nationalgrid

Laura S. Olton
General Counsel
Rhode Island

May 1, 2007

VIA HAND DELIVERY & ELECTRONIC MAIL

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

RE: Docket 3628 - 2006 Service Quality Report, Electric Operations

Dear Ms. Massaro:

Enclosed are ten (10) copies of National Grid's[1] performance results for 2006 under its Service Quality Plan ("Plan") as established in the above-captioned docket. Based on actual performance results, the Company has incurred no penalties for calendar year 2006.

The Company's Plan is described in Attachment 1 to the Company's Service Quality Plan Settlement Agreement filed on December 29, 2004, and approved by the Commission in Docket 3628. The Plan provides for penalties and offsets relating to performance standards in the areas of reliability and customer service. The service quality standards under the Plan became effective as of January 1, 2005.

This report is organized as follows:

- Section 1: Provides a summary of each performance standard in the areas of reliability and customer service. Section 1 contains descriptions of each of the performance standards, the targeted performance levels for 2006 with their related dollar values, and the actual 2006 results with the applicable annual penalty or offset.

- Section 2: Provides a summary calculation of the Company's annual penalty or offset for each of the performance standards for 2006. Based on actual performance results for 2006, the Company has incurred no penalties.

[1] Submitted on behalf of The Narragansett Electric Company, d/b/a National Grid ("Company").

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- Section 3: The Plan requires the Company to report on additional aspects of service quality, including: (1) worst performing circuits; (2) trouble, non-outage calls received; (3) annual meter reading performance; and (4) additional reliability information. Section 3 summarizes the results of these reporting requirements.

- Section 4: During 2006, the Company experienced two events that it believes are properly excluded from the calculation of reliability performance, because they fall under the category of Extraordinary Events, as defined in the Plan. These two events have been excluded from the calculation of reliability performance and are summarized in Section 4.

Thank you for your attention to this filing. If you have any questions concerning this report, please do not hesitate to call me at (401) 784-7667.

Very truly yours,

Laura S. Olton

Laura S. Olton

Enclosures

cc: Docket 3628 Service List
Paul Roberti, Esq.
Steve Scialabba, Division

The Narragansett Electric Company,
d/b/a National Grid

2006 Service Quality Report

May 1, 2007

Submitted to:
Rhode Island Public Utilities Commission
RIPUC Docket 3628

Submitted by:

nationalgrid

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RELIABILITY PERFORMANCE STANDARDS

Interruption Frequency and Duration

Under the Service Quality Plan, an interruption is defined as the loss of electric service to more than one customer for more than one minute. The interruption duration is defined as 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. Interruptions are tracked using System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI). SAIFI is calculated by dividing the total number of customers interrupted by the total number of customers served. SAIFI measures the number of times per year the average customer experienced an interruption. This is an average, so in any given year some customers will experience no interruptions and some will experience several interruptions. SAIDI measures the length of interruption time that the average customer experienced for the year. It is calculated by dividing the total customer minutes of interruption by the total number of customers served.

Certain events are defined as Extraordinary Events and are excluded from the calculation of reliability performance standards for the purpose of penalty and offset assessment. Section 4 further discusses the Extraordinary Events that occurred during 2006.

2006 Frequency (SAIFI) Standard		2006 Frequency (SAIFI) Results	
Frequency of Interruptions per Customer	(Penalty) Offset	Frequency of Interruptions per Customer	Annual (Penalty) Offset
Greater than 1.36	($916,000)		
1.20-1.36	linear interpolation		
0.91-1.19	$0	0.98	$0
0.80-0.90	linear interpolation		
Less than 0.80	$229,000		

2006 Duration (SAIDI) Standard		2006 Duration (SAIDI) Results	
Duration of Interruptions (minutes)	(Penalty) Offset	Duration of Interruptions (minutes)	Annual (Penalty) Offset
Greater than 93.0	($916,000)		
77.4-93.0	linear interpolation		
53.4-77.3	$0	74.1	$0
44.4-53.3	linear interpolation		
Less than 44.4	$229,000		

CUSTOMER SERVICE PERFORMANCE STANDARDS

Customer Contact Survey

The customer contact survey results are based on responses from National Grid's Rhode Island customers, from a survey performed by an independent third-party consultant. The consultant surveys samples of customers who have contacted the call center during the year in order to determine their overall 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 on a seven-point scale, where 1 means extremely dissatisfied and 7 means extremely satisfied.

