

December 15, 2020

VIA ELECTRONIC MAIL

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

RE: Docket 5076 – 2021-2023 Energy Efficiency Program Plan & 2021 Energy Efficiency Plan Responses to Record Requests (Complete Set)

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a National Grid (“National Grid” or the “Company”), attached, please find the electronic version of the Company’s complete set of responses to the record requests issued at Public Utilities Commission’s (“PUC”) Evidentiary Hearings on December 7, 2020, December 9, 2020, and December 11, 2020, respectively, in the above-referenced docket.¹

This transmittal includes the Company’s remaining response to RR-12(b).

Thank you for your attention to this filing. If you have any questions or concerns, please do not hesitate to contact me at 401-784-4263.

Sincerely,



Andrew S. Marcaccio

cc: Docket 5076 Service List
John Bell, Division
Jon Hagopian, Esq.

¹ In addition, the Company will deliver to the Commission six, three-hole punched hard copies of the record request responses once the Company responds to the remaining requests.

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.

December 16, 2020

Joanne M. Scanlon

Date

**Docket No. 5076 - National Grid – 2021-2023 Energy Efficiency Program Plan & 2021 Annual Energy Efficiency Program Plan
Service list updated 12/7/2020**

Name/Address	E-mail Distribution List	Phone
National Grid Andrew Marcaccio, Esq. National Grid 280 Melrose St. Providence, RI 02907 Leticia C. Pimentel, Esq. Robinson & Cole LLP One Financial Plaza, 14th Floor Providence, RI 02903	Andrew.Marcaccio@nationalgrid.com ;	401-784-4263
	Jennifer.Hutchinson@nationalgrid.com ;	
	Raquel.webster@nationalgrid.com ;	
	Joanne.scanlon@nationalgrid.com ;	
	Celia.obrien@nationalgrid.com ;	
	Matthew.Chase@nationalgrid.com ;	
	Timothy.Roughan@nationalgrid.com ;	
	John.Tortorella@nationalgrid.com ;	
	Christopher.Porter@nationalgrid.com ;	
	BENJAMIN.RIVERS@nationalgrid.com ;	
	John.Richards@nationalgrid.com ;	
	Matthew.Ray2@nationalgrid.com ;	
	LPimentel@rc.com ;	
Division of Public Utilities and Carriers Jon Hagopian, Esq.	Jon.hagopian@dpuc.ri.gov ;	401-784-4775
	Margaret.L.Hogan@dpuc.ri.gov ;	
	john.bell@dpuc.ri.gov ;	
	Joel.munoz@dpuc.ri.gov ;	
Tim Woolf Jennifer Kallay Synapse Energy Economics 22 Pearl Street Cambridge, MA 02139	twoolf@synapse-energy.com ;	
	jkallay@synapse-energy.com ;	

RI EERMC Marisa Desautel, Esq. Office of Marisa Desautel, LLC 55 Pine St. Providence, RI 02903 Mike Guerard, Optimal Energy	marisa@desautelesq.com ;	401-477-0023
	guerard@optenergy.com ;	
	ross@optenergy.com ;	
	kravatz@optenergy.com ;	
Acadia Center Hank Webster, Director & Staff Atty.	HWebster@acadiacenter.org ;	401-276-0600 x402
Office of Energy Resources (OER) Albert Vitali, Esq. Dept. of Administration Division of Legal Services One Capitol Hill, 4 th Floor Providence, RI 02908 Nick Ucci, Commissioner	Albert.Vitali@doa.ri.gov ;	401-222-8880
	Nancy.Russolino@doa.ri.gov ;	
	Christopher.Kearns@energy.ri.gov ;	
	Nicholas.Ucci@energy.ri.gov ;	
	Becca.Trietch@energy.ri.gov ;	
	Carrie.Gill@energy.ri.gov ;	
Nathan.Cleveland@energy.ri.gov ;		
Green Energy Consumers Alliance Larry Chretien, Executive Director Kai Salem	Larry@massenergy.org ;	
	kai@greenenergyconsumers.org ;	
	priscilla@greenenergyconsumers.org ;	
Original & 9 copies file w/: Luly E. Massaro, Commission Clerk John Harrington, Commission Counsel Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02888	Luly.massaro@puc.ri.gov ;	401-780-2107
	Cynthia.WilsonFrias@puc.ri.gov ;	
	John.Harrington@puc.ri.gov ;	
	Alan.nault@puc.ri.gov ;	
	Todd.bianco@puc.ri.gov ;	
Frederick Sneesby Dept. of Human Services	Frederick.sneesby@dhs.ri.gov ;	
Chris Vitale, Esq., RI Infrastructure Bank	cvitale@hvlawltd.com ;	
	SUsatine@riib.org ;	
Doug Gablinske, Executive Director The Energy Council of RI	doug@tecri.org ;	
Jordan Garfinkle Bloom Energy	Jordan.Garfinkle@bloomenergy.com ;	

Record Request No. 1

Request:

RR-1 Please provide a copy of the correspondence received by the Company on December 3, 2020 from the executive directors of the Community Action Program (CAP). And, if any, please provide the Company's written response to the executive directors of the CAP.

Response:

Please see Attachment RR-1. The Company has not issued a written response.



Rhode Island Community Action Association
224 Buttonwoods Avenue
Warwick, Rhode Island 02886
Phone: 401-921-4968
Fax: 401-732-6965
www.ricommunityaction.org

To: Julie Capobianco, David MacLellan
From: The Directors of the Rhode Island Community Action Association
Re: Weatherization Program and General Public Health and Safety Concerns
CC: Fred Sneesby, Mike Rossacci, Katlin Molina
December 3, 2020

Partners and Funders:

We want to raise our collective concerns for our Weatherization's Program staff, their families, and the countless other staff that they return to in our buildings when they return from in home audits. We are making a strong recommendation that we pause in home Weatherization services until at least January 2021. This is inconsideration of our workforce and the general public's health and safety. We do not take this action lightly! We understand we are in the winter season and needs for our services are high. As the Providence CAP Director, Rilwan personally delivered and removed refrigerators along with his weatherization staff into client's homes that were elderly or unable to move units themselves. This was when the National Grid programs delivery vendor would not enter client's homes due to COVID concerns and company restrictions. This example is not unique to Providence. Our seven CAPs have all stepped up and gone above and beyond to serve or respective communities. We pride ourselves on that distinction. However, these are not normal times.

We have been seeing an uptick of clients declining our staff to come into their homes across our network due to COVID-19 positive increases and community spread. When the Weatherization (WX staff) are permitted into a home. They often visit several homes per day with only an individual's assurance there are no COVID symptoms present at that home that day. They may be required to spend hours in that home depending on what the audit requires. We are seeing unprecedented increases in COVID-19 infections across the state of RI. Hospitals are at capacity this week and field hospitals have been opened to meet this public health crisis. Our Governor has placed the state on a two week pause to attempt to help stem the steep rise of infections and hospitalizations. The business community has been asked to limit staff from coming into their places of employment and allow them to work from home when possible.

Our Weatherization staffs have served as essential employees and as true professionals with distinction throughout this pandemic. They have put the needs of their fellow RI'ers above themselves. When the public health threat elevated at the beginning of the pandemic response we paused. We were instructed to stop in person weatherization audits and inspections. It was prudent then to stop and assess what was happening. The WX staff and the general public's health and safety were rightfully prioritized over production goals and contract deliverables. During this period of program pause, new health and safety protocols were established, needed PPE was secured, and a totally new virtual audit (AMP) system was implemented. CAP's and funders collectively evaluated the situation and planned when to allow our workforce back into



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homes. This was in part due to better reentry protocols and COVID risk mitigation efforts adopted by all parties. However, it was also done due to data showing our COVID infection and positivity rate going down significantly in relationship to the peak of the positivity rate in the state at that time we paused the program. This is no longer the case. Data shows this is the worse period of COVID crises in our state; and positivity rates, hospitalization, and death tolls are at its highest and rising. If there was ever a time to pause and reassess sending our staff into homes it is right now!

Rhode Island Community Action Association is a comprehensive statewide network of seven agencies with reach to over 200,000 Rhode Islanders providing a safety net in all 39 cities and towns throughout the state. Community Action Agencies link preventative, educational, emergency assistance and direct supportive services that help vulnerable populations meet daily needs in support of achieving self-sufficiency. Additionally, we provide need weatherization and heating replacement audits onsite in client's homes when safe to do so.

Paul Salara (Westbay) and Rilwan Feyisitan (CAPP) are the two co-chairs for our association. We would ask you to reach out to the two of them regarding this critically important and time sensitive matter. This letter is sent with approval and support of each CAA Director listed below.

Blackstone Valley Community Action Program – Vincent Ceglie

- i. Pawtucket, Central Falls, Lincoln, Cumberland

Comprehensive Community Action Program – Joanne McGunagle

- ii. Cranston, Foster, Scituate, Coventry

Community Action Partnership of Providence – Rilwan Feyisitan Jr.

