

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

IN RE: NARRAGANSETT ELECTRIC COMPANY :
SERVICE QUALITY PLAN : DOCKET NO. 3628

REPORT AND ORDER

In Docket No. 2930, the Rhode Island Public Utilities Commission (“Commission”) approved a Service Quality Plan (“SQP”) for Narragansett Electric (“Narragansett”). This SQP would remain in effect through December 31, 2004. On May 28, 2004, the Commission required Narragansett to file by August 1, 2004 a new SQP for effect January 1, 2005.

I. NARRAGANSETT’S AUGUST 2, 2004 FILING

On August 2, 2004, Narragansett filed its proposed SQP. In support of its filing, it submitted pre-filed testimonies by Robert McLaren, Cheryl Warren and Mark Sorgman. Mr. McLaren, a senior vice-president of the New England distribution companies of National Grid, summarized the SQP approved in Docket No. 2930 and the SQP being proposed by Narragansett Electric. Mr. McLaren indicated that the SQP approved in Docket No. 2930 compared Narragansett’s actual annual performance in four reliability performance measures and two customer service performance measures with historical performance in these same areas. The reliability performance measures were the system average interruption frequency index (“SAIFI”) and the system average interruption duration index (“SAIDI”) for both the Capital and Coastal districts. Each reliability measure had a maximum annual penalty of \$500,000 and a maximum offset of \$375,000. In addition, the two customer service measures were customer contact satisfaction and telephone calls answered within 20 seconds. Each customer service

measure had a maximum annual penalty of \$200,000 and a maximum offset of \$150,000. The total maximum annual penalty was \$2.4 million or approximately 1.1 percent of Narragansett's distribution revenues.¹

The benchmarks for these service measures were based on historical performance over a period of a year. The threshold for accruing penalties for below average performance was one standard deviation worse than average performance and the threshold for accruing offsets for good performance was one standard deviation better than average performance. The penalty or offset at this threshold was scaled between the first and second standard deviation while performance that exceeded the second standard deviation would trigger either the maximum penalty or maximum offset. In addition, Mr. McLaren explained that only reliability and related offsets could be carried forward to the following year and discussed the doubling penalty provision for significant and persistent deterioration in service quality. Also, he noted that Narragansett had incurred \$1,774,000 in service quality penalties by the end of 2003.²

Mr. McLaren discussed some of the new features in Narragansett's proposed SQP. First, all performance standards would include the four most recent years, the years 2000 through 2003. Second, the benchmarks would be updated annually based on a ten-year rolling average. Third, the calculation of reliability performance would be based on the recently adopted IEEE Standard 1366-2003. Fourth, the standard deviation for reliability standards will be based on a logarithm rather than a Gaussian "bell-shaped" curve because historical reliability performance data is asymmetrical. Fifth, the Capital and Coastal districts for reliability would be aggregated into one standard. Sixth,

¹ Narr. Ex. 1A (McLaren's direct testimony), pp. 3-5.

² Id., pp. 5-8.

Narragansett proposed to include calls to the Voice Response Unit (“VRU”) in calculating its telephone calls answered within 20 seconds.³

Mr. McLaren stated that the size of the penalty and weight of the penalties should remain unchanged from the prior service quality plan. Furthermore, Mr. McLaren argued that offsets should remain in place to give an incentive for Narragansett to strive to exceed performance benchmarks rather than just meet the benchmarks.⁴

Narragansett submitted the pre-filed testimony of Cheryl Warren, a manager of T&D Systems Engineering at National Grid. Ms. Warren stated that Narragansett currently has four reliability measures, which are SAIFI and SAIDI for the Capital and Coastal districts. Ms. Warren indicated that the Capital and Coastal districts should be combined. She noted that in 2002, Narragansett combined these two operating districts into one operational area. Ms. Warren explained that by weighting the Capital and Coastal districts by customers served in the district, which is 61% in the Capital district and 39% in the Coastal district, the performance trends of the individual districts and the weighted statewide area are similar.⁵

Ms. Warren described the IEEE Standard 1366-2003, which defines reliability enduces and terms. This new standard includes the Major Event Day (“MED”) concept. The MED concept varies significantly within the industry, but should represent crisis conditions when system design and/or operational limits are exceeded. A MED is calculated by utilizing the daily SAIDI for five sequential years. Also, according to Ms. Warren, reliability data is not distributed on a normal or Gaussian “bell-shaped” curve. She stated that days with a particularly high level of minutes of interruption would

³ *Id.*, pp. 9-11.

