

October 18, 2021

**VIA ELECTRONIC MAIL**

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

**RE: Docket 3628 – Service Quality (Electric Operations)  
March 1-2, 2021 Storm Event  
Responses to PUC Data Requests – Set 1**

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a National Grid (National Grid or the Company), enclosed, please find an electronic version<sup>1</sup> of the Company's responses to the Public Utilities Commission's First Set of Data Requests in the above-referenced matter.

Thank you for your attention to this filing. If you have any questions, please contact me at 401-784-4263.

Sincerely,



Andrew S. Marcaccio

Enclosures

cc: Docket 3628 Service List  
Tiffany Parenteau, Esq.  
John Bell, Division

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<sup>1</sup> Per communication from Commission counsel on October 4, 2021, the Company is submitting an electronic version of this filing followed by six (6) hard copies filed with the Clerk within 24 hours of the electronic filing.

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



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Joanne M. Scanlon

October 18, 2021  
Date

**National Grid – Electric Service Quality Plan – Compliance - Docket 3628  
Service List Updated 10/1/2021**

<b>Name</b>	<b>E-mail Distribution List</b>	<b>Phone</b>
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	<a href="mailto:Andrew.marcaccio@nationalgrid.com">Andrew.marcaccio@nationalgrid.com</a> ;	
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Leo Wold, Esq. Division of Public Utilities & Carriers 89 Jefferson Boulevard Warwick, RI 02888  Gregory Booth, Consultant  Tiffany Parenteau, Esq. Dept. of Attorney General Office	<a href="mailto:leo.wold@dpuc.ri.gov">leo.wold@dpuc.ri.gov</a> ;	
	<a href="mailto:Robert.Bailey@dpuc.ri.gov">Robert.Bailey@dpuc.ri.gov</a> ;	
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	<a href="mailto:Cynthia.WilsonFrias@puc.ri.gov">Cynthia.WilsonFrias@puc.ri.gov</a> ;	
	<a href="mailto:Alan.nault@puc.ri.gov">Alan.nault@puc.ri.gov</a> ;	

The Narragansett Electric Company  
d/b/a National Grid  
RIPUC Docket 3628  
In Re: Electric Service Quality Plan  
Petition to Classify March 1-2, 2021 as Major Event Days  
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Issued on September 27, 2021

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PUC 1-1

Request:

Did National Grid submit a petition for approval regarding its calculation of September 6-7, 2008 and/or September 5-6, 2016 storms? If so, please provide copies. If not, why not.

Response:

National Grid did not submit a petition for approval regarding its calculation of the September 6-7, 2008 storm or the September 5-6, 2016 storm. The Company submitted the petition filed on July 8, 2021 to seek advance approval from the PUC to declare March 1-2, 2021 as major event days in the 2021 Service Quality Report.

For the previous cases, as in this case, National Grid sought and received approval from the Division of Public Utilities and Carriers ("Division"). Please see Attachment PUC 1-1 as evidence of the 2016 approval from the Division. Attachment PUC 1-1 also references similar collaboration with the Division for the 2008 storm.

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**From:** Scialabba, Steve (DPUC) [<mailto:Steve.Scialabba@dpuc.ri.gov>]  
**Sent:** Thursday, December 22, 2016 12:35 PM  
**To:** OBrien, Celia  
**Subject:** EXT || RE: 2016 Annual Electric Service Quality Report

Celia,

I discussed your email regarding the treatment of your referenced storms as Major Event Days under the SQP with our engineering consultant Greg Booth of Powerservices. His recommendation to me is provided below. Based on that, the requested treatment of the Labor Day Storm is acceptable to the Division. Greg's response is as follows:

*The Division has allowed the treatment of Major Event Day as "any interruption that spans multiple calendar days is accrued to the day on which the interruption began". This would mean the method proposed by NGrid would be acceptable. I believe that is consistent with 2015 Amended Electric Service Quality Plan Attachment 1 paragraph "Major Event Day". In short, I see no problem with the Company's treatment of the Labor Day Weekend Storm being consistent with the intent of the Definitions.*

Feel free to contact me with any questions.