2006 Customer Contact Standard		2006 Customer Contact Results	
Percent Satisfied	(Penalty) Offset	Percent Satisfied	Annual (Penalty) Offset
Less than 74.5%	($184,000)		
74.5%-76.7%	linear interpolation		
76.8%-81.4%	$0		
81.5%-83.7%	linear interpolation	81.6%	$4,000
Greater than 83.7%	$46,000		

Telephone Calls Answered Within 20 Seconds

The calls answered performance standard reflects the annual average of calls answered within 20 seconds. "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.

2006 Calls Answered Standard		2006 Calls Answered Results	
% Answered Within 20 Seconds	(Penalty) Offset	% Answered Within 20 Seconds	Annual (Penalty) Offset
Less than 53.5%	($184,000)		
53.5%-65.7%	linear interpolation		
65.8%-90.4%	$0		
90.5%-100.0%	linear interpolation, to a maximum of $46,000	91.2%	$2,992

National Grid

2006 Results of Service Quality Plan
Calculation of Penalty/Offset

Performance Standard	Potential Penalty (a)	Potential Offset (b)	2006 Results (c)	Maximum Penalty (d)	One Std Dev. Worse Than Mean (e)	Mean (f)	One Std Dev. Better Than Mean (g)	Maximum Offset (h)	Annual (Penalty)/ Offset (i)
Reliability - Frequency	$ 916,000	$ 229,000	0.98	1.36	1.19	1.04	0.91	0.80	$0
Reliability - Duration	$ 916,000	$ 229,000	74.1	93.0	77.3	64.2	53.4	44.4	$0
Customer Service - Customer Contact Survey	$ 184,000	$ 46,000	81.6%	74.5%	76.8%	79.1%	81.4%	83.7%	$4,000
Customer Service - Telephone Calls Answered	$ 184,000	$ 46,000	91.2%	53.5%	65.8%	78.1%	90.4%	100.0%	$2,992
Total Penalty/Offset	$ 2,200,000	$ 550,000							$6,992 *

Notes:

Columns (a), (b), and (d)-(h) are per the Service Quality Plan, RIPUC Docket No. 3628.

Column (c) represents the actual 2006 annual results for the performance standards listed in the first column.

Column (i) is calculated as follows:

- For Reliability Standards:

If Column (c) is between Column (g) and Column (e):	$0
If Column (c) is between Column (h) and Column (g):	[Column (g) - Column (c)] ÷ [Column (g) - Column (h)] x Column (b)
If Column (c) is between Column (e) and Column (d):	[Column (c) - Column (e)] ÷ [Column (d) - Column (e)] x Column (a)
If Column (c) is greater than Column (d):	100% of Column (a)
If Column (c) is less than Column (h):	100% of Column (b)

- For Customer Service Standards:

If Column (c) is between Column (e) and Column (g):	$0
If Column (c) is between Column (g) and Column (h):	[Column (c) - Column (g)] ÷ [Column (e) - Column (d)] x Column (b)
If Column (c) is between Column (d) and Column (e):	[Column (e) - Column (c)] ÷ [Column (e) - Column (d)] x Column (a)
If Column (c) is less than Column (d):	100% of Column (a)
If Column (c) is greater than Column (h):	100% of Column (b)

*The total penalty/offset calculation results in a net offset of $6,992. According to the Company's Service Quality Plan, positive performance in one category can be used to offset penalties in other categories only within a given year. Since there were no penalties incurred during the year, the net offset of $6,992 has no value and cannot be carried over to 2007.

T:\Server Shares\Mawbrfsv03\RADATA1\2007 neco\Service Quality\May 1 Filing\[Section 2-2006 NECO SQ Results.xls]Sheet1

ADDITIONAL REPORTING CRITERIA

Under the Company's Service Quality Plan, the following additional reporting criteria are required to be filed with the Commission.

