

December 3, 2020

VIA ELECTRONIC MAIL

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

RE: Docket 5076 – 2021-2023 Energy Efficiency Program Plan & 2021 Energy Efficiency Plan Responses to PUC Data Requests – Set 4 (Complete Set)

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a National Grid (“National Grid” or the “Company”), attached, please find the electronic version of the Company’s responses to the Public Utilities Commission’s (“PUC”s) Fourth Set of Data Requests (“Complete Set 4”) in the above-referenced docket.¹

Please note that the responses contained within the Complete Set 4 have already been filed with the PUC.

The Complete Set 4 contains the Company’s redacted response to PUC 4-23 and not the confidential version of the Company’s response to PUC 4-23. The confidential version of PUC 4-23 and corresponding Motion for Protective Treatment of Confidential Information was filed by the Company on December 2, 2020.

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

Sincerely,



Andrew S. Marcaccio

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

¹ In addition, the Company will deliver to the Commission six, three-hole punched hard copies of PUC Set 4 with Bates stamp.

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..



Joanne M. Scanlon

December 3, 2020

Date

**Docket No. 5076 - National Grid – 2021-2023 Energy Efficiency Program
Plan & 2021 Annual Energy Efficiency Program Plan
Service list updated 12/3/2020**

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The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
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2021 Annual Energy Efficiency Program Plan
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PUC 4-1

Request:

Please provide at least a “yes” or “no” to the following: Referencing the Docket 4600 table that begins on Bates 548 of the Plan, are all categories numbered 1-22 costs and benefits related to electric utility service? If some are not, please explain why.

Response:

Yes, the Company believes that all of the categories numbered 1-22 are costs and benefits related to electric utility service, as they are included in the section “Power System Level” based on the interpretation of the Docket 4600 Framework as included in the stakeholder report produced and accepted by the PUC in RI PUC Docket 4600.^{1 2}

¹ RI PUC Docket 4600 Stakeholder Working Group Process Report to the Rhode Island Public Utilities Commission, April 5, 2017. http://www.ripuc.ri.gov/eventsactions/docket/4600-WGReport_4-5-17.pdf

² RI PUC Order 22851, July 31, 2017. http://www.ripuc.ri.gov/eventsactions/docket/4600-NGrid-Ord22851_7-31-17.pdf

PUC 4-2

Request:

Starting at category 23 of the Docket 4600 table that begins on Bates 548, for any quantified subcategory listed provide if the subcategory is or is not included in the performance incentive and the justification of each inclusion or exclusion.

Response:

Please see Attachment PUC 4-2-1 for the Docket 4600 table for the proposed 2021 electric portfolio. At the right of the table are two additional columns indicating for quantified categories 23 and above whether the category is included in the performance incentive and the justification for its inclusion or exclusion.

In addition, the Company wishes to note several additional elements of the Docket 4600 table beginning on Bates 548.

- This table indicates the values of benefits and costs as included in the RI Test for the electric energy efficiency portfolio as a whole, inclusive of the energy efficiency programs and the demand response (ConnectedSolutions) programs. Any category of quantified benefits or costs for the ConnectedSolutions programs is omitted from the calculation for the purposes of the energy efficiency performance incentive, as the demand response programs are not eligible for the energy efficiency performance incentive.
- The cost categories noted in category 6 "Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs" have some categories of costs removed for the purposes of calculating net benefits for the performance incentive, as indicated on Bates 144 and further detailed in the response to PUC 4-5.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 4-2-1

Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Electric)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Included in Calculation of EE PIM (Yes/No)	Explanation for Inclusion or Exclusion from EE PIM Calculation
	1	Energy Supply & Transmission Operating Value of Energy Provided or Saved	Quantified	\$27,764,262	Energy Efficiency Measures: Winter peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of winter peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit		
				\$-	Active Demand Response Measures: The Active Demand Response program (ConnectedSolutions) only operates during the Summer at system peak times, therefore there are no winter energy benefits.	No Value		
			Quantified	\$21,710,457	Energy Efficiency Measures: Winter off-peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of winter off-peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit		
				\$-	Active Demand Response Measures: The Active Demand Response program (ConnectedSolutions) only operates during the Summer at system peak times, therefore there are no winter energy benefits.	No Value		
			Quantified	\$18,443,703	Energy Efficiency Measures: Summer peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit		
				\$1,741	Active Demand Response Measures: Summer peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.			
			Quantified	\$11,689,649	Energy Efficiency Measures: Summer off-peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer off-peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit		
				\$1,413	Active Demand Response Measures: Summer off-peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer off-peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.			
			Quantified	\$17,193,202	Energy Efficiency Measures: Value of avoided summer generation capacity benefit is monetized by the AESC 2018 study avoided costs	Benefit		
				\$1,109,695	Active Demand Response Measures: Value of avoided summer generation capacity benefit is monetized by the AESC 2018 study avoided costs	Benefit		
	2	Renewable Energy Credit Cost Value	Quantified	See Notes	Wholesale cost of RECs is included in the winter peak, winter off-peak, summer peak, and summer off-peak retail energy costs from the preceding category.	Benefit		
	3	Retail Supplier Risk Premium	Quantified	See Notes	Wholesale Risk Premium is built into the retail costs of electric energy and electric capacity sourced from the AESC 2018 study and used to calculate the benefits of avoided energy and capacity.	Benefit		
	4	Forward Commitment: Capacity Value	Quantified	See Notes	Forward capacity avoided costs are included in capacity benefits.	Benefit		
	5	Forward Commitment: Avoided Ancillary Services Value	Not applicable	See Notes	Not applicable to energy efficiency	Not Applicable		
	6	Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs	Quantified	\$116,806,026	National Grid costs to implement the energy efficiency portfolio (including active demand response measures). Total budget includes costs for Program Planning & Administration; Marketing; Customer Incentives; Sales Technical Assistance and Training; and Evaluation & Market Research	Cost		

The Narragansett Electric Company
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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Electric)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Included in Calculation of EE PIM (Yes/No)	Explanation for Inclusion or Exclusion from EE PIM Calculation
Power System Level	7	Electric Transmission Capacity Costs / Value	Quantified	\$22,819,412	Energy Efficiency: Electric transmission capacity benefits are quantified by multiplying a statewide Pooled Transmission Facility (PTF) transmission value from AESC 2018 study by the summer kW saved from efficiency measures	Benefit		
				\$4,320,857	Active Demand Response: Electric transmission capacity benefits are quantified by multiplying a statewide Pooled Transmission Facility (PTF) transmission value from AESC 2018 study by the summer kW saved from active Demand Response measures	Benefit		
			Quantified	\$19,816,620	Energy Efficiency: Electric distribution capacity benefits are quantified by multiplying a Company-generated distribution value (\$/kW) by the summer kW saved from efficiency measures.	Benefit		
				\$3,752,279	Active Demand Response: Electric distribution capacity benefits are quantified by multiplying a Company-generated distribution value (\$/kW) by the summer kW saved from active Demand Response measures	Benefit		
	8	Electric transmission infrastructure costs for Site Specific Resources	Not applicable	See Notes	Currently no location-specific energy efficiency included, all measures offered across service territory.	Not Applicable		
	9	Net risk benefits to utility system operations (generation, transmission, distribution)	Quantified	See Notes	Value of Improved Reliability benefit calculated based on reliability value from the AESC 2018 study multiplied by the avoided summer kW savings. Applies to both energy efficiency measures and active demand response measures. Values included in the row "Distribution system and customer reliability / resilience impacts"	Benefit		
	10	Option value of individual resources	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined		
	11	Investment under Uncertainty: Real Options Cost / Value	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined		
	12	Energy Demand Reduction Induced Price Effect	Quantified	\$38,763,007	Energy Efficiency measures: Electric Energy (kWh) DRIPE values quantified based on the energy DRIPE values included in the AESC 2018 study. Calculated for each of winter peak, winter off-peak, summer peak, and summer off-peak.	Benefit		
				\$1,532	Demand Response measures: Electric Energy (kWh) DRIPE values quantified based on the energy DRIPE values included in the AESC 2018 study. Calculated for each of winter peak, winter off-peak, summer peak, and summer off-peak.	Benefit		
			Quantified	\$2,349,055	Energy Efficiency measures: Electric Generation Capacity (kW) DRIPE value quantified by multiplying avoided summer kW by applicable capacity DRIPE values (\$/kW) from the AESC 2018 study.	Benefit		
			Quantified	\$23,595,443	Demand Response measures: Electric Generation Capacity (kW) DRIPE value quantified by multiplying avoided summer kW by applicable capacity DRIPE values (\$/kW) from the AESC 2018 study.	Benefit		
			Quantified	See Fuel benefits	Additional DRIPE benefits for oil fuel savings from energy efficiency measures are quantified by multiplying oil fuel savings (MMBtu) by applicable oil DRIPE values (\$/MMBtu) from the AESC 2018 study. These benefits are included in the category "Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water". Active demand response measures do not have oil fuel savings and therefore do not have oil DRIPE benefits.			
			Quantified	See notes	Gas Resource Benefits in the Electric energy efficiency Benefit Cost Model includes Gas Supply DRIPE and Gas-Electric Cross DRIPE monetized by multiplying the gas savings attributable to the electric portfolio measures by applicable avoided cost series from the AESC 2018 study. These benefits are included in the category "Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water". Active demand response measures do not have gas saving and therefore do not have gas DRIPE benefits.			

