that pages 6 through 9 of this Exhibit contain definitions of terms used in the standards.

Deleted: **PERFORMANCE STANDARDS¶ UNDER RETAIL ACCESS TARIFFS**

Deleted: Electric

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Deleted: , except that offsets earned for the two Customer Service standards can only be used in the year earned to offset any other standard, and offsets earned in the four Reliability standards can either be used in the year earned or in the following year. If there are negative balances or penalties

Deleted: cumulative balance in the year following the end of the rate freeze agreed to in this settlement, the entire balance

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THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

FREQUENCY OF INTERRUPTIONS PER CUSTOMER SERVED

Year	SAIFI*
2002	0.98
2001	1.11
2000	1.09
1999	1.05
1998	0.89
1997	0.91
1996	1.03
1995	1.36

		Log Average	0.0433		
		Log Std. Dev.	0.1328		
	-2 Std Dev.	-1 Std Dev.	Mean	+1 Std Dev.	+2 Std Dev.
Log Normal	-0.222	-0.089	0.043	0.176	0.309
SAIFI	0.80	0.91	1.04	1.19	1.36

PERFORMANCE STANDARD – SAIFI (System Average Interruption Frequency Index):

Company Target	SAIFI (Penalty)/ Offset
More than 1.36	($916,000)
1.20 – 1.36	linear interpolation
0.91 – 1.19	$0
0.80 – 0.90	linear interpolation
Less than 0.80	$229,000

* The target bands are calculated considering the lognormal nature of the data. To do this, the lognormal mean and lognormal standard deviation are calculated and applied in lognormal space, which is done by applying the mean, 1 standard deviation, and 2 standard deviations and then converting back to normal space. Interruptions from "extraordinary events" are excluded, as described in the attached criteria.

SAIFI = Total Number of Customers Interrupted / Total Number of Customers Served

Deleted: PERFORMANCE STANDARDS¶ UNDER RETAIL ACCESS TARIFFS

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Deleted: * The calculations are based on data for the two proposed operating areas of the combined companies – Coastal and Capital. Interruptions from "extraordinary events" are excluded, as described in the attached criteria.¶

Deleted: Frequency per Customer Served = Number of Customers Interrupted¶ . Number of Customers Served¶

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

DURATION OF INTERRUPTIONS PER CUSTOMER SERVED

Year	SAIDI*
2002	71.1
2001	69.0
2000	74.4
1999	68.4
1998	42.2
1997	59.5
1996	72.8
1995	63.7

Log Average	4.1627
Log Std. Dev.	0.1851

	-2 Std Dev.	-1 Std Dev.	Mean	+1 Std Dev.	+2 Std Dev.
Log Normal	3.793	3.978	4.163	4.348	4.533
SAIDI	44.4	53.4	64.2	77.3	93.0

PERFORMANCE STANDARD – SAIDI (System Average Interruption Duration Index):

Company Target	SAIDI (Penalty)/ Offset
More than 93.0	($916,000)
77.4 – 93.0	linear interpolation
53.4 – 77.3	$0
44.4 – 53.3	linear interpolation
Less than 44.4	$229,000

* The target bands are calculated considering the lognormal nature of the data. To do this, the lognormal mean and lognormal standard deviation are calculated and applied in lognormal space, which is done by applying the mean, 1 standard deviation, and 2 standard deviations and then converting back to normal space. Interruptions due to "extraordinary events" are excluded, as described in the attached criteria.

$$\text{SAIDI (minutes)} = \frac{\text{Total Customer Minutes Interrupted}}{\text{Total Number of Customers Served}}$$

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Deleted: Duration- Duration-¶ Coastal (Penalty)/ Capital (Penalty)/¶ Target Offset Target Offset ¶ More than 97.7 ($500,000) More than 83.1 ($500,000)¶ 82.8 – 97.7 linear interpolation 70.4 – 83.1 linear interpolation¶ 52.7 – 82.7 $0 44.7 – 70.3 $0¶ 37.7 – 52.6 linear interpolation 31.9 – 44.6 linear interpolation¶ Less than 37.7 $375,000 Less than 31.9 $375,000¶

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* The calculations are based on data for the two proposed operating areas of the combined companies – Coastal and Capital. Interruptions from "extraordinary events" are excluded, as described in the attached criteria.¶
¶
Duration per Customer Served

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THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

CUSTOMER CONTACT SURVEY

Year	% Satisfied*
2004	76.5% (estimated)
2003	79.3%
2002	76.0%
2001	77.3%
2000	83.2%
1999	82.1%
1998	77.8%
1997	79.5%
Mean	79.0%
Standard Deviation	2.4%

PERFORMANCE STANDARD – Customer Contact:

% Satisfied Target	(Penalty)/ Offset
Less than 74.2%	($184,000)
74.2% – 76.5%	linear interpolation
76.6% – 81.4%	$0
81.5% – 83.8%	linear interpolation
More than 83.8%	$46,000

* The calculations are based on responses from customers of Narragansett based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. Eight types of transactions are included in the survey, and the overall results are weighted based on the number of these transactions actually performed at the call center during the year.