⁴ *Id.*, pp. 11-15.

⁵ Narr. Ex. 1B (Ms. Warren’s direct testimony), pp. 1-9.

constitute a MED. Ms. Warren indicated that reliability data should be distributed in a lognormal manner. Accordingly, Ms. Warren opined that the use of the IEEE Standard 1366-2003 would give regulators and the Company a clearer understanding of Narragansett's reliability performance.⁶

Also, Ms. Warren stated that the performance benchmarks should be based on a ten-year rolling average, starting with 1994-2003. She noted that in 1999, Narragansett Electric began using an automated data collection and reporting system, Interruption Disturbance System ("IDS"), to track interruptions. According to Ms. Warren, this system change caused the reported metrics to increase by approximately 20 percent. Also, in 2000, the Eastern Utilities Associates ("EUA") merged with Narragansett and its data collection processes were converted to Narragansett's processes, which improved the accuracy of the reliability data. Also, Ms. Warren stated that using a ten-year period to establish performance benchmarks reduces the effects of the short-term variability of data.⁷

Utilizing the IEEE methodology, Ms. Warren indicated that the reliability benchmarks would have a narrower deadband for standard deviations thus tightening the thresholds at which Narragansett would incur an offset or a penalty. Also, Ms. Warren stated that utilizing the IEEE methodology would have caused Narragansett to pay a penalty for SAIDI performance from 2001 through 2003, but would not have caused Narragansett to pay a penalty for SAIFI performance during the same time period. Under the current Narragansett SQP, Narragansett paid a penalty for SAIFI performance from 2001 through 2003, and the maximum penalty for SAIDI performance in 2003 only.

⁶ Id., pp. 10-24.

⁷ Id., pp. 24-26.

Furthermore, utilizing the IEEE methodology through 2003, Narragansett was in the top quartile for SAIDI and Customer Average Interruption Duration Index (“CAIDI”) and in the second quartile for SAIFI for over 80 companies located throughout the United States and Canada that ranged in size from 1,400 to 5 million customers. Narragansett is considered a medium size company serving more than 100,000 customers but no more than 1 million customers. She noted that Narragansett’s performance was much better than both its peers and electric utilities in other groups. Furthermore, she explained that the worsening in average SAIDI performance in medium sized companies has a similar slope to Narragansett’s performance, which may be indicative of improvements in data collection, worsening weather conditions, or facility deterioration.⁸

In the pre-filed testimony of Mark Sorgman, Manager of Small Business Services for National Grid, Mr. Sorgman described Narragansett’s two customer service measures in the SQP. Mr. Sorgman explained that the customer contact measure is based on a telephone survey performed by an independent research firm to contact customers who have recently contacted the company’s call center to measure their satisfaction in various areas such as power outages, meter issues, and bill payments. Also, Mr. Sorgman explained that the call answering measure which is calculated by dividing the number of calls answered by customer service representatives (“CSRs”) within 20 seconds by the total number of calls answered by CSRs during the year. He indicated that a call is answered when it reaches the CSR and that the time to answer is measured once the customer selects the option to speak with a CSR thus leaving the recordings of the VRU. Mr. Sorgman proposed that the benchmarks in the customer service area be based on historical performance from 1997 to 2003 with a ten-year rolling average. Also, Mr.

⁸ Id., pp. 27-36.

Sorgman proposed that the call answering measure include calls completed in the VRU. He opined that some customers prefer self-service of the VRU, which is the equivalent of having a request satisfied by a CSR. Also, he noted that since 2000 Narragansett has tracked the number of VRU calls and including these calls has the effect of increasing the benchmark for the benefit of customers.⁹

II. SETTLEMENT

Subsequently, on September 28, 2004, the Commission approved a new distribution rate settlement, which made certain modifications to any new SQP for Narragansett. The modifications included: a reduction in the maximum annual service quality penalty from \$2.4 million to \$2.2 million; the elimination of penalty offsets between years and the elimination of doubling of penalties provision. After approval of a settlement requiring a rate freeze of Narragansett's distribution rates through 2009, Narragansett and the Division engaged in negotiations regarding a new SQP.