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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Electric)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Included in Calculation of EE PIM (Yes/No)	Explanation for Inclusion or Exclusion from EE PIM Calculation
	13	Greenhouse gas compliance costs	Quantified	See notes	Cost of compliance with criteria air pollutant regulations are included in the wholesale electric energy commodity costs from the AESC 2018 study and are included in the calculation of the energy benefits in the category "Energy Supply & Transmission Operating Value of Energy Provided or Saved"			
	14	Criteria air pollutant and other environmental compliance costs	Quantified	See notes	Cost of compliance with criteria air pollutant regulations are included in the wholesale electric energy commodity costs from the AESC 2018 study and are included in the calculation of the energy benefits in the category "Energy Supply & Transmission Operating Value of Energy Provided or Saved"			
	15	Innovation and Learning by Doing	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs. Likely a minimal value in comparison to other benefits included in RI Test, but possible value due to pilots, demonstrations, and assessments included in programs.	Benefit		
	16	Distribution capacity costs	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined		
	17	Distribution delivery costs	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined		
	18	Distribution system safety loss/gain	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined		
	19	Distribution system performance	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined		
	20	Utility low income	Quantified	See Notes	Bad-debt writeoffs and reduced arrearages are included as NEIs for income eligible programs. Aggregated with other NEIs in row "Program participant / prosumer benefits / costs"	Benefit		
	21	Distribution system and customer reliability / resilience impacts	Quantified	\$100,836	Value of Improved Reliability benefit calculated based on reliability value from the AESC 2018 study multiplied by the avoided summer kW savings. Applies to both energy efficiency measures and active demand response measures	Benefit		
				\$523,690		Benefit		
	22	Distribution system safety loss/gain	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined		

The Narragansett Electric Company

d/b/a National Grid

RIPUC Docket No. 5076

Attachment PUC 4-2-1

Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Electric)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Included in Calculation of EE PIM (Yes/No)	Explanation for Inclusion or Exclusion from EE PIM Calculation
Customer Level	23	Program participant / prosumer benefits / costs	Quantified	\$18,435,780	Energy Efficiency measures: Participant contribution cost is the direct cost of the measure that is not covered by the customer rebate/incentive for energy efficiency measures.	Cost	Excluded	The customer costs associated with installation of energy efficiency measures are omitted from the calculation of the EE PIM because they are costs borne by the participating customers to install energy efficiency equipment incremental to baseline equipment. This portion of the cost is not controlled by the program, so therefore it is appropriate to consider in the RI Test but should be omitted from the EE PIM.
				\$-	Active demand response measures: There is no customer cost for the ConnectedSolutions Active Demand Response program.	Cost	Excluded	This is a cost associated with the Company's ConnectedSolutions demand response programs. These programs are not eligible for the energy efficiency performance incentive mechanism. This category is therefore not included in the calculation of the energy efficiency performance incentive mechanism.
			Quantified	\$47,968,696	Quantifiable non-resource, non-energy impacts are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan. Non resource, non-energy impacts may include but are not limited to labor, material, facility use, health and safety, materials handling, national security, property values, and transportation.	Benefit	Included	These are quantified and monetized non-energy impact (NEI) benefits of the energy efficiency programs and are therefore included as a benefit category in the RI Test and therefore in the EE PIM proposal. These benefits are studied and monetized through the EM&V process and are therefore included in the EE PIM calculation of net benefits.
	24	Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water	Quantified	\$12,179,491	Energy Efficiency measures: Quantification of Resource Benefits from: Natural Gas, Oil, Propane, Water & Sewage. Natural Gas Benefits are based on Appendix C of the 2018 AESC study, Oil and Propane Benefits are based on Appendix D of the 2018 AESC study, Water & Sewage Benefits are derived from an internet survey of rates posted to the RI PUC website.	Benefit	Included	These are quantified and monetized benefits resulting from measures installed in the electric programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal
				\$-	Active demand response measures: no corresponding benefits for oil, gas, water, wastewater in the Active Demand Response benefit cost analysis so this value is zero	Benefit	Excluded	This is a benefit associated with the Company's ConnectedSolutions demand response programs. These programs are not eligible for the energy efficiency performance incentive mechanism. This category is therefore not included in the calculation of the energy efficiency performance incentive mechanism.
	25	Low-Income Participant Benefits	Quantified	See Notes	Low-Income Participant Benefits benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan. See the category "Program participant / prosumer benefits / costs" for these benefits	Benefit	Included	These are quantified and monetized non-energy impact (NEI) benefits of the energy efficiency programs and are therefore included as a benefit category in the RI Test and therefore in the EE PIM proposal. These benefits are studied and monetized through the EM&V process and are therefore included in the EE PIM calculation of net benefits.
	26	Consumer Empowerment & Choice	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined	N/A	N/A
	27	Non-participant (equity) rate and bill impacts	Quantified	See Notes	External to cost effectiveness analysis. Bill Impacts model the effects of efficiency programs on annual customer bills by aggregating rate and consumption changes, including non-participants. Electric and natural gas rate and bill impact models included in Attachment 7 of the 2021 Annual Plan	Benefit (but not included in BCA screening)	Excluded	The Company completes a separate rate and bill impact analysis that is included as part of the proposed plan, but the results of that analysis are not a component of the RI Test and are therefore omitted from the EE PIM calculation.

