Andrew Marcaccio
Senior Counsel

December 18, 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
Response to PUC Post-Hearing Data Request – Set 1 & Revision to RR-13

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 response to the Public Utilities Commission's ("PUC"s) Post-Hearing Data Request containing only one question, as well as the Company's revised response to Record Request 13 in the above-referenced docket.[1]

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.

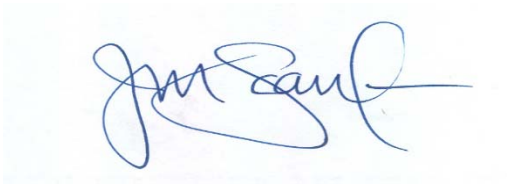
[1] In addition, the Company will deliver to the Commission six, three-hole punched hard copies with Bates stamp.

280 Melrose Street, Providence, RI 02907
T: 401-784-4263 ■ andrew.marcaccio@nationalgrid.com ■ www.nationalgrid.com

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 18, 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; 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;	401-784-4263
Division of Public Utilities and Carriers Jon Hagopian, Esq.	Jon.hagopian@dpuc.ri.gov; Margaret.L.Hogan@dpuc.ri.gov; john.bell@dpuc.ri.gov; Joel.munoz@dpuc.ri.gov;	401-784-4775
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; guerard@optenergy.com; ross@optenergy.com; kravatz@optenergy.com;	401-477-0023
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, 4th Floor Providence, RI 02908 Nick Ucci, Commissioner	Albert.Vitali@doa.ri.gov; 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;	401-222-8880
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; Cynthia.WilsonFrias@puc.ri.gov; John.Harrington@puc.ri.gov; Alan.nault@puc.ri.gov; Todd.bianco@puc.ri.gov ;	401-780-2107
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;	

Post Hearing Data Request 1-1

Request

Referring to the response to Record Request 13(a), for each of the Company's Rhode Island electric vehicle (EV) pilots listed please state whether each pilot was approved by the PUC, and if so, provide the docket number where it was approved.

Response

State	Program	Purpose	Technology	Targets	Timeline	RI PUC Approval (Docket No.)
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	PUC approved under Docket 4770/4780
	DCFC Demand Charge Discount Program	Provide a temporary (3-year) discount on the demand charge portion for separately metered publicly-accessible DC fast charging stations. Intended to spur DCFC development and improve DCFC business case	For DCFC stations	Available to eligible DCFC customers	2018-2022	PUC approved under Docket 4770/4780
	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	PUC approved under Docket 4770/4780
	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	PUC approved under Docket 4770/4780

Record Request No. 13 (Revised), 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:

In responding to Post Hearing Data Request 1-1, the Company noticed a publishing error to Record Request No. 13. This revised response to Record Request No.13 updates the table initially submitted in part (a) as some of the rows in that table were inadvertently reformatted when publishing to a PDF. This revised response makes three tables (one for each state) to make it clear which state the program is in. The revised tables also list the programs in chronological order, and, for Rhode Island, the table provides the docket in which the program was approved by the Commission.

Specifically, the revised tables reflect the following changes:

- Displays the "EV Demand Response Demonstration" and "SmartCharge Off-Peak Rebate Pilot (2020-2024)" as Massachusetts programs (as opposed to Rhode Island programs);
- Displays the "SC-1 Voluntary Time of use (VTOU) Rate" and "EV Commercial Make-Ready Pilot (Phase 1)- Completed" as New York programs (as opposed to Massachusetts programs).
- Removes the "EV Demand Response Demonstration" that was listed as a Rhode Island demonstration. Proposed offering in Docket 5076.
- Added the "DCFC Demand Charge Discount Program" to Rhode Island. (The row for this program was inadvertently cutoff when formatting initial table and publishing to PDF)

Part (b) of the response remains unchanged from the original submission.

Prepared by or under the supervision of: Angela Li

Record Request No. 13 (Revised), page 2

(a)

Rhode Island					
Program	**Purpose**	**Technology**	**Targets**	**Timeline**	**RI PUC Approval (Docket No.)**
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	PUC approved under Docket 4770/4780
DCFC Demand Charge Discount Program	Provide a temporary (3-year) discount on the demand charge portion for separately metered publicly-accessible DC fast charging stations. Intended to spur DCFC development and improve DCFC business case	For DCFC stations	Available to eligible DCFC customers	2018-2022	PUC approved under Docket 4770/4780
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	PUC approved under Docket 4770/4780
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	PUC approved under Docket 4770/4780

Record Request No. 13 (Revised), page 3

Massachusetts				
Program	**Purpose**	**Technology**	**Targets**	**Timeline**
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
EV Demand Response	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
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
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

Record Request No. 13 (Revised), page 4

New York				
Program	**Purpose**	**Technology**	**Targets**	**Timeline**
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
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
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 (Revised), page 5

(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.

Record Request No. 13 (Revised), page 6

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 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.