

December 12, 2019

BY HAND DELIVERY AND ELECTRONIC MAIL

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

RE: Docket 4979 – Proposed 2020 Energy Efficiency Program Plan
Docket 4980 – Proposed 2020 System Reliability Plan
Responses to Record Requests (Batch 1)

Dear Ms. Massaro:

I have enclosed 11 copies of National Grid's¹ responses to Record Requests issued at the Public Utilities Commission's Technical Session and Evidentiary Hearings on October 9 and October 10, 2019 in the above-referenced dockets.

Included in this transmittal are the Company's responses to the following Record Requests:

- RR-4, RR-5, RR-7, RR-9, and RR-12

The Company's responses to the remainder record requests are pending.

Thank you for your attention to this filing. If you have any questions, please contact me at 781-907-2121.

Sincerely,



Raquel J. Webster

Enclosures

cc: Docket 4979 & 4980 Service Lists
Jon Hagopian, Esq.
John Bell, Division

¹ The Narragansett Electric Company d/b/a National Grid (National Grid or Company).

Record Request No. 4

Request:

When does spending on CHP projects go into eligible spending?

Response:

Sales, marketing and technical assistance spending associated with CHP projects are charged to program eligible spending as those costs are incurred. Spending on incentive payments associated with CHP projects is accounted for in reported eligible spending in the time period during which the post-inspection and commissioning processes associated with each project are completed.

Additionally, for systems with a net output greater than 1 MW, an optimal operations and maintenance energy efficiency incentive payment, capped at \$20/kW-year, may be paid semiannually based on actual metered load reductions. The optimal operations and maintenance energy efficiency payments are accounted for in eligible spending reported for the Program Year(s) during which the payment is made to the customer.

Record Request No. 5

Request:

What is the life expectancy for measures in Attachment PUC 2-2.

Response:

Please see Attachment RR-5 for an updated version of Attachment PUC 2-2.

Please see Column X in the updated table for measure life.

RI PUC Docket 4979 Record Request 5 Attachment

| RI PUC Docket 49/9 Record Request 5 Attachment | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|--|--|---|---|---|---|--------------------------------------|--|------------------------|---|------------------|------------------------|--|---|---------------------------------------|--|-------------------------------------|---|---------------------------------------|-----------------------|--------------|-----|
| Sector | Program | Measure (Benefit Cost Model Abbreviation) | Measure (Full Name) | Count of Installations | Cost of Installations (Total Resource Cost) | Budget for Installations (Total of Customer Incentives) | Percentage of Cost of Installation Provided as Incentive to the Participant (100*participant incentive/measure cost) per unit | Percentage of Cost of Installation Provided as Incentive to a non-delivered fuels participant per unit for Comparable Measure | Net Annual Electric Savings Per Unit | Net Annual Delivered Fuel Savings Per Unit | | Total Net Annual Electric and Delivered Fuel Savings Per Unit | | Customer Cost Per Unit | Residential Electric Rates (\$/kWh) ^a | Heating Oil Price (\$/MMBtu) ^c | Propane Price (\$/MMBtu) ^d | Monetized Annual Electric Energy Savings | Monetized Annual Oil Energy Savings | Monetized Annual Propane Energy Savings | Total Annual Monetized Energy Savings | Simple Payback Period | Measure Life | |
| | | | | | | | | | | kWh | MMBtu | kWh ^e | kWh ^e | | | | | | | | | | | |
| | | | | | | | | | | (k ÷ 3.412) * 1000 | (j ÷ 1000) * 3.412 + k | (k ÷ 3.412) * 1000 | (f - g) ÷ e | | | | | | | | | | | |
| | | | | | | | 100 * (g ÷ f) | | | | | | | | | | | j * p | k * q | k * r | s + t + u | o ÷ v | | |
| Line | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) | (q) | (r) | (s) | (t) | (u) | (v) | (w) | (x) |
| 1 | Residential | EnergyStar HVAC | CDHP Fully Displ Furnace, Oil | Central Ducted Heat Pump Fully Displacing Furnace - Oil | 8 | \$100,541 | \$24,000 | 24% | N/A | -6,725.7 | 78.0 | 22,869.3 | 55.1 | 16,143.6 | \$9,568 | \$0.18837 | \$19.65 | \$33.11 | -\$1,267 | \$1,533 | N/A | \$266 | 35.91 | 16 |
| 2 | Residential | EnergyStar HVAC | CDHP Fully Displ Furnace, Propane | Central Ducted Heat Pump Fully Displacing Furnace - Propane | 2 | \$25,387 | \$6,000 | 24% | N/A | -6,725.7 | 78.0 | 22,869.3 | 55.1 | 16,143.6 | \$9,694 | \$0.18837 | \$19.65 | \$33.11 | -\$1,267 | N/A | \$2,584 | \$1,317 | 7.36 | 16 |
| 3 | Residential | EnergyStar HVAC | CDHP PART DISPFURNACE, OIL | Central Ducted Heat Pump Partially Displacing Furnace - Oil | 50 | \$450,225 | \$150,000 | 33% | N/A | -3,682.8 | 51.8 | 15,182.9 | 39.2 | 11,500.1 | \$6,005 | \$0.18837 | \$19.65 | \$33.11 | -\$694 | \$1,018 | N/A | \$324 | 18.52 | 17 |
| 4 | Residential | EnergyStar HVAC | CDHP PART DISPFURNACE, PROP | Central Ducted Heat Pump Partially Displacing Furnace - Propane | 3 | \$27,014 | \$9,000 | 33% | N/A | -5,388.3 | 68.8 | 20,176.1 | 50.5 | 14,787.8 | \$6,005 | \$0.18837 | \$19.65 | \$33.11 | -\$1,015 | N/A | \$2,280 | \$1,265 | 4.75 | 17 |
| 5 | Residential | EnergyStar HVAC | CDHP PART No Control DispFurnace, Oil | Central Ducted Heat Pump Partially Displacing Furnace w/o Controls - Oil | 10 | \$81,041 | \$20,000 | 25% | N/A | -4,849.5 | 62.0 | 18,158.5 | 45.4 | 13,309.1 | \$6,104 | \$0.18837 | \$19.65 | \$33.11 | -\$913 | \$1,217 | N/A | \$304 | 20.08 | 17 |
| 6 | Residential | EnergyStar HVAC | CDHP PART No Control DispFurnace, Propane | Central Ducted Heat Pump Partially Displacing Furnace w/o Controls - Propane | 5 | \$40,520 | \$10,000 | 25% | N/A | -3,314.5 | 46.6 | 13,664.6 | 35.3 | 10,350.1 | \$6,104 | \$0.18837 | \$19.65 | \$33.11 | -\$624 | N/A | \$1,544 | \$920 | 6.64 | 17 |
| 7 | Residential | EnergyStar HVAC | DMSHP FULL DISPBOILER, OIL | Ductless Mini-Split Fully Displacing Boiler - Oil | 10 | \$125,676 | \$30,000 | 24% | 45% | -7,888.5 | 92.0 | 26,976.3 | 65.1 | 19,087.8 | \$9,568 | \$0.18837 | \$19.65 | \$33.11 | -\$1,486 | \$1,809 | N/A | \$323 | 29.64 | 17 |
| 8 | Residential | EnergyStar HVAC | DMSHP FULL DISPBOILER, PROP | Ductless Mini-Split Fully Displacing Boiler - Propane | 4 | \$50,270 | \$12,000 | 24% | 45% | -7,918.2 | 92.0 | 26,976.3 | 65.0 | 19,058.1 | \$9,568 | \$0.18837 | \$19.65 | \$33.11 | -\$1,492 | N/A | \$3,048 | \$1,556 | 6.15 | 17 |
| 9 | Residential | EnergyStar HVAC | DMSHP WIC PART DISPBOILER, OIL | Ductless Mini-Split Partially Displacing Boiler with Integrated Controls - Oil | 10 | \$101,952 | \$30,000 | 29% | 45% | -4,509.0 | 60.0 | 17,599.1 | 44.7 | 13,090.1 | \$7,195 | \$0.18837 | \$19.65 | \$33.11 | -\$849 | \$1,180 | N/A | \$331 | 21.76 | 18 |
| 10 | Residential | EnergyStar HVAC | DMSHP WIC PART DISPBOILER, PROP | Ductless Mini-Split Partially Displacing Boiler with Integrated Controls - Propane | 2 | \$20,390 | \$6,000 | 29% | 45% | -6,421.5 | 81.2 | 23,800.4 | 59.3 | 17,378.9 | \$7,195 | \$0.18837 | \$19.65 | \$33.11 | -\$1,210 | N/A | \$2,689 | \$1,480 | 4.86 | 18 |
| 11 | Residential | EnergyStar HVAC | DMSHP w/oC PART DispBoiler, Oil | Ductless Mini-Split Partially Displacing Boiler w/o Controls - Oil | 50 | \$458,784 | \$100,000 | 22% | 45% | -4,058.1 | 54.0 | 15,839.2 | 40.2 | 11,781.1 | \$7,176 | \$0.18837 | \$19.65 | \$33.11 | -\$764 | \$1,062 | N/A | \$298 | 24.12 | 18 |
| 12 | Residential | EnergyStar HVAC | DMSHP w/oC PART DispBoiler, Prop | Ductless Mini-Split Partially Displacing Boiler w/o Controls - Propane | 1 | \$9,176 | \$2,000 | 22% | 45% | -5,779.4 | 73.1 | 21,420.4 | 53.4 | 15,641.0 | \$7,176 | \$0.18837 | \$19.65 | \$33.11 | -\$1,089 | N/A | \$2,420 | \$1,332 | 5.39 | 18 |
| 13 | Residential | EnergyWise Single Family | Wx - OIL | Weatherization - Oil | 1,700 | \$6,800,000 | \$5,100,000 | 75% | 75% | 96.9 | 14.0 | 4,103.2 | 14.3 | 4,200.1 | \$1,000 | \$0.18837 | \$19.65 | \$33.11 | \$18 | \$275 | N/A | \$293 | 3.41 | 20 |
| 14 | Low Income | Low Income Single Family | AMPMinisplit Heat Pumps - Oil Fuel Switching | Ductless Mini Split Heat Pump Displacing Oil | 20 | \$300,000 | \$300,000 | 100% | 100% | -8,765.0 | 102.3 | 29,982.4 | 72.4 | 21,217.4 | \$0 | \$0.18685 | \$19.65 | \$33.11 | -\$1,638 | \$2,010 | N/A | \$373 | 0.00 | 18 |
| 15 | Low Income | Low Income Single Family | AMPWx Delfuel | Weatherization - Delivered Fuel | 528 | \$2,376,000 | \$2,376,000 | 100% | 100% | 95.0 | 13.0 | 3,810.1 | 13.3 | 3,905.1 | \$0 | \$0.18685 | \$19.65 | \$33.11 | \$18 | \$255 | N/A | \$273 | 0.00 | 20 |