The Narragansett Electric Company
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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Electric)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Included in Calculation of EE PIM (Yes/No)	Explanation for Inclusion or Exclusion from EE PIM Calculation
Societal Level	28	Greenhouse gas externality costs	Quantified	\$36,202,413	Energy Efficiency measures: Quantified Non-embedded Greenhouse gas reduction benefits obtained from the 2018 AESC Study. Non-embedded CO2 values are sourced from the following tables in the 2018 AESC Study: Table 154 for electric savings and Table 156 for gas savings and oil savings.	Benefit	Included	These are quantified and monetized benefits resulting from measures installed in the electric programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal.
				\$1,670	Active Demand Response measures: Quantified Non-embedded Greenhouse gas reduction benefits obtained from the 2018 AESC Study. Non-embedded CO2 values are sourced from the following tables in the 2018 AESC Study: Table 154 for electric savings and Table 156 for gas savings and oil savings.	Benefit	Excluded	This is a benefit associated with the Company's ConnectedSolutions demand response programs. These programs are not eligible for the energy efficiency performance incentive mechanism. This category is therefore not included in the calculation of the energy efficiency performance incentive mechanism.
	29	Criteria air pollutant and other environmental externality costs	Quantified	\$1,739,435	Quantified Non-embedded NOx reduction benefits obtained from the 2018 AESC Study. Additional research would be required to determine other benefit streams from air pollutants and other environmental externalities	Benefit	Included	These are quantified and monetized benefits resulting from measures installed in the electric programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal.
	30	Conservation and community benefits	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined	N/A	N/A
	31	Non-energy costs/benefits: Economic Development	Quantified	\$286,266,811	Energy efficiency measures: Quantified Economic Development Benefits based on the methodology described in the 2021 Annual Plan	Benefit	Excluded	This is a benefit is omitted from the calculation of the net benefits for the energy efficiency performance incentive because of its calculation method. Macroeconomic benefits are calculated by multiplying programmatic spending by a set of economic multipliers. Because of this relationship between programmatic spending and the calculated macroeconomic benefit there could be situations where there is a perverse outcome when costs are "netted" from benefits for the PIM calculation. For example, if the programs underspend their budget and achieve the goal savings, the calculation of macroeconomic benefits would be reduced due to their connection with programmatic spending, therefore reducing the total benefits and consequently the Company's earnings on the PIM. The opposite is also true. If the programs overspend their budget and achieve goal savings, the calculation of macroeconomic benefits would be increased because of the connection to programmatic spending in their calculation. The Company would therefore have achieved higher benefits and consequently higher earnings despite overspending. Removing the macroeconomic benefits from the PIM calculation eliminates these perverse outcomes while the benefit remains a component of the RI Test.
				\$8,174,903	Active demand response measures: Quantified Economic Development Benefits based on the methodology described in the 2021 Annual Plan	Benefit	Excluded	This is a benefit associated with the Company's ConnectedSolutions demand response programs. These programs are not eligible for the energy efficiency performance incentive mechanism. This category is therefore not included in the calculation of the energy efficiency performance incentive mechanism.
	32	Innovation and knowledge spillover (Related to demonstration projects and other RD&D preceding larger scale deployment)	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs. The portfolio of programs includes pilots, demonstrations and assessments and these likely generate benefits to further program and market development. The value of these innovation and knowledge spillover benefits is unknown but is estimated to be small in comparison to the overall magnitude of benefits currently included in the screening of the electric portfolio	Benefit	N/A	N/A
	33	Societal Low-Income Impacts	Not Quantified or Qualified	See Notes	Low-Income Benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan however they are aggregated with other Non-Energy Impacts and therefore their value is not broken out here. These NEIs are included in the Program participant / prosumer benefits / costs category	Undetermined	N/A	N/A

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d/b/a National Grid
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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Electric)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Included in Calculation of EE PIM (Yes/No)	Explanation for Inclusion or Exclusion from EE PIM Calculation
	34	Public Health	Quantified	See Notes	Health Benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan however they are aggregated with other Non-Energy Impacts and therefore their value is not broken out here. These NEIs are included in the Program participant / prosumer benefits / costs category	Benefit	Included	These are quantified and monetized non-energy impact (NEI) benefits of the energy efficiency programs and are therefore included as a benefit category in the RI Test and therefore in the EE PIM proposal. These benefits are studied and monetized through the EM&V process and are therefore included in the EE PIM calculation of net benefits.
	35	National Security and US international influence	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for this category. To the degree that the efficiency portfolio investments reduce reliance on foreign sources of energy there can be benefit. Those effects are unknown and estimated to be small in comparison to the overall magnitude of benefits currently included in the screening of the electric portfolio.	Benefit	N/A	N/A

PUC 4-3

Request:

Please provide a Docket 4600 table like the table that begins on Bates 548, but for gas efficiency. Please indicate which of these benefits and costs are related to gas utility service.

Response:

Please see the Attachment PUC 4-3-1 for the Docket 4600 table populated for the gas energy efficiency portfolio as included in the 2021 Annual Energy Efficiency Plan. Please note that, at this time, the Company has not attempted to adjust the categories of costs and benefits included in Docket 4600 Framework, which was developed for the electric sector. The Company, however, has attempted to fit the quantified benefits and costs of gas energy efficiency to the existing Framework.

At the right of the table is an additional column indicating which categories are related to gas utility service. Those marked as "Yes" are applicable as categories related to gas utility service.

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 4-3-1**

Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Related to Gas Utility Service (Yes/No)
	1	Energy Supply & Transmission Operating Value of Energy Provided or Saved	Quantified	\$72,150	Energy Efficiency Measures: Winter peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of winter peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit	No
			Quantified	\$73,642	Energy Efficiency Measures: Winter off-peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of winter off-peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit	No
			Quantified	\$109,089	Energy Efficiency Measures: Summer peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit	No
			Quantified	\$84,850	Energy Efficiency Measures: Summer off-peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer off-peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit	No
			Quantified	\$188,214	Energy Efficiency Measures: Value of avoided summer generation capacity benefit is monetized by the AESC 2018 study avoided costs	Benefit	No
			Quantified	\$38,050,536	Natural gas energy efficiency measures. Value of natural gas supply monetized by the AESC 2018 study avoided costs. Natural Gas Benefits are based on Appendix C of the 2018 AESC study. Includes avoided cost of delivering gas (retail margin) and the avoided cost of the gas.	Benefit	Yes
	2	Renewable Energy Credit Cost / Value	Quantified	See Notes	Wholesale cost of RECs is included in the winter peak, winter off-peak, summer peak, and summer off-peak retail energy costs from the preceding category.	Benefit	No

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 4-3-1**

Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Related to Gas Utility Service (Yes/No)
	3	Retail Supplier Risk Premium	Quantified	See Notes	Wholesale Risk Premium is built into the retail costs of electric energy and electric capacity sourced from the AESC 2018 study and used to calculate the benefits of avoided energy and capacity.	Benefit	No
	4	Forward Commitment: Capacity Value	Quantified	See Notes	Forward capacity avoided costs are included in capacity benefits.	Benefit	No
	5	Forward Commitment: Avoided Ancillary Services Value	Not applicable	See Notes	Not applicable to energy efficiency	Not Applicable	No
	6	Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs	Quantified	\$36,916,618	National Grid costs to implement the natural gas energy efficiency portfolio. Total budget includes costs for Program Planning & Administration; Marketing; Customer Incentives; Sales Technical Assistance and Training; and Evaluation & Market Research	Cost	Yes
	7	Electric Transmission Capacity Costs / Value	Quantified	\$210,473	Energy Efficiency: Electric transmission capacity benefits are quantified by multiplying a statewide Pooled Transmission Facility (PTF) transmission value from AESC 2018 study by the summer kW saved from efficiency measures	Benefit	No
			Quantified	\$182,777	Energy Efficiency: Electric distribution capacity benefits are quantified by multiplying a Company-generated distribution value (\$/kW) by the summer kW saved from efficiency measures.	Benefit	No
	8	Electric transmission infrastructure costs for Site Specific Resources	Not applicable	See Notes	Currently no location-specific energy efficiency included, all measures offered across service territory.	Not Applicable	No
	9	Net risk benefits to utility system operations (generation, transmission, distribution)	Quantified	See Notes	Value of Improved Reliability benefit calculated based on reliability value from the AESC 2018 study multiplied by the avoided summer kW savings. Values included in the row "Distribution system and customer reliability / resilience impacts"	Benefit	No