On December 29, 2004, Narragansett filed a Settlement Agreement between it and the Division of Public Utilities and Carriers ("Division").¹⁰ The new SQP agreed to by the parties would make various changes to SQP. First, the reliability performance benchmarks would be based on the Company's performance from 1995 through 2002, and the benchmark would be calculated utilizing the natural logarithm method. Second, the current extraordinary event criteria would be used but Narragansett will annually report, for information purposes, the annual SAIDI and SAIFI results utilizing the IEEE Standard 1366-2003. Also, Narragansett could petition the Commission after two years to modify the SQP to adopt the IEEE Standard 1366-2003. Third, the calls answered

⁹ Narr. Ex. 1C (Mr. Sorgman's testimony), pp. 1-6.

¹⁰ The Settlement is attached as Appendix A and is hereto incorporated by reference herein.

performance benchmark will be based on the company's performance from 1996 through 2004 while the customer contact survey performance benchmark would be based on the Company's performance from 1997 through 2004, and would include calls completed by the VRU. Fourth, the maximum potential offset for penalty would be 25% of the maximum penalty for that metric rather than 75% under the current SQP.

III. NARRAGANSETT'S SUPPLEMENTAL TESTIMONY

On December 29, 2004, Narragansett submitted supplemental pre-filed testimonies by Robert McLaren, Cheryl Warren, and Mark Sorgman. In his supplemental testimony, Mr. McLaren stated that the SQP's "principal objective" was "to maintain or improve the quality of service to its customers." He noted that the Rate Freeze Settlement of Docket No. 3617 addressed various SQP issues. First, the performance benchmarks would be based on the Company's historical performance. Second, the SQP would assess Narragansett's performance annually. Third, any penalty offsets can only be applied to the year in which they are earned. Fourth, the maximum penalty in each year will be set at \$2.2 million or approximately 1% of Narragansett's distribution revenues. Fifth, any penalty would be credited to customers in the year they accrue. Sixth, the provision for the potential doubling of penalties in the event of significant and persistent deterioration in performance was eliminated.¹¹ Mr. McLaren also summarized various changes to the SQP pursuant to the Settlement. Furthermore, he clarified that although the penalty is slightly reduced, the annual penalty is weighed 83% or \$1.832 million towards reliability and the remainder or \$368,000 is for customer service.¹²

¹¹ Narr. Ex 2A (Mr. McLaren's supplemental testimony), pp. 1-8.

¹² Id., pp. 9-18.

In her pre-filed supplemental testimony, Ms. Warren discussed the reliability measures in the SQP Settlement. Ms. Warren explained that the new performance benchmark will not include the years 1993 and 1994 because the data is less robust compared to the years in which the company utilized IDS to track interruptions. She noted that combining the Capital and Coastal districts benefits customers because the proposed performance targets at which penalties would be applied are more stringent than if the years 1993, 1994 and 2003 were included in the benchmarks.¹³

In his pre-filed supplemental testimony, Mr. Sorgman discussed the customer service benchmarks in the SQP Settlement. Mr. Sorgman explained that these benchmarks will include the results of 2004. Also, he noted that by including calls completed through VRU would make the benchmark more stringent and a make it more difficult to earn offsets in the area of call answering. He stated that Narragansett has achieved offsets in this measure since 2002.¹⁴

IV. DIVISION'S TESTIMONY

On December 30, 2004, the Division submitted the pre-filed testimony of Dr. John Stutz, an outside consultant. In his pre-filed testimony, Dr. Stutz discussed the new SQP proposed in the Settlement. Dr. Stutz noted that under the current SQP Narragansett has incurred \$2,026,729 in penalties of which \$1,024,224 was associated with reliability in 2003. Dr. Stutz noted the reduction in maximum offsets from 75 percent to 25 percent of maximum penalty, which moves the new SQP in the direction of eliminating offsets as suggested by NEGAs' SQP, and reduces the likelihood that poor performance in one area will be significantly offset by good performances in another. He explained that updating

¹³ Narr. Ex. 2B (Ms. Warren's supplemental testimony), pp. 1-7.