Source: 2020 Electric Portfolio Benefit Cost Model

Notes: A: Conversion factor for MWh to MMBtu is 3.412

B: Electric savings are monetized by multiplying by the applicable residential A-60 or A-16 delivery and commodity charges as of 4/1/2019

A-16 (Standard Residential) Rate. (Delivery Charges: \$0.09597/kWh) + (Total Commodity Charges: \$0.09240/kWh) = \$0.18837/kWh

A-60 (Low Income Residential) Rate. (Delivery Charges: \$0.09445/kWh) + (Total Commodity Charges: \$0.09240/kWh) = \$0.18685/kWh

C: Fuel oil savings are monetized by multiplying by energy by the most recent price for heating oil available from the Rhode Island Office of Energy Resources. For the week of 11/25/2019 the average heating oil price in Rhode Island was \$2.70/gallon (Source: <http://www.energy.ri.gov/energy-prices/heating-oil/>). Oil \$/gallon is converted to \$/MMBtu by multiplying by a heat content factor for heating oil: 5.77 MMBtu/barrel * 1 barrel/42 gallons = 0.1374 MMBtu/gallon (Source: https://www.eia.gov/totalenergy/data/monthly/pdf/mer_a.pdf)D: Propane savings are monetized by multiplying by the most recent price for propane available from the Rhode Island Office of Energy Resources: <http://www.energy.ri.gov/energy-prices/propane/>. For the week of 11/25/2019 the average propane price in Rhode Island was \$3.03/gallon. Propane \$/gallon is converted to \$/MMBtu by multiplying by a heat content factor for propane: 3.841 MMBtu/barrel * 1 barrel/42 gallons = 0.0915 MMBtu/gallon (Source: https://www.eia.gov/totalenergy/data/monthly/pdf/mer_a.pdf)

Record Request No. 7

Request:

For load related projects, what is the Company's contribution in aid of construction policy, and specifically the reduction of contribution in aid of construction policy?

Response:

Please see the attachments below for copies of the Company's current line extension and construction advance policies:

Attachment RR-7-1: Line Extension Policy for Individual Residential Customers

Attachment RR-7-2: Line Extension Policy for Residential Developments

Attachment RR-7-3: Line Extension and Construction Advance Policy for Commercial, Industrial and Existing Residential Customers

In the Construction Advance formula included on page 2 of Attachment RR-7-3, the "K" factor is an annually updated return on rate base grossed up for taxes, depreciation expense, property tax expense and distribution operation and maintenance expense. This factor was calculated at 18.49% for Calendar Year 2018.

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

The terms of this policy shall apply when a commercial, industrial, or non-residential (a real estate development which is not an approved subdivision of single-family homes) customer ("Customer") requests that a distribution line and/or other facilities ("New Facilities") necessary to properly supply electricity to the Customer's facilities be installed. This policy applies only to the installation of electric service by The Narragansett Electric Company ("Company"). The Customer should contact other utilities to determine the utilities' requirements governing the provision of their service and whether any costs and/or requirements are to be the responsibility of the Customer.

The terms of this policy shall also apply to an individual residential customer whose upgrade of the existing main switch to his/her premises will, in the Company's opinion, require the Company to upgrade its distribution line or associated equipment. In applying this policy, the Company will estimate any additional incremental revenue that may be realized as a result of the upgraded service for the purposes of determining whether a Construction Advance is required from the residential customer.

1. Amount of Overhead Distribution Provided without Charge

If the New Facilities being requested by the Customer consists of an overhead, single phase, secondary voltage distribution line extension that does not exceed two poles and two spans of line, the Company will provide the poles and spans of line needed to serve the New Facilities plus a service drop (that does not require a carrier pole) free of charge to the Customer. Otherwise, the costs of all poles and spans of line determined by the Company as needed to serve the New Facilities will be included in the cost component of the Construction Advance Formula described below.

2. Estimated Revenue

Before undertaking the construction of the New Facilities to serve the Customer, the Company will estimate the annual incremental revenue to be derived by the Company under the distribution service rates from the installation of the New Facilities.

3. Construction Advance

The Company will determine the facilities required to meet the distribution service requirements of the Customer. Facilities in excess of those required to meet the distribution service requirements of the Customer are outside the scope of this policy and may entail

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

additional payments from the Customer.

In accordance with the formula below (the “Formula”), the Company shall determine whether a payment by the Customer of a Construction Advance shall be required. The Construction Advance shall be paid by the customer in advance of the Company’s construction.

$$\text{Construction Advance (A)} = [C - [D \times M] \div K]$$

where

- A= Construction Advance paid to the Company by the Customer.
- C= The total estimated cost of construction for facilities required exclusively to meet the distribution service requirements of the Customer. This cost includes capital and non-capital costs and the Company’s liability for tax required on the value of the material and labor provided by the Customer. Where these new or upgraded facilities are not solely to provide service to the Customer, the Company shall appropriately apportion these costs.
- D= For a single customer, the estimated annual Distribution Revenue derived from the Customer within the first year following the completion of the Company’s construction of facilities; or for developments, the estimated additional annual Distribution Revenue derived from those new customers in the development anticipated to be supplied directly with electric service within one year from the commencement of the delivery of electricity to the first customer in the development.
- M= 0.5, the revenue apportionment factor.
- K= The annual carrying charge factor, expressed as a decimal.

Where the calculation of (A) results in a positive number, a Construction Advance in the amount of (A) shall be required from the Customer. Where the calculation of (A) results in a negative number, (A) shall be considered to be zero. Where the calculation of (A) results in a Construction Advance of \$500 or less, the payment of the Construction Advance will be waived. The Company shall exercise good faith in making each estimate and determination required above.

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

Any revenues from Transmission Service, the Non-Bypassable Transition Charge, Standard Offer Service rates, the Energy Efficiency Program Charge, the Long Term Contracting for Renewable Energy Recovery Factor, and the Net Metering Charge shall be excluded from this calculation.

The Construction Advance in the formula shall be further adjusted to include a tax contribution factor on the cash value of the Construction Advance, excluding the value of the tax contribution on any donated property received from the Customer. This tax contribution factor shall be paid in full by the Customer prior to the start of construction.

4. Refund

Whenever the Company collects a Construction Advance from the Customer, the Customer has the option to request the Company to perform a one-time recalculation of the Construction Advance payment using actual construction costs and actual Distribution Revenue to determine if a refund of all or a portion of the original payment is warranted. The request for the one-time review may be made at any time between twelve and thirty-six (36) months after commencement of the delivery of electricity.

To determine the refund, the Formula shall be modified as follows:

C= The actual cost of construction. If the actual cost of construction exceeds the estimate, then the estimated cost of construction shall be used. This cost includes capital and non-capital costs and the Company's liability for tax required on the value of the material and labor provided by the Customer. Where these new or upgraded facilities are not solely to provide service to the Customer, the Company shall appropriately apportion these costs.

D= The actual annual Distribution Revenue for the most recent twelve months.

M= 0.5, the revenue apportionment factor.

K= The annual carrying charge factor, expressed as a decimal.

If a lower or negative (A) results from applying the Formula as so modified, and if, in the Company's opinion, a risk does not exist regarding either a future reduction in the level of the

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

Customer's usage or the collectability of the Customer's account, then the Company shall refund a portion of or the entire calculated Construction Advance, or the full cost of construction, without interest. In no case shall the amount refunded exceed the original Construction Advance (A); nor shall the review result in additional payments from the Customer.

If a refund is made, the Company will refund the appropriate portion of any tax contribution factor at the current tax rate.

