

February 25, 2019

**VIA HAND DELIVERY & ELECTRONIC MAIL**

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

**RE: Docket 4915 - Proposed FY 2020 Electric Infrastructure, Safety, and Reliability Plan Responses to Division Data Requests – Set 4**

Dear Ms. Massaro:

On behalf of National Grid,<sup>1</sup> I have enclosed ten (10) copies of the Company's responses to the following data requests issued by the Rhode Island Division of Public Utilities and Carriers (Division) in the above-referenced docket: Division 4-2, Division 4-3, Division 4-5, and Division 4-6.

Please be advised that the Company's response to Division 4-4, which is the only remaining response left in this set, is pending and will be forthcoming.

Thank you for your attention to this transmittal. If you have any questions, please contact me at 401-784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

Enclosures

cc: Docket 4915 Service List  
John Bell, Division  
Greg Booth, Division  
Leo Wold, Esq.  
Christy Hetherington, Esq.  
Al Contente, Division

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<sup>1</sup> The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

Division 4-2

Request:

Describe the Company's process for advancing projects identified in Area Studies into the ISR Plan, including details regarding how costs to refine project estimates are incurred and included in the ISR Plan. Provide details regarding the required time, effort, and resulting level of accuracy that is achieved as the projects progress through the sanctioning process, along with a description of the Company resources or departments involved. Explain the actions that the Company has implemented to improve project scopes, cost estimates, and project management.

Response:

Projects are advanced out of Area Studies and included in the Company's Long-Term Investment Plan, shown in the Fiscal Year 2020 ISR Plan filing as Attachment 4. Based on prioritization and need date, projects are included in the Company's capital forecast and proposed for inclusion in the Company's annual Electric Infrastructure, Safety, and Reliability (ISR) Plan. The initial estimates used for initial estimates in the ISR were historically a mix of Investment and Conceptual Grade estimates.

The Company launched a new Complex Capital Delivery (CCD) Process in April of 2018 and expects the Fiscal Year 2021 ISR Plan to be built with projects that have been developed integrating the new process. The CCD Process engages a newly formed Options Solution Engineering Group (OSEG) that works with the Distribution Planning and Asset Management (DPAM) team when detailed options analysis is undertaken within Area Studies. OSEG is responsible and accountable to provide estimates for all complex electric system projects. The projects that derive from the Area Studies generally are considered complex projects.

OSEG performs a multi-step process in developing initial options' estimates including assessing whether the options fit an available set of standard designs and, if not, developing specific cost estimates with the Estimating Department. These initial estimates are considered to be within a +50/-25% accuracy range and will be used by DPAM to select an initial preferred option that is included in the Long-Term Investment Plan, the first year of which becomes the amount requested in the ISR. If a partial sanction is needed for any individual project, it would also be based off this +50/-25% project cost estimate.

The project then progresses to the Development Phase, which can generally last between 6 and 24 months. During this phase, the scope is completed using more refined estimating tools, incorporating site investigation, permitting, and stakeholder involvement earlier in the process and integrating a risk assessment workshop into the analysis. As a result, risks are incorporated more formally within this phase, and design requirements are identified earlier to minimize future scope changes. By the end of the Development Phase, a formal +/-10% Project Estimate

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is developed by the Estimating Department and used for a full project sanction. As project estimates are refined and progressed throughout the project's life, the Company updates the forecasted capital spend as part of its existing forecast processes.

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Division 4-3

Request:

Provide a reconciliation of all DG projects, comparing costs incurred to CIAC received, for each year from FY 2013 through the FY 2019 forecast. Where the Company-incurred costs exceeded a CIAC, provide an explanation for the positive balance.

Response:

Prior to January 12, 2015, and in accordance with the Commission's Order in Docket No. 4483, the Company was only required to reconcile distributed generation (DG) projects at the end of the project upon the customer's request. Therefore, only a few DG project reconciliations were conducted prior to that date. In addition, projects are reconciled only if and when they have been completed. A list of all completed projects is shown below in the table below. The table below does not include projects that were cancelled.

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*Table 1 - DG Completed Reconciliations in Rhode Island*