1. **Reporting Requirement:** 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.

   Results: The Company filed its first quarter 2006 feeder ranking results on April 13, 2006, the second quarter results on July 28, 2006, the third quarter results on October 16, 2006, and the fourth quarter results on January 25, 2007.

2. **Reporting Requirement:** 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.

   Results: This Company filed the required Trouble, Non-Outage reports on a monthly basis during 2006, with the final report filed on January 9, 2007.

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

Results: During 2006, the Company's annual meter reading performance (as an average of monthly percentage of meters read) was 98.9%, compared to 98.6% during 2005 and 2004. The following table details the percentage of meters read per month for 2006, 2005, and 2004.

Narragansett Electric Company
Monthly Percentage of Meters Read

	2006	2005	2004
January	98.8%	98.5%	98.7%
February	98.9%	98.5%	98.9%
March	99.0%	98.9%	99.0%
April	99.1%	99.1%	98.7%
May	99.1%	98.9%	98.5%
June	99.0%	98.6%	98.5%
July	98.5%	98.6%	98.3%
August	98.6%	98.4%	98.4%
September	98.8%	98.4%	98.7%
October	98.9%	98.4%	98.6%
November	98.9%	98.6%	98.5%
December	98.8%	98.8%	98.5%

4. **Reporting Requirement:** 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.

Results:

The following table summarizes the target bands and 2006 results under the Company's Service Quality Plan, compared to the target bands and results using IEEE Std. 1366-2003. The IEEE targets are based on historical data from 1996 to 2004, consistent with the targets established in the Agreement to Modify Performance Benchmarks filed with the Commission on March 14, 2007.

	Current SAIFI Target	IEEE SAIFI Target	Current SAIDI Target	IEEE SAIDI Target
Maximum Penalty	More than 1.36	More than 1.18	More than 93.0	More than 89.9
No Penalty or Offset	0.91 – 1.19	0.84 – 1.05	53.4 – 77.3	45.9 – 71.9
Maximum Offset	Less than 0.80	Less than 0.75	Less than 44.4	Less than 36.7
2006 Results	0.98	0.97	74.1	71.89
2006 (Penalty)/Offset	$0	$0	$0	$0

IEEE Std.1366 identifies reliability performance during both day-to-day operations and Major Event Days. Major Event Days represent those few days during the year on which the energy delivery system experienced stresses beyond that normally expected, such as severe weather. A day is considered a Major Event Day if the daily SAIDI exceeds a threshold value, calculated using the IEEE methodology. For 2006, the threshold value was calculated as 5.97 minutes. Therefore, those days during 2006 with a SAIDI value over 5.97 minutes were considered Major Event Days. There were four days during 2006 that qualified as Major Event Days, and are removed from the IEEE results in the table above. Please note that the Agreement to Modify Performance Benchmarks fixes the threshold value at 5.34 for 2007 and 2008; however, the Major Event Days during 2006 would be the same using a threshold of either 5.34 or 5.97 since there were no other days that had a SAIDI between 5.34 and 5.97.

The following days were Major Event Days during 2006:

- July 18, 2006 Lightning Storms
- August 2, 2006 Lightning Storms
- August 3, 2006 Lightning Storms
- October 28, 2006 Wind Storm

EXTRAORDINARY EVENTS

The Plan defines certain events as Extraordinary Events and excludes these events from the calculation of reliability performance standards for the purposes of penalty and offset assessment. Extraordinary Events are defined in the Service Quality Plan as meeting one of the following three 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; or