5. Overhead Line Extension

When overhead service is requested, the Company shall be responsible for:

- i. installing (or having others install), owning (individually or jointly) and maintaining (individually or jointly) all poles, primary and secondary wires, transformers, service drops, meters, etc. that, in its opinion are required to provide adequate service;
- ii. designating the location of all Company owned equipment, excluding streetlights, and the service entrance and meter location(s); and
- iii. blasting and tree trimming and removal along public ways; the Company may charge the Customer the cost of such blasting and tree trimming and removal if, in the Company's opinion, such cost is excessive; excessive cost shall be defined as the type of work which requires the Company to contract with a third party to remove ledge through blasting or to trim trees for the purposes of clearing the space needed for the line work.

The Customer, at no cost to the Company, shall be responsible for:

- i. blasting and tree trimming and removal on private property, including roadways not accepted as public ways by the municipality, in accordance with the Company's specifications and subject to the Company's inspection.

The Company may, at its discretion, construct the distribution line in segments rather than all at once in the proposed development.

6. Underground Lines

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

If the Customer requests an underground distribution line in lieu of the standard overhead line, the Company will give reasonable consideration to the request. If the Company believes that there are technical complications, safety issues, engineering concerns, or other reasonable concerns regarding the feasibility and/or maintenance of an underground system in the given circumstances, the Company may decline to provide underground service.

If the Company agrees to underground service, the Customer will be responsible for removal of ledge, trenching and backfilling in accordance with the Company's construction standards and/or the "Specifications for Electrical Installations" booklet as published by the Company from time to time and shall comply with the codes and requirements of legally constituted authorities having jurisdiction.

In addition, the Customer will be responsible for:

- i. providing, prior to the start of the Company's construction, all applicable supporting documents and electronically formatted site plans required for the Company to prepare design drawings and to ensure the Customer is providing all necessary easements, in accordance with Section 8 below, for the locations of the Company's facilities to be installed on private property;
- ii. providing and installing all required foundations (except for Company owned street light foundations), handholes, manholes, grounding systems, secondary cable, all conduit including spacers, glue and pulling strings, etc., as indicated on the Company's plan and related construction documents and in accordance with the Company's specifications;
- iii. Installing foundations, provided by the Company, for Company-owned street lights;
- iv. supplying copies of all invoices, when requested, indicating manufacturer and part number for all such equipment listed above; equipment that is not approved shall not be used without the prior written consent of the Company;
- v. retaining ownership of transformer foundations and grounding systems, and all secondary cables and conduit on private property, excluding Company-owned street lighting; and

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

- vi. turning over ownership of the conduit system, excluding the secondary conduit, to the Company upon inspection and acceptance of the conduit system by the Company.

When underground service is requested, the Company shall be responsible for:

- i. developing the plan to provide underground electric service;
- ii. supplying a list of approved manufacturers and their part numbers for equipment to be supplied by the Customer;
- iii. designating the location of all Company-owned equipment, excluding street lights, and the service entrance and meter location(s);
- iv. providing Company-owned street light foundations;
- v. providing, installing, owning and maintaining all transformers, primary cable, related primary equipment, Company-owned street lights, and meters;
- vi. making all connections to Company equipment; and
- vii. inspecting the underground conduit system and equipment foundations installed by the Customer, prior to backfilling.

7. Winter Moratorium on Underground Construction

From December 15 to April 1, the Company may decline, in its sole discretion, to install any underground facilities.

8. Easements

The Company will require the Customer to provide the Company a permanent executed easement (drafted by the Company) for all facilities to reach and serve the New Facilities. The Customer will provide the easement prior to the start of the Company's construction and at no cost to the Company. In the event that third party rights are required for the Customer's

Canceling RIPUC No. 2196

Policy 3

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

installation, the Customer will be responsible for obtaining all third party rights or crossings at the Customer's expense.

9. Additional Payment

When, in the Company's opinion, significant engineering is required to determine the method of service or prepare construction estimates, the Company will estimate the cost of such engineering. The Company may charge the Customer this cost before engineering begins. If construction is undertaken, this payment will be applied to any required Construction Advance. If construction is not undertaken, the Company will refund any balance not spent. If no Construction Advance is required, the entire additional advance payment will be refunded.

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 2

LINE EXTENSION POLICY FOR RESIDENTIAL DEVELOPMENTS

When a developer, contractor, builder or other customer (“Developer”) proposing to construct a residential development or individual homes requests that distribution lines be constructed to serve the development or homes, the terms of this policy shall apply. This policy applies only to the installation of electric service by The Narragansett Electric Company (“Company”). The Developer should contact other utilities to determine the utilities’ requirements governing the provision of their service and whether any costs and/or requirements are to be the responsibility of the Developer.

1. Installation of Overhead Distribution Lines

The Company will provide a regular overhead distribution line to the development or individual homes designed to provide regular residential service to each home proposed in the project. The Company will determine the route of the line in consultation with the Developer. The Developer shall wire to the point designated by the Company, at which point the Company will connect its facilities. In addition, the Developer’s facilities shall comply with the Company’s construction standards and/or the “Specifications for Electrical Installations” booklet as published by the Company from time to time and shall comply with codes and requirements of legally constituted authorities having jurisdiction.

2. Distance of Overhead Distribution Line Allowed Without Charge

The Company will provide 150 feet of overhead distribution line, not including the secondary service drop, per each “house lot” free of charge.

3. Overhead Line Extension

If the number of centerline feet of overhead distribution line required to serve the development (“Required Line Distance”) is greater than the “Allowed Distance” of 150 feet per “House Lot,” then there will be a charge to the Developer for the overhead line extension for the additional feet (“Overhead Installation Charge”). The additional charge shall be paid by the Developer in advance of the Company’s construction.

The Overhead Installation Charge will be equal to the “Overhead Cost Per Foot” times the number of feet in excess of the “Allowed Distance” of 150 feet per House Lot, plus applicable tax contribution factor.

When overhead service is requested, the Company shall be responsible for:

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE APPENDIX A

POLICY 2

LINE EXTENSION POLICY FOR RESIDENTIAL DEVELOPMENTS

- i. installing (or having others install), owning (individually or jointly) and maintaining (individually or jointly) all poles, primary and secondary wires, transformers, service drops, meters, etc. that, in its opinion are required to provide adequate service;
- ii. designating the location of all Company owned equipment, excluding streetlights, and the service entrance and meter location(s); and
- iii. blasting and tree trimming and removal along public ways; the Company may charge the Developer the cost of such blasting and tree trimming and removal if, in the Company's opinion, such cost is excessive; excessive cost shall be defined as the type of work which requires the Company to contract with a third party to remove the ledge through blasting or to trim trees for the purposes of clearing the space needed for the line work.

The Developer, at no cost to the Company, shall be responsible for:

- i. blasting and tree trimming and removal on private property, including roadways not accepted as public ways by the municipality, in accordance with the Company's specifications and subject to the Company's inspection.

The "Overhead Cost Per Foot" will be a predetermined cost per foot as calculated by the Company.

The Overhead Installation Charge is nonrefundable if the line is built.

4. Underground Lines

A Developer may request an underground distribution line in lieu of the regular overhead line. If requested, however, the Company will estimate the cost of providing the underground line to the development using a predetermined underground cost per foot ("Underground Cost Per Foot"). The Developer will be required to pay an "Underground Charge" equal to:

- i. the difference between the estimated underground construction cost (based on Underground Cost Per Foot) and the estimated construction cost for a regular overhead line (based on the Overhead Cost Per Foot); plus

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 2

LINE EXTENSION POLICY FOR RESIDENTIAL DEVELOPMENTS

- ii. the Overhead Installation Charge, if any, that would have been paid for an overhead line in the development as calculated in Section 3 above; plus
- iii. a tax contribution factor based on the value of donated property and/or any cash contribution.

The Underground Charge shall be paid by the Developer in advance of the Company's construction and is nonrefundable if the line is built.

The Developer will be responsible for removal of ledge, trenching and backfilling in accordance with the Company's construction standards and/or the "Specifications for Electrical Installations" booklet as published by the Company from time to time and shall comply with codes and requirements of legally constituted authorities having jurisdiction. In addition, the Developer will be responsible for:

- i. providing, prior to the start of the Company's construction, all applicable supporting documents required by the Company to prepare design drawings and ensure that the Developer is providing all necessary easements, in accordance with Section 10 below, for the locations of its facilities to be installed on private property;
- ii. providing and installing all required foundations (except for Company-owned street light foundations), handholes, manholes, grounding systems, all conduit including spacers, glue and pulling strings, etc. as indicated on the Company's plan and related construction documents and in accordance with the Company's specifications;
- iii. installing foundations, provided by the Company, for proposed street lighting based on a plan approved, in writing, by a Municipality, which includes agreement by that Municipality to accept responsibility for payment of the lights once the lights are energized;
- iv. supplying copies of all invoices, when requested, indicating manufacturer and part number for all such equipment listed above; equipment that is not approved shall not be used without the prior written consent of the Company;

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 2

LINE EXTENSION POLICY FOR RESIDENTIAL DEVELOPMENTS

- v. installing, owning, and maintaining all secondary services and service conduit from the Company's equipment to each designated meter location; and
- vi. turning over ownership of the conduit system, excluding the service conduit, to the Company upon inspection and acceptance of the conduit system by the Company.