¹⁴ Narr. Ex. 2C (Mr. Sorgman's supplemental testimony), pp. 1-5.

the customer contact performance benchmark has a negligible impact on the mean and standard deviations. Also, he stated that updating the call response performance benchmark will have a small impact on the mean but will result in a large standard deviation. However, he explained that this large standard deviation reduces the likelihood of penalties and offsets equally. Also, he noted that with the exception of 2001, Narragansett's performance in this area has been good and in fact, it is the only measure in which offsets have been greater than penalties incurred.¹⁵ As for the reliability performance benchmarks, Dr. Stutz stated that the new measures are only slightly different from the prior measures except for a roughly 9 percent decline in the mean for SAIDI which reflects a shift in data collection technology and not service quality. In addition, Dr. Stutz explained that the use of logarithmic data allows the threshold for offsets to be closer to the mean than the threshold for penalties. To avoid the asymmetry, he noted the reduction in the offsets to 25% resolves this problem.¹⁶

V. HEARING

After duly published notice, the Commission conducted a public hearing on January 31, 2005 at its offices located at 89 Jefferson Boulevard, Warwick, Rhode Island. The following appearances were entered:

FOR NARRAGANSETT:	Laura Olton, Esq.
FOR THE DIVISION:	Leo Wold, Esq. Special Assistant Attorney General
FOR THE COMMISSION:	Steven` Frias, Esq. Executive Counsel

¹⁵ Div. Ex. 1 (Dr. Stutz's testimony), pp. 1-10.

¹⁶ Id., pp. 10-13.

The following witnesses were presented as a panel: Mr. McLaren, Ms. Warren and Mr. Sorgman for Narragansett, and Dr. Stutz for the Division. Dr. Stutz stated that the performance measures and the methodologies of the new SQP are rather standard in the electric industry. He also stated that generally the performance benchmark for an electric utility is based on the historical performance of the specific utility but at times has been based on the performance of other utilities in the region. In addition, he characterized the service quality of Narragansett as good in comparison to other electric utilities. Dr. Stutz emphasized that the new SQP is in the best interest of ratepayers because years with clearly bad performances are excluded from calculating the benchmark such as 2003 in the reliability area. Also, he stated that the new SQP makes a significant movement away from offsets. Furthermore, Dr. Stutz indicated that once the data for 2003 is excluded there is no real dramatic difference between reliability service in the capital and coastal districts.¹⁷ In addition, Mr. McLaren stated that Narragansett will provide the Division with a reasonably prompt notice of events Narragansett deems constitutes an extraordinary event under the new SQP. Also, Ms. Warren noted that the Division has access to information from Narragansett as to how long an outage endured on a transformer-by-transformer basis. Lastly, Dr. Stutz pointed out that Narragansett reports the five percent of all circuits that are the worst performing.¹⁸

COMMISSION FINDINGS

The general purpose of a service quality program is to ensure that ratepayers receive a reasonable level of service. Because electric distribution service is clearly a monopoly, a service quality program is necessary to protect customers. A service quality

¹⁷ Tr. 1/31/05, pp. 24-26, 42-46.

¹⁸ Id., pp. 49-50, 53-56.

program for Narragansett Electric is even more necessary to ensure that merger savings are not achieved at the expense of service quality. The current SQP of Narragansett Electric is designed to maintain or improve the service quality of ratepayers in light of the cost cutting arising from the merger. As a result, under the current SQP, Narragansett Electric incurred \$1,774,097 in service quality penalties during the rate freeze period of 2000 through 2004.¹⁹ Thus, a new SQP for Narragansett Electric must likewise be designed to maintain or improve the service quality of ratepayers, and penalize Narragansett Electric for failing to do so.