- iii. Providence

Community Care Alliance – Benedict Lessing

- iv. Woonsocket

Eastbay Community Action Program – Dennis Roy

- v. Newport, Portsmouth, Tiverton, Middletown, Jamestown, Little Compton, East Providence, Warren, Bristol, Barrington

Tri-County Community Action Agency – Joseph DeSantis

- vi. North Providence, Johnston, North Smithfield, Smithfield, Burrillville, Glocester, Exeter, Charlestown, Narragansett, Westerly, Hopkinton, North Kingstown, South Kingstown, Richmond, West Greenwich, New Shoreham

Westbay Community Action – Paul Salera

- Warwick, West Warwick, East Greenwich

Record Request No. 2

Request:

Please indicate whether the Moody's forecast upon which the Company is relying includes a projected federal stimulus in years 2021 and 2022.

Response:

The September issue of Moody's forecast assumed a federal stimulus in late 2020 but none in 2021 or 2022. Moody's forecast was based on three critical assumptions regarding the federal stimulus and the pandemic:

- Congress and the Trump administration would pass a \$1.5 trillion fiscal rescue package before the end of the year.
- National daily confirmed COVID-19 infections would remain near their (then) current level of about 40,000 per day and not spike this winter.
- An effective vaccine would be widely adopted by early 2021 with 25 million inoculations.

Record Request No. 2

Request:

Please indicate whether the Moody's forecast upon which the Company is relying includes a projected federal stimulus in years 2021 and 2022.

Response:

The September issue of Moody's forecast assumed a federal stimulus in late 2020 but none in 2021 or 2022. Moody's forecast was based on three critical assumptions regarding the federal stimulus and the pandemic, the first two of which have become increasingly tenuous, adding downside risk to the forecast:

- Congress and the Trump administration would pass a \$1.5 trillion fiscal rescue package before the end of the year.
- National daily confirmed COVID-19 infections would remain near their (then) current level of about 40,000 per day and not spike this winter.
- An effective vaccine would be widely adopted by early 2021 with 25 million inoculations.

Record Request No. 3

Request:

Please reconcile the data in the tables provided in the Company's response to PUC 8-2 and PUC 4-16, and provide the forecast for the months of September, October, November, and December 2020, from the September 2020 forecast.

Response:

Please refer to the Excel version of Attachment RR-3 for an update to PUC 4-16 and PUC 8-2. The columns have the information as listed below:

In the 4-16 tab:

- Calendar month
- 2019 actual monthly energy demand
- 2020 forecast released in September 2019
- 2020 forecast (September to December only) released in September 2020
- 2020 actual monthly energy demand (January to November) and forecast (December) released in September 2020
- 2021 forecast released in September 2020
- 2020 weather-normalized actual monthly energy demand (January to November) and forecast (December) released in September 2020
- 2019 weather-normalized actual monthly energy demand

In the 8-2 tab:

- Calendar month
- 2021 forecast released in September 2020
- 2020 weather-normalized actual (January to November) and forecast (December) released in September 2020
- 2020 actual (January to November) and forecast (December) released in September 2020
- 2019 actual monthly energy demand
- 2018 actual monthly energy demand
- 2017 actual monthly energy demand
- 2016 actual monthly energy demand
- 2015 actual monthly energy demand

Record Request No. 3, page 2

In Docket 5076, the 2020 kWh forecast of 7,113,299,305 kWh (based on the September 2019 release) is referenced on Bates 147 and Bates 149. The inclusion of the 2020 kWh forecast, released in September 2019, and the other numbers included in the "2020" column on Bates 147 and 149, are referencing values approved in the 2020 Annual Plan and therefore used the most current forecast available at the time (i.e. based on the 2019 September release). The purpose of the Attachment 1 and Attachment 2 tables is to provide a comparison of the proposed 2021-2023 plan against the approved 2020 Annual Plan.

Therefore, within the Company's initial response to 1-7, it provided information for the 2020 kWh forecast, based on the September 2019 release referenced in Attachment 1, Table 1. In subsequent data request 4-16, the Company included this same forecast for 2020 within column C. In contrast, within column D, which included actuals for January 2020 – October 2020, the forecasts used for the months of November 2020 and December 2020 were based on the forecast released in September 2020, which included an updated forecast for the remaining months in 2020. The September 2020 release was utilized for the months of November and December in column D in order to provide the Commission with the most up to date forecast.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
2021-2023 Energy Efficiency Program Plan &
2021 Annual Energy Efficiency Program Plan
Responses to Record Requests
Issued at the Commission's Evidentiary Hearing
On December 7, 2020 (Day 1)

Attachment RR-3

Please refer to the Excel file Attachment RR-3

	A	B	C	D	E	F	G	H	
	Calendar Month	2019 Actual	2020 Forecast (Sep 2019 release)	2020 Forecast (Sep 2020 release)	2020 Actual (Jan to Nov) and Forecast (Dec)	2021 Forecast	2020 Weather-adjusted Actual	2019 Weather-adjusted Actual	
1									
2	Jan	638,448,709	652,135,716		552,545,065	593,178,691	568,153,547	646,178,078	
3	Feb	607,568,994	603,859,489		587,066,082	544,253,804	608,314,427	607,297,808	
4	Mar	592,067,747	576,707,614		577,133,879	529,725,921	596,182,219	582,122,241	
5	Apr	551,871,685	562,146,739		562,982,274	520,730,962	566,279,899	554,939,739	
6	May	532,544,596	502,216,544		532,243,383	449,411,420	523,745,152	532,095,257	
7	Jun	547,498,568	536,819,891		550,076,296	510,346,489	543,600,694	568,624,740	
8	Jul	680,901,154	688,720,001		704,150,227	650,338,728	687,500,203	668,596,718	
9	Aug	805,445,779	684,296,108		807,396,652	672,095,210	738,887,313	768,831,812	
10	Sep	665,085,875	639,049,133	656,634,583	637,447,481	616,035,712	636,699,275	702,158,144	
11	Oct	533,083,945	544,900,650	535,200,998	555,815,426	495,113,634	561,004,393	540,907,446	
12	Nov	519,997,481	530,254,534	506,666,429	513,180,971	478,187,794	520,863,739	515,347,737	
13	Dec	582,220,676	592,192,885	556,078,854	556,078,854	547,127,026	556,078,854	567,351,237	
14									
15	ANNUAL TOTAL	7,256,735,209	7,113,299,305		7,136,116,590	6,606,545,391	7,107,309,714	7,254,450,957	
16									
17	Note: The December 2020 "actual" value is forecast released in September 2020.								

	B	C	D	E	F	G	H	I	J	
		2021 Forecast	2020 Weather-Normalized	2020	2019	2018	2017	2016	2015	
1										
2	January	593,178.691	568,153.547	552,545.065	638,448.709	708,163.581	639,393.242	627,908.914	655,506.915	
3	February	544,253.804	608,314.427	587,066.082	607,568.994	602,778.237	599,492.804	610,620.415	678,974.887	
4	March	529,725.921	596,182.219	577,133.879	592,067.747	573,845.005	585,071.905	607,900.537	637,534.005	
5	April	520,730.962	566,279.899	562,982.274	551,871.685	566,899.560	580,340.354	571,246.332	593,946.687	
6	May	449,411.420	523,745.152	532,243.383	532,544.596	553,355.445	519,394.949	506,909.704	534,093.842	
7	June	510,346.489	543,600.694	550,076.296	547,498.568	570,623.085	592,736.279	611,411.485	589,211.789	
8	July	650,338.728	687,500.203	704,150.227	680,901.154	703,904.306	706,081.383	691,827.405	658,325.578	
9	August	672,095.210	738,887.313	807,396.652	805,445.779	764,799.759	711,934.043	786,340.285	754,570.442	
10	September	616,095.712	636,699.275	637,447.481	665,085.875	773,207.271	644,958.190	742,937.344	758,028.784	
11	October	495,113.634	561,004.393	555,815.426	533,083.945	581,676.218	584,164.842	584,243.705	585,595.502	
12	November	478,187.794	520,863.739	513,180.971	519,997.481	538,637.244	567,904.456	539,157.189	530,079.576	
13	December	547,127.026	556,078.854	556,078.854	582,220.676	606,302.059	571,210.045	583,323.573	624,329.558	
14	Totals	6,606,605.391	7,107,309.714	7,136,116.590	7,256,735.209	7,544,191.770	7,302,682.492	7,463,826.888	7,600,197.565	
15										
16	Note: The December 2020 "actual" value is forecast released in September 2020.									

Record Request No. 4

Request:

Please provide the Company’s high and low forecasts for 2021 electric sales, and any explanatory information.

Response:

The Company’s forecasts utilized Moody’s baseline economy forecasts. Moody’s defines the probability that the economy will perform better than this baseline projection is equal to 50%, the same as the probability that it will perform worse. The assumptions that the baseline forecasts are based on have been provided in Record Request No. 2.

Considering the uncertainties in the economy, the Company adopted the Moody’s above-baseline scenario (Alternative Scenario 0 or S0) and below-baseline scenario (Alternative Scenario 4 or S4) to develop the high scenario and low scenario, respectively. Table 1 presents the calendar year 2021 delivery forecasts developed from using Moody’s downside economy scenario S4 and its upside economy scenario S0. It also shows the difference between these forecasts and the forecast from using the baseline economy: the low forecast is 8% or 532 GWh lower than the baseline, while the high forecast is 6.4% or 420 GWh higher than the baseline.