**The Narragansett Electric Company
d/b/a National Grid
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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Related to Gas Utility Service (Yes/No)
Power System Level	10	Option value of individual resources	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined	Undetermined
	11	Investment under Uncertainty: Real Options Cost / Value	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined	Undetermined
	12	Energy Demand Reduction Induced Price Effect	Quantified	\$95,159	Energy Efficiency measures: Electric Energy (kWh) DRIPE values quantified based on the energy DRIPE values included in the AESC 2018 study. Calculated for each of winter peak, winter off-peak, summer peak, and summer off-peak.	Benefit	No
			Quantified	\$967	Energy Efficiency measures: Electric Generation Capacity (kW) DRIPE value quantified by multiplying avoided summer kW by applicable capacity DRIPE values (\$/kW) from the AESC 2018 study.	Benefit	No
			Quantified	See Fuel benefits	Additional DRIPE benefits for oil fuel savings from energy efficiency measures are quantified by multiplying oil fuel savings (MMBtu) by applicable oil DRIPE values (\$/MMBtu) from the AESC 2018 study. These benefits are included in the category "Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water". Natural Gas measures do not have delivered fuel savings, so no value for the natural gas portfolio	Benefit	No
			Quantified	\$997,957	Gas Supply DRIPE monetized by multiplying the gas savings attributable to the electric portfolio measures by applicable avoided cost series from the AESC 2018 study. These benefits are included in the category "Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water". Active demand response measures do not have gas savings and therefore do not have gas DRIPE benefits.	Benefit	Yes

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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Related to Gas Utility Service (Yes/No)
	13	Greenhouse gas compliance costs	Quantified	See notes	Cost of compliance with criteria air pollutant regulations are included in the wholesale electric energy commodity costs from the AESC 2018 study and are included in the calculation of the electric energy benefits in the category "Energy Supply & Transmission Operating Value of Energy Provided or Saved"	Benefit	No
	14	Criteria air pollutant and other environmental compliance costs	Quantified	See notes	Cost of compliance with criteria air pollutant regulations are included in the wholesale electric energy commodity costs from the AESC 2018 study and are included in the calculation of the electric energy benefits in the category "Energy Supply & Transmission Operating Value of Energy Provided or Saved"	Benefit	No
	15	Innovation and Learning by Doing	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs. Likely a minimal value in comparison to other benefits included in RI Test, but possible value due to pilots, demonstrations, and assessments included in programs.	Undetermined	Undetermined
	16	Distribution capacity costs	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined
	17	Distribution delivery costs	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined
	18	Distribution system safety loss/gain	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined
	19	Distribution system performance	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined
	20	Utility low income	Quantified	See Notes	Bad-debt writeoffs and reduced arrearages are included as NEIs for income eligible programs. Aggregated with other NEIs in row "Program participant / prosumer benefits / costs"	Benefit	No
	21	Distribution system and customer reliability / resilience impacts	Quantified	\$10,200	Value of Improved Reliability benefit calculated based on reliability value from the AESC 2018 study multiplied by the avoided summer kW savings. Applies to energy efficiency measures.	Benefit	No
	22	Distribution system safety loss/gain	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined

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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Related to Gas Utility Service (Yes/No)
Customer Level	23	Program participant / prosumer benefits / costs	Quantified	\$9,744,826	Energy Efficiency measures: Participant contribution cost is the direct cost of the measure that is not covered by the customer rebate/incentive for energy efficiency measures.	Cost	No
			Quantified	\$37,182,928	Quantifiable non-resource, non-energy impacts are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan. Non resource, non-energy impacts may include but are not limited to labor, material, facility use, health and safety, materials handling, national security, property values, and transportation.	Benefit	No
	24	Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water	Quantified	\$659,437	Energy Efficiency measures: Quantification of Resource Benefits from: Oil, Propane, Water & Sewage. Oil and Propane Benefits are based on Appendix D of the 2018 AESC study, Water & Sewage Benefits are derived from an internet survey of rates posted to the RI PUC website.	Benefit	No
	25	Low-Income Participant Benefits	Quantified	See Notes	Low-Income Participant Benefits benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan. See the category "Program participant / prosumer benefits / costs" for these benefits	Benefit	No
	26	Consumer Empowerment & Choice	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined	No
	27	Non-participant (equity) rate and bill impacts	Quantified	See Notes	External to cost effectiveness analysis. Bill Impacts model the effects of efficiency programs on annual customer bills by aggregating rate and consumption changes, including non participants. Electric and natural gas rate and bill impact models included in Attachment 7 of the 2021 Annual Plan	Benefit (but not included in BCA screening)	No

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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Related to Gas Utility Service (Yes/No)
Societal Level	28	Greenhouse gas externality costs	Quantified	\$17,238,325	Energy Efficiency measures: Quantified Non-embedded Greenhouse gas reduction benefits obtained from the 2018 AESC Study. Non-embedded CO2 values are sourced from the following tables in the 2018 AESC Study: Table 154 for electric savings and Table 156 for gas savings and oil savings.	Benefit	No
	29	Criteria air pollutant and other environmental externality costs	Quantified	\$2,453,474	Quantified Non-embedded NOx reduction benefits obtained from the 2018 AESC Study. Additional research would be required to determine other benefit streams from air pollutants and other environmental externalities	Benefit	No
	30	Conservation and community benefits	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined
	31	Non-energy costs/benefits: Economic Development	Quantified	\$47,364,946	Energy efficiency measures: Quantified Economic Development Benefits based on the methodology described in the 2021 Annual Plan	Benefit	No
	32	Innovation and knowledge spillover (Related to demonstration projects and other RD&D preceding larger scale deployment)	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs. The portfolio of programs includes pilots, demonstrations and assessments and these likely generate benefits to further program and market development. The value of these innovation and knowledge spillover benefits is unknown but is estimated to be small in comparison to the overall magnitude of benefits currently included in the screening of the electric portfolio.	Benefit	Undetermined
	33	Societal Low-Income Impacts	Not Quantified or Qualified	See Notes	Low-Income Benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan however they are aggregated with other Non-Energy Impacts and therefore their value is not broken out here. These NEIs are included in the Program participant / prosumer benefits / costs category	Undetermined	Undetermined
	34	Public Health	Quantified	See Notes	Health Benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan however they are aggregated with other Non-Energy Impacts and therefore their value is not broken out here. These NEIs are included in the Program participant / prosumer benefits / costs category	Benefit	No

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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Related to Gas Utility Service (Yes/No)
	35	National Security and US international influence	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for this category. To the degree that the efficiency portfolio investments reduce reliance on foreign sources of energy there can be benefit. Those effects are unknown and estimated to be small in comparison to the overall magnitude of benefits currently included in the screening of the electric portfolio.	Benefit	Undetermined

PUC 4-4

Request:

Regarding the response to data request 3 above, please indicate if the category is or is not included in the performance incentive and the justification of each inclusion or exclusion.

Response:

Please refer to Attachment PUC 4-4-1. This table expands upon Attachment PUC 4-3-1, included with the response to PUC 4-3, to include two additional columns indicating if the quantified categories are included or excluded from the performance incentive calculations, along with the justification for the inclusion or exclusion.

The cost categories noted in category 6 "Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs" have some further subcategories of costs removed for the purposes of calculating net benefits for the performance incentive, as indicated on Bates 144 and further detailed in the response to PUC 4-5.