Project #	Accounting Finalized Date	Actual Cost	CIAC	Refund/Invoice Amount	Application Received Date	% Variance	Funding Project #
DG 1	7/23/2016	284,274.94	226,160.00	58,114.94	4/24/2013	25.7%	C13967
DG 2	6/23/2017	3,813,323.00	3,786,485.00	26,838.00	8/4/2014	0.7%	C13967
DG 3	9/15/2017	150,256.55	132,079.00	18,177.55	8/4/2015	13.8%	C051909
DG 4	4/18/2017	74,306.93	58,860.00	15,446.93	8/21/2015	26.2%	C051909
DG 5	2/25/2018	70,087.31	63,236.00	6,851.31	7/6/2015	10.8%	C051909
DG 6	8/2/2014	63,016.99	59,710.00	3,306.99	10/4/2016	5.5%	C13967
DG 7	3/7/2017	477,420.72	474,309.00	3,111.72	3/31/2014	0.7%	C13967
DG 8	10/26/2017	108,133.33	106,201.00	1,932.33	12/20/2016	1.8%	C051909
DG 9	3/16/2017	55,689.26	57,282.00	(1,592.74)	10/1/2014	-2.8%	C051909
DG 10	1/16/2018	26,053.93	29,733.66	(3,679.73)	9/1/2015	-12.4%	C051909
DG 11	2/25/2018	41,103.72	48,586.00	(7,482.28)	7/8/2015	-15.4%	C051909
DG 12	7/19/2017	40,642.33	48,586.00	(7,943.67)	7/6/2015	-16.3%	C051909
DG 13	7/21/2017	40,295.95	48,586.40	(8,290.45)	7/8/2015	-17.1%	C051909
DG 14	5/10/2016	6,918.48	15,750.00	(8,831.52)	6/10/2014	-56.1%	C13967
DG 15	5/10/2016	6,918.48	15,750.00	(8,831.52)	6/10/2014	-56.1%	C13967
DG 16	1/17/2018	8,980.74	18,774.33	(9,793.59)	6/29/2016	-52.2%	C051909
DG 17	1/16/2018	39,807.67	49,606.00	(9,798.33)	7/6/2015	-19.8%	C051909
DG 18	7/11/2017	39,337.11	49,446.00	(10,108.89)	7/6/2015	-20.4%	C051909
DG 19	10/31/2017	19,905.32	33,321.00	(13,415.68)	9/24/2015	-40.3%	C051909
DG 20	6/20/2016	29,638.95	59,500.00	(29,861.05)	11/1/2012	-50.2%	C13967
DG 21	7/8/2018	8,244.35	38,587.25	(30,342.90)	8/21/2015	-78.6%	C051909
DG 22	8/8/2014	134,411.41	182,267.00	(47,855.59)	10/21/2010	-26.3%	C13967
DG 23	1/17/2018	9,487.38	78,427.23	(68,939.85)	5/9/2016	-87.9%	C051909
DG 24	4/17/2015	956,654.97	1,100,340.00	(143,685.03)	8/23/2011	-13.1%	C13967

Table 1, above, illustrates that, although there were individual project variances beyond +/-25%, the overall variance at the (aggregated) portfolio level was (4.1%). For the 24 reconciled DG projects, the Company had over-collected by approximately \$276,673. In total, 8 DG projects were underestimated and 16 projects were overestimated.

Eight projects had a variance exceeding the original +/-25% estimating parameter intended by the tariff, of which two projects were underestimated by more than 25%. Those two projects are DG 1 and DG 4 included in Table 1 above. For DG 1, the variance was attributed to a change in project scope after the customer executed the Interconnection Service Agreement (ISA) with the Company. Specifically, the customer requested a change in the Point of Interconnection, which

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resulted in additional expenses that drove variance above 25%. For DG 4, the variance was attributed to the customer's request for an outage to perform the work that was outside of normal business hours. The customer's request resulted in additional labor charges, which drove the variance above 25%.

On and after January 12, 2015, and in accordance with the Company's Standards for Connecting Distributed Generation, RIPUC No. 2163, the Company began reconciling all completed projects with respect to which the Company had received the application to interconnect on or after January 12, 2015. As explained in the Company's response to PUC 1-7, for larger (Standard) projects, the life cycle within the interconnection process – from application receipt through closure of financial work orders – can easily span more than two years.

For projects that require a System Impact Study (SIS), the Company derives the CIAC estimate, which is intended to reflect +/- 25% of the system modification costs, during the SIS. The estimate is provided to the customer as part of the ISA. For CIAC payments in excess of \$25,000, the Company offers the customer a payment plan. The first payment is expected upon execution and delivery of the ISA to the Company; the balance is required to be paid to the Company before the start of construction. Depending on the complexity of the project, the time period between delivery of the executed ISA to the Company and the completion of construction can easily exceed one year. It is important to note that construction schedules can slip because of customer-driven delays, such as delays in making CIAC payments, obtaining necessary permitting and easements, and providing site access, etc. In general, variances between the CIAC estimate and the actual cost can be attributed to:

- Changes in Company material cost from the date of the estimate to the date the expenses were incurred;
- Changes in Company labor rates from date of the estimate to the date the expenses were incurred;
- Design changes initiated by the customer (*e.g.*, site access ultimately reconfigured for environmental reasons);
- Design changes initiated by the Company (*e.g.*, the Company was able to find a more cost-effective solution in the field);
- Changes in tax liability; and
- Customer requesting an aggressive need date, resulting in working outside of normal business hours.

Division 4-5

Request:

Regarding the Company's response to DIV 3-4; there are outstanding I&M deficiencies labeled "Street Light-Hazard Condition" and "Street Light-Not Bonded." Given the Company's recent sale of streetlights to municipalities, please confirm that the streetlights in DIV 3-4 are owned by National Grid.