Table 1: Delivery forecasts from low and high economy scenarios for 2021

Low Economic (S4)			High Economic (S0)		
<u>Forecast (GWh)</u>	<u>Delta (GWh)</u>	<u>Delta (%)</u>	<u>Forecast (GWh)</u>	<u>Delta (GWh)</u>	<u>Delta (%)</u>
6,075	(532)	-8.0%	7,027	420	6.4%

Moody’s S0 economy scenario is based on the assumptions that:

- \$1.5 trillion federal stimulus package reaches Americans before the end of the year
- New COVID-19 infections peaked in July and abate by January
- A vaccine is found by October 2020

Record Request No. 4, page 2

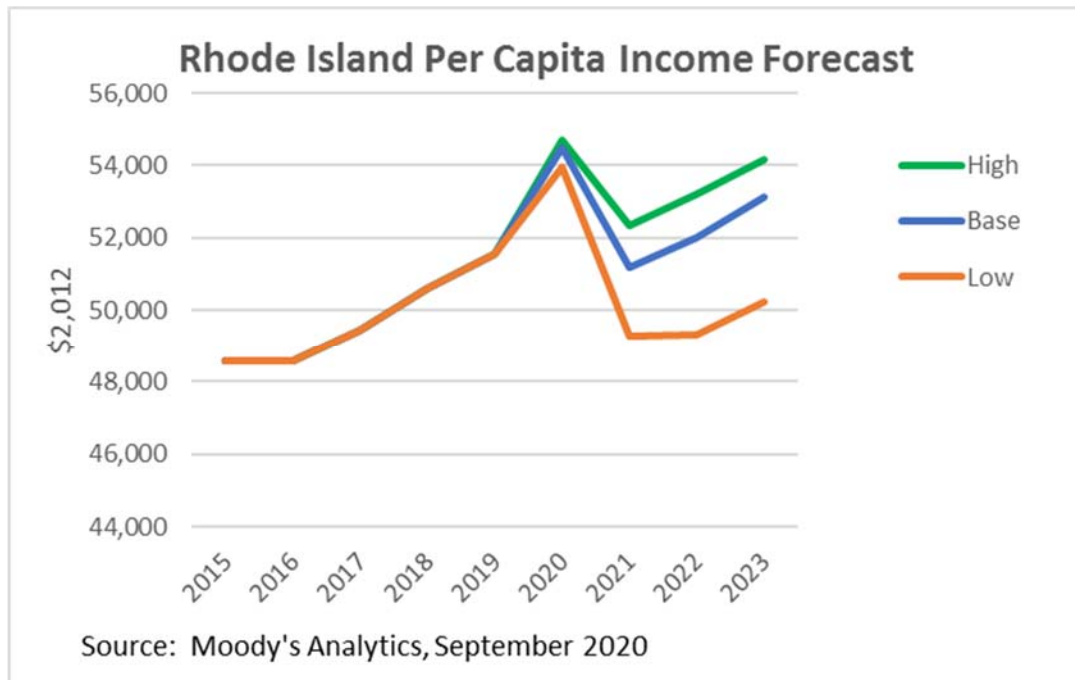
It is designed so that there is a 4% probability that the economy will perform better than in this scenario, broadly speaking, and a 96% probability that it will perform worse.

Moody's S4 economy scenario is based on the assumptions that:

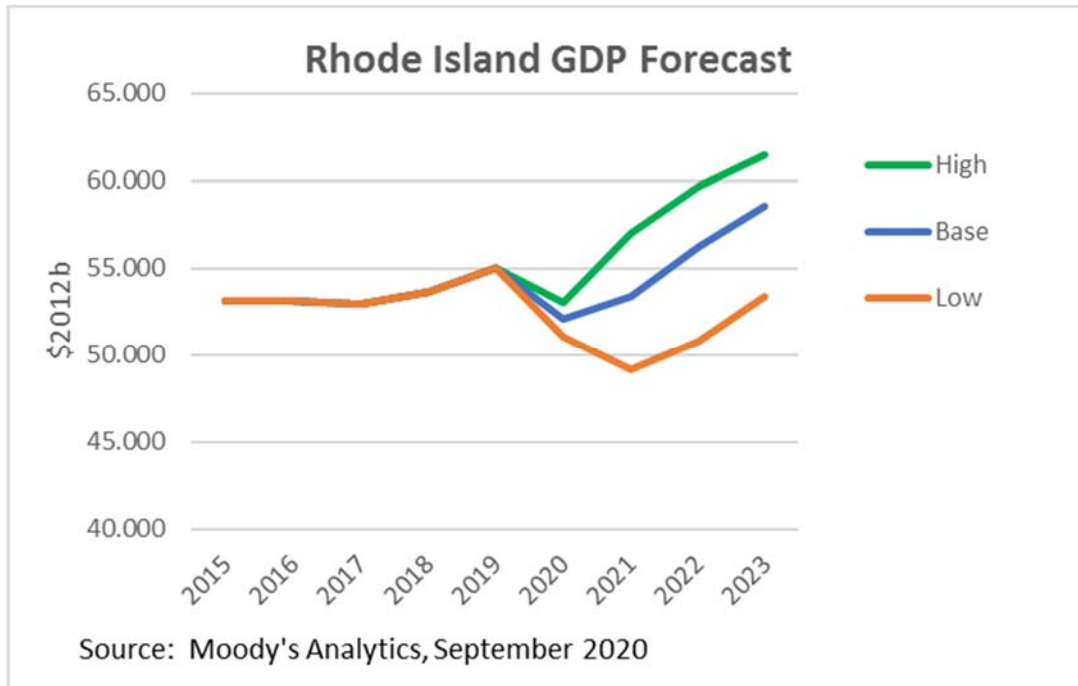
- No federal stimulus package in 2020, 2021 or 2022
- A surge in new COVID-19 infections and deaths with no abatement or vaccine until December 2021
- Rolling lockdowns through 2021
- A sharp drop in consumer and business confidence

It assumes a 96% probability that the economy will perform better, broadly speaking, and a 4% probability that it will perform worse.

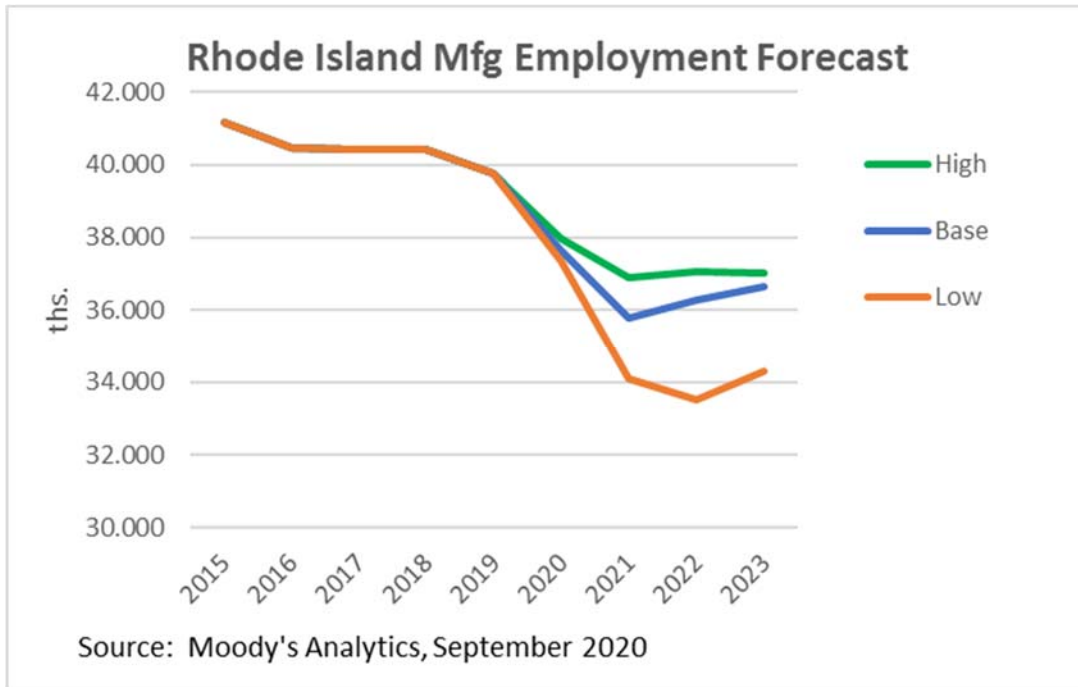
The key economic variables from the high scenario, base, and low scenario are plotted below:



Record Request No. 4, page 3



Record Request No. 4, page 4



Record Request No. 5

Request:

Please provide the date of the draft version of the Energy Efficiency Plan in which the error referenced in the Company's response to PUC 3-1 first appeared.

Response:

The error appeared in the Company's first draft of the 2021-2023 Energy Efficiency Plan shared with external stakeholders on June 11, 2020.

Record Request No. 6

Request:

Please indicate whether or not the participation costs are included in the calculation for average participant in Table 24 (Bates Page 108).

Response:

The portion of an efficiency measure's cost that is not covered by the program incentive (customer contribution) is not included in the rate and bill impacts as shown on Table 24.

Record Request No. 7

Request:

In regard to the Company's response to PUC 1-3, please indicate whether the average for bill impact analysis is based on a set time (i.e. 20 years) or other period, i.e., the time period where savings occur.