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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Related to Gas Utility Service (Yes/No)	Included in Calculation of EE PIM (Yes/No)	Explanation for Inclusion or Exclusion from EE PIM Calculation
	1	Energy Supply & Transmission Operating Value of Energy Provided or Saved	Quantified	\$72,150	Energy Efficiency Measures: Winter peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of winter peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal. Some natural gas efficiency measures also generate electric energy and demand savings and benefits.
			Quantified	\$73,642	Energy Efficiency Measures: Winter off-peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of winter off-peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal. Some natural gas efficiency measures also generate electric energy and demand savings and benefits.
			Quantified	\$109,089	Energy Efficiency Measures: Summer peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal. Some natural gas efficiency measures also generate electric energy and demand savings and benefits.
			Quantified	\$84,850	Energy Efficiency Measures: Summer off-peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer off-peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal. Some natural gas efficiency measures also generate electric energy and demand savings and benefits.
			Quantified	\$188,214	Energy Efficiency Measures: Value of avoided summer generation capacity benefit is monetized by the AESC 2018 study avoided costs	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal. Some natural gas efficiency measures also generate electric energy and demand savings and benefits.
			Quantified	\$38,050,536	Natural gas energy efficiency measures. Value of natural gas supply monetized by the AESC 2018 study avoided costs. Natural Gas Benefits are based on Appendix C of the 2018 AESC study. Includes avoided cost of delivering gas (retail margin) and the avoided cost of the gas.	Benefit	Yes	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal.
	2	Renewable Energy Credit Cost / Value	Quantified	See Notes	Wholesale cost of RECs is included in the winter peak, winter off-peak, summer peak, and summer off-peak retail energy costs from the preceding category.	Benefit	No		
	3	Retail Supplier Risk Premium	Quantified	See Notes	Wholesale Risk Premium is built into the retail costs of electric energy and electric capacity sourced from the AESC 2018 study and used to calculate the benefits of avoided energy and capacity.	Benefit	No		
	4	Forward Commitment: Capacity Value	Quantified	See Notes	Forward capacity avoided costs are included in capacity benefits.	Benefit	No		
	5	Forward Commitment: Avoided Ancillary Services Value	Not applicable	See Notes	Not applicable to energy efficiency	Not Applicable	No		
	6	Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs	Quantified	\$36,916,618	National Grid costs to implement the natural gas energy efficiency portfolio. Total budget includes costs for Program Planning & Administration; Marketing; Customer Incentives; Sales Technical Assistance and Training; and Evaluation & Market Research	Cost	Yes	Included	These are the programmatic costs to implement the natural gas energy efficiency programs. These costs are reduced by Commitments, Regulatory costs for OER and EERMC, pilot costs, assessment costs, and performance incentive for calculation of the EE PIM net benefits pool
	7	Electric Transmission Capacity Costs / Value	Quantified	\$210,473	Energy Efficiency: Electric transmission capacity benefits are quantified by multiplying a statewide Pooled Transmission Facility (PTF) transmission value from AESC 2018 study by the summer kW saved from efficiency measures	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal.
			Quantified	\$182,777	Energy Efficiency: Electric distribution capacity benefits are quantified by multiplying a Company-generated distribution value (\$/kW) by the summer kW saved from efficiency measures.	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal.

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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

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Power System Level	8	Electric transmission infrastructure costs for Site Specific Resources	Not applicable	See Notes	Currently no location-specific energy efficiency included, and measures offered across service territory.	Not Applicable	No		
	9	Net risk benefits to utility system operations (generation, transmission, distribution)	Quantified	See Notes	Value of Improved Reliability benefit calculated based on reliability value from the AESC 2018 study multiplied by the avoided summer kW savings. Values included in the row "Distribution system and customer reliability / resilience impacts"	Benefit	No		
	10	Option value of individual resources	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined	Undetermined		
	11	Investment under Uncertainty: Real Options Cost / Value	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined	Undetermined		
	12	Energy Demand Reduction Induced Price Effect	Quantified	\$95,159	Energy Efficiency measures: Electric Energy (kWh) DRIPE values quantified based on the energy DRIPE values included in the AESC 2018 study. Calculated for each of winter peak, winter off-peak, summer peak, and summer off-peak.	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal
			Quantified	\$967	Energy Efficiency measures: Electric Generation Capacity (kW) DRIPE value quantified by multiplying avoided summer kW by applicable capacity DRIPE values (\$/kW) from the AESC 2018 study.	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal
			Quantified	See Fuel benefits	Additional DRIPE benefits for oil fuel savings from energy efficiency measures are quantified by multiplying oil fuel savings (MMBtu) by applicable oil DRIPE values (\$/MMBtu) from the AESC 2018 study. These benefits are included in the category "Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water". Natural Gas measures do not have delivered fuel savings, so no value for the natural gas portfolio	Benefit	No		
			Quantified	\$997,957	Gas Supply DRIPE monetized by multiplying the gas savings attributable to the electric portfolio measures by applicable avoided cost series from the AESC 2018 study. These benefits are included in the category "Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water". Active demand response measures do not have gas savings and therefore do not have gas DRIPE benefits.	Benefit	Yes	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal
	13	Greenhouse gas compliance costs	Quantified	See notes	Cost of compliance with criteria air pollutant regulations are included in the wholesale electric energy commodity costs from the AESC 2018 study and are included in the calculation of the electric energy benefits in the category "Energy Supply & Transmission Operating Value of Energy Provided or Saved"	Benefit	No		
	14	Criteria air pollutant and other environmental compliance costs	Quantified	See notes	Cost of compliance with criteria air pollutant regulations are included in the wholesale electric energy commodity costs from the AESC 2018 study and are included in the calculation of the electric energy benefits in the category "Energy Supply & Transmission Operating Value of Energy Provided or Saved"	Benefit	No		
	15	Innovation and Learning by Doing	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs. Likely a minimal value in comparison to other benefits included in RI Test, but possible value due to pilots, demonstrations, and assessments included in programs.	Undetermined	Undetermined		
	16	Distribution capacity costs	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined		
	17	Distribution delivery costs	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined		
	18	Distribution system safety loss/gain	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined		
	19	Distribution system performance	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined		
	20	Utility low income	Quantified	See Notes	Bad-debt writeoffs and reduced arrearages are included as NEIs for income eligible programs. Aggregated with other NEIs in row "Program participant / prosumer benefits / costs"	Benefit	No	Included	These are quantified and monetized non-energy impact (NEI) benefits of the energy efficiency programs and are therefore included as a benefit category in the RI Test and therefore in the EE PIM proposal. These benefits are studied and monetized through the EM&V process and are therefore included in the EE PIM calculation of net benefits.

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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

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	21	Distribution system and customer reliability / resilience impacts	Quantified	\$10,200	Value of Improved Reliability benefit calculated based on reliability value from the AESC 2018 study multiplied by the avoided summer kW savings. Applies to energy efficiency measures.	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal. Some natural gas efficiency measures also generate electric energy and demand savings and benefits.
	22	Distribution system safety loss/gain	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined		

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Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

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Customer Level	23	Program participant / prosumer benefits / costs	Quantified	\$9,744,826	Energy Efficiency measures: Participant contribution cost is the direct cost of the measure that is not covered by the customer rebate/incentive for energy efficiency measures.	Cost	No	Excluded	The customer costs associated with installation of energy efficiency measures are omitted from the calculation of the EE PIM because they are costs borne by the participating customers to install energy efficiency equipment incremental to baseline equipment. This portion of the cost is not controlled by the program, so therefore it is appropriate to consider in the RI Test but should be omitted from the EE PIM.
			Quantified	\$37,182,928	Quantifiable non-resource, non-energy impacts are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan. Non resource, non-energy impacts may include but are not limited to labor, material, facility use, health and safety, materials handling, national security, property values, and transportation.	Benefit	No	Included	These are quantified and monetized non-energy impact (NEI) benefits of the energy efficiency programs and are therefore included as a benefit category in the RI Test and therefore in the EE PIM proposal. These benefits are studied and monetized through the EM&V process and are therefore included in the EE PIM calculation of net benefits.
	24	Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water	Quantified	\$659,437	Energy Efficiency measures: Quantification of Resource Benefits from: Oil, Propane, Water & Sewage. Oil and Propane Benefits are based on Appendix D of the 2018 AESC study, Water & Sewage Benefits are derived from an internet survey of rates posted to the RI PUC website.	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal.
	25	Low-Income Participant Benefits	Quantified	See Notes	Low-Income Participant Benefits benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan. See the category "Program participant / prosumer benefits / costs" for these benefits	Benefit	No	Included	These are quantified and monetized non-energy impact (NEI) benefits of the energy efficiency programs and are therefore included as a benefit category in the RI Test and therefore in the EE PIM proposal. These benefits are studied and monetized through the EM&V process and are therefore included in the EE PIM calculation of net benefits.
	26	Consumer Empowerment & Choice	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined	No	N/A	N/A
	27	Non-participant (equity) rate and bill impacts	Quantified	See Notes	External to cost effectiveness analysis. Bill Impacts model the effects of efficiency programs on annual customer bills by aggregating rate and consumption changes, including non-participants. Electric and natural gas rate and bill impact models included in Attachment 7 of the 2021 Annual Plan	Benefit (but not included in BCA screening)	No	Excluded	The Company completes a separate rate and bill impact analysis that is included as part of the proposed plan, but the results of that analysis are not a component of the RI Test and are therefore omitted from the EE PIM calculation.
	28	Greenhouse gas externality costs	Quantified	\$17,238,325	Energy Efficiency measures: Quantified Non-embedded Greenhouse gas reduction benefits obtained from the 2018 AESC Study. Non-embedded CO2 values are sourced from the following tables in the 2018 AESC Study: Table 154 for electric savings and Table 156 for gas savings and oil savings.	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal.
	29	Criteria air pollutant and other environmental externality costs	Quantified	\$2,453,474	Quantified Non-embedded NOx reduction benefits obtained from the 2018 AESC Study. Additional research would be required to determine other benefit streams from air pollutants and other environmental externalities	Benefit	No	Included	These are quantified and monetized benefits resulting from measures installed in the natural gas programs, as monetized by AESC 2018 study results, and are therefore included as a benefit category for the EE PIM proposal.
	30	Conservation and community benefits	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of natural gas energy efficiency programs.	Undetermined	Undetermined		