Response:

The list of deficiencies in the Company's response to Division 3-4 is simply a compilation of the remaining assets identified during inspections that have not yet been repaired. This list does not reflect a work plan of repairs to be made. Because the Company performs inspections of its distribution assets at the feeder level, deficiencies are compiled without regard to the ownership of assets. For this reason, the list provided in the Company's response to Division 3-4 includes both street lights owned by the Company and street lights owned by a third party. The Company is in process of reviewing its data regarding street light repairs for the prior three fiscal years since the first sale occurred during Fiscal Year 2017. If, as a result of that review the Company did repair street light assets that were not owned by the Company, an adjustment to the plant in service in the revenue requirement will be made for any costs included in plant in service for those repairs.

Division 4-6

Request:

Provide a list of those municipalities that have completed the purchase of their streetlights, and those that have not completed a purchase of their streetlights. Identify each municipality that has an agreement in place in which the municipality will complete repair work associated with the Company's Mobile Testing.

Response:

Please see Attachment DIV 4-6 for a list of (1) the municipalities that have completed the purchase of their streetlights, and (2) those that have notified the Company of their intent to purchase their streetlights but have not completed a purchase of their streetlights. The municipalities that have an agreement in place with the Company pursuant to which the municipality will complete repair work associated with the Company's Mobile Testing Program are also noted on Attachment DIV 4-6. Notably, the City of Providence already has conducted repair work associated with the Company's mobile testing under this arrangement, and the Company did not have any issues with this arrangement with the City of Providence. The Town of Westerly has agreed verbally to work with the Company when the Company is ready to perform the mobile testing in the designated contact voltage risk areas in that municipality.

The Narragansett Electric Company d/b/a National Grid

Street Light Asset Sale Data as of February 22, 2019

Municipality Name	Designated Contact Voltage Risk Area ("DCVRA")	If DCVRA, is a contract in place?	Purchase Date or Status of Sale Request	Approximate Total # of Lights in City/Town	Approximate # of Muni Lights Sold	Approximate # of NGrid Owned Lights in City/Town
Barrington			5/24/2016	1,853	1,793	49
Bristol			5/24/2016	2,114	2,076	79
Burrillville			No Request at this time	66	N/A	66
Central Falls			10/14/2016	1,350	1,200	160
Charlestown			10/12/2016	360	335	32
Chepachet Fire District (Glocester)			8/13/2018	173	137	36
Coventry			No Request at this time	68	N/A	68
Cranston			8/31/2016	10,256	9,580	579
Cumberland			5/30/2017	4,274	3,866	553
East Greenwich			No Request at this time	1,377	N/A	1,377
East Providence			Pending	4,912	N/A	4,912
Exeter			Pending	8	N/A	8
Foster			Pending	25	N/A	25
Glocester			No Request at this time	17	N/A	17
Harrisville Fire District			7/3/2018	545	56	354
Hopkins Hill Fire District			7/9/2018	2,601	245	2,354
Hopkinton			5/24/2017	646	542	107
Jamestown			Pending	367	N/A	367
Johnston			No Request at this time	4,359	N/A	4,359
Lincoln			Pending	2,719	N/A	2,719
Little Compton			8/31/2016	44	36	11
Middletown			Pending	1,208	N/A	1,208
Narragansett			1/18/2019	1619	1,517	102
Nasonville Fire District (Burrillville)			8/22/2018	545	170	363
Newport	DCVRA	No	No Request at this time	2,312	N/A	2,312
North Kingstown			Pending	2,448	N/A	2,448
North Providence			7/25/2017	3,929	3,938	43
North Smithfield			9/14/2016	1,789	1,527	314
Oakland-Mapleville Fire District			7/9/2018	545	121	354
Pawtucket	DCVRA	Pending	2/13/2019	6446	6,174	272
Portsmouth			Pending	932	N/A	932
Providence	DCVRA	Yes	5/9/2016	17,504	16,802	647
Richmond			9/23/2016	357	269	90
Scituate			No Request at this time	318	N/A	318
Smithfield			Pending	2,084	N/A	2,084
South Kingstown			Pending	1,452	N/A	1,452
Tiverton			4/25/2017	1,471	1,410	95
Warren			4/3/2017	1,288	1,183	150
Warwick			Pending	8,814	N/A	8,814
West Greenwich			Pending	7	N/A	7
West Warwick			8/15/2016	3,023	2,830	38
Westerly	DCVRA	Yes	4/3/2017	3,107	3,038	79
Woonsocket	DCVRA	No	Pending	3,468	N/A	3,468

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

February 25, 2019  
Date

**Docket No. 4915 - National Grid's Electric ISR Plan FY 2020**  
**Docket No. 4857 - Performance Incentives Pursuant to R.I.G.L. §39-1**  
**27.7.1(e)(3)**

**Service List as of 1/4/2019**

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