Response:

The electric rate and bill impacts models calculate the average bill impact by taking a long-term average over the years where the rate and bill changes are non-zero. Citing from the response to PUC 1-3: "The electric model calculates the annual change and long term average change in bills by comparing the difference between the base counterfactual where there is no energy efficiency and the modeled scenario where there are rate and bill changes due to the presence of the energy efficiency charge and the subsequent efficiency savings. The long-term average is taken over the duration of the energy efficiency savings for that modeled sector."

The gas rate and bill impacts models calculate the average bill impact over a 26-year period regardless of years where there is zero change in rates or bills. Citing from the response to PUC 1-3: "In contrast, the natural gas model calculates the long-term average change by first calculating the levelized average bill pre- and post- efficiency over a 26-year period. Next, the model divides the levelized post-efficiency bill by the levelized pre-efficiency bill to determine the long-term average change in the bill.

For each of the tables in Attachments PUC 1-3-6 through 1-3-10, the bill change on an annual basis is the post-efficiency annual bill divided by the pre-efficiency annual bill."

Record Request No. 8

Request:

RR-8 Please recreate Attachment PUC 1-3-1 with the following two models: Model 1: Residential with Home Energy Reports (HERs) only; and Model 2 – Residential All Programs except HERs. (To clarify, the residential gas bill impacts are presented in 3 ways, please present the electric in those same 3 ways.) And, please indicate the count of unique participants included in each model.

Response:

Please see Attachment PUC 1-3-1-Supplemental. Please see below for unique participants included in the models.

Model	Unique Participants
Residential (Model 1: HERs only)	298,076
Residential (Model 2: All Programs Except HER)	116,755
Residential (Model 3: All Programs)	412,967

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-3-1-Supplemental**

Table 24: 2021 Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential (Model 1: HERs only)	-0.08%	Long Term Average	-0.08%	-1.01%	-1.37%
		2021	-0.08%	-1.01%	-1.37%
		2022	0.00%	0.00%	0.00%
		2023	0.00%	0.00%	0.00%
		2024	0.00%	0.00%	0.00%
		2025	0.00%	0.00%	0.00%
		2026	0.00%	0.00%	0.00%
		2027	0.00%	0.00%	0.00%
		2028	0.00%	0.00%	0.00%
		2029	0.00%	0.00%	0.00%
		2030	0.00%	0.00%	0.00%
		2031	0.00%	0.00%	0.00%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
2040	0.00%	0.00%	0.00%		

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-3-1-Supplemental**

Table 24: 2021 Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential (Model 2: All Programs Except HER)	0.34%	Long Term Average	0.34%	-0.16%	-1.44%
		2021	5.87%	4.90%	2.45%
		2022	-0.42%	-1.33%	-3.64%
		2023	-0.28%	-1.18%	-3.50%
		2024	-0.23%	-1.13%	-3.46%
		2025	-0.21%	-1.11%	-3.44%
		2026	-0.23%	-1.11%	-3.45%
		2027	-0.27%	-0.27%	-0.27%
		2028	-0.23%	-0.23%	-0.23%
		2029	-0.15%	-0.15%	-0.15%
		2030	-0.09%	-0.09%	-0.09%
		2031	-0.05%	-0.05%	-0.05%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
2040	0.00%	0.00%	0.00%		

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-3-1-Supplemental**

Table 24: 2021 Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential (Model 3: All Programs)	0.41%	Long Term Average	0.41%	-0.42%	-0.42%
		2021	6.04%	4.08%	4.08%
		2022	-0.41%	-2.24%	-2.25%
		2023	-0.23%	-2.05%	-2.07%
		2024	-0.18%	-1.99%	-2.02%
		2025	-0.38%	-0.38%	-0.38%
		2026	-0.39%	-0.39%	-0.39%
		2027	-0.33%	-0.33%	-0.33%
		2028	-0.28%	-0.28%	-0.28%
		2029	-0.18%	-0.18%	-0.18%
		2030	0.00%	0.00%	0.00%
		2031	0.00%	0.00%	0.00%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
2040	0.00%	0.00%	0.00%		

**The Narragansett Electric Company
d/b/a National Grid
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Table 24: 2021 Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Income Eligible	1.23%	Long Term Average	1.23%	-2.46%	-2.54%
		2021	6.95%	2.97%	2.97%
		2022	0.33%	-3.39%	-3.41%
		2023	0.49%	-3.22%	-3.25%
		2024	0.51%	-3.18%	-3.23%
		2025	0.53%	-3.14%	-3.21%
		2026	0.50%	-3.15%	-3.24%
		2027	0.53%	-3.10%	-3.21%
		2028	0.60%	-3.02%	-3.15%
		2029	0.68%	-2.92%	-3.07%
		2030	0.00%	0.00%	0.00%
		2031	0.00%	0.00%	0.00%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
2040	0.00%	0.00%	0.00%		

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Table 24: 2021 Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Small C&I	0.37%	Long Term Average	0.37%	-0.81%	-8.88%
		2021	6.50%	5.25%	-5.10%
		2022	-0.59%	-1.75%	-11.41%
		2023	-0.39%	-1.54%	-11.24%
		2024	-0.33%	-1.48%	-11.18%
		2025	-0.30%	-1.45%	-11.16%
		2026	-0.31%	-1.45%	-11.17%
		2027	-0.24%	-1.38%	-11.11%
		2028	-0.18%	-1.31%	-11.05%
		2029	-0.06%	-1.18%	-10.94%
		2030	0.16%	-0.96%	-10.75%
		2031	0.18%	-0.94%	-10.73%
		2032	0.18%	0.18%	0.18%
		2033	0.20%	0.20%	0.20%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
2040	0.00%	0.00%	0.00%		

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Table 24: 2021 Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Medium C&I	0.03%	Long Term Average	0.03%	-1.66%	-9.02%
		2021	8.83%	6.97%	-1.03%
		2022	-1.41%	-3.08%	-10.34%
		2023	-1.10%	-2.76%	-10.05%
		2024	-0.98%	-2.64%	-9.94%
		2025	-0.94%	-2.59%	-9.91%
		2026	-0.95%	-2.59%	-9.91%
		2027	-0.82%	-2.46%	-9.80%
		2028	-0.75%	-2.39%	-9.74%
		2029	-0.56%	-2.19%	-9.56%
		2030	-0.24%	-1.87%	-9.27%
		2031	-0.23%	-1.85%	-9.26%
		2032	-0.22%	-1.83%	-9.25%
		2033	-0.20%	-1.80%	-9.23%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
2040	0.00%	0.00%	0.00%		

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Table 24: 2021 Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Large C&I	-0.16%	Long Term Average	-0.16%	-2.72%	-4.44%
		2021	9.08%	6.21%	4.41%
		2022	-1.75%	-4.32%	-5.96%
		2023	-1.39%	-3.96%	-5.62%
		2024	-1.26%	-3.82%	-5.49%
		2025	-1.22%	-3.77%	-5.45%
		2026	-1.22%	-3.76%	-5.46%
		2027	-1.09%	-3.61%	-5.33%
		2028	-1.00%	-3.52%	-5.24%
		2029	-0.79%	-3.30%	-5.05%
		2030	-0.44%	-2.95%	-4.71%
		2031	-0.42%	-2.92%	-4.69%
		2032	-0.41%	-2.89%	-4.68%
		2033	-0.37%	-2.84%	-4.64%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
2040	0.00%	0.00%	0.00%		

Record Request No. 9

Request:

For the EnergyWise Gas program in 2021, please provide the non-embedded carbon value for 2021.

Response:

For the 2021 Annual Plan, the EnergyWise Gas program has a non-embedded carbon value of \$2,268,147. Please note that this is a correction to the value provided at the PUC Hearing on December 9, 2020.

Record Request No. 10

Request:

RR-10 In regard to workforce development, please provide the following:

- (a) A schedule breaking down the total proposed 2021 workforce development budget, including embedded. To the extent possible, please itemize by amount, class (NIE residential, income eligible residential, C&I), type/description of activity and whether the activity is designed to upsize or upskill the labor force. Include total where appropriate including total budget for upsizing and total budget for upskilling.
- (b) A clarification as to whether the \$1.05M contained within the Company's response to PUC 3-16 represents the total 2021 workforce development budget or an incremental amount to what it already embedded into the total energy efficiency budget. If it is an incremental amount, please explain.
- (c) A best estimate of the 2019 total workforce development budget and the 2020 total workforce development budget. To the extent possible, please itemize by amount, class (NIE residential, income eligible residential, C&I), type/description of activity and whether the activity is designed to upsize or upskill the labor force. Include totals where appropriate including total budget for upsizing and total budget for upskilling.
- (d) Please provide the responses in a manner that allows the reader to easily compare 2019, 2020, and 2021 data.

Response:

- (a) Beginning on page 2 is a schedule breaking down the total proposed 2021 workforce development budget.