When underground service is requested, the Company shall be responsible for:

- i. developing the plan to provide underground electric service;
- ii. supplying a list of approved manufacturers and their part numbers for equipment to be supplied by the Developer;
- iii. designating the location of all Company-owned equipment, excluding street lights, and the service entrance and meter location(s);
- iv. providing Company-owned street light foundations;
- v. providing, installing, owning and maintaining all transformers, Company-owned street lights, primary and secondary cable, except services;
- vi. making all connections to Company equipment; and
- vii. inspecting the underground conduit system and equipment foundations installed by the Developer, prior to backfilling.

5. Publication of Current Per Foot Costs

The Overhead Costs Per Foot and Underground Costs Per Foot for new construction shall be as calculated by the Company and placed on file with the Public Utilities Commission ("Commission"). These costs are included in the attachment to this policy.

The Company also will provide such "Overhead and Underground Costs Per Foot" and the method of calculating the applicable tax contribution factor to anyone who inquires.

If the Company changes the Overhead and Underground Cost Per Foot or method of

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 2

LINE EXTENSION POLICY FOR RESIDENTIAL DEVELOPMENTS

calculating the tax contribution factor, it will notify the Commission in writing and provide a copy of the written notice to the Rhode Island Builders Association, if in existence.

The Company will not increase the Overhead or Underground Costs Per Foot by more than 10% per year without specific approval from the Commission and advance notice to the Rhode Island Builders Association, if in existence.

6. Developer Provides Plans and Documentation

The total number of house lots proposed to be constructed ("House Lots") will be provided in advance to the Company by the Developer (prior to the Company building the distribution line), along with an electronic copy (in a format acceptable to the Company) of the subdivision plan approved by the planning board in the applicable community.

The Company may require the Developer to provide, in advance, the following:

- i. a copy of the approval of the planning board for the subdivision;
- ii. a copy of all permits and approvals that have been obtained for constructing the development;
- iii. the name and address of the bank or credit union providing financing for the development, including a contact person and phone number;
- iv. a copy of a city/town-approved street light proposal for the development. If installation is requested after construction is completed, the actual, incremental cost of installing the street lights may be borne by the city/town if the tariff does not collect all costs of construction.
- v. a schedule or Developer's best estimate for the construction of homes in the development; and
- vi. if requested by the Company, such other reasonable information that may be requested to confirm the viability of the development.

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 2

LINE EXTENSION POLICY FOR RESIDENTIAL DEVELOPMENTS

7. Building the Distribution Line in Segments

The Company may, in its own discretion, construct the distribution line in segments, rather than all at once in the proposed development.

8. Line Extension Agreement

The Company will require the Developer to sign a Line Extension Agreement setting forth the terms of this policy and any other terms that the Company deems are reasonably necessary in connection with the installation of a distribution line in the development, provided that such terms are not inconsistent with the terms expressed in this policy.

9. Winter Moratorium on Underground Construction

From the period of December 15 to April 1, the Company may decline, in its sole discretion, to install any underground facilities.

10. Easements

The Company will require the Developer to provide the Company with executed easements (drafted by the Company) for all facilities to reach and serve the development. The Developer will provide the easement prior to the start of the Company's construction and at no cost to the Company. In the event that third party rights are required for the Developer's installation, the Developer will be responsible for obtaining all third party rights or crossings at the Developer's expense.

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 2

LINE EXTENSION POLICY FOR RESIDENTIAL DEVELOPMENTS

The Per Foot Costs referred to the above policy are as follows:

Underground Cost Per Foot: \$37.30

Overhead Cost Per Foot: \$37.68

These costs are effective until the Rhode Island Public Utilities Commission is notified in writing of any changes (with a copy of the written notice provided to the Rhode Island Builders Association).

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

The terms of this policy shall apply when a commercial, industrial, or non-residential (a real estate development which is not an approved subdivision of single-family homes) customer ("Customer") requests that a distribution line and/or other facilities ("New Facilities") necessary to properly supply electricity to the Customer's facilities be installed. This policy applies only to the installation of electric service by The Narragansett Electric Company ("Company"). The Customer should contact other utilities to determine the utilities' requirements governing the provision of their service and whether any costs and/or requirements are to be the responsibility of the Customer.

The terms of this policy shall also apply to an individual residential customer whose upgrade of the existing main switch to his/her premises will, in the Company's opinion, require the Company to upgrade its distribution line or associated equipment. In applying this policy, the Company will estimate any additional incremental revenue that may be realized as a result of the upgraded service for the purposes of determining whether a Construction Advance is required from the residential customer.

1. Amount of Overhead Distribution Provided without Charge

If the New Facilities being requested by the Customer consists of an overhead, single phase, secondary voltage distribution line extension that does not exceed two poles and two spans of line, the Company will provide the poles and spans of line needed to serve the New Facilities plus a service drop (that does not require a carrier pole) free of charge to the Customer. Otherwise, the costs of all poles and spans of line determined by the Company as needed to serve the New Facilities will be included in the cost component of the Construction Advance Formula described below.

2. Estimated Revenue

Before undertaking the construction of the New Facilities to serve the Customer, the Company will estimate the annual incremental revenue to be derived by the Company under the distribution service rates from the installation of the New Facilities.

3. Construction Advance

The Company will determine the facilities required to meet the distribution service requirements of the Customer. Facilities in excess of those required to meet the distribution service requirements of the Customer are outside the scope of this policy and may entail

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

additional payments from the Customer.

In accordance with the formula below (the “Formula”), the Company shall determine whether a payment by the Customer of a Construction Advance shall be required. The Construction Advance shall be paid by the customer in advance of the Company’s construction.

$$\text{Construction Advance (A)} = [C - [D \times M] \div K]$$

where

A= Construction Advance paid to the Company by the Customer.

C= The total estimated cost of construction for facilities required exclusively to meet the distribution service requirements of the Customer. This cost includes capital and non-capital costs and the Company’s liability for tax required on the value of the material and labor provided by the Customer. Where these new or upgraded facilities are not solely to provide service to the Customer, the Company shall appropriately apportion these costs.

D= For a single customer, the estimated annual Distribution Revenue derived from the Customer within the first year following the completion of the Company’s construction of facilities; or for developments, the estimated additional annual Distribution Revenue derived from those new customers in the development anticipated to be supplied directly with electric service within one year from the commencement of the delivery of electricity to the first customer in the development.

M= 0.5, the revenue apportionment factor.

K= The annual carrying charge factor, expressed as a decimal.

Where the calculation of (A) results in a positive number, a Construction Advance in the amount of (A) shall be required from the Customer. Where the calculation of (A) results in a negative number, (A) shall be considered to be zero. Where the calculation of (A) results in a Construction Advance of \$500 or less, the payment of the Construction Advance will be waived. The Company shall exercise good faith in making each estimate and determination required above.

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

Any revenues from Transmission Service, the Non-Bypassable Transition Charge, Standard Offer Service rates, the Energy Efficiency Program Charge, the Long Term Contracting for Renewable Energy Recovery Factor, and the Net Metering Charge shall be excluded from this calculation.

The Construction Advance in the formula shall be further adjusted to include a tax contribution factor on the cash value of the Construction Advance, excluding the value of the tax contribution on any donated property received from the Customer. This tax contribution factor shall be paid in full by the Customer prior to the start of construction.

4. Refund

Whenever the Company collects a Construction Advance from the Customer, the Customer has the option to request the Company to perform a one-time recalculation of the Construction Advance payment using actual construction costs and actual Distribution Revenue to determine if a refund of all or a portion of the original payment is warranted. The request for the one-time review may be made at any time between twelve and thirty-six (36) months after commencement of the delivery of electricity.

To determine the refund, the Formula shall be modified as follows:

C= The actual cost of construction. If the actual cost of construction exceeds the estimate, then the estimated cost of construction shall be used. This cost includes capital and non-capital costs and the Company's liability for tax required on the value of the material and labor provided by the Customer. Where these new or upgraded facilities are not solely to provide service to the Customer, the Company shall appropriately apportion these costs.

D= The actual annual Distribution Revenue for the most recent twelve months.

M= 0.5, the revenue apportionment factor.

K= The annual carrying charge factor, expressed as a decimal.

If a lower or negative (A) results from applying the Formula as so modified, and if, in the Company's opinion, a risk does not exist regarding either a future reduction in the level of the

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

Customer's usage or the collectability of the Customer's account, then the Company shall refund a portion of or the entire calculated Construction Advance, or the full cost of construction, without interest. In no case shall the amount refunded exceed the original Construction Advance (A); nor shall the review result in additional payments from the Customer.

If a refund is made, the Company will refund the appropriate portion of any tax contribution factor at the current tax rate.

5. Overhead Line Extension

When overhead service is requested, the Company shall be responsible for:

- i. installing (or having others install), owning (individually or jointly) and maintaining (individually or jointly) all poles, primary and secondary wires, transformers, service drops, meters, etc. that, in its opinion are required to provide adequate service;
- ii. designating the location of all Company owned equipment, excluding streetlights, and the service entrance and meter location(s); and
- iii. blasting and tree trimming and removal along public ways; the Company may charge the Customer the cost of such blasting and tree trimming and removal if, in the Company's opinion, such cost is excessive; excessive cost shall be defined as the type of work which requires the Company to contract with a third party to remove ledge through blasting or to trim trees for the purposes of clearing the space needed for the line work.

The Customer, at no cost to the Company, shall be responsible for:

- i. blasting and tree trimming and removal on private property, including roadways not accepted as public ways by the municipality, in accordance with the Company's specifications and subject to the Company's inspection.