Steve Scialabba

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**From:** OBrien, Celia [<mailto:CELIA.OBRIEN@nationalgrid.com>]  
**Sent:** Monday, December 12, 2016 5:08 PM  
**To:** Scialabba, Steve (DPUC) <[Steve.Scialabba@dpuc.ri.gov](mailto:Steve.Scialabba@dpuc.ri.gov)>  
**Subject:** 2016 Annual Electric Service Quality Report

Steve,

As we discussed briefly on Friday, the Company experienced a Labor Day Weekend Storm this year that occurred over a two-day period (Sept. 5<sup>th</sup> and 6<sup>th</sup>, 2016) and resulted in a 24-hour SAIDI value exceeding the year's SAIDI threshold (Tmed) value. Under the Company's Service Quality Plan, certain events (Major Events) are excluded from the calculation of reliability performance standards for the purpose of penalty and offset assessment. The Company experienced a similar storm in 2008 (Tropical Storm Hanna) that occurred over a two-day period (Sept. 6<sup>th</sup> and 7<sup>th</sup>, 2008) and resulted in a 24-hour SAIDI value exceeding the SAIDI threshold (Tmed) value for that year. After consultation with the Division, in its 2008 Annual Service Quality Report filed with the PUC, the Company excluded Tropical Storm Hanna from the calculation of the reliability performance standard for the purpose of penalty and offset assessment as the storm constituted a Major Event. Specifically, the Company stated in this report as follows (see page 24):

"A Major Event Day is typically interpreted to mean a calendar day, but since Tropical Storm Hanna started so late in the day on September 6th, the events on the following day were also considered when determining the storm's impact. Since the SAIDI value of 6.00 minutes for September 6-7, 2008 exceeded the threshold value of 5.34 minutes, Tropical Storm Hanna qualified as a Major Event Day under the IEEE methodology."

Similarly, in its 2016 Annual Service Quality Report, the Company would exclude the 2016 Labor Day Weekend Storm from the calculation of the reliability performance standard for the purpose of penalty and offset assessment as the storm constituted a Major Event. Specific information regarding the service interruptions for these two storms is provided below.

Please let me know if you have any questions or would like to further discuss.

Thanks,  
Celia

**Celia B. O'Brien**  
Assistant General Counsel and Director  
National Grid  
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Waltham, MA 02451  
781-907-2153 (office)  
508-330-8602 (cell)  
[celia.obrien@nationalgrid.com](mailto:celia.obrien@nationalgrid.com)

**Tropical Storm Hanna – September 6-7, 2008**

Area Name	Day	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	2008 Tmed SAIDI Threshold
Narragansett Electric	9/6/2008 8:30pm - 09/7/2008 noon	134	28,696	2,846,136	474,099	0.06	6.00	5.36

**Labor Day Weekend Storm - September 5-6, 2016**

Area Name	Day	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	2016 Tmed SAIDI Threshold
Narragansett Electric	9/5/2016 Noon - 9/6/2016 11:59am	121	19,551	2,678,680	487,894	0.040	5.49	5.26

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PUC 1-2

Request:

Did the calculations of  $T_{MED}$  that include the years 2008 and 2016 treat the storms as a single event with a high SAIDI or two separate events with low SAIDI?

Response:

By definition of IEEE Standard 1366-2003, establishing  $T_{MED}$  for a calendar year requires the calculation of Daily SAIDI for the previous 5 years. The calculation of Daily SAIDI includes all individual outage events that had a starting time on that day, regardless of declaration as a Major Event Day. Therefore, the calculation of  $T_{MED}$ 's that include the years 2008 and 2016 incorporate the individual outage events that occurred during the separate Major Event Days for the calculation of Daily SAIDI.



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PUC 1-3

Request:

If the PUC approves National Grid's petition, how would the March 1-2, 2021 storm be treated in the calculation of  $T_{MED}$  at the end of this reporting period?

Response:

The declaration of a day as a Major Event Day has no impact on the calculation of  $T_{MED}$ .

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PUC 1-4

Request:

Please confirm that the duration of all outages that began on March 1, 2021 were included in the “calendar day” SAIDI calculation of 3.0253 found in Table 1 of Exhibit A.

Response:

All outages that began on March 1, 2021 were included in the “calendar day” SAIDI calculation of 3.0253 found in Table 1 of Exhibit A.

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PUC 1-5

Request:

Examining Figure B of Exhibit A, it appears there were zero active outages just after 10 PM on March 1. Please confirm if this is correct, what time active outages were last zero on March 1, and when active outages began increasing again.

Response:

The time period on March 1st where active customers interrupted last dropped to zero was at 6:23 PM and began increasing again at 6:44 PM. The Company had 331 customers interrupted at 10PM on March 1 and it dropped as low as 86 at 10:44 PM.

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PUC 1-6

Request:

Does National Grid's proposal treat all 48 hours beginning at 12 AM on March 1 and ending just prior to 12 AM on March 3 as a single event day? If so, would this mean that outages that began between 12 AM and 10 PM on March 1 be excluded from National Grid's SAIDI score (and other metrics) for the purpose of calculating the service quality metrics?

Response:

Based on the restoration data, National Grid is proposing treating March 1 13:00 PM to March 2 12:59 PM as a 24-Hour continuous provision. This will be treated the same as 09/6-7/2008 and 09/5-6/2016. The outages that started between 12AM on March 1 and prior to 12 AM on March 3 will all be excluded from National Grid's SAIDI score for the purpose of calculating the service quality metrics.