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Sector	Workforce Activity	Budget Category	‘Upsize’ Budget	‘Upskill’ Budget	Total Budget
Residential (NIE and IE)	New Construction / Zero Net Energy / Code compliance	Incremental	\$80,000	\$320,000	\$400,000
	Advanced HVAC				
	ASHPs				
	Other				
	Code compliance	Embedded	\$0	\$67,000	\$67,000
	BPI training for Wx contractors, auditors				
	New Construction / Zero Net Energy				
	HVAC Check training				
	Income Eligible Single Family Miscellaneous (e.g. WiFi thermostat and ASHP support)				
C&I	New Construction / Zero Net Energy / Code compliance	Incremental	\$100,000	\$400,000	\$500,000
	BOC training				
	HVAC controls / RCx				
	Advanced lighting controls				
	Other				
	Code compliance	Embedded	\$0	\$63,000	\$63,000
	BOC training				
Cross-Sector	Improve Our Labor Market Intelligence	Incremental	\$25,000	\$25,000	\$50,000
	Build More Sustainable and Equitable Pipeline		\$100,000	\$0	\$100,000
Subtotals		Incremental	\$305,000	\$745,000	\$1,050,000
		Embedded	\$125,200	\$315,700	\$440,900
2021 Totals			\$430,200	\$1,060,700	\$1,490,900

Record Request No. 10, page 3

(b) The \$1.05 million contained within the Company’s response to PUC 3-16 represents an incremental amount to what is embedded elsewhere in the 2021 Plan budget. As shown in (a), the \$1,490,900 total proposed workforce development spending in the 2021 Plan is comprised of the \$1.05 million “Incremental” component and the \$440,900 “Embedded” component.

Of this “Embedded” budget component, \$290,900 is included within individual program budgets. The remaining \$150,000, which was budgeted at the sector level, is included (along with the “Incremental” budget) in the Residential Workforce Development, Income Eligible Workforce Development, and Commercial Workforce Development line items shown in Tables E-2 and G-2 on Bates pages 558 and 571, respectively. As a result, these line items sum to \$1.2 million.

(c) Following are estimates of historical budget and spend for the Company’s workforce development efforts in 2020.

Sector	Workforce Activity	‘Upsize’ Budget	‘Upskill’ Budget	Total Budget	Total Spend
Residential (NIE and IE)	New Construction / Zero Net Energy	\$0	\$104,000	\$104,000	\$74,000
	Code compliance	\$0	\$68,450	\$68,450	\$60,000
	HVAC (including HVAC Check training)	\$8,600	\$127,400	\$136,000	\$197,426
	Income Eligible Single Family Miscellaneous	\$25,000	\$25,000	\$50,000	\$12,500
C&I	New Construction / Zero Net Energy	\$0	\$48,000	\$48,000	\$58,500
	Code compliance	\$0	\$68,450	\$68,450	\$54,000
	BOC training	\$0	\$20,000	\$20,000	\$18,590
2020 Totals		\$33,600	\$461,300	\$494,900	\$475,016

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Following are estimates of historical budget and spend for the Company’s workforce development efforts in 2019.

Sector	Workforce Activity	‘Upsize’ Budget	‘Upskill’ Budget	Total Budget	Total Spend
Residential (NIE and IE)	New Construction / Zero Net Energy	\$0	\$100,750	\$100,750	\$105,000
	Code compliance	\$0	\$68,450	\$68,450	\$70,000
	HVAC (including HVAC Check training)	\$7,345	\$66,105	\$73,450	\$87,672
C&I	New Construction / Zero Net Energy	\$0	\$61,000	\$61,000	\$39,139
	Code compliance	\$0	\$68,450	\$68,450	\$65,000
	BOC training	\$0	\$20,000	\$20,000	\$17,155
2019 Totals		\$7,345	\$384,755	\$392,100	\$383,966

(d) The following summary table provides the Company’s best estimates of allocations of the workforce budget information from the preceding tables along the requested dimensions of class (sector) and purpose (upsizing vs. upskilling).

Sector	Purpose	2019 Budget	2020 Budget	2021 Budget
Residential (NIE and IE)	Upsize	\$7,345	\$33,600	\$267,700
	Upskill	\$235,305	\$324,850	\$565,200
C&I	Upsize	\$0	\$0	\$162,500
	Upskill	\$149,450	\$136,450	\$495,500
Subtotals	Upsize	\$7,345	\$33,600	\$430,200
	Upskill	\$384,755	\$461,300	\$1,060,700
Annual Totals		\$392,100	\$494,900	\$1,490,900

Record Request No. 11

Request:

Does the off-peak electric vehicle rebate program in Docket 4770 count towards the system efficiency performance incentive? If no, why would the new program be treated differently?

Response:

The Company does not currently count the off-peak electric vehicle rebate program in Docket 4770 towards the system efficiency performance incentive.

The 4770 off-peak electric vehicle rebate program is a pilot that is focused on driving learnings related to customer participation and potential savings. The proposed EV active demand response component in the energy efficiency plan is funded on the basis of delivering cost effective demand reductions and is therefore appropriate to include the demand reductions that it produces in the system efficiency PIM.

Record Request No. 12

Request:

- (a) As a follow-up to the Company's response to PUC 3-28, please provide energy efficiency factor updates to the Commission reflecting updated fund balance and actual revenues and expenses through the end of November. (For tables E-1 and G-1, please use the same format sent to the Commission on December 1, 2020).
- (b) Please provide the tables E-1 as updated in (a) above but apply the electric sales forecast using weather normalized actuals from 2020 through November. (As stated in Record Request 3, Page 2, Column D). Please also provide table E-1 as updated using the three-year average (2018, 2019, and 2020) of weather normalized actuals, and also using the average of 2020 weather normalized actuals and the 2021 forecast.

Response:

- (a) See Attachment RR-12-1 and Attachment RR-12-2 for updated tables E-1 and G-1. For additional context on the changes in the forecast 2020 year end fund balance forecasts:

Electric – Table E-1

The updated projected Year-End 2020 Electric Fund Balance increased by \$5,383,943 from the October 15th filing. This change is primarily driven from a decrease in forecast 2020 year end expenses than was forecast in the original October 15, 2020 filing. The increase in the fund balance results in a decrease of 6.2% in the proposed 2021 Electric Energy Efficiency Program Charge. The charge decreases from \$0.01323 per kWh to \$0.01241 per kWh.

Gas – Table G-1

The updated projected Year-End 2020 Natural Gas Fund Balance increased by \$1,076,527; with the Year End 2020 Residential Gas Fund Balance increasing by \$198,541 and the Year End 2020 Commercial and Industrial Gas Fund Balance increasing by \$877,986; resulting in a net increase of \$1,076,527. This change is primarily driven from a net decrease in forecast 2020 year end expenses than was forecast in the original October 15, 2020 filing (including a reduction in projected performance incentive earnings associated with this sector). The increase in the fund balance results in

Record Request No. 12, page 2

a slight decrease in the proposed 2021 Natural Gas Energy Efficiency Residential Program Charge of 0.9% and decrease in the proposed 2021 Natural Gas Energy Efficiency Commercial & Industrial Program Charge of 7.0%. The Residential charge decreases from \$1.011 per Dth to \$1.002 per Dth. The Commercial and Industrial (C&I) charge decreases from \$0.704 per Dth to \$0.655 per Dth.

(b) This response will be submitted to the PUC on December 16, 2020.

Record Request No. 12

Request:

- (a) As a follow-up to the Company's response to PUC 3-28, please provide energy efficiency factor updates to the Commission reflecting updated fund balance and actual revenues and expenses through the end of November. (For tables E-1 and G-1, please use the same format sent to the Commission on December 1, 2020).
- (b) Please provide the tables E-1 as updated in (a) above but apply the electric sales forecast using weather normalized actuals from 2020 through November. (As stated in Record Request 3, Page 2, Column D). Please also provide table E-1 as updated using the three-year average (2018, 2019, and 2020) of weather normalized actuals, and also using the average of 2020 weather normalized actuals and the 2021 forecast.

Response:

- (a) Please see the Company's response submitted on December 15, 2020.
- (b)
 - a. See Attachment PUC 12-3 that provides the table E-1 as updated in (a) above but applies the electric sales forecast using weather normalized actuals from 2020 as provided in RR-3, Table 2, Column D "2020 Weather-Normalized".
 - b. See Attachment PUC 12-4 that provides the table E-1 as updated in (a) above but applies the electric sales forecast using the three-year average (2018, 2019, and 2020) of weather normalized actuals.
 - c. See Attachment PUC 12-5 that provides the table E-1 as updated in (a) above but applies the electric sales forecast using the average of 2020 weather normalized actuals and the 2021 forecast as submitted in the October 15, 2020 filing.