The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven-point scale, where 1=extremely dissatisfied and 7=extremely satisfied.

The results for 2004 are estimated based on actual results through November 2004 and projected results for December 2004. This will be revised to reflect final results through December 2004 in a filing to be made with the Commission prior to May 1, 2005.

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THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS

Year	Percent of Calls Answered Within 20 Secs*
2004	93.0% (estimated)
2003	93.3%
2002	84.0%
2001	50.4%
2000	76.7%
1999	76.9%
1998	80.9%
1997	76.7%
1996	70.2%
Mean	78.0%
Standard Deviation	12.2%

PERFORMANCE STANDARD – Telephone Calls Answered within 20 Seconds:

% Calls Answ Within 20 Seconds Target	(Penalty)/ Offset
Less than 53.6%	($184,000)
53.6% – 65.7%	linear interpolation
65.8% – 90.2%	$0
90.3% – 100.0%	linear interpolation, to a maximum of $46,000 at 100.0%

* The percent of calls answered within 20 seconds is calculated by dividing the number of calls answered within 20 seconds by the total number of calls answered during the year. "Calls answered" include calls answered by a customer service representative ("CSR") and calls completed within the Voice Response Unit ("VRU"). The time to answer is measured once the customer makes a selection to either speak with a CSR or use the VRU. VRU calls are included beginning in the year 2000.

The results for 2004 are estimated based on actual results through November 2004 and projected results for December 2004. This will be revised to reflect final results through December 2004 in a filing to be made with the Commission prior to May 1, 2005.

Percent of Calls Answered Within 20 Seconds = Total Calls Answered Within 20 Seconds / Total Calls Answered

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THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

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DEFINITIONS OF
PERFORMANCE STANDARD
MEASUREMENTS

INTERRPUTION EVENT

The loss of service to more than one (1) customer for more than one (1) minute.

INTERRUPTION DURATION

The period of time, measured in minutes, from the initial notification of the interruption event to the time when service has been restored to the customers.

CUSTOMER

An active bill account with an active meter at a premise.

CUSTOMER COUNT

The number of customers either served or interrupted depending on usage.

TOTAL NUMBER OF CUSTOMERS SERVED

The average number of customers served during the reporting period. If a different customer total is used, it must be clearly defined within the report.

Deleted: NUMBER OF CUSTOMERS SERVED¶

TOTAL NUMBER OF CUSTOMERS INTERRUPTED

Deleted: The number of customers taking electric service within the defined reporting service area on the last day of the reporting period.¶ ¶

The sum of the customers losing electric service for any defined grouping of interruption events during the reporting period.

TOTAL CUSTOMER MINUTES INTERRUPTED

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The product of the number of customers interrupted and the interruption duration for any interruption event. Also, the sum of those products for any defined grouping of interruption events.

EXTRAORDINARY EVENTS

A particular interruption event will be considered extraordinary, and will not count towards the Reliability Performance Standards, if it meets one of the following criteria:

(1) It was the result of a major weather event which causes more than 10% of a district or the total company customers to be without service at a given time.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

Deleted: PERFORMANCE STANDARDS¶ UNDER RETAIL ACCESS TARIFFS

(2) It was due to the failure of other companies' supply or transmission to Narragansett Electric customers and restoration of service was beyond the reasonable control of the Company and its employees.
(3) It occurred because of an extraordinary circumstance, including, without limitation, a major disaster, earthquake, wild fire, flood, terrorism, or any other event beyond the reasonable control of the Company.

MAJOR EVENT

Designates an event that exceeds reasonable design and or operational limits of the electric power system. A Major Event includes at least one Major Event Day.