The Company may, at its discretion, construct the distribution line in segments rather than all at once in the proposed development.

6. Underground Lines

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

If the Customer requests an underground distribution line in lieu of the standard overhead line, the Company will give reasonable consideration to the request. If the Company believes that there are technical complications, safety issues, engineering concerns, or other reasonable concerns regarding the feasibility and/or maintenance of an underground system in the given circumstances, the Company may decline to provide underground service.

If the Company agrees to underground service, the Customer will be responsible for removal of ledge, trenching and backfilling in accordance with the Company's construction standards and/or the "Specifications for Electrical Installations" booklet as published by the Company from time to time and shall comply with the codes and requirements of legally constituted authorities having jurisdiction.

In addition, the Customer will be responsible for:

- i. providing, prior to the start of the Company's construction, all applicable supporting documents and electronically formatted site plans required for the Company to prepare design drawings and to ensure the Customer is providing all necessary easements, in accordance with Section 8 below, for the locations of the Company's facilities to be installed on private property;
- ii. providing and installing all required foundations (except for Company owned street light foundations), handholes, manholes, grounding systems, secondary cable, all conduit including spacers, glue and pulling strings, etc., as indicated on the Company's plan and related construction documents and in accordance with the Company's specifications;
- iii. Installing foundations, provided by the Company, for Company-owned street lights;
- iv. supplying copies of all invoices, when requested, indicating manufacturer and part number for all such equipment listed above; equipment that is not approved shall not be used without the prior written consent of the Company;
- v. retaining ownership of transformer foundations and grounding systems, and all secondary cables and conduit on private property, excluding Company-owned street lighting; and

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

- vi. turning over ownership of the conduit system, excluding the secondary conduit, to the Company upon inspection and acceptance of the conduit system by the Company.

When underground service is requested, the Company shall be responsible for:

- i. developing the plan to provide underground electric service;
- ii. supplying a list of approved manufacturers and their part numbers for equipment to be supplied by the Customer;
- iii. designating the location of all Company-owned equipment, excluding street lights, and the service entrance and meter location(s);
- iv. providing Company-owned street light foundations;
- v. providing, installing, owning and maintaining all transformers, primary cable, related primary equipment, Company-owned street lights, and meters;
- vi. making all connections to Company equipment; and
- vii. inspecting the underground conduit system and equipment foundations installed by the Customer, prior to backfilling.

7. Winter Moratorium on Underground Construction

From December 15 to April 1, the Company may decline, in its sole discretion, to install any underground facilities.

8. Easements

The Company will require the Customer to provide the Company a permanent executed easement (drafted by the Company) for all facilities to reach and serve the New Facilities. The Customer will provide the easement prior to the start of the Company's construction and at no cost to the Company. In the event that third party rights are required for the Customer's

THE NARRAGANSETT ELECTRIC COMPANY

TERMS AND CONDITIONS FOR DISTRIBUTION SERVICE
APPENDIX A

POLICY 3

LINE EXTENSION AND CONSTRUCTION ADVANCE POLICY
FOR COMMERCIAL, INDUSTRIAL AND EXISTING RESIDENTIAL CUSTOMERS

installation, the Customer will be responsible for obtaining all third party rights or crossings at the Customer's expense.

9. Additional Payment

When, in the Company's opinion, significant engineering is required to determine the method of service or prepare construction estimates, the Company will estimate the cost of such engineering. The Company may charge the Customer this cost before engineering begins. If construction is undertaken, this payment will be applied to any required Construction Advance. If construction is not undertaken, the Company will refund any balance not spent. If no Construction Advance is required, the entire additional advance payment will be refunded.

Record Request No. 9

Request:

Add two rows to Table E-11, one for “collar” and one for “cap.”

Response:

Please see Attachment RR-9 for an updated version of Table E-11 that adds the threshold level (“collar”) at which the Company may begin to earn a performance incentive, and the “cap” that represents the upper level of the Company’s earning opportunity. Note that in 2003 and 2004 the “cap” mechanism differed from subsequent years and the Company had the opportunity to earn an additional Dollar-per-kWh performance incentive amount based on an “Above Threshold kWh” level.

**Table E-11 - Updated for Record Request
National Grid
Rhode Island Electric Energy Efficiency 2003 - 2020
\$(000)**

| Electric | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 ⁽⁴⁾ | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 ⁽⁸⁾ | 2020 ⁽⁶⁾ |
|--|---|---|-----------|-----------|-----------|-----------|-------------|-------------|-------------|-------------|---------------------|-------------|-------------|-------------|-------------|-------------|---------------------|---|
| Energy Efficiency Budget (\$Million) ⁽¹⁾ | \$23.1 | \$22.6 | \$23.1 | \$22.4 | \$22.5 | \$21.0 | \$32.4 | \$37.6 | \$59.2 | \$61.4 | \$77.5 | \$87.0 | \$86.6 | \$87.5 | \$94.6 | \$94.6 | \$107.5 | \$111.4 |
| Spending Budget (\$Million) ⁽²⁾ | \$16.3 | \$15.8 | \$17.6 | \$16.5 | \$16.4 | \$14.7 | \$23.5 | \$28.8 | \$45.3 | \$55.3 | \$64.8 | \$80.6 | \$77.3 | \$77.6 | \$88.5 | \$88.7 | \$98.1 | \$101.3 |
| Actual Expenditures (\$Million) ⁽³⁾ | \$22.8 | \$19.5 | \$23.4 | \$23.7 | \$21.9 | \$19.2 | \$31.7 | \$29.7 | \$40.0 | \$50.7 | \$72.9 | \$85.3 | \$87.4 | \$78.4 | \$94.8 | \$93.0 | - | |
| Incentive Percentage | 4.4% | 4.4% | 4.4% | 4.4% | 4.4% | 4.4% | 4.4% | 4.4% | 4.4% | 4.4% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% |
| Target Incentive ⁽⁹⁾ | \$712,557 | \$781,959 | \$774,689 | \$726,627 | \$723,000 | \$647,689 | \$1,035,943 | \$1,267,043 | \$1,992,513 | \$2,434,131 | \$3,240,747 | \$4,032,000 | \$3,867,400 | \$3,878,087 | \$4,425,528 | \$4,436,022 | \$4,905,009 | \$5,067,353 |
| Earned Incentive | \$712,557 | \$604,876 | \$795,648 | \$760,623 | \$716,075 | \$675,282 | \$1,085,888 | \$1,333,996 | \$1,929,273 | \$2,469,411 | \$2,997,681 | \$4,223,321 | \$4,533,360 | \$4,128,034 | \$4,829,847 | \$4,940,402 | | |
| Annual Summer Demand kW Savings Goal Achieved (%) | | | | 106% | 106% | 113% | 142% | 78% | 71% | 83% | 114% | 78% | 112% | 101% | 103% | 116% | | |
| Annual MWh Energy Savings Goal Achieved (%) | | | | 111% | 102% | 111% | 115% | 107% | 94% | 93% | 99% | 105% | 115% | 107% | 115% | 110% | | |
| Energy Efficiency Program Charge (\$/kWh) ⁽⁷⁾ | \$0.00200 | \$0.00200 | \$0.00200 | \$0.00200 | \$0.00200 | \$0.00200 | \$0.00320 | \$0.00320 | \$0.00526 | \$0.00592 | \$0.00876 | \$0.00911 | \$0.00953 | \$0.01077 | \$0.01124 | \$0.00972 | \$0.01121 | \$0.01327 |
| Annual Cost to 500 kWh/month Residential Customer w/o tax ⁽⁸⁾ | \$12.00 | \$12.00 | \$12.00 | \$12.00 | \$12.00 | \$12.00 | \$19.20 | \$19.20 | \$31.56 | \$35.52 | \$52.56 | \$54.66 | \$57.18 | \$64.62 | \$67.44 | \$58.32 | \$67.26 | \$79.62 |
| Annual Cost to 500 kWh/month Residential Customer w/ tax ⁽⁹⁾ | \$12.50 | \$12.50 | \$12.50 | \$12.50 | \$12.50 | \$12.50 | \$20.00 | \$20.00 | \$32.88 | \$37.00 | \$54.75 | \$56.94 | \$59.56 | \$67.31 | \$70.25 | \$60.75 | \$70.06 | \$82.94 |
| Performance Incentive Savings Threshold | 45% | 45% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 75% | 75% | 75% | 75% | 75% | 75% | 75% | Proposed: 75% (Core), 60% (Delivered Fuels Carveout) |
| Performance Incentive Savings Cap | Performance incentive established an 'Above Threshold kWh' level above which the Company would earn an 'Incentive Per Above Threshold kWh'. | Performance incentive established an 'Above Threshold kWh' level above which the Company would earn an 'Incentive Per Above Threshold kWh'. | 125% | 125% | 125% | 125% | 125% | 125% | 125% | 125% | 125% | 125% | 125% | 125% | 125% | 125% | 125% | Proposed: 125% (Core), 150% (Delivered Fuels Carveout) |

Notes:

- (1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (2) Prior to 2017, Spending Budget Eligible for Shareholder Incentive includes: Implementation, Administration, General, and Evaluation Expenses; excludes EERMC and OER Costs, Commitments, Copays, and Outside Finance Costs. Beginning in 2017, Outside Finance Costs were also included. Beginning in 2018 Pilot expenses were also excluded. Beginning in 2019 ConnectedSolutions expenses and assessments were also excluded.
- (3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (4) In the Company's gas and electric rate cases in docket 4323, the PUC approved the uncollectibles gross-up in the electric EE Program Charge effective February 1, 2013, and a new rate applicable to the gross-up of the gas EE Program Charge, effective February 1, 2013.
- (5) 2019 values are planned.
- (6) 2020 values are proposed.
- (7) Beginning in 2012, the EE Program Charge includes the System Reliability Factor. It does not include the \$0.0003 renewables per RI General Laws §39-2-1.2 and Order #19608, which appears on customer bills.
- (8) Reflects the annual cost excluding Gross Earnings Tax.
- (9) Reflects the annual cost including Gross Earnings Tax.