Table E-1
National Grid
Electric DSM Funding Sources in 2021 by Sector
\$(000)

Attachment PUC RR 12-1				
	Income Eligible Residential	<u>Projections by Sector</u> Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from E-2):	\$19,855.68	\$41,146.51	\$61,303.84	\$122,306.03
Sources of Other Funding:				
(2) Projected DSM Commitments at Year-End 2020:	\$0.00	\$0.00	\$0.00	\$0.00
(3) Projected Year-End 2020 Fund Balance and Interest:	\$0.00	\$454.01	\$24,891.62	\$25,345.62
(4) Projected FCM Payments from ISO-NE:	\$486.50	\$6,234.50	\$9,297.00	\$16,018.00
(5) Total Other Funding:	\$486.50	\$6,688.51	\$34,188.62	\$41,363.62
(6) Customer Funding Required:	\$19,369.18	\$34,458.00	\$27,115.22	\$80,942.41
(7) Forecasted kWh Sales:	200,673,797	2,571,376,629	3,834,494,965	6,606,545,391
(8) Energy Efficiency Program charge per kWh, excluding uncollectible recovery:				\$0.01225
(9) Proposed SRP Opex Factor per kWh, excluding uncollectible recovery:				<u>\$0.00000</u>
(10) Total Proposed Energy Efficiency Charge per kWh, excluding uncollectible recovery:				\$0.01225
(11) Currently Effective Uncollectible Rate				1.30%
(12) Proposed Energy Efficiency Program Charge per kWh, including Uncollectible Recovery:				\$0.01241
(13) Currently Effective Energy Efficiency Program Charge per kwh				<u>\$0.01323</u>
(14) Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				(\$0.00082)

Notes:

- (1) Projected Budget from E-2 includes OER and EERMC costs allocated to each sector based on forecasted sales.
- (2) DSM Commitments are projects that are under construction with anticipated completion in 2021.
- (3) Fund balance projections include projected revenue and spend through year end with Income Eligible sector set to \$0 through projected subsidization from other sectors, minus commitments which are illustrated separately on line (2). The Company proposes to refile this table with updated Fund Balance projections on December 1, 2020 as proposed in Section 12.1 of the Plan's Main Text.
- (3a) The Fund balance projection includes a credit and interest in the amount of \$469,641.16 pursuant to the PUC Open Meeting on September 1, 2020 in relation to Docket No. 4755 and the Navy CHP Settlement Agreement.
- (4) The total projection of FCM revenue is allocated by kWh sales to each sector.
- (5) Line (2) + Line (3) + Line (4)
- (6) Line (1) - Line (5)
- (7) Per Company Forecast
- (8) Line (6) ÷ Line (7), truncated to 5 decimal places
- (9) Truncated to 5 decimal places
- (11) Proposed SRP Opex Factor is \$0.00000.
- (10) Line (8) + Line (9)
- (11) Uncollectible rate approved in Docket No 4770.
- (12) Line (10) ÷ (1-Line (11)), truncated to 5 decimal places
- (13) Currently Effective EE Charge includes System Reliability Factor and uncollectible recovery.
- (14) Line (13) - Line (12)

**Table G-1
National Grid
Gas DSM Funding Sources in 2021 by Sector
\$(000)**

Attachment PUC RR 12-2				
	<u>Projections by Sector</u>			Total
	Income Eligible Residential	Non-Income Eligible Residential	Commercial & Industrial	
(1) Projected Budget (from G-2):	\$10,494.10	\$17,517.85	\$10,604.66	\$38,616.62
Sources of Other Funding:				
(2) Projected Year-End 2020 Fund Balance and Interest:	\$0.00	\$2,117.68	\$4,776.34	\$6,894.01
(3) Low Income Weatherization in Base Rates:	\$0.00			\$0.00
(4) Total Other Funding:	\$0.00	\$2,117.68	\$4,776.34	\$6,894.01
(5) Customer Funding Required:	\$10,494.10	\$15,400.18	\$5,828.32	\$31,722.60
(6) Forecasted Firm Dth Volume	1,600,863	18,655,474	19,605,949	39,862,286
(7) Forecasted Non Firm Dth Volume			230,757	230,757
(8) Less: Exempt DG Customers			(1,485,040)	(1,485,040)
(9) Forecasted Dth Volume:	1,600,863	18,655,474	18,351,666	38,608,003
(10) Average Energy Efficiency Program Charge per Dth excluding Uncollectible Recovery:				\$0.821
(11) Proposed Energy Efficiency Program Charge per Dth excluding Uncollectible Recovery	\$0.960	\$0.960	\$0.668	
(12) Currently Effective Uncollectible Rate	<u>1.91%</u>	<u>1.91%</u>	<u>1.91%</u>	
(13) Proposed Energy Efficiency Program Charge per Dth, including Uncollectible Recovery:	\$0.978	\$0.978	\$0.681	
(14) Currently Effective Energy Efficiency Program Charge per Dth	\$1.011	\$1.011	\$0.704	
(15) Adjustment to Reflect Fully Reconciling Funding Mechanism	(\$0.033)	(\$0.033)	(\$0.023)	

Notes

- (1) Projected Budget from G-2 includes OER and EERMC costs allocated to each sector based on forecasted volume.
(2) Fund Balance projections include projected revenue and spend through year-end with Residential and C&I sector subsidies applied to Income Eligible as detailed in the 2021 EE Plan Table G-1. The Company proposes to refile this table with updated Fund Balance projections on December 1, 2020 as proposed in Section 12.1 of the Plan's Main Text.
(11) As agreed to by the settling parties, the proposed EE program charges allow for the use of collections from one sector to fund energy efficiency services in other sectors that would otherwise not be supported with the proposed collection rates. The C&I charge includes collection of \$5.51 million of which \$5.32 million will be allocated to the low income sector and \$0.19 million to the residential sector.
(12) Uncollectible rate approved in Docket No. 4770.

Table E-1
National Grid
Electric DSM Funding Sources in 2021 by Sector
\$(000)

Attachment PUC RR 12-3				
	Income Eligible Residential	<u>Projections by Sector</u> Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from E-2):	\$19,856.86	\$41,175.22	\$61,273.95	\$122,306.03
Sources of Other Funding:				
(2) Projected DSM Commitments at Year-End 2020:	\$0.00	\$0.00	\$0.00	\$0.00
(3) Projected Year-End 2020 Fund Balance and Interest:	\$0.00	\$454.01	\$24,891.62	\$25,345.62
(4) Projected FCM Payments from ISO-NE:	\$497.80	\$6,506.40	\$9,013.80	\$16,018.00
(5) Total Other Funding:	\$497.80	\$6,960.41	\$33,905.42	\$41,363.62
(6) Customer Funding Required:	\$19,359.06	\$34,214.81	\$27,368.53	\$80,942.41
(7) Forecasted kWh Sales:	220,856,332	2,886,942,751	3,999,510,631	7,107,309,714
(8) Energy Efficiency Program charge per kWh, excluding uncollectible recovery:				\$0.01138
(9) Proposed SRP Opex Factor per kWh, excluding uncollectible recovery:				<u>\$0.00000</u>
(10) Total Proposed Energy Efficiency Charge per kWh, excluding uncollectible recovery:				\$0.01138
(11) Currently Effective Uncollectible Rate				1.30%
(12) Proposed Energy Efficiency Program Charge per kWh, including Uncollectible Recovery:				\$0.01152
(13) Currently Effective Energy Efficiency Program Charge per kwh				<u>\$0.01323</u>
(14) Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				(\$0.00171)

Notes:

- (1) Projected Budget from E-2 includes OER and EERMC costs allocated to each sector based on forecasted sales.
- (2) DSM Commitments are projects that are under construction with anticipated completion in 2021.
- (3) Fund balance projections include projected revenue and spend through year end with Income Eligible sector set to \$0 through projected subsidization from other sectors, minus commitments which are illustrated separately on line (2). The Company proposes to refile this table with updated Fund Balance projections on December 1, 2020 as proposed in Section 12.1 of the Plan's Main Text.
- (3a) The Fund balance projection includes a credit and interest in the amount of \$469,641.16 pursuant to the PUC Open Meeting on September 1, 2020 in relation to Docket No. 4755 and the Navy CHP Settlement Agreement.
- (4) The total projection of FCM revenue is allocated by kWh sales to each sector.
- (5) Line (2) + Line (3) + Line (4)
- (6) Line (1) - Line (5)
- (7) Per Company Forecast
- (8) Line (6) ÷ Line (7), truncated to 5 decimal places
- (9) Truncated to 5 decimal places
- (11) Proposed SRP Opex Factor is \$0.00000.
- (10) Line (8) + Line (9)
- (11) Uncollectible rate approved in Docket No 4770.
- (12) Line (10) ÷ (1-Line (11)), truncated to 5 decimal places
- (13) Currently Effective EE Charge includes System Reliability Factor and uncollectible recovery.
- (14) Line (13) - Line (12)

Table E-1
National Grid
Electric DSM Funding Sources in 2021 by Sector
\$(000)

Attachment PUC RR 12-4				
	Income Eligible Residential	<u>Projections by Sector</u> Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from E-2):	\$19,854.22	\$41,147.66	\$61,304.14	\$122,306.03
Sources of Other Funding:				
(2) Projected DSM Commitments at Year-End 2020:	\$0.00	\$0.00	\$0.00	\$0.00
(3) Projected Year-End 2020 Fund Balance and Interest:	\$0.00	\$454.01	\$24,891.62	\$25,345.62
(4) Projected FCM Payments from ISO-NE:	\$472.70	\$6,245.40	\$9,299.90	\$16,018.00
(5) Total Other Funding:	\$472.70	\$6,699.41	\$34,191.52	\$41,363.62
(6) Customer Funding Required:	\$19,381.52	\$34,448.26	\$27,112.62	\$80,942.41
(7) Forecasted kWh Sales:	213,862,495	2,825,564,613	4,207,443,869	7,246,870,977
(8) Energy Efficiency Program charge per kWh, excluding uncollectible recovery:				\$0.01116
(9) Proposed SRP Opex Factor per kWh, excluding uncollectible recovery:				\$0.00000
(10) Total Proposed Energy Efficiency Charge per kWh, excluding uncollectible recovery:				\$0.01116
(11) Currently Effective Uncollectible Rate				1.30%
(12) Proposed Energy Efficiency Program Charge per kWh, including Uncollectible Recovery:				\$0.01130
(13) Currently Effective Energy Efficiency Program Charge per kwh				\$0.01323
(14) Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				(\$0.00193)