MAJOR EVENT DAY

A day in which the daily system SAIDI exceeds a threshold value, T_{MED}. For the purposes of calculating daily system SAIDI, any interruption that spans multiple calendar days is accrued to the day on which the interruption began. Statistically, days having a daily system SAIDI greater than T_{MED} are days on which the energy delivery system experienced stresses beyond that normally expected (such as severe weather). Activities that occur on major event days should be separately analyzed and reported.

i denotes an interruption event
r_i = Restoration Time for each Interruption Event
CI = Customers Interrupted
CMI = Customer Minutes Interrupted
N_T = Total Number of Customers Served for the Area

SAIFI (System Average Interruption Frequency Index)

The system average interruption frequency index indicates how often the average customer experiences a sustained interruption over a predefined period of time. Mathematically, this equation is given in (1).

$$SAIFI = \frac{\sum \text{Total Number of Customers Interrupted}}{\text{Total Number of Customers Served}} \qquad (1)$$

To calculate the index, use equation (2) below.

$$SAIFI = \frac{\Sigma N_i}{N_T} = \frac{CI}{N_T} \qquad (2)$$

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

Deleted: PERFORMANCE STANDARDS¶ UNDER RETAIL ACCESS TARIFFS

SAIDI (System Average Interruption Duration Index)

This index indicates the total duration of interruption for the average customer during a predefined period of time. It is commonly measured in customer minutes or customer hours of interruption. Mathematically, this equation is given in (3).

$$SAIDI = \frac{\Sigma \text{ Customer Interruption Durations}}{\text{Total Number of Customers Served}} \qquad (3)$$

To calculate the index, use equation (4).

$$SAIDI = \frac{\Sigma r_i N_i}{N_T} = \frac{CMI}{N_T} \qquad (4)$$

CUSTOMER CONTACT SURVEY

The calculations are based on responses from customers of Narragansett, based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. The Company will maintain the same levels of statistical precision of the results as in prior surveys. Eight types of transactions are included in the survey, and the overall results are weighted based on the number of these transactions actually performed at the call center during the year. The eight types of transactions are power interruptions, meter on, meter off, meter exchange, collection, payment plan, meter reread, and meter test.

The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven-point scale, where 1=extremely dissatisfied and 7=extremely satisfied.

TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS

The percent of calls answered within 20 seconds is calculated by dividing the number of calls answered within 20 seconds by the total number of calls answered during the year. "Calls answered" include calls answered by a customer service representative ("CSR") and calls completed within the voice response unit ("VRU"). Abandoned calls are not considered. The time to answer is measured once the customer makes a selection to either speak with a CSR or use the VRU. VRU calls are included beginning in the year 2000.

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

Deleted: **PERFORMANCE STANDARDS¶ UNDER RETAIL ACCESS TARIFFS**

LINEAR INTERPOLATION

(1) The actual performance or penalty each year will be calculated and the result will be scaled or interpolated linearly between the relevant two points of the results range and the relevant two points on the dollar range.

(2) The method of determining the actual penalty, or offset, of each performance standard is determined by multiplying the value of the penalty, or offset, by the absolute value of the actual performance indicator minus the value of the first standard deviation from the mean of that indicator, divided by the value of the second standard deviation of the mean of that indicator minus the value of the first standard deviation from the mean of that indicator.

$$\$ \text{ Penalty or Offset} = \text{Penalty or Offset } \$ \text{ Value} \times \frac{\text{Actual} - 1^{st} \text{ standard deviation}}{2^{nd} \text{ standard deviation} - 1^{st} \text{ standard deviation}}.$$

Deleted: **CUSTOMER CONTACT¶**
¶
The calculations are based on responses from customers of Narragansett Electric Company, based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. The Company will maintain the same levels of statistical precision of the results as in prior surveys. Eight types of transactions are included in the survey, and the overall results are weighed based on the number of these transactions actually performed at the call center during the year. The eight types of transactions are power Interruptions, meter on, meter off, meter exchange, collection, payment plan, meter reread, and meter test.¶
¶
The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven-point scale, where 1=extremely dissatisfied and 7=extremely satisfied.¶

Deleted: **TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS¶**
¶
The percent of calls answered within 20 seconds is calculated by dividing the number of calls answered by a customer service representative within 20 seconds by the total number of calls answered by a customer service representative during the year. A call is considered answered when it reaches a customer service representative; abandoned calls are not considered. All calls that are answered by a customer service representative are include in the measurement of percentage answered; there are no exclusions. The time to answer is measured once the customer selects the option to speak with a customer service representative and thus leaves the recordings in the Voice Response Unit.¶

THE NARRAGANSETT ELECTRIC COMPANY
SERVICE QUALITY PLAN

Deleted: **PERFORMANCE STANDARDS¶ UNDER RETAIL ACCESS TARIFFS**

ADDITIONAL REPORTING CRITERIA

1. Each quarter, the Company will file a report of 5% of all circuits designated as worst performing on the basis of customer frequency.

   Included in the report will be:
   1. The circuit id and location.
   2. The number of customers served.
   3. The towns served.
   4. The number of events.
   5. The average duration.
   6. The total customer minutes.
   7. A discussion of the cause or causes of events.
   8. A discussion of the action plan for improvements including timing.