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PUC 1-7

Request:

Please provide the cumulative SAIDI score for every hour beginning at 12 AM on March 1 until 12 AM on March 3.

Response:

The cumulative SAIDI is in the following table:

Hour	Past Hour CMI	Past Hour SAIDI	Cumulative CMI	Cumulative SAIDI
3/1/2021 12:00:00 AM	-	-	-	-
3/1/2021 01:00:00 AM	81	0.0002	81	0.0002
3/1/2021 02:00:00 AM	-	-	81	0.0002
3/1/2021 03:00:00 AM	-	-	81	0.0002
3/1/2021 04:00:00 AM	-	-	81	0.0002
3/1/2021 05:00:00 AM	1,242	0.0025	1,323	0.0026
3/1/2021 06:00:00 AM	30,358	0.0608	31,681	0.0634
3/1/2021 07:00:00 AM	9,840	0.0197	41,521	0.0831
3/1/2021 08:00:00 AM	1,328	0.0027	42,849	0.0858
3/1/2021 09:00:00 AM	2,883	0.0058	45,732	0.0916
3/1/2021 10:00:00 AM	1,511	0.0030	47,243	0.0946
3/1/2021 11:00:00 AM	-	-	47,243	0.0946
3/1/2021 12:00:00 PM	-	-	47,243	0.0946
3/1/2021 01:00:00 PM	-	-	47,243	0.0946
3/1/2021 02:00:00 PM	125,643	0.2516	172,886	0.3462
3/1/2021 03:00:00 PM	127,214	0.2547	300,100	0.6009
3/1/2021 04:00:00 PM	3,365	0.0067	303,465	0.6077
3/1/2021 05:00:00 PM	1,300	0.0026	304,765	0.6103
3/1/2021 06:00:00 PM	37,747	0.0756	342,512	0.6859
3/1/2021 07:00:00 PM	5,933	0.0119	348,444	0.6977
3/1/2021 08:00:00 PM	27,780	0.0556	376,224	0.7534
3/1/2021 09:00:00 PM	30,451	0.0610	406,675	0.8143
3/1/2021 10:00:00 PM	12,423	0.0249	419,099	0.8392
3/1/2021 11:00:00 PM	16,601	0.0332	435,700	0.8725
3/2/2021 12:00:00 AM	152,819	0.3060	588,519	1.1785
3/2/2021 01:00:00 AM	368,477	0.7378	956,996	1.9163
3/2/2021 02:00:00 AM	464,842	0.9308	1,421,837	2.8471
3/2/2021 03:00:00 AM	510,527	1.0223	1,932,364	3.8694
3/2/2021 04:00:00 AM	440,186	0.8814	2,372,550	4.7509
3/2/2021 05:00:00 AM	355,107	0.7111	2,727,657	5.4619

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PUC 1-7, page 2

Hour	Past Hour CMI	Past Hour SAIDI	Cumulative CMI	Cumulative SAIDI
3/2/2021 06:00:00 AM	380,986	0.7629	3,108,643	6.2248
3/2/2021 07:00:00 AM	379,904	0.7607	3,488,547	6.9856
3/2/2021 08:00:00 AM	391,751	0.7845	3,880,298	7.7700
3/2/2021 09:00:00 AM	330,555	0.6619	4,210,853	8.4319
3/2/2021 10:00:00 AM	246,778	0.4942	4,457,631	8.9261
3/2/2021 11:00:00 AM	218,023	0.4366	4,675,654	9.3627
3/2/2021 12:00:00 PM	248,012	0.4966	4,923,666	9.8593
3/2/2021 01:00:00 PM	162,670	0.3257	5,086,337	10.1850
3/2/2021 02:00:00 PM	166,090	0.3326	5,252,427	10.5176
3/2/2021 03:00:00 PM	97,731	0.1957	5,350,158	10.7133
3/2/2021 04:00:00 PM	71,103	0.1424	5,421,261	10.8557
3/2/2021 05:00:00 PM	62,129	0.1244	5,483,390	10.9801
3/2/2021 06:00:00 PM	48,809	0.0977	5,532,199	11.0778
3/2/2021 07:00:00 PM	38,574	0.0772	5,570,773	11.1551
3/2/2021 08:00:00 PM	27,578	0.0552	5,598,350	11.2103
3/2/2021 09:00:00 PM	16,915	0.0339	5,615,265	11.2442
3/2/2021 10:00:00 PM	15,114	0.0303	5,630,379	11.2744
3/2/2021 11:00:00 PM	12,974	0.0260	5,643,353	11.3004
3/3/2021 12:00:00 AM	10,061	0.0201	5,653,414	11.3206