Notes:

- (1) Projected Budget from E-2 includes OER and EERMC costs allocated to each sector based on forecasted sales.
- (2) DSM Commitments are projects that are under construction with anticipated completion in 2021.
- (3) Fund balance projections include projected revenue and spend through year end with Income Eligible sector set to \$0 through projected subsidization from other sectors, minus commitments which are illustrated separately on line (2). The Company proposes to refile this table with updated Fund Balance projections on December 1, 2020 as proposed in Section 12.1 of the Plan's Main Text.
- (3a) The Fund balance projection includes a credit and interest in the amount of \$469,641.16 pursuant to the PUC Open Meeting on September 1, 2020 in relation to Docket No. 4755 and the Navy CHP Settlement Agreement.
- (4) The total projection of FCM revenue is allocated by kWh sales to each sector.
- (5) Line (2) + Line (3) + Line (4)
- (6) Line (1) - Line (5)
- (7) Per Company Forecast
- (8) Line (6) ÷ Line (7), truncated to 5 decimal places
- (9) Truncated to 5 decimal places
- (11) Proposed SRP Opex Factor is \$0.00000.
- (10) Line (8) + Line (9)
- (11) Uncollectible rate approved in Docket No 4770.
- (12) Line (10) ÷ (1-Line (11)), truncated to 5 decimal places
- (13) Currently Effective EE Charge includes System Reliability Factor and uncollectible recovery.
- (14) Line (13) - Line (12)

Table E-1
National Grid
Electric DSM Funding Sources in 2021 by Sector
\$(000)

Attachment PUC RR 12-5				
	Income Eligible Residential	Projections by Sector Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from E-2):	\$19,856.30	\$41,161.40	\$61,288.33	\$122,306.03
Sources of Other Funding:				
(2) Projected DSM Commitments at Year-End 2020:	\$0.00	\$0.00	\$0.00	\$0.00
(3) Projected Year-End 2020 Fund Balance and Interest:	\$0.00	\$454.01	\$24,891.62	\$25,345.62
(4) Projected FCM Payments from ISO-NE:	\$492.40	\$6,375.50	\$9,150.10	\$16,018.00
(5) Total Other Funding:	\$492.40	\$6,829.51	\$34,041.72	\$41,363.62
(6) Customer Funding Required:	\$19,363.90	\$34,331.89	\$27,246.62	\$80,942.41
(7) Forecasted kWh Sales:	210,767,045	2,729,207,755	3,916,952,753	6,856,927,553
(8) Energy Efficiency Program charge per kWh, excluding uncollectible recovery:				\$0.01180
(9) Proposed SRP Opex Factor per kWh, excluding uncollectible recovery:				\$0.00000
(10) Total Proposed Energy Efficiency Charge per kWh, excluding uncollectible recovery:				\$0.01180
(11) Currently Effective Uncollectible Rate				1.30%
(12) Proposed Energy Efficiency Program Charge per kWh, including Uncollectible Recovery:				\$0.01195
(13) Currently Effective Energy Efficiency Program Charge per kwh				\$0.01323
(14) Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				(\$0.00128)

Notes:

- (1) Projected Budget from E-2 includes OER and EERMC costs allocated to each sector based on forecasted sales.
- (2) DSM Commitments are projects that are under construction with anticipated completion in 2021.
- (3) Fund balance projections include projected revenue and spend through year end with Income Eligible sector set to \$0 through projected subsidization from other sectors, minus commitments which are illustrated separately on line (2). The Company proposes to refile this table with updated Fund Balance projections on December 1, 2020 as proposed in Section 12.1 of the Plan's Main Text.
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- (4) The total projection of FCM revenue is allocated by kWh sales to each sector.
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- (12) Line (10) ÷ (1-Line (11)), truncated to 5 decimal places
- (13) Currently Effective EE Charge includes System Reliability Factor and uncollectible recovery.
- (14) Line (13) - Line (12)

Record Request No. 13, page 1

Request:

- (a) Please list all of the Company’s electric vehicle (EV) pilots and include the jurisdiction (NY, MA, or RI) and a brief narrative of the pilot.
- (b) Explain why the current EV proposal provides added value to the proposals described in response to (a) above. Please explain how the learning or demonstration component of the current proposal is incremental to the other EV proposals listed.

Response:

(a)

St.	Program	Purpose	Technology	Targets	Timeline
RI	SmartCharge Off-Peak Rebate Pilot	Study customer charging patterns at various charging locations and levels, understand customer responsiveness to time-differentiated price signals, and evaluate technology and partnership alternatives to monitor and report charging	Data gathering through OBD port dongle	500 Customers	2018-2022
	EV Demand Response Demonstration	Demonstrate cost-effective peak load reduction by pausing vehicle charging during system peaks as part of the energy efficiency portfolio	Control through on-board vehicle telematics	225 to 600 vehicles	2021 and ongoing if cost-effectiveness is proven
	Charging Station Demonstration Program	Provide EV charging infrastructure make-ready incentives and equipment rebates to customers. Help to accelerate EV infrastructure deployment and reduce the upfront costs to customers.	Level 2 and DCFC chargers	320 L2 & 46 DCFC charging ports	2018-2022
	Fleet Advisory Program	Offers to fleet customers of all types an assessment that identifies fleet vehicles ready for electrification. The Fleet Advisory Services are available at no-cost to qualifying customers.	n/a	12 Fleet Studies	2018-2022

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
2021-2023 Energy Efficiency Program Plan &
2021 Annual Energy Efficiency Program Plan
Responses to Record Requests
Issued at the Commission’s Evidentiary Hearing
On December 11, 2020 (Day 3)

Record Request No. 13, page 2

St.	Program	Purpose	Technology	Targets	Timeline
RI	SmartCharge Off-Peak Rebate Pilot	Study customer charging patterns at various charging locations and levels, understand customer responsiveness to time-differentiated price signals, and evaluate technology and partnership alternatives to monitor and report charging.	Initially use data gathered through OBD Port Dongle. Investigating using networked chargers and vehicle telematics	up to 11,000 customers	2020-2024
	EV Demand Response Demonstration	Demonstrate cost-effective peak load reduction by pausing vehicle charging during system peaks as part of the energy efficiency portfolio	Control through on-board vehicle telematics	1,400 to 4,000 vehicles	2021 and ongoing if cost-effectiveness is proven
MA	EV Make-Ready Program	Provide EV charging infrastructure make-ready incentives and equipment rebates to customers. Help to accelerate EV infrastructure deployment and reduce the upfront costs to customers.	Level 2 and DCFC chargers	680 charging stations (L2 & DCFC)	2018-2021
	Fleet Advisory Services	Offers to public or government fleet customers an assessment that identifies fleet vehicles ready for electrification. The Fleet Advisory Services are available at no-cost to qualifying customers.	n/a	Up to 100 Fleet Studies	2020-2024
	DCFC + Solar and Storage Demo Project	Research demo to explore demand side flexibility and lessen grid impacts through the co-location of DCFC charging, solar, and battery storage.	DCFC charging with Solar and/or Battery Storage	1 Pilot site	2020-2024
	SC-1 Voluntary Time of use (VTOU) Rate	Provide a Voluntary Time of Use rate to all residential customers. Special provisions for EV owning customers to waive additional metering fees associated with the rate. Goal is to encourage off peak charging, while also reducing EV charging costs for customers.	Measured use through utility meter capable of interval metering.	Available to residential customers	n/a

The Narragansett Electric Company
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Record Request No. 13, page 3

St.	Program	Purpose	Technology	Targets	Timeline
MA	EV Commercial Make-Ready Pilot (Phase 1)- Completed	Provide EV charging infrastructure make-ready incentives and equipment rebates to customers. Help to accelerate EV infrastructure deployment and reduce the upfront costs to customers.	Level 2 and DCFC chargers	30 sites, 300 charging ports (will have installed over 900 ports at end of pilot)	2018- 2021
	EV Commercial Make-Ready Program	Provide EV charging infrastructure make-ready incentives to customers. Help to accelerate EV infrastructure deployment and reduce the upfront costs to customers.	Level 2 and DCFC chargers	15,728 Level 2 and 504 DCFC ports	2020- 2025
NY	EV Medium and Heavy-Duty Fleet Make-Ready Program	Provide EV charging infrastructure make-ready incentives to customers with medium- and heavy-duty vehicles. Help to accelerate EV infrastructure deployment for fleets and reduce their upfront costs.	Level 2 and DCFC chargers	Available to eligible fleet customers	2020- 2025
	Fleet Assessment Services	Offers a no-cost fleet assessment program to any customer type in NY. These assessments include a site feasibility analysis to determine power demand, distribution impacts, and potential cost-saving synergies, as well as analysis of electricity costs and rate options available.	n/a	Available to eligible fleet customers	2020- 2025

Record Request No. 13, page 4

(b) Brief narrative of the EV Demand Response (DR) Demonstration:

This demonstration will determine if the Company can cost-effectively reduce EV charging at peak times, resulting in lowering the installed capacity requirement of the distribution and transmission grids, generation as well as the DR-induced price effects quantified in the RI Test. In this demonstration, the Company will partner with major automobile manufacturers to market primarily to customers who have already purchased a vehicle. Customers will learn about the demonstration through emails and in-app notifications sent from their auto manufacturer a process similar to the Company's thermostat-based and battery-based DR measures. Customers will receive \$25 for enrolling in the program. If an enrolled customer is charging their vehicle during a DR event, the charging will be paused until peak conditions are over. In exchange, customers will receive \$20 per paused level-2 charging event and \$10 per paused level-1 charging event. From the Smart Charge Off Peak Rebate Pilot and similar programs throughout the country, the Company has learned that most EV drivers do not charge during peak conditions (summer weekday early afternoons on hot days). This pay-for-performance incentive format pays the most to customers who can provide the largest peak load relief when it matters the most, while still being simple enough for the average consumer.