2. The Company will track and report monthly the number of calls it receives in the category of Trouble, Non-Outage. This includes inquiries about dim lights, low voltage, half-power, flickering lights, reduced TV picture size, high voltage, frequently burned out bulbs, motor running problems, damaged appliances and equipment, computer operation problems and other non-Interruptions related inquiries.

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3. The Company will report its annual meter reading performance as an average of monthly percentage of meters read.

Deleted: In addition, Narragansett

4. The Company will also report annually the annual SAIDI and SAIFI values calculated under the Institute of Electrical and Electronics Engineers, Inc. ("IEEE") Std. 1366-2003 methodology, including the segmentation of those days that would qualify as Major Event Days under that standard.

Exhibit RHM-4

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: McLaren

Exhibit RHM-4

Original Service Quality Plan

Exhibit 7 of the
Third Amended Stipulation and Settlement
in RIPUC Docket No. 2930

THE NARRAGANSETT ELECTRIC COMPANY
PERFORMANCE STANDARDS
UNDER RETAIL ACCESS TARIFFS

The Narragansett Electric Company ("Narragansett Electric" or the "Company") shall establish the performance standards for reliability and service that are set forth in this document. The standards are designed as a penalty-only approach, under which the Company would be penalized if its performance did not meet the standards, measured on a cumulative basis. The Company receives no reward for performance which exceeds the standard. However, positive performance in one category can be used to offset penalties in other categories in any given year, except that offsets earned for the two Customer Service standards can only be used in the year earned to offset any other standard, and offsets earned in the four Reliability standards can either be used in the year earned or in the following year. If there are negative balances or penalties reflected in the cumulative balance in the year following the end of the rate freeze agreed to in this settlement, the entire balance shall be credited to customers. The manner in which the penalty is credited to customers will be determined by the Commission at that time.

The maximum penalty authorized under the standards set forth below is $2.4 million per year. The Performance Standards set forth below shall remain in effect from the effective date of the settlement through the effective date of the Company's next rate case provided, however, either the Division or the Company may request modification or termination of this plan after December 31, 2004 otherwise, the plan will remain until it is modified by the Commission.

NOTE: When interpreting the performance standards that follow, please note that pages 6 through 9 of this Exhibit contain definitions of terms used in the standards.

THE NARRAGANSETT ELECTRIC COMPANY
PERFORMANCE STANDARDS
UNDER RETAIL ACCESS TARIFFS

FREQUENCY OF INTERRUPTIONS PER CUSTOMER SERVED

Year	Frequency Coastal *	Frequency Capital *
1999	1.34	0.99
1998	1.05	0.80
1997	1.17	0.81
1996	0.99	1.05
1995	1.59	1.50
1994	1.39	1.16
1993	0.93	1.05
Mean	1.21	1.05
Standard Deviation	0.22	0.22

PERFORMANCE STANDARD – Frequency of Interruptions:

Frequency-Coastal Target	(Penalty)/ Offset	Frequency-Capital Target	(Penalty)/ Offset
More than 1.65	($500,000)	More than 1.49	($500,000)
1.44 – 1.65	linear interpolation	1.28 – 1.49	linear interpolation
0.99 – 1.43	$0	0.83 – 1.27	$0
0.77 – 0.98	linear interpolation	0.61 – 0.82	linear interpolation
Less than 0.77	$375,000	Less than 0.61	$375,000

* The calculations are based on data for the two proposed operating areas of the combined companies – Coastal and Capital. Interruptions from "extraordinary events" are excluded, as described in the attached criteria.

$$\text{Frequency per Customer Served} = \frac{\text{Number of Customers Interrupted}}{\text{Number of Customers Served}}$$

THE NARRAGANSETT ELECTRIC COMPANY
PERFORMANCE STANDARDS
UNDER RETAIL ACCESS TARIFFS

DURATION OF INTERRUPTIONS PER CUSTOMER SERVED

Year	Duration Coastal *	Duration Capital *
1999	100.0	57.9
1998	54.4	32.5
1997	67.0	56.6
1996	56.1	75.3
1995	76.6	70.9
1994	56.9	55.5
1993	63.2	54.0
Mean	67.7	57.5
Standard Deviation	15.0	12.8

PERFORMANCE STANDARD – Duration of Interruptions:

Duration-Coastal Target	(Penalty)/ Offset	Duration-Capital Target	(Penalty)/ Offset
More than 97.7	($500,000)	More than 83.1	($500,000)
82.8 – 97.7	linear interpolation	70.4 – 83.1	linear interpolation
52.7 – 82.7	$0	44.7 – 70.3	$0
37.7 – 52.6	linear interpolation	31.9 – 44.6	linear interpolation
Less than 37.7	$375,000	Less than 31.9	$375,000

* The calculations are based on data for the two proposed operating areas of the combined companies – Coastal and Capital. Interruptions from "extraordinary events" are excluded, as described in the attached criteria.