In the topics of penalty amount and weighing of the penalty, the proposed SQP is nearly identical to the current SQP. The current and the proposed SQPs both weigh 83% of the penalty to the reliability service measures and the remaining 17% to the customer service measures. This approach is appropriate because reliability is of the utmost concern to all ratepayers. Without reliable electric service, a modern society, economically and socially, would decline. Thus, placing 83% of a potential penalty upon reliability service measures demonstrates the importance of reliability to the Commission. As for the penalty amount, the proposed SQP allows for \$2.2 million which is approximately 1% of Narragansett Electric's distribution revenues and is very similar to the \$2.4 million or 1.1% of Narragansett Electric's overall service quality during the rate freeze period of 2000 through 2004. A maximum annual penalty of \$2.2 million should be a sufficient deterrent to Narragansett against declining service quality.

In the area of service measures, there are some differences between the current SQP and the proposed SQP. In the reliability service measures, the Capital and Coastal districts are being combined under the proposed SQP. This could be problematic if these

¹⁹ Narr. Elec.'s 5/2/05 filing in Docket No. 3617.

two districts have very different service quality results. Narragansett Electric acknowledged that the Coastal district has less load density and is more exposed to severe storms than the Capital district.²⁰ However, it should be noted that with the exception of 2003, during the rate freeze, the reliability data for the Coastal and Capital districts were nearly identical.²¹ Overall, it appears that the two districts are generally comparable in service quality and can be combined in the new SQP so as to align the SQP measures with the operational plan of Narragansett Electric.

In the area of performance benchmark standards, it is to be expected that combining the Capital and Coastal districts will cause some changes to reliability benchmarks. However, it is imperative that clear poor service quality performance not be included in calculating and establishing any new performance benchmarks. For reliability benchmarks, the exclusion of 2003 data when Narragansett Electric incurred significant penalties is clearly appropriate. Thus, the reliability performance data used in calculating the reliability service benchmarks is limited to 1995 through 2002.²²

When comparing the current benchmarks for SAIFI and SAIDI in the Capital and Coastal districts with the proposed benchmarks for SAIFI and SAIDI, it is apparent that the proposed SAIFI benchmark is very similar to the current SAIFI benchmarks. Unfortunately, it appears that the proposed SAIDI benchmark is approximately 9% less stringent than the current SAIDI benchmark for the Capital district. This difference is

²⁰ PUC Ex. 1 (Narr. Data Resp. 1-2).

²¹ *Id.* When the 2003 data is removed the average SAIDI for the Coastal district was 70.1 while the Capital district was 72.5, and the average SAIFI for the Coastal district was 1.05 while the Capital district was 1.04.

²² The Commission considered excluding the SAIDI performance of 2001 because Narragansett Electric incurred a significant penalty that year. However, the exclusion of the data would have changed the benchmark in a very slight manner, approximately 1 percent. Furthermore, Narragansett Electric explained that poor performance on June 11 and 12, 2001, should, in retrospect, have been classified as an extraordinary event. PUC Ex. 1 (Narr. Data Resp. 1-11).

caused by the combining of the two districts into one operational area for new service measures and the change in data collection systems related to tracking interruptions which was implemented in 1999. Most importantly, Narragansett Electric's performance in SAIDI from 2000 to 2003 has been in the top quartile compared to other electric utilities and furthermore the average SAIDI performance for medium sized companies like Narragansett Electric has declined slightly from 2000 to 2003. Based on all these considerations, it appears that the proposed SAIFI and SAIDI benchmarks are reasonable.

For customer service benchmarks, the proposed benchmark for calls answered within 20 seconds will be based on the data from 1996 to 2004 and will include calls answered by VRU. These changes in the benchmark will make it harder for Narragansett Electric to incur a penalty or an offset because the standard deviation is larger. However, during the period 2002 through 2004, Narragansett Electric has incurred offsets for this benchmark because of its inclusion of VRU data. With this large standard deviation, it will make it more challenging for Narragansett Electric to achieve an offset. Thus, the new proposed benchmark appears reasonable and reflects new technological changes in customer service. As for the customer contact benchmark, the proposed benchmark will be based on the data from 1997 to 2004. The current customer contract benchmark and the proposed benchmark are very similar and therefore the proposed benchmark can be adopted.