Record Request No. 12

Request:

Please provide the document (or relevant section of the document) in the Massachusetts three-year plan that describes Massachusetts incentive structure.

Response:

The Massachusetts Joint Statewide Electric and Gas Three-Year Energy Efficiency Plan as filed with the Massachusetts Department of Public Utilities on October 31, 2018 can be found at:

<http://ma-eeac.org/wordpress/wp-content/uploads/Exh.-1-Final-Plan-10-31-18-With-Appendices-no-bulk.pdf>

Please see Attachment RR-12 for the relevant section of the Massachusetts filing discussing the performance incentive mechanism. The Company has not attached a full copy of the Massachusetts Joint Statewide Electric and Gas Three-Year Energy Efficiency Plan with this response because the document is voluminous.

Statewide Budgets, Savings, and Benefits

Administrators, approximately 21.83 percent of the total budget will be allocated to the gas income eligible programs.

3. Competitive Procurement

The Program Administrators utilize competitive procurement processes to engage and retain contractors and vendors to perform activities including, but not limited to assessment delivery, quality control, rebate processing, monitoring and evaluation, potential studies, and marketing. The Program Administrators are committed to continuing to utilize competitive procurement practices to the fullest extent practicable throughout the implementation of the Plan. Therefore, consistent with past practice, the Program Administrators anticipate that they will continue to issue RFPs to engage appropriate third-party vendors to provide energy efficiency services and work collaboratively to ensure that energy efficiency services have been procured in a manner that minimizes costs to ratepayers, while maximizing the associated benefits of those investments. The Program Administrators will continue to seek to expand the pool of qualified program vendors, promote the entry of new market actors into contractor and subcontractor roles, and ensure the transparency of the contractor bidding process and selection criteria used to evaluate proposals. Please see Appendix Q for a list of competitively procured vendor contracts, including the percentage and total dollar amount of competitively procured services, which the Program Administrators have executed to date in order support program efforts for the 2019-2021 term.

F. Performance Incentives

1. Summary of Relevant Precedent and Guidelines

Pursuant to the GCA, the Three-Year Plan must include a proposed mechanism designed to provide an incentive to distribution companies based on their success in meeting or exceeding certain performance goals.³⁷ G.L. c. 25 § B.2.v. The Department has established Guidelines outlining the principles and requirements for the design of a performance incentive mechanism. Guidelines § 3.6.2. Pursuant to the Guidelines, an incentive mechanism must: (1) be designed to encourage Program Administrators to pursue all available cost-effective energy efficiency; (2) be designed to encourage energy efficiency programs that will best achieve the Commonwealth's energy goals; (3) be based on clearly defined goals and activities that can be sufficiently monitored, quantified, and verified after the fact; (4) be available only for activities in which the Program Administrator plays a distinct and clear role in bringing about the desired outcome; (5) be as consistent as possible across all electric and gas Program Administrators; and (6) avoid any perverse incentives. Guidelines § 3.6.2. Further, the Guidelines specify that the amount of funds available for performance incentives should be kept as low as possible to minimize the costs to electricity and gas customers, while still providing appropriate incentives for the Program Administrators. Guidelines §§ 3.6.2, 3.6.3.

All Program Administrators must calculate design level incentive payments based on projections of performance for the entire three-year term, not based on annual projections.³⁸

³⁷ The Compact, as a municipal aggregator, does not receive a performance incentive. D.P.U. 08-50-A at 51.

³⁸ Design level performance is defined as 100 percent of the Program Administrator's projected benefits and net benefits multiplied by the appropriate payout rate.

Statewide Budgets, Savings, and Benefits

Guidelines § 3.6.4; D.P.U. 11-120-A, Phase II at 7-8. Both electric and gas Program Administrators collect performance incentives through the EES at the design level during the three-year term. D.P.U. 11-12-A, Phase II at 13 n.16. The Department reviews each Program Administrator's performance based on the entire three-year term of the plan and approves final performance incentives through the Term Report proceeding. See D.P.U. 11-120-A, Phase II at 13. Each Program Administrator reconciles actual and design performance incentive payments at the end of each term as part of their respective EES filings. Guidelines § 3.6.4.2.

The Department has approved performance incentive mechanisms that include savings and value components based on benefits and net benefits. See 2016-2018 Three-Year Plans Order at 67. Specifically, the Department has found that uniform statewide payout rates for the savings and value components is consistent with the goals of the GCA and Department precedent, and, because the rates do not vary by year, found that the payout rates were consistent with the D.P.U. 11-120-A, Phase II Order.

The Department requires that a proposed performance incentive mechanism must encourage Program Administrators to achieve savings where they exist to reach portfolio goals. 2016-2018 Three-Year Plans Order at 69. The Department has rejected proposals that do not comply with this principle. In 2016, the Department specifically rejected a split performance incentives proposal finding that it would not encourage Program Administrators to seek all available cost-effective savings opportunities wherever they exist, but rather may encourage Program Administrators to focus on only the sector in which performance incentives remain available. 2016-2018 Three-Year Plans Order at 69.

Also in D.P.U. 13-67, the Department determined that performance metrics (i.e., an incentive model designed to encourage Program Administrators to undertake specific actions or meet specific goals) were no longer appropriate under the GCA because the Program Administrators are obligated to undertake activities targeted by performance metrics to satisfy the mandates of the GCA. D.P.U. 13-67, at 14-15. Further, the Department found that preparing and verifying performance of these metrics would divert Program Administrator and stakeholders focus from the successful implementation of the Three-Year Plans and is inconsistent with the Department's obligation to fulfill its oversight responsibilities in an administratively efficient and effective manner. D.P.U. 13-67, at 13.

2. Proposed Performance Incentive Mechanism

a. *Overview*

For 2019-2021, the Program Administrators proposed an incentive mechanism that includes a Value component, a two-part Savings component with (1) an energy efficiency and passive demand component and (2) an active demand component (electric PAs only), and a unique Renter component. The Value component is based on net benefits³⁹; the Savings components are based on total benefits; and the Renter component is based on renter participation. Based upon the well-developed principles and precedent described above, the performance incentive

³⁹ For the purpose of performance incentives, net benefits will be determined by subtracting actual program costs from benefits.

Statewide Budgets, Savings, and Benefits

mechanism provides for common payout rates in each component applicable to the electric and gas Program Administrators, respectively with performance assessed at the portfolio level using cumulative three-year results. Each Program Administrators' total performance incentive will be the sum of the incentives for each component of the mechanism based on performance over the full term. The specifics of each component of the mechanism, including calculation of payout rates and requirements for earning performance incentives are set forth below and in Appendix R.

The Program Administrators also propose a change in the reconciliation of performance incentives in order to more timely true up design level performance incentive collections with actual performance incentive achievement.

b. Statewide Incentive Pool for 2019-2021

Statewide, the design level incentive pool is set at \$114 million for electric efforts and \$23 million for gas efforts.

The electric incentive pool is divided among the performance incentive components as follows:

| Electric Performance Incentive Totals | | | | |
|---|---|------------------|---|--|
| Component | Threshold | Design Level | Design Level | Cap |
| Value Component (Energy Efficiency, Passive Demand, and Active Demand) | 75% of planned portfolio net benefits | \$41.195 million | \$107 million (38.5% Value and 61.5% Savings) | 125% of planned portfolio net benefits |
| Savings Component (Energy Efficiency and Passive Demand) | 75% of planned portfolio total benefits | \$65.805 million | | 125% of planned energy efficiency and passive demand benefits |
| Savings Component (Active Demand) | 75% of planned portfolio benefits AND 75% of planned active demand benefits | \$5 million | | Targeted payout capped at 125% of planned active demand benefits; Standard payout until total savings component reaches 125% of design level |
| Renter Component | 75% of planned renter participants | \$2 million | | 125% of design level |
| Total | | \$114 million | | |

Statewide Budgets, Savings, and Benefits

The gas incentive pool is divided among the performance incentive components as follows:

| Gas Performance Incentive Totals | | | | |
|----------------------------------|---|-----------------|--|--|
| Component | Threshold | Design Level | Design Level | Cap |
| Value Component | 75% of planned portfolio net benefits | \$8.47 million | \$22 million (38.5% Value and 61.5% Savings) | 125% of planned portfolio net benefits |
| Savings Component | 75% of planned portfolio total benefits | \$13.53 million | | 125% of planned portfolio benefits |
| Renter Component | 75% of planned renter participants | \$1 million | | 125% of design level |
| Total | | \$23 million | | |

The amounts reflected in the above tables reflect the challenge of continuing to adopt aggressive savings goals in 2019-2021 in light of achievements to date, the remaining savings opportunities identified in each service territory, and the success the Program Administrators are cultivating as markets are transformed. In addition, the 2019-2021 Plan incorporates new technologies and less tested strategies that create increased risk, and the proposed incentive pool provides an appropriate level of incentives to undertake the additional risk. As discussed more below, the specific amounts allocated to the Active Demand Savings component and the Renter component are designed to recognize the unique challenges and costs associated with delivering active demand and serving renters.