$$\text{Duration per Customer Served (minutes)} = \frac{\text{Customer Minutes Interrupted}}{\text{Number of Customers Served}}$$

THE NARRAGANSETT ELECTRIC COMPANY
PERFORMANCE STANDARDS
UNDER RETAIL ACCESS TARIFFS

CUSTOMER CONTACT

Year	% Satisfied*
1999	82.1%
1998	77.8%
1997	79.5%
Mean	79.8%
Standard Deviation	1.8%

PERFORMANCE STANDARD – Customer Contact:

% Satisfied Target	(Penalty)/ Offset
Less than 76.2%	($200,000)
76.2% – 77.9%	linear interpolation
78.0% – 81.6%	$0
81.7% – 83.4%	linear interpolation
More than 83.4%	$150,000

* The calculations are based on responses from customers of Narragansett Electric Company based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. Eight types of transactions are included in the survey, and the overall results are weighed based on the number of these transactions actually performed at the call center during the year.

The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven point scale, where 1=extremely dissatisfied and 7=extremely satisfied.

THE NARRAGANSETT ELECTRIC COMPANY
PERFORMANCE STANDARDS
UNDER RETAIL ACCESS TARIFFS

TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS

Year	Percent of Calls Answered Within 20 Secs*
1999	76.9%
1998	80.9%
1997	76.7%
1996	70.2%
Mean	76.2%
Standard Deviation	3.8%

PERFORMANCE STANDARD – Telephone Calls Answered within 20 Seconds:

% Calls Answ Within 20 Sec Target	(Penalty)/ Offset
Less than 68.6%	($200,000)
68.6% – 72.3%	linear interpolation
72.4% – 80.0%	$0
80.1% – 83.8%	linear interpolation
More than 83.8%	$150,000

* The calculations are based on data for Narragansett Electric Company's Providence call center. Eastern Utilities Associates cannot separate calls between Massachusetts and Rhode Island.

$$\text{Percent of Calls Answered Within 20 Secs} = \frac{\text{Total Calls Answered Within 20 Seconds}}{\text{Total Calls Answered}}$$

THE NARRAGANSETT ELECTRIC COMPANY
PERFORMANCE STANDARDS
UNDER RETAIL ACCESS TARIFFS

DEFINITIONS OF
PERFORMANCE STANDARD
MEASUREMENTS

INTERRPUTION EVENT

The loss of service to more than one (1) customer for more than one (1) minute.

INTERRUPTION DURATION

The period of time, measured in minutes, from the initial notification of the interruption event to the time when service has been restored to the customers.

NUMBER OF CUSTOMERS SERVED

The number of customers taking electric service within the defined reporting service area on the last day of the reporting period.

NUMBER OF CUSTOMERS INTERRUPTED

The sum of the customers losing electric service for any defined grouping of interruption events during the reporting period.

CUSTOMER MINUTES OF INTERRUPTION

The product of the number of customers interrupted and the interruption duration for any interruption event. Also, the sum of those products for any defined grouping of interruption events.

EXTRAORDINARY EVENTS

A particular interruption event will be considered extraordinary, and will not count towards the Reliability Performance Standards, if it meets one of the following criteria:

(1) It was the result of a major weather event which causes more than 10% of a district or the total company customers to be without service at a given time.

(2) It was due to the failure of other companies' supply or transmission to Narragansett Electric customers and restoration of service was beyond the reasonable control of the Company and its employees.

THE NARRAGANSETT ELECTRIC COMPANY
PERFORMANCE STANDARDS
UNDER RETAIL ACCESS TARIFFS

(3) It occurred because of an extraordinary circumstance, including, without limitation, a major disaster, earthquake, wild fire, flood, terrorism, or any other event beyond the reasonable control of the Company.

LINEAR INTERPOLATION

(1) The actual performance or penalty each year will be calculated and the result will be scaled or interpolated linearly between the relevant two points of the results range and the relevant two points on the dollar range.

(2) The method of determining the actual penalty, or offset, of each performance standard is determined by multiplying the value of the penalty, or offset, by the absolute value of the actual performance indicator minus the value of the first standard deviation from the mean of that indicator, divided by the value of the second standard deviation of the mean of that indicator minus the value of the first standard deviation from the mean of that indicator.

$$\$ \text{ Penalty or Offset} = \text{Penalty or Offset } \$ \text{ Value} \times \frac{\text{Actual} - 1^{st} \text{ standard deviation}}{2^{nd} \text{ standard deviation} - 1^{st} \text{ standard deviation}}.$$

CUSTOMER CONTACT

The calculations are based on responses from customers of Narragansett Electric Company, based on surveys performed by an independent third party consultant. A sample of customers who have contacted the call center are surveyed in order to determine their level of satisfaction with their contact. The Company will maintain the same levels of statistical precision of the results as in prior surveys. Eight types of transactions are included in the survey, and the overall results are weighed based on the number of these transactions actually performed at the call center during the year. The eight types of transactions are power Interruptions, meter on, meter off, meter exchange, collection, payment plan, meter reread, and meter test.