As for the offsets, the proposed reliability benchmarks will be calculated utilizing a logarithmic method rather than the Gaussian "bell curve" method in the current benchmarks to determine the threshold for penalties and offsets. Both Narragansett Electric and the Division have determined that reliability data is logarithmic.

Furthermore, the IEEE standard 1366-2003, which is slowly become an industry standard, recognizes the logarithmic nature of reliability data. It appears that the use of the logarithmic method is appropriate for reliability. However, a significant problem with the use of logarithmic method for benchmarks is the asymmetric nature of offsets and penalties whereby the threshold for offsets is closer to the mean than the threshold for penalties. To address this problem, the amount of the maximum offset is reduced from 75% of the maximum penalty to 25% of the maximum penalty. This reduces the asymmetry in the reliability benchmarks. Furthermore, this reduction in the maximum offset to 25% is applied to the customer service benchmarks as well. This reduction in offsets in the proposed SQP is in the best interest of ratepayers because offsets can allow a utility to ignore the poor performance in certain areas. This proposed SQP better reflects the policy objective that a utility should perform well in all areas of service.

Lastly, the IEEE has developed a standard for determining major event days, IEEE Standard 1366-2003. Although the proposed SQP does not adopt this new standard, it provides Narragansett with the opportunity to petition the Commission in 2007 to adopt it. This is appropriate because it is important for regulators to have the information necessary to determine if the use of the IEEE standard is significantly different from the currently used definition of extraordinary events and what impact if any this new standard would have on the reliability benchmarks. Furthermore, the Commission is pleased that the Division will seek more timely reporting by Narragansett Electric of the occurrence of extraordinary events.²³ This will help ensure that the reliability data is accurate. In addition, the Commission will remain vigilant and expects the Division will do so as well regarding very poor reliability performance in certain

²³ PUC Ex. 2 (Div. Data Resp. 9).

areas, which may be masked because the overall state performance is acceptable. Accordingly, at an open meeting on February 2, 2005, the Commission reviewed the evidence and approved the proposed Settlement as being in the public interest.

Accordingly, it is

(18294) ORDERED:

1. Narragansett Electric's proposed Service Quality Plan, filed on August 2, 2004, is denied.
2. The Settlement Agreement incorporating a new Service Quality Plan filed on December 29, 2004 is approved.

EFFECTIVE IN WARWICK, RHODE ISLAND ON JANUARY 1, 2005
PURSUANT TO AN OPEN MEETING ON FEBRUARY 2, 2005. WRITTEN ORDER
ISSUED JULY 12, 2005.

PUBLIC UTILITIES COMMISSION

Elia Germani, Chairman

Robert Holbrook, Commissioner

**State of Rhode Island and Providence Plantations
Public Utilities Commission**

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

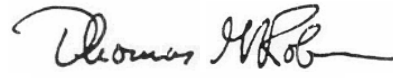
(b) This Settlement is the product of settlement negotiations. The content of those negotiations is privileged and all offers of settlement shall be without prejudice to the position of any Party.

(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,

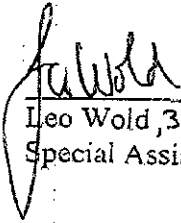
The Narragansett Electric Company
By its Attorneys


Laura S. Olton

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

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

	-2 Std Dev.	-1 Std Dev.	Mean	+1 Std Dev.	+2 Std Dev.
			0.0433		
			0.1328		
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):

<u>SAIFI Company Target</u>	<u>(Penalty)/ Offset</u>
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

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

	-2 Std Dev.	-1 Std Dev.	Mean	+1 Std Dev.	+2 Std Dev.
			4.1627		
			0.1851		
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):

<u>SAIDI Company Target</u>	<u>(Penalty)/ Offset</u>
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**

<u>Year</u>	<u>% Satisfied*</u>
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:

<u>% Satisfied</u> <u>Target</u>	<u>(Penalty)/</u> <u>Offset</u>
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

<u>Year</u>	Percent of Calls Answered <u>Within 20 Secs*</u>
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 <u>Target</u>	(Penalty)/ <u>Offset</u>
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.

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

**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).

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

To calculate the index, use equation (4).

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

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.

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

**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.