(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; or

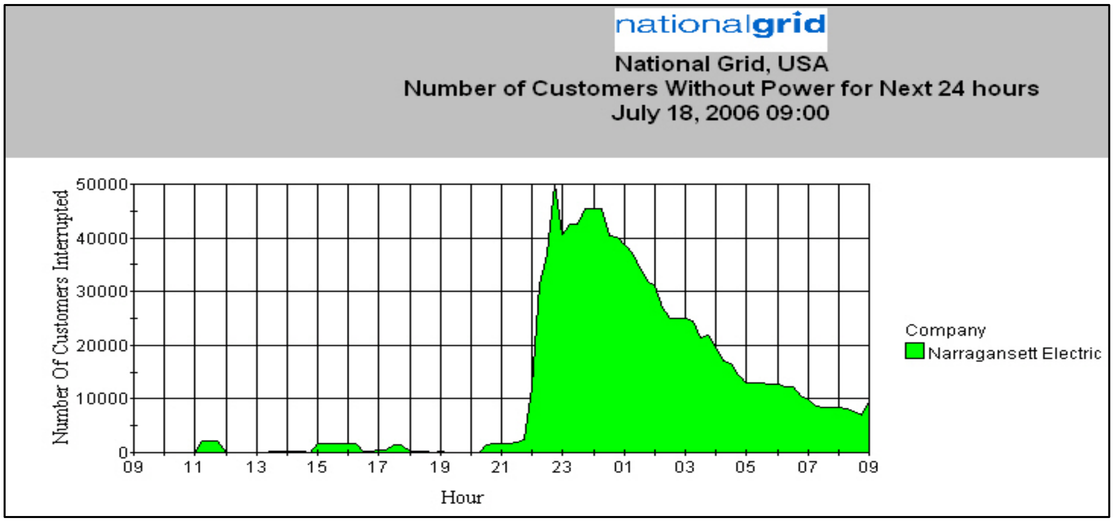
(3) It occurred because of an extraordinary circumstance, including, without limitation, a major disaster, earthquake, wild fire, flood, terrorism, or any other event beyond the reasonable control of the Company.

As described below, the Company experienced two Extraordinary Events during 2006:

- **July 18-19, 2006 Lightning Storms:** Rhode Island experienced a series of fast-moving thunderstorms from approximately 9:30 p.m. on July 18 to 1:30 a.m. on July 19. In a letter to the Division on December 28, 2006, the Company notified the Division that this event was considered extraordinary under the Plan because it met criteria (1) above.

  These storms were accompanied by straight-line winds and damaging lightning strikes. According to the National Weather Service, straight-line winds are powerful gusts that first hit straight down from storm clouds, and then move forward in one direction, with velocities of 60 to 80 mph.

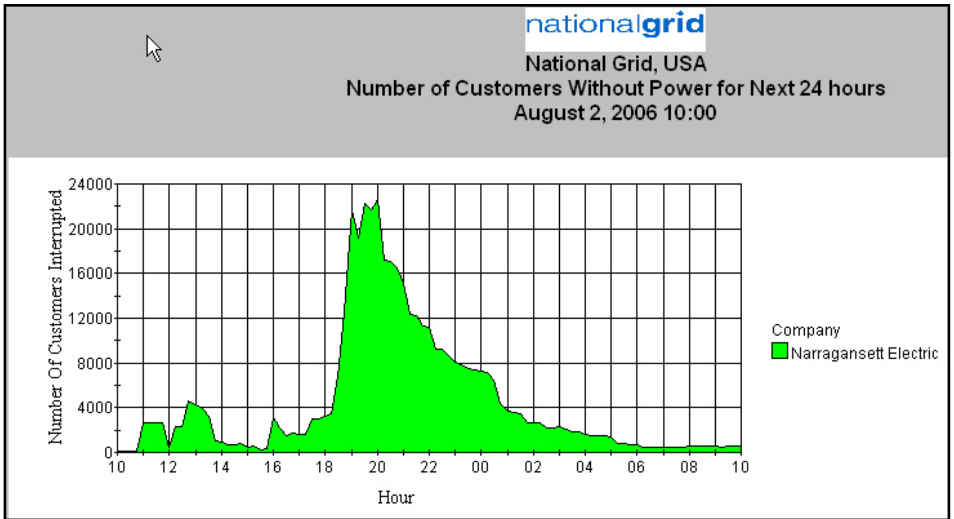
  This storm caused extensive damage, and warranted the use of Company crews from outside of Rhode Island and contractors in conjunction with local Company personnel to restore service. On July 18 and 19, the Company experienced 281 interruptions with a total of 87,381 customers interrupted, resulting in a SAIFI impact of 0.19. During this event, 17,615,151 customer minutes were accrued, which resulted in a SAIDI impact of 38.09 minutes. As depicted in the following graph, at approximately 10:45 pm on July 18, there were 49,946 customers out of service, which represents nearly 11% of the total Company customers.