The percent satisfied represents the responses in the top two categories of customer contact satisfaction under a seven-point scale, where 1=extremely dissatisfied and 7=extremely satisfied.

THE NARRAGANSETT ELECTRIC COMPANY
PERFORMANCE STANDARDS
UNDER RETAIL ACCESS TARIFFS

TELEPHONE CALLS ANSWERED WITHIN 20 SECONDS

The percent of calls answered within 20 seconds is calculated by dividing the number of calls answered by a customer service representative within 20 seconds by the total number of calls answered by a customer service representative during the year. A call is considered answered when it reaches a customer service representative; abandoned calls are not considered. All calls that are answered by a customer service representative are include in the measurement of percentage answered; there are no exclusions. The time to answer is measured once the customer selects the option to speak with a customer service representative and thus leaves the recordings in the Voice Response Unit.

THE NARRAGANSETT ELECTRIC COMPANY
PERFORMANCE STANDARDS
UNDER RETAIL ACCESS TARIFFS

ADDITIONAL REPORTING CRITERIA

1. Each quarter, the Company will file a report of 5% of all circuits designated as worst performing on the basis of customer frequency.

   Included in the report will be:

   1. The circuit id and location.
   2. The number of customers served.
   3. The towns served.
   4. The number of events.
   5. The average duration.
   6. The total customer minutes.
   7. A discussion of the cause or causes of events.
   8. A discussion of the action plan for improvements including timing.

2. Narragansett will track and report monthly the number of calls it receives in the category of Trouble, Non-Outage. This includes inquiries about dim lights, low voltage, half-power, flickering lights, reduced TV picture size, high voltage, frequently burned out bulbs, motor running problems, damaged appliances and equipment, computer operation problems and other non-Interruptions related inquiries.

3. In addition, Narragansett will report its annual meter reading performance as an average of monthly percentage of meters read.

Testimony of
Cheryl A. Warren

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: Warren

DIRECT SUPPPLEMENTAL TESTIMONY

OF

Cheryl A. Warren

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: Warren

Table of Contents

I. Introduction and Qualifications

Q. Please state your full name and business address.

A. Cheryl A. Warren, 1125 Broadway, Albany, NY 12204.

Q. Have you previously submitted testimony in this proceeding?

A. Yes. I submitted pre-filed testimony on August 2, 2004 in support of The Narragansett Electric Company's ("Narragansett" or the "Company") Service Quality ("SQ") Plan Filing in this docket ("August 2 Filing").

II. Purpose of Testimony

Q. What is the purpose of your testimony as it relates to the Company's filing?

A. My testimony describes proposed changes to the Company's reliability SQ measures from the Company's proposal under its August 2 Filing. The proposed changes are the result of a settlement reached with the Division of Public Utilities and Carriers ("Division") on a new overall SQ plan ("New SQ Plan"). I also discuss the benefits of the New SQ Plan.

III. Reliability Performance Measures

Q. Please describe the changes to the Company's reliability SQ performance measures compared to the August 2 Filing, as well as any improvements over the Original SQ Plan and/or the August 2 Filing.

A. For the reliability performance measures of SAIDI (system average interruption duration index) and SAIFI (system average interruption frequency index), the Company had proposed in its August 2 Filing to expand the historical time period used to develop the performance benchmarks to include the four most recent years (2000 through 2003). In addition, the Company had also proposed that once ten years of historical performance data became available, the Company would establish the performance standards annually, based on a ten-year rolling average. Thus, the August 2 Filing proposed a historical benchmark period of 1994-2003 for both SAIDI and SAIFI.

As part of the settlement agreement reached between the Company and the Division regarding a New SQ Plan ("New SQ Plan Settlement"), the Company now proposes to update the historical benchmark period for evaluating SAIDI and SAIFI based on results for the years 1995-2002. This is slightly different from the benchmark period of 1994-2003 proposed in the August 2 Filing. Excluding the years 1993 and 1994 is important as the data is less robust in these years than in years after the Company began using an

automated data collection and reporting system, Interruption Disturbance System ("IDS"), to track interruptions. In addition, based upon combining the actual Capital and Coastal district reliability results into Company results using the percent of customers in each district (61% Capital / 39% Coastal), this change benefits customers from the standpoint that the performance targets at which penalties would be applied are stricter than those targets which would exist if they were to include the years 1993, 1994 and 2003.