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 4-4-1

Docket 4600 Framework for 2021 Energy Efficiency Portfolio (Natural Gas)

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost	Related to Gas Utility Service (Yes/No)	Included in Calculation of EE PIM (Yes/No)	Explanation for Inclusion or Exclusion from EE PIM Calculation
Societal Level	31	Non-energy costs/benefits: Economic Development	Quantified	\$47,364,946	Energy efficiency measures: Quantified Economic Development Benefits based on the methodology described in the 2021 Annual Plan	Benefit	No	Excluded	This is a benefit is omitted from the calculation of thnet benefits for the energy efficiency performance incentive because of its calculation method. Macroeconomic benefits are calculated by multiplying programmatic spending by a set of economic multipliers. Because of this relationship between programmatic spending and the calculated macroeconomic benefit there could be situations where there is a perverse outcome when costs are "netted" from benefits for the PIM calculation. For example, if the programs underspend their budget and achieve the goal savings, the calculation of macroeconomic benefits would be reduced due to their connection with programmatic spending, therefore reducing the total benefits and consequently the Company's earnings on the PIM. The opposite is also true. If the programs overspend their budget and achieve goal savings, the calculation of macroeconomic benefits would be increased because of the connection to programmatic spending in their calculation. The Company would therefore have achieved higher benefits and consequently higher earning despite overspending. Removing the macroeconomic benefits from the PIM calculation eliminates these perverse outcomes while the benefit remains a component of the RI Test.
	32	Innovation and knowledge spillover (Related to demonstration projects and other RD&D preceding larger scale deployment)	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs. The portfolio of programs includes pilots, demonstrations and assessments and these likely generate benefits to further program and market development. The value of these innovation and knowledge spillover benefits is unknown but is estimated to be small in comparison to the overall magnitude of benefits currently included in the screening of the electric portfolio.	Benefit	Undetermined		
	33	Societal Low-Income Impacts	Not Quantified or Qualified	See Notes	Low-Income Benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan however they are aggregated with other Non-Energy Impacts and therefore their value is not broken out here. These NEIs are included in the Program participant / prosumer benefits / costs category	Undetermined	Undetermined		
	34	Public Health	Quantified	See Notes	Health Benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan however they are aggregated with other Non-Energy Impacts and therefore their value is not broken out here. These NEIs are included in the Program participant / prosumer benefits / costs category	Benefit	No	Included	These are quantified and monetized non-energy impact (NEI) benefits of the energy efficiency programs and are therefore included as a benefit category in the RI Test and therefore in the EE PIM proposal. These benefits are studied and monetized through the EM&V process and are therefore included in the EE PIM calculation of net benefits.
	35	National Security and US international influence	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for this category. To the degree that the efficiency portfolio investments reduce reliance on foreign sources of energy there can be benefit. Those effects are unknown and estimated to be small in comparison to the overall magnitude of benefits currently included in the screening of the electric portfolio.	Benefit	Undetermined		

PUC 4-5

Request:

For the list of costs excluded from the performance incentive provided on Bates 144 of the Plan, please provide the values of these costs in each year of the plan in a table and the justification for exclusion.

Response:

Please see Attachments PUC 4-5-1 and 4-5-2 for the table of costs excluded from the performance incentive as noted on Bates 144. Note that the budget to be netted from total benefits (exclusive of economic multipliers) for the performance incentive is also equivalent to the "Eligible Spending Budget" as noted in 2021 Annual Energy Efficiency Plan Tables E-3 (Bates 559) and G-3 (Bates 572). The categories of costs that are netted from the overall implementation budget to arrive at the "Eligible Spending Budget" are consistent with the approach used in 2020 to set the budget upon which that year's performance incentive was earned.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 4-5-1

Costs to be Omitted from Calculation of Performance Incentive for the Electric Energy Efficiency Portfolio

Ref	Cost Category	2021	2022		2023		Explanation
			Base Case	High Scenario	Base Case	High Scenario	
	a	b	c	d	e	f	g
1	Participating Customer Costs	\$ 18,435,780	\$ 26,524,977	\$ 27,724,189	\$ 27,736,953	\$ 30,810,899	This is the portion of the energy efficiency measure's incremental cost that the customer bears, that is the portion of the incremental cost not addressed by the programmatic incentive or rebate. As this is not a direct programmatic cost and is external to the program budgets it is excluded from the calculation of the performance incentive. This is included as part of category 23 in the Docket 4600 Framework "Program participant / prosumer benefits / costs".
2	Commitments	\$ -	\$ -	\$ -	\$ -	\$ -	Commitments are not associated with savings and benefits within-year and are therefore omitted from the calculation of net benefits for performance incentive in that year. Within the Docket 4600 Framework, this category is embedded within the category 6 "Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs".
3	Regulatory Costs for OER and EERMC	\$ 1,691,117	\$ 2,376,890	\$ 2,495,734	\$ 2,710,894	\$ 3,041,624	Costs for OER and EERMC are not direct costs of implementing the energy efficiency portfolios and do not have direct impact on savings and benefits, so they are omitted from the calculation of net benefits. In accordance with R.I. Gen Laws 39-2-1.2(h), these funds are provided to the Office of Energy Resources and the Energy Efficiency Resource Management Council. Within the Docket 4600 Framework, this category is embedded within the category 6 "Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs".
4	Pilot Costs	\$ -	\$ -	\$ -	\$ -	\$ -	Pilots and Assessments are intended to assess potential new energy efficiency measures but are not expected to generate immediate claimable savings and benefits. Therefore, the costs of these efforts are removed from the calculation of net benefits for performance incentive. Within the Docket 4600 Framework, this category is embedded within the category 6 "Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs".
5	Assessment Costs	\$ 90,723	\$ 90,723	\$ 95,259	\$ 90,723	\$ 101,791	
6	Performance Incentive	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	Performance incentive earning is an output of the successful implementation of the plans and is therefore an output rather than an input to the calculation.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 4-5-2

Costs to be Omitted from Calculation of Performance Incentive for the Gas Energy Efficiency Portfolio