These electric and gas incentive pools are consistent with the levels that has been supported by DOER, the Attorney General and the Program Administrators. See Appendix F. The statewide incentive pool will not change as a result of newly identified benefits or changes to avoided costs that may occur during term of this Plan.⁴⁰

⁴⁰ The Program Administrators have agreed to conduct a study to be commenced in Q1 of 2019 to quantify any benefits associated with winter peak capacity reduction. The PAs will issue an RFP and conduct this study in collaboration with the DOER, the Attorney General and the Council consultants. Study results will be aligned with and compatible with the 2018 AESC. If new benefits are identified as a result of this study, the Program Administrators will apply those benefits to reported values. If the Program Administrators and DOER agree, the Program Administrators will seek to include such benefits in performance incentives during the Term and correspondingly revise threshold levels for the savings and value components (including the active demand savings component) to properly account for the newly identified benefits associated with the winter kW already included in the PAs' Plans, all subject to Department approval. The Program Administrators will not include these benefits for performance incentive purposes without such modifications. In all events, the statewide incentive pool level will not change.

Statewide Budgets, Savings, and Benefits

c. Value Component

The statewide incentives for the value component of the incentive pool for both gas and electric are allocated on the basis of the dollar value of net benefits using common payout rates. The common payout rate and calculation is set forth in Appendix R and is determined consistently but separately for gas and electric by dividing the value component performance incentive pools by statewide planned portfolio net benefits. The threshold for earning performance incentives for the value component will be based on achieving 75% of planned portfolio net benefits. Performance incentives for the value component will be capped at 125% of design level.

For this Plan, the Program Administrators are proposing that for calculating the performance incentive associated with the value component, the Program Administrators will use actual spending as opposed to total resource costs, which include calculated or estimated participant costs that are not within the Program Administrators' control. Using actual spending will avoid the circular use of including performance incentive dollars in the costs used in calculating performance incentives. In addition, this approach will encourage Program Administrators to minimize actual spending.

d. Savings Component

The statewide incentives for the savings components of the incentive pool for both gas and electric are allocated on the basis of the dollar value of total benefits using common payout rates for each component. For the 2019-2021 term, the Program Administrators are proposing a modification to the electric savings component (totaling \$70.805 million) used in the 2016-2018 term to incorporate a targeted active demand payout rate. The gas savings component is the same as the 2016-2018 mechanism except the payout rate is calculated using a \$13.53 million statewide savings component performance incentive pool.

i. Electric Savings Component

For the 2019-2021 term, the electric savings component is divided into two performance pools: (1) \$65.805 million that is allocated to energy efficiency and passive demand and (2) \$5 million allocated for a targeted active demand reduction payout rate. While the savings component is still designed to encourage the electric Program Administrators to pursue all-cost effective energy efficiency and demand reduction wherever it may be, measured by total benefits for customers; the Council has determined that a special targeted payout rate for active demand is necessary to encourage the Program Administrators to take on new active demand activities.

As discussed above, the 2019-2021 Plan reflects a pivot to pursue demand reduction opportunities by incorporating for the first time, new statewide active demand offerings, which were previously not determined to be cost-effective. Unlike passive demand reduction, active demand reduction includes measures and strategies that primarily provide kW savings (but may increase kWh) and are dispatched over specific periods of time through automation, programming, or control. Accordingly, active demand requires increased and persistent engagement between the Program Administrators and customers participating in these offerings in order to realize benefits from these efforts. Currently, the active demand market is not as robust as the energy efficiency market, which the Program Administrators have helped cultivate and transform over several

Statewide Budgets, Savings, and Benefits

decades. Significant upfront costs and effort is required to begin to develop a market that can successfully deliver active demand reduction benefits for customers under the programs. Based on recognition of the increased challenges and risks associated with active demand, the Council recommended that the Program Administrators incorporate a specialized incentive mechanism to provide additional incentives for successfully achieving benefits associated with active demand reduction efforts.

Based on the Council's desire for a targeted active demand component to the shareholder incentive and in recognition of the Department's clear precedent regarding performance incentive mechanisms and performance metrics, the Program Administrators' proposed savings component mechanism is carefully designed to set common payout rates based on the two performance incentive pools, ties the achievement of performance incentives to the delivery of benefits for customers, and establishes a series of thresholds to encourage the Program Administrators to pursue all cost-effective energy efficiency and demand reduction (passive and active) wherever opportunities may be, while not providing perverse incentives.

The common payout rates for the two savings components and calculations are set forth in Appendix R. The energy efficiency and passive demand savings component payout rate ("standard savings payout rate") is determined by dividing the \$65.805 million portion of the statewide pool by planned total benefits from energy efficiency and passive demand. The active demand savings component payout rate is determined by dividing the \$5 million allocated for a targeted active demand payout rate by planned total benefits from active demand.

The threshold for electric Program Administrators to earn performance incentives under the standard savings component is based on achieving 75% of planned portfolio total benefits from energy efficiency and demand reduction efforts (passive and active). Upon meeting the threshold, electric Program Administrators may begin to earn performance incentives for energy efficiency and passive demand reduction benefits at the standard payout rate. This threshold is designed to incentivize the Program Administrators to achieve a minimum level of portfolio benefits prior to receiving any performance incentives. Performance incentives for the energy efficiency and passive demand reduction component will be capped at 125% of the energy efficiency and passive demand reduction design level.

The threshold for electric Program Administrators to earn performance incentives at the targeted active demand savings payout rate is based on achieving the portfolio threshold described above and 75% of planned active demand benefits. This threshold requirement is intended to ensure that the Program Administrators achieve a minimum level of portfolio benefits for customers prior to receiving any performance incentives and ensures that the Program Administrators pursue a minimum level of active demand benefits in order to receive the targeted payout rate. Upon meeting these thresholds, electric Program Administrators may begin to earn performance incentives for active demand benefits at the targeted active demand reduction payout rate.⁴¹

⁴¹ Achieving the threshold level for the targeted active demand payout rate does not change the payout rate for energy efficiency and passive demand benefits.

Statewide Budgets, Savings, and Benefits

Electric Program Administrators may earn at the targeted active demand savings payout rate up to 125% of planned active demand benefits. The Program Administrators may continue to earn performance incentives for achieving additional active demand reduction benefits above the 125% targeted active demand payout rate cap at the standard payout rate. All savings component performance incentives, however, are capped at 125% of the total of the two design level savings components. The two payout rates available for active demand reduction efforts reflects the Council's intent to have a dedicated targeted active demand payout rate to encourage the Program Administrators to take on the additional costs and challenges to develop active demand offerings at scale, but not provide a perverse incentive. If the Program Administrators are able to achieve 125% of planned total benefits from active demand efforts, the assumption is that these initial challenges have been met and the enhanced payout rate is no longer required.

The caps established under the savings component mechanism protect against perverse incentives while also encouraging the Program Administrators to pursue all cost-effective demand reduction opportunities, passive or active. Active demand benefits represent approximately 3% of electric portfolio benefits. Since active demand is a new statewide offering, the Program Administrators have less experience forecasting future savings opportunities and have used their best judgment, informed by stakeholders and industry experts, to estimate the potential growth rate of active demand during the three-year term, which is projected to double between 2019 and 2021. In recognition of these facts and the principles behind the Department's precedent regarding split performance incentives, the proposed portfolio cap for active demand encourages the Program Administrators pursue all cost-effective demand reduction even if the limited pool available for an enhanced active demand payout rate has been exhausted. This ensures that the Program Administrators will not pursue a cost-effective demand reduction opportunity because a special performance incentive pool has been exhausted.

ii. Gas Savings Component

As discussed above, the gas savings component is materially the same as the 2016-2018 savings component. The statewide incentives for the gas savings component of the incentive pool are allocated on the basis of the dollar value of total benefits using common payout rates. The common payout rate and calculation is set forth in Appendix R and is determined by dividing the gas savings component performance incentive pools of \$13.53 million by statewide planned portfolio total benefits. The threshold for earning performance incentives for the gas savings component will be based on achieving 75% of planned portfolio total benefits. Performance incentives for the value component will be capped at 125% of design level.

e. *Renter Component*

For the 2019-2021 Plan, the Council encouraged the Program Administrators to include a dedicated pool for the successful service of renters in the performance incentive mechanism. The statewide incentives for the renter component of the incentive pool for both gas (\$1 million) and electric (\$2 million) are allocated on the basis of projected renter participants using common payout rates. The common payout rate and calculation is set forth in Appendix R and is determined by dividing the electric and gas renter component performance incentive pools (separately but consistently) by statewide projected number of renter participants. Renter participants will include any rental dwelling unit that benefits from a measure in the Residential Coordinated Delivery,

Statewide Budgets, Savings, and Benefits

Income-Eligible Coordinated Delivery, or C&I Existing Buildings (Residential End Use) initiatives and any rental unit that receives an energy savings package through the Residential Retail Initiative. Since the Program Administrators' programs have historically been designed to provide cost-effective savings to customers through a variety of upstream, retail, and in-home services, and regardless of ownership status, there is insufficient data on the exact participation levels of renters. To establish a goal for this metric, projected renter participant levels were developed based on the best estimate of cost-effective opportunities using historic participation levels and assumptions regarding the percent of renters in multi-family buildings. The Program Administrators worked closely with the Attorney General to determine a reasonable goal for the Renter component.