In addition, instead of basing future benchmarks on a ten-year rolling average, the New SQ Plan Settlement provides that once the performance benchmarks are updated based on 1995-2002, they would be fixed for the duration of the New SQ Plan through 2009.

Q. What other changes did the August 2 Filing propose with respect to the reliability SQ performance measures?

A. In its August 2 Filing, the Company proposed using the recently adopted Institute of Electrical and Electronics Engineers, Inc. ("IEEE") Standard 1366-2003, *Guide for Electric Power Distribution Reliability Indices* ("IEEE Std. 1366-2003") to establish the reliability performance standards. The Company also proposed that the historical reliability performance data used to establish the minimum and maximum target levels be calculated using the

natural logarithm of the historical SAIDI and SAIFI values. This proposed change was based on the fact that the distribution of historical reliability performance is not Gaussian (i.e., it is not represented by a "bell-shaped" curve), but rather is asymmetrical, and is reflected more accurately as a lognormal distribution. Finally, with respect to the reliability metrics, the Company proposed to aggregate the historical reliability performance data for the whole Company, rather than continue to report separate results for the former Coastal and Capital districts. This combination into a single area better reflects how the Company now operates its distribution system.

Q. Please describe the reliability performance standards resulting from the New SQ Plan Settlement, noting any differences from the SQ plan proposed by the Company in its August 2 Filing as discussed above.

A. For the reliability performance standards, the New SQ Plan Settlement specifies the following:

1. <u>Combining Coastal and Capital Districts</u>

Historically the Company had maintained two operating districts within Rhode Island, Capital and Coastal. In 2002, the Company combined these districts to operate as a single entity known as the Ocean State Division that encompasses all operations in Rhode Island. As a result, core operational decisions, such as where to emphasize reliability

improvement efforts, are now made on a division, or state-wide basis. Aligning the reliability performance metrics with the actual operational structure of the Company better enables operational decisions so as to optimize its reliability-related actions and investments. Therefore, under both the New SQ Plan and the August 2 Filing, the Company proposed to combine the Capital and Coastal districts for purposes of measuring and reporting reliability results on a statewide basis. Accordingly, the Company will implement a SQ plan effective commencing January 1, 2005 that reflects a single statewide SAIDI measure and a single statewide SAIFI measure. The maximum potential penalty for each of the two reliability measures will be $916 thousand due to changes in penalty amounts as a result of the Second Amended Stipulation and Settlement approved by the Commission in Docket No. 3617.

2. Use of Logarithmic Data

In addition, under the New SQ Plan Settlement, the historical reliability performance data used to establish the minimum and maximum target levels shall be calculated using the natural logarithm of the historical SAIDI and SAIFI values, as also proposed in the August 2 Filing, for this period (i.e., 1995 through 2002). This change better reflects the non-Gaussian distribution of the reliability data and allows proper

evaluation of reliability performance and establishment of the associated performance targets.

3. Extraordinary Event Criteria

Finally, the August 2 Filing had proposed adoption of IEEE Std. 1366-2003 for calculation of SQ performance benchmarks for reliability. This includes the application of the Major Event Day ("MED") concept, or 2.5β Methodology, rather than the existing Extraordinary Event criteria as defined under the Original SQ Plan, in order to segment reliability performance into two groups: day-to-day and MED performance to enable better analysis of the two different operating conditions. Per the New SQ Plan Settlement, the Company shall instead continue to apply the current Extraordinary Event criteria when reporting its reliability results under the New SQ Plan in order to allow additional time to review the impact of such a change. To that end, the Company shall also annually report in parallel, for informational purposes, annual SAIDI and SAIFI values calculated under the IEEE Std. 1366-2003 2.5β Methodology, including the segmentation of those days that would qualify as MEDs under that standard. The New SQ Plan Settlement also specifies that the Company may petition the Commission no sooner than two years after the date of this Agreement to modify the New SQ Plan to

reflect the adoption of the applicable IEEE Std. 1366 reliability reporting methodology. The Company shall have the burden of proof with respect to any such petition, and the Division shall be free to take any position on such petition.

IV. Conclusion

Q. Does this conclude your testimony?

A. Yes it does.

Testimony of
Mark N. Sorgman

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: Sorgman

DIRECT SUPPLEMENTAL TESTIMONY

OF

Mark N. Sorgman

THE NARRAGANSETT ELECTRIC COMPANY
Re: R.I.P.U.C. No. 3628 -- Service Quality Plan
Supplemental Testimony
Witness: Sorgman

Table of Contents

I. Introduction and Qualifications

Q. Please state your full name and business address.

A. Mark N. Sorgman, 55 Bearfoot Road, Northborough, Massachusetts 01532.

Q. Have you previously submitted testimony in this proceeding?

A. Yes. I submitted pre-filed testimony on August 2, 2004 in support of The Narragansett Electric Company's ("Narragansett" or the "Company") Service Quality ("SQ") Plan Filing in this docket ("August 2 Filing").