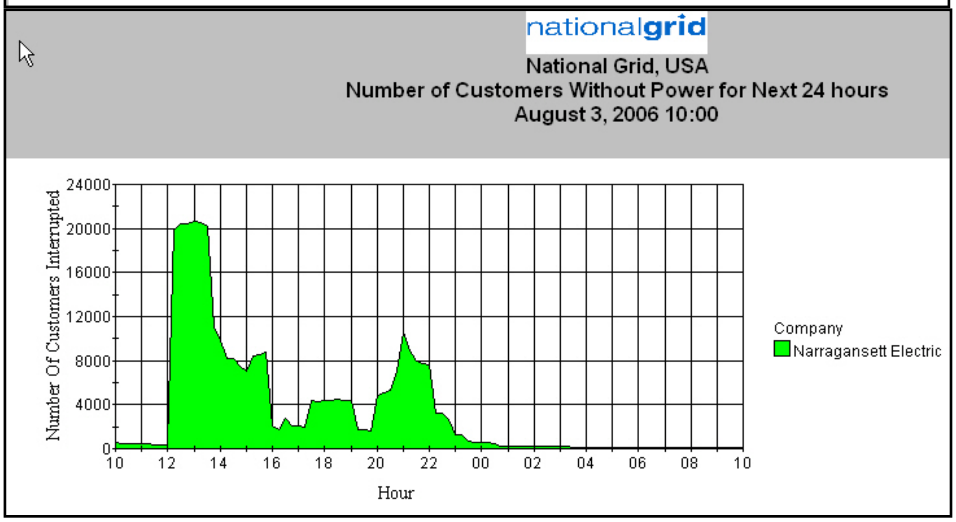


- **August 2-3 Lightning Storms:** On August 2 and 3, Rhode Island experienced numerous power failures related to excessive demand placed on the state's power grid, as well as outages caused by strong lightning storms. In a letter to the Division on December 28, 2006, the Company notified the Division that this event was considered extraordinary under the Plan because it met criteria (3) above.

  According to the National Weather Service, the temperature at T. F. Green Airport in Rhode Island reached 100 degrees on August 2, and 98 degrees on August 3. The Governor of Rhode Island issued a press release on August 1, 2006 asking Rhode Islanders to take steps to reduce their electricity usage in order to avoid power outages and brownouts. Powerful thunderstorms with frequent lightning and high winds impacted the region during the evenings of both August 2 and 3.

  During these two days, the Company experienced 302 interruptions with a total of 77,307 customers interrupted, resulting in a SAIFI impact of 0.17. The following graphs show the number of customers interrupted by hour during these two days. During this event, 10,115,316 customer minutes were accrued, which resulted in a SAIDI impact of 21.87 minutes. On August 2, the Company experienced the highest number of interruptions during 2006 within a single day. The average number of interruptions per day during 2006 was 10. On August 2, the Company experienced 193 interruptions, more than 19 times the average.


nationalgrid
National Grid, USA
Number of Customers Without Power for Next 24 hours
August 2, 2006 10:00
Number Of Customers Interrupted
24000
20000
16000
12000
8000
4000
0
10 12 14 16 18 20 22 00 02 04 06 08 10
Hour
Company
Narragansett Electric


nationalgrid
National Grid, USA
Number of Customers Without Power for Next 24 hours
August 3, 2006 10:00
Number Of Customers Interrupted
24000
20000
16000
12000
8000
4000
0
10 12 14 16 18 20 22 00 02 04 06 08 10
Hour
Company
Narragansett Electric

Certificate of Service

I hereby certify that a copy of the cover letter and / or any materials accompanying this certificate has been mailed or hand-delivered to the individuals listed below.

Joanne M. Scanlon

April 30, 2007
Date

Narragansett Electric Company – Service Quality Plan
Docket 3628 - Service List

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