The threshold for earning performance incentives for the renter component will be based on achieving 75% of planned portfolio renter participants. Performance incentives for the renter component will be capped at 125% of design level.

As discussed above, the Department has determined that performance metric are no longer an appropriate component of the performance incentive mechanism under the Green Communities Act. Historic performance metrics have included qualitative requirements or incremental improvements/achievements above baselines. The proposed renter component of the performance incentive mechanism is not a performance metric similar to those previously considered by the Department.

First, the renter component is based on clearly defined goals that can be sufficiently monitored, quantified, and verified after the fact. Program Administrators will track the number of renter participants defined above and report the number to the Department in the Plan-Year and Term Reports.

Second, the renter component is designed similar to savings and value component, with a payout rate based on design level achievement, and an appropriate threshold and cap to encourage Program Administrators to pursue cost-effective energy efficiency opportunities wherever they exist while not providing perverse incentives.

Third, the design level for the renter component is based on projected renter participants with cost-effective energy efficiency and demand reduction opportunities. The design level is not based on achieving a desired level of participation or increase in participation that has been set regardless of consideration of cost-effective opportunities.

Fourth, the Council believes that targeted renter component is needed to encourage the PAs to pursue all cost-effective energy efficiency opportunities that they may not otherwise be incentivized to pursue by providing a small incremental incentive payment for successful service of renters. The programs implemented by the Program Administrators are designed to lower energy use of buildings regardless of ownership status. The Council, in urging the adoption of a renter based performance incentive component, recognized that renters are a hard to serve segment of the population. Renters do not have the ability to adopt major measures, such as insulation, heating systems, or measures that constitute fixtures, without landlord approval. Installing major measures for the benefit of non-owner occupied dwellings requires additional costs and effort to

Statewide Budgets, Savings, and Benefits

achieve similar savings for owner occupied dwelling. Therefore, the Council supported dedicating a small portion of the statewide performance incentive pool (about 2%) to a dedicated renter component to provide a specific, incremental incentive to Program Administrators for undertaking the additional costs and efforts to serve renters.

Finally, the renter component is designed to provide a small incremental performance incentive as part of the overall performance mechanism. If the Program Administrators significantly overachieve the planned renter participant levels, the savings and value components still encourage the Program Administrators to pursue all cost-effective energy efficiency opportunities for renter and owner-occupied dwellings.

3. Reconciliation of Performance Incentives

Currently Program Administrators are required to collect performance incentives at the design level during the term, and reconcile actual performance incentives following approval of their Term Reports. Guidelines § 3.6.4.2. To support the goal of rate continuity, the Program Administrators propose to modify this schedule, and reconcile actual performance incentives in their EES filing following the filing of the Term Report (e.g., the 2022 peak LDAC for gas Program Administrators). This proposal will allow the Program Administrators to reconcile over- and under-recoveries of performance incentives in a timelier manner and minimize interest associated with delayed collections. The Program Administrators would continue to make any needed adjustments after the Term Report is approved.

G. Cost-Effectiveness and Benefits

1. Cost-Effectiveness

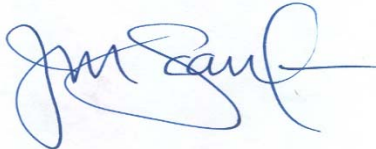
The Program Administrators have projected the expected benefits and costs associated with this statewide 2019-2021 Plan consistent with the requirements of the Guidelines and D.P.U. 08-50-A, in which the Department reaffirmed that “the Total Resource Cost test is the appropriate test for evaluation of the cost-effectiveness of ratepayer-funded energy efficiency programs.” D.P.U. 08-50-A at 14. A program is cost-effective under the TRC test if the cumulative present value of its benefits is equal to or greater than the cumulative present value of its costs. Guidelines § 3.4.3.1. Under the updated GCA, for the purposes of cost-effectiveness screening, programs are aggregated by sector. G.L. c. 25, § 21(b)(3), as revised by Acts of 2018, c. 227. To conduct the TRC test, the Program Administrators have developed detailed benefit/cost screening models, and use these models to reflect assumptions relating to program costs and benefits, the discount rate, the general rate of inflation, and avoided costs.

The Program Administrators identify and quantify costs and benefits needed to calculate the cost-effectiveness of programs consistent with the TRC test. Costs included in the TRC test include all Program Administrator costs and program participant costs. Program Administrator costs include program implementation expenses, evaluation costs, proposed performance incentives, and tax liability for performance incentives. Program-participant costs include initial costs incurred by customers as a result of their participation in the program.

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.



Joanne M. Scanlon

December 12, 2019

Date

**Docket No. 4979 - National Grid – 2020 Energy Efficiency Plan (EEP)
Service list updated 10/30/2019**

| Name/Address | E-mail Distribution List | Phone |
|---|--|--------------------------|
| National Grid Raquel Webster, Esq. National Grid 280 Melrose St. Providence, RI 02907 | Raquel.webster@nationalgrid.com ; | 781-907-2121 |
| | Joanne.scanlon@nationalgrid.com ; | |
| | Celia.obrien@nationalgrid.com ; | |
| | Matthew.Chase@nationalgrid.com ; | |
| | Timothy.Roughan@nationalgrid.com ; | |
| | John.richards@nationalgrid.com ; | |
| | Christopher.porter@nationalgrid.com ; | |
| | Matthew.ray2@nationalgrid.com ; | |
| Division of Public Utilities and Carriers Jon Hagopian, Esq. | Jon.hagopian@dpuc.ri.gov ; | 401-784-4775 |
| | Jonathan.Schrag@dpuc.ri.gov ; | |
| | john.bell@dpuc.ri.gov ; | |
| | Ronald.Gerwatowski@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 Erika Niedowski 31 Milk Street Suite 501 Boston, MA 02108 | ENiedowski@acadiacenter.org ; | 617-742-0054 Ext. 104 |
| Office of Energy Resources (OER) | Andrew.Marcaccio@doa.ri.gov ; | 401-222-8880 |

| | | |
|---|--|--------------|
| Andrew Marcaccio, Esq. Daniel Majcher, Esq. Dept. of Administration Division of Legal Services One Capitol Hill, 4 th Floor Providence, RI 02908 Carol Grant, Commissioner | daniel.majcher@doa.ri.gov ; | |
| | Nancy.Russolino@doa.ri.gov ; | |
| | Carol.grant@energy.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 ; | |
| TEC-RI Doug Gablinske, Executive Director The Energy Council of RI | doug@tecri.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 ; | |
| | Sharon.ColbyCamara@puc.ri.gov ; | |
| | Margaret.hogan@puc.ri.gov ; | |
| Frederick Sneesby Dept. of Human Services | Frederick.sneesby@dhs.ri.gov ; | |
| Chris Vitale, Esq., RI Infrastructure Bank | cvitale@hvlawltd.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.



Joanne M. Scanlon

December 12, 2019

Date

Docket No. 4980 - National Grid – 2020 System Reliability Plan (SRP)
Service list updated 10/30/2019

| Name/Address | E-mail Distribution List | Phone |
|---|--|--------------|
| National Grid Raquel Webster, Esq. National Grid 280 Melrose St. Providence, RI 02907 | Raquel.webster@nationalgrid.com ; | 781-907-2121 |
| | Joanne.scanlon@nationalgrid.com ; | |
| | Celia.obrien@nationalgrid.com ; | |
| | John.tortorella@nationalgrid.com ; | |
| | Matthew.Chase@nationalgrid.com ; | |
| | Timothy.Roughan@nationalgrid.com ; | |
| | John.richards@nationalgrid.com ; | |
| | Christopher.porter@nationalgrid.com ; | |
| | Matthew.ray2@nationalgrid.com ; | |
| | Daniel.marceau@nationalgrid.com ; | |
| Division of Public Utilities and Carriers Jon Hagopian, Esq. | Jon.hagopian@dpuc.ri.gov ; | 401-784-4775 |
| | Jonathan.Schrag@dpuc.ri.gov ; | |
| | john.bell@dpuc.ri.gov ; | |
| | Ronald.Gerwatowski@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 Erika Niedowski 31 Milk Street Suite 501 Boston, MA 02108 | ENiedowski@acadiacenter.org ; | 617-742-0054 Ext. 104 |
| Office of Energy Resources (OER) Andrew Marcaccio, Esq. Daniel W. Majcher, Esq. Dept. of Administration Division of Legal Services One Capitol Hill, 4 th Floor Providence, RI 02908 Carol Grant, Commissioner Office of Energy Resources | Andrew.Marcaccio@doa.ri.gov ; daniel.majcher@doa.ri.gov ; Nancy.Russolino@doa.ri.gov ; Carol.grant@energy.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 ; | |
| TEC-RI Doug Gablinske, Executive Director | doug@tecri.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 ; Sharon.ColbyCamara@puc.ri.gov ; Margaret.hogan@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 ; | |