II. Purpose of Testimony

Q. What is the purpose of your testimony as it relates to the Company's filing?

A. My testimony describes proposed changes to the Company's two customer service SQ measures from the Company's proposal under its August 2 Filing. The proposed changes are the result of a settlement reached with the Division of Public Utilities and Carriers ("Division") on a new overall SQ plan ("New SQ Plan"). I also discuss the benefits of the New SQ Plan.

III. Customer Service Measures

Q. Please describe the changes to the Company's two customer service SQ performance measures compared to the August 2 Filing, as well as any improvements over the Original SQ Plan and/or the August 2 Filing.

A. For both customer service performance measures (Customer Contact Survey ("Customer Contact") and Telephone Calls Answered within 20 Seconds ("Call Answering")), the Company had proposed in its August 2 Filing to expand the historical time period used to develop the performance benchmarks to include the four most recent years (2000 through 2003). Thus, for the Customer Contact measure, the August 2 Filing proposed a historical benchmark period of 1997-2003; and for Call Answering, the proposed period was 1996-2003. In addition, the Company had also proposed that once ten years of historical performance data became available, the Company would establish the performance standards annually, based on a ten-year rolling average.

As part of the settlement agreement reached between the Company and the Division regarding a New SQ Plan ("New SQ Plan Settlement"), the Company now proposes to include the five most recent years (2000 through 2004) in establishing the performance benchmarks in its New SQ Plan. Doing so provides a more robust historic data set against which to assess the

Company's performance, takes into account the implementation of improved practices and technologies that affect the Company's performance going forward (i.e. implementation of the VRU discussed below), and generally makes offsets more difficult to achieve. Thus, for the Customer Contact measure, the Company now proposes a historical benchmark period of 1997-2004; and for Call Answering, the proposed period is now 1996-2004. Because final 2004 results are not known at this point, the 2004 results reflected in Attachment RHM-1, pages 4 and 5 set forth the amended proposed performance measures based on projected results (actual results through November 2004, with December 2004 projected). The performance benchmarks will be revised to reflect final results through December 2004 in a filing to be made with the Rhode Island Public Utilities Commission ("Commission") prior to May 1, 2005.

In addition, instead of basing future benchmarks on a rolling average once ten-years of data were available, the New SQ Plan Settlement provides that once the performance benchmarks are updated through 2004, they would be fixed for the duration of the New SQ Plan through 2009.

Q. Are there any other proposed changes in the New SQ Plan? If so, please describe the changes and the associated benefits.

A. Yes, there is one additional change. In both the New SQ Plan and the August 2 Filing, the Company proposed to include calls completed in the Voice Response Unit ("VRU") in the Call Answering measure beginning in 2000, the first year in which the Company tracked the number of VRU calls. When calling Narragansett for service, customers have the option of speaking directly with a customer service representative, or, alternatively, customers may elect to complete their transactions through the automated VRU system. In the past few years, the Company has seen an increase in the number of calls that customers complete through the VRU. Therefore, in order to more accurately reflect the totality, and true nature, of the calls being handled by the Company's customer service call center, the parties agreed that the Original SQ plan would be enhanced such that calls completed through the VRU should be included in the Call Answering performance measure beginning in the year 2000. This change also makes it more difficult to achieve offsets. As the Commission is aware, the Company has earned offsets in the area of Call Answering in the last two full years the Original SQ Plan has been in effect, and also anticipates earning an offset in this area in 2004.

Q. What are the new performance benchmarks for the customer service performance measures as a result of the New SQ Plan Settlement?

A. The estimated new benchmarks for the Customer Contact performance measure would be based on results from 1997 through 2004, as are reflected on page 4 of Exhibit RHM-1. Similarly, the estimated new benchmarks for the Call Answering performance measure would be based on results from 1996 through 2004, as are reflected on page 5 of Exhibit RHM-1. As previously noted, these estimated performance benchmarks will be revised to reflect final results through December 2004 in a filing to be made with the Commission prior to May 1, 2005.

IV. Conclusion

Q. Does this conclude your testimony?

A. Yes it does.

Certificate of Service

I hereby certify on the 29th day of December 2004, that a copy of the cover letter and / or any materials accompanying this certificate has been mailed or hand-delivered to the parties listed below.

Joanne M. Scanlon
The Narragansett Electric Company

Narragansett Electric Company – Service Quality Plan
Docket 3628 - Service List as of 10/27/04

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