The proposed EV Demand Response Demonstration differs from other EV programs in both its goals and methods.

Unmanaged EV charging has the potential to increase distribution and system peaks. There are many methods to attempt to reduce EV charging during system peaks, including active control of vehicles, as proposed in the EV Demand Response Demonstration and time-varying price signals such as SmartCharge Off Peak Rebate Pilot. Furthermore, the technologies available to manage EV charging continue to evolve, indicating a need to be flexible on the exact methods used in the near-term.

The purpose of the EV Demand Response Demonstration is to show that the Company can cost-effectively reduce peak electricity use by pausing EV charging when the system is at or near peak use. The EV Demand Response Demonstration will use onboard vehicle telematics to pause and restart vehicle charging in a cost-effective way. If cost-effectiveness is proven, the Company plans to propose an ongoing EV Demand Response measure within the Connected Solutions Program.

The SmartCharge Off Peak Rebate Pilot runs through 2022 and is gathering data on baseline (unmanaged) EV charging behavior and the effectiveness of per-kWh

Record Request No. 13, page 5

rebates in shifting EV charging to off-peak hours to help inform future time-of-use (TOU) rate design. Additional scope for the remainder of the SmartCharge program is to study how behavioral messaging can further impact the effectiveness of off-peak rebates in shifting EV charging. The remaining information gathered in the SmartCharge Off Peak Rebate Pilot is not expected to produce data that would alter the format of the EV Demand Response Demonstration. Enrollments for the Smart Charge program are closed, and any participating customers are not eligible to participate in the EV Demand Response Demonstration.

The goals of the other EV programs listed in the response to question (a) are to increase the accessibility of EV charging infrastructure and accelerate EV adoption in order to reduce greenhouse gases and air pollution from ground transportation. The intent of the EV Demand Response Demonstration to lay the groundwork for making sure the Company is prepared to control the charging of the increased EV charging infrastructure and EV adoption and reduce the need for buildout of the distribution and transmission systems.

The proposed EV Demand Response Demonstration is complementary to the SmartCharge program and future TOU rate designs. Even in a future with widespread TOU rates, rates alone are not expected to prevent substantial EV charging during whole-system or local distribution system peaks. Similar examples can be found in many service areas where TOU rates are already available. In these areas active demand response programs (i.e., thermostat-based, battery-based, etc.) are used so that customers can benefit from off-peak rates.

The EV Demand Response Demonstration was proposed partially in response to input from stakeholders urging the Company to develop new, scalable, cost-effective approaches to expand the Company's DR program and produce system benefits. The Company believes this proposal meets all those goals at a relatively minor cost of approximately \$40,000 compared to the relatively large cost of a buildout of the distribution and transmission systems to support wide-scale adoption of EVs.

Record Request No. 14

Request:

In regard to the Warwick Efficient Buildings Fund (EBF) project (as detailed in the Company's response to PUC 9-1), please indicate the estimated cost (range) to convert to LEDs.

Response:

The cost of streetlight conversion in Warwick is estimated to be \$3,600,000 – \$4,400,000 before National Grid and OER incentives and approximately \$3,100,000 – \$3,700,000 after incentives. The range is due to the difference between control systems of various capabilities which have not been confirmed at this time. In the case with the basic controls (lower end of the ranges), the cost of luminaires represents approximately 50% of the cost. The remaining 50% is split between labor, controls, and additional wiring with labor comprising the largest portion of this 50% of costs at approximately \$900,000.

Record Request No. 15

Request:

Referring to the heating system replacements, is the state and federal money dependent on National Grid funding? (i.e., If National Grid did not fund these replacements, would the state and federal money be available)

Response:

Clarification to the above stated question is that the Income Eligible Services Program leverages only Federal money.

No, the Federal funds are not dependent on National Grid funding as they are issued as annual block grants to LIHEAP grantees (States and Territories). A percentage of the LIHEAP grant, decided by the State of Rhode Island, is used for measures the state chooses, and they currently leverage the LIHEAP funds for heating systems and weatherization with the Income Eligible Services (IES) delivery channels and complementary funding. Leveraging these Federal funds through the Company's IES Program allows those funds to go further than they otherwise would (i.e. support more customers).

Sponsored Statement

Re: Rhode Island Infrastructure Bank and Customer Contributions

Page 1

On December 11, 2020, during the third and final session of the evidentiary hearing in Docket No. 5076, the Company received questions from the Commission focusing on the Company's proposed transfer of system benefit charge (SBC) dollars to support the Efficient Buildings Fund (EBF). Specifically, during cross examination the Company testified on the topic of customer contribution and ¢/Lifetime kWh as presented in Table E-5 of the 2021 Annual Energy Efficiency Plan (Bates Page 561). Due to time constraints, the Company did not have an opportunity for redirect on this topic. The purpose of this statement is to provide the Commission with clarifying information on the aforementioned topic.

The energy savings estimated to be claimed attributable to EBF in 2021 were present and the costs were accounted for in the Company's incentive budget. The numbers presented in Table E-5 for Customer Costs and ¢/Lifetime kWh are accurate.

In regards to the line of questioning surrounding the loan given to East Providence for the new construction of a school and the relationship between that amount and the aggregate estimated program level "Customer Contributions" in Table E-5 of the 2021 Annual Plan, National Grid would like to offer the following clarifications and examples that the Company believes demonstrates the derivation of the customer contributions included in the Company's Total Resource Cost (TRC) modeling.

1. In the regular course of administering its energy efficiency programs, National Grid offers incentives that cover a portion of the cost difference between a new piece or package of energy efficient equipment and a code compliant piece of equipment or package. If a new code compliant lighting system costs \$10,000 and a more efficient lighting package costs \$15,000, for example, National Grid may offer \$3,000 as an incentive. In this case, the customer contribution would equal \$2,000, which is the post-incentive difference between an efficient and code compliant system, and a fraction of the \$15,000 total cost of the new system.

Sponsored Statement

Re: Rhode Island Infrastructure Bank and Customer Contributions

Page 2

2. Using the example above, EBF loans may be made to a municipality that cover the entire \$15,000 for a more efficient lighting package. Oftentimes, this project is bundled with additional measures for which the Company cannot provide an energy efficiency incentive, such as windows. As an illustrative example, assume the cost of the windows in this example to be \$8,000. That may mean that the customer borrows a total of \$23,000. However, the customer contribution for purposes of the TRC test and energy efficiency benefit cost modeling remains \$2,000, based on the customer incurred share of the incremental cost of Company supported energy efficiency measures.
3. EBF loans cover the total project cost (equipment, controls, and installation) minus the Company's incentive. The offering is structured this way because the Company, Office of Energy Resources (OER) and Rhode Island Infrastructure Bank (RIIB) believe that they are needed to ensure that the customer does not select and implement less energy efficient equipment as a result of lacking sufficient up-front capital to prioritize the purchase of energy efficient equipment.
4. In terms of fully accounting for the costs of the RIIB capital injections in the Company's cost effectiveness calculations, the planned \$5,000,000 transfer is accounted for at the electric and gas portfolio level, where those portfolios remain robustly cost effective, inclusive of the cost of the annual RIIB transfers.
5. If the Company were to account for the \$5,000,000 transfer by allocating these costs only to the Large Commercial New Construction and Large Commercial Retrofit program line items, both programs would also remain cost effective under both the TRC and RI Tests.

Sponsored Statement

Re: Rhode Island Infrastructure Bank and Customer Contributions

Page 3

6. The Company believes that accounting for only the incremental cost in the customer contribution in its Benefit Cost Analysis (BCA) models is appropriate, as these tests also only account for the incremental benefits associated with the more energy efficient measures. If the TRC were to account for the full costs of the baseline system, then the benefits side of the equation would be understated, as National Grid does not account for the benefits of having a lighting system to the customer. Adding those costs without associated benefits would lead to an asymmetrical result.

7. More generally, National Grid believes that the utilization of financing mechanisms for the full cost of implemented measures, as opposed to financing only the incremental cost of installed measures, remains appropriate. Limiting financing to only incremental, post-incentive cost in most cases is both impractical and insufficient to support customer adoption of energy efficient measures, and the incurrence of total financing costs does not prevent relevant programs or portfolios from achieving required cost effectiveness standards.