Ref	Cost Category	2021	2022		2023		Explanation
			Base Case	High Scenario	Base Case	High Scenario	
	a	b	c	d	e	f	g
1	Participating Customer Costs	\$ 9,744,826	\$ 11,154,288	\$ 12,827,431	\$ 13,691,480	\$ 17,166,100	This is the portion of the energy efficiency measure's incremental cost that the customer bears, that is the portion of the incremental cost not addressed by the programmatic incentive or rebate. As this is not a direct programmatic cost and is external to the program budgets it is excluded from the calculation of the performance incentive. This is included as part of category 23 in the Docket 4600 Framework "Program participant / prosumer benefits / costs".
2	Commitments	\$ -	\$ -	\$ -	\$ -	\$ -	Commitments are not associated with savings and benefits within-year and are therefore omitted from the calculation of net benefits for performance incentive in that year. Within the Docket 4600 Framework, this category is embedded within the category 6 "Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs".
3	Regulatory Costs for OER and EERMC	\$ 642,453	\$ 800,094	\$ 920,108	\$ 936,754	\$ 1,174,484	Costs for OER and EERMC are not direct costs of implementing the energy efficiency portfolios and do not have direct impact on savings and benefits, so they are omitted from the calculation of net benefits. In accordance with R.I. Gen Laws 39-2-1.2(h), these funds are provided to the Office of Energy Resources and the Energy Efficiency Resource Management Council. Within the Docket 4600 Framework, this category is embedded within the category 6 "Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs"
4	Pilot Costs	\$ 215,780	\$ 219,020	\$ 251,873	\$ 222,260	\$ 278,665	Pilots and Assessments are intended to assess potential new energy efficiency measures but are not expected to generate immediate claimable savings and benefits. Therefore, the costs of these efforts are removed from the calculation of net benefits for performance incentive.
5	Assessment Costs	\$ 64,802	\$ 64,802	\$ 74,522	\$ 64,802	\$ 81,247	Within the Docket 4600 Framework, this category is embedded within the category 6 "Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs"
6	Performance Incentive	\$ 1,700,000	\$ 1,700,000	\$ 1,700,000	\$ 1,700,000	\$ 1,700,000	Performance incentive earning is an output of the successful implementation of the plans and is therefore an output rather than an input to the calculation.

PUC 4-6

Request:

Please provide the average payout rate for the electric program and the gas program. If they are different, please provide the justification of why.

Response:

The tables below are reproduced from the response to PUC 2-23. A row has been added to show the average payout rate for the electric and gas programs.

Table 23 (Bates 261) Revision: PI Earning Rates by Sector – Electric Portfolio

Sector	Planned Net Benefits (ex-Macroeconomic Multiplier)	Design level Incentive Pool Allocation	Performance Incentive Payout Rate
Residential	\$17,292,828	\$1,925,000	11.132%
Income Eligible	\$8,718,256	\$1,100,000	12.617%
Commercial and Industrial	\$142,654,797	\$2,475,000	1.735%
Electric Portfolio (Average)	\$168,665,881	\$5,500,000	3.261%

Table 24. (Bates 261) Revision: PI Earning Rates by Sector – Gas Portfolio

Sector	Planned Net Benefits (ex-Macroeconomic Multiplier)	Design level Incentive Pool Allocation	Performance Incentive Payout Rate
Residential	\$14,459,738	\$595,000	4.115%
Income Eligible	\$11,763,446	\$425,000	3.613%
Commercial and Industrial	\$35,393,410	\$680,000	1.921%
Gas Portfolio (Average)	\$61,616,594	\$1,700,000	2.759%

The payout rates agreed to by the settling parties in both the electric and gas portfolios were arrived at as a function of negotiated performance incentive pool levels and the planned net benefits within each sector.

While the proposed payout rates are similar, the proposed payout rate for electric benefits is roughly 0.5 percentage points higher than the proposed payout rate for gas benefits. The fact that these payout rates are different is consistent with past approved annual energy efficiency plans,

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as is the relative allocation of the total incentive pools between the overall gas and electric portfolios as compared to recent years.

The relative level of each incentive pool is a reflection of the relative level of Company focus and accountability that stakeholders desired to see the proposed incentive mechanism produce from the Company.

PUC 4-7

Request:

Please provide the ratios of Performance Incentive Payout Rates for residential and income-eligible sectors to C&I. Why are the ratios between the sectors different for the gas and electric performance incentives?

Response:

The tables below are reproduced from the response to PUC 2-23. A column has been added to show the ratios of Performance Incentive Payout Rates for residential and income-eligible sectors to commercial and industrial (C&I).

Table 23 (Bates 261) Revision: PI Earning Rates by Sector – Electric Portfolio

Sector	Planned Net Benefits (ex-Macroeconomic Multiplier)	Design level Incentive Pool Allocation	Performance Incentive Payout Rate	Ratio of PI Payout Rate to C&I
Residential	\$17,292,828	\$1,925,000	11.132%	6.42
Income Eligible	\$8,718,256	\$1,100,000	12.617%	7.27
Commercial and Industrial	\$142,654,797	\$2,475,000	1.735%	-

Table 24. (Bates 261) Revision: PI Earning Rates by Sector – Gas Portfolio

Sector	Planned Net Benefits (ex-Macroeconomic Multiplier)	Design level Incentive Pool Allocation	Performance Incentive Payout Rate	Ratio of Sector PI Payout Rate to C&I
Residential	\$14,459,738	\$595,000	4.115%	2.14
Income Eligible	\$11,763,446	\$425,000	3.613%	1.88
Commercial and Industrial	\$35,393,410	\$680,000	1.921%	-

The payout rates agreed to by the settling parties within each sector of the electric and gas portfolios were arrived at as a function of negotiated performance incentive pool levels and allocations as well as the planned net benefits within each sector.

The ratios between the sectors are different for the electric and gas portfolios for several reasons. Within the electric portfolio, a larger share of net benefits is derived from the commercial and

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industrial portfolio as compared to the natural gas portfolio, where there is relatively more parity in the planned benefits among sectors. A constant payout rate for each sector across portfolios would have led to either a greater share of the electric performance incentive pool being allocated to the commercial and industrial sector, or a smaller share being allocated to that sector within the gas portfolio. As discussed in the Company's response to PUC 2-20, the sector level allocations of the performance incentive pools (and resulting payout rates) represent a consensus of the settling parties' perspective on the optimal level of Company focus and accountability for delivered results across these sectors.

PUC 4-8

Request:

Regarding Tables 23 and 24 on Bates 261 of the Plan,

- a. Please recreate Table 23 but recalculate the “Performance Incentive Payout Rate” assuming the same “Design Level Incentive Pool Allocation” and only the planned **net** benefits derived from categories 1 through 22 of the Docket 4600 table on Bates 548.
- b. Please recreate Table 24 as in part a, and using the analogous gas benefit and cost categories to categories 1 through 22 on Bates 548.

Response:

Please see the recreated Tables 23 and 24 below.

As in the response to PUC 4-2, the requested variation on Table 23 includes only the categories of benefits associated with energy efficiency measures in categories 1-22 of the Docket 4600 table. The same set of costs as in the original Table 23, and as noted as the “Eligible Spending Budget” in Table E-3 (Bates 559) of the 2021 Annual Energy Efficiency Plan, are used to calculate net benefits.

Note that in this recalculation, the reduction in benefits leads to negative net benefits within specific sectors. Mathematically, for purposes of the requested calculation, this would lead to negative payout rates. The Company does not view a negative payout rate based incentive mechanism as consistent with sound performance incentive design, and so any performance incentive mechanism accounting only for the subset of benefits identified in the question would need to be redesigned – likely based on a total benefits calculation, with a separate mechanism or approach to incenting cost efficiency in program delivery.

Table 23 (Bates 261) Variation: PI Earning Rates by Sector – Electric Portfolio with Limited Benefits

Sector	Planned Net Benefits (Docket 4600 Quantified Cats. 1-22 Only)	Design level Incentive Pool Allocation	Performance Incentive Payout Rate
Residential	(\$9,162,081)	\$1,925,000	-21.011%
Income Eligible	(\$13,014,188)	\$1,100,000	-8.452%
Commercial and Industrial	\$92,752,115	\$2,475,000	2.668%
Total	\$70,575,846	\$5,500,000	7.793%

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The requested variation on Table 24 only includes the quantified categories associated with the gas system level in the Docket 4600 Framework as shown in the response to PUC 4-3. These categories are 1 “Energy Supply & Transmission Operating Value of Energy Provided or Saved” and 12 “Energy Demand Reduction Induced Price Effect.” The same set of costs as in the original Table 24, and as noted as the “Eligible Spending Budget” in Table G-3 (Bates 572) of the 2021 Annual Energy Efficiency Plan, are used to calculate net benefits.

Table 24. (Bates 261) Variation: PI Earning Rates by Sector – Gas Portfolio with Limited Benefits

Sector	Planned Net Benefits (Docket 4600 Quantified Cats. 1-22 Only)	Design level Incentive Pool Allocation	Performance Incentive Payout Rate
Residential	(\$1,494,543)	\$595,000	-39.811%
Income Eligible	(\$4,363,888)	\$425,000	-9.739%
Commercial and Industrial	\$8,913,340	\$680,000	7.629%
Total	\$3,054,909	\$1,700,000	55.648%

In the Company's view, omitting areas of benefit outside of categories 1-22 of the Docket 4600 Framework eliminates benefits that accrue to customers and to society, and that are established and quantified through rigorous and well-established processes to define the monetized value of those benefits. Perhaps most importantly, omitting categories of benefits derived from saving other fuels (and water) besides electric and natural gas omits benefits that customers realize but that are not directly related to the gas and electric systems. The omission of these benefits in the calculation of performance incentives would disconnect the Company's performance incentive from the benefit cost models that are the basis of the Company's ability to deliver specific measures and programs, and would reduce the alignment between Company interests and the customer interests that are the basis of the Company's energy efficiency programs.

PUC 4-9

Request:

Regarding the 125% cap on sector incentive levels described on Bates 260 of the Plan, does the proposed incentive allow National Grid to earn more than the target incentive even if the actual program spending exceeds the approved spending budget? If not, please explain in detail what element of the incentive design prohibits this.

Response:

Yes, the proposed incentive would allow the Company to earn more than the target incentive even in scenarios where the actual program spending exceeded the approved spending budget. This would be true only if the achieved total benefits eligible for the performance incentive also exceeded the planned goal, by an amount greater than the amount that the actual spending exceeded the planned budget. As the proposed performance incentive mechanism links the Company's performance incentive earnings only to absolute achievement of net benefits, there is no specific limitation on Company earning opportunity based solely on the level of program spending relative to approved spending budget.

Holding total benefits constant, the Company is positioned to earn a larger performance incentive by achieving these benefits through lower programmatic spend. Beyond that element of the proposed performance incentive structure, which actively promotes cost efficiency by the Company in its achievement of benefits, the primary budgetary controls proposed in the filed plan relate to the Company's spending notification and approval obligations as outlined in Section 11.5 of the 2021 Annual Energy Efficiency Plan (beginning on Bates 258) and the Company's response to PUC 2-5.

PUC 4-10

Request:

What element of the performance incentive design, if any, provides a control so that actual spending does not exceed the approved spending budget. For example, assume for every dollar National Grid spends, it achieves the same net benefit; the biggest profit for National Grid results from spending 125% of the approved spending budget so that it could reap 125% of the target incentive. What, if anything, controls against this outcome?

Response:

The performance incentive mechanism, as proposed, provides no specific control related to the Company's actual spending relative to approved spending budgets. Rather, the proposed incentive mechanism incents the Company, as is consistent with its obligations under Least Cost Procurement, to pursue all achievable, cost-effective energy efficiency savings (and resulting benefits to customers). As referenced in the Company's response to PUC 4-9, the primary budgetary controls proposed in the filed plan relate to the Company's spending notification and approval obligations as outlined in Section 11.5 of the 2021 Annual Energy Efficiency Plan (beginning on Bates 258) and the Company's response to PUC 2-5.

The path to the Company maximizing profit under the proposed performance incentive mechanism is to achieve net benefits that reach or are in excess of 125% of planned net benefits. Assuming that incremental savings opportunities are available above those that have been planned and budgeted for, one path to achieving that outcome would be to drive additional savings and benefits, even when the achievement of such benefits would require spending above approved spending budgets. The alternative path to maximizing Company profit under the proposed performance incentive mechanism would be to reduce the actual implementation spend associated with achieving planned total benefits, such that net benefits achieve or exceed that 125% of planned levels cap.

PUC 4-11

Request:

Regarding the performance incentive:

- a. What is the benefit of changing payout rates annually?
- b. Did National Grid consider, separately or in settlement, setting at a fixed rate based on the Three-Year Plan net benefits? If not, why not? If so, why was this rejected?
- c. Did National Grid consider, separately or in settlement, setting payout rates that decrease over the Three-Year Plan? If not, why not? If so, why was this rejected?
- d. Did National Grid consider, separately or in settlement, setting target incentives and related elements (e.g. caps) on cumulative three-year performance, rather than annual performance? If not, why not? If so, why was this rejected?
- e. With consideration to parts a-d above, how is the proposed incentive similar to National Grid's efficiency incentive in Massachusetts and how is it different?

Response:

- a. The benefit of adjusting payout rates annually is that these adjustments allow all parties to appropriately manage the overall size and allocation of the performance incentive pool each year, in the context of all other binding elements of each Annual Plan that are established with those plans.

A fixed payout rate could lead to volatility in the size of the Company's annual earning opportunity (and customer exposure to these payments), as the net benefit commitment within each Annual Plan can vary for reasons that are outside of the Company's control (avoided costs estimates, inclusion or exclusion of benefit stream components of the total benefit calculations) or that are a function of previous Company successes.

In the former case, for instance, an increase in avoided cost estimates over the term of a Three-Year Plan could increase the total and net benefits attributable to the Company achievement of a measure or set of measures. In a fixed payout rate environment, this could lead to an increase in Company performance incentive earnings for reasons having nothing to do with the Company's efforts or achievements.

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In the latter case, Company success in transforming a market can lead to increased baselines for specific measures, which lead to reduced claimable savings opportunities for those measures. A fixed payout rate in this scenario would lead to a decreased earnings opportunity for the Company, even when it remains in the public interest, and the likely path to maximizing customer benefits, for the Company to continue to have an incentive to pursue those savings opportunities and associated benefits.

- b. While the Company did briefly consider the prospect of establishing fixed net benefit payout rates over the Three-Year Plan term, the Company and other settling parties ultimately did not feel that such an approach was in the best interests of customers. By definition, planned net benefits are a function of planned savings and planned budgets. Fixing net benefit payout rates over the three-year term would represent a de facto establishment of binding savings goals and budgets over the three-year term, which would both deny all parties the benefit of the opportunity to incorporate incremental learnings and information into savings goals and budgets in years 2 and 3 of the Three-Year Plan, as well as expose customers to the potential volatility associated with significant annual variations planned net benefits and the resulting performance incentive pool. While the value of this annual planning process is something that stakeholders viewed as generally important, it was particularly true in the context of this Three-Year Plan, given the unusual degree of uncertainty related to COVID-19 and resulting economic impacts over the upcoming Three-Year Plan term. In addition, as noted in part a of this response, the Company expects to make an update to many of the benefits calculations included in the benefit-cost analysis and the performance incentive for the 2022 Annual Energy Efficiency Plan. These updates will be made based on the new regional avoided cost study currently underway. Setting the payout rates for the next three years at this time would not account for these changed benefits calculations.
- c. No, at no point did the Company, or other settling parties, consider the establishment of declining payout rates over the term of the three-year plan. This was not considered primarily for the reasons outlined in part b of this response about the undesirable impacts of firmly establishing any level of payout rates over the full three-year term. The Company would also disagree that the value of achieving net benefits (and thus of providing the Company with an earning opportunity based on the achievement of those benefits) decreases over the term of the Three-Year Plan as would be implied by such a structure. Rather, the Company believes that the performance incentive opportunity should be evaluated with each Annual Plan, in the overall context of each plan in its entirety, and payout rates should be established as an output of these determinations, not an input into each plan.

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- d. Yes, the Company and the other settling parties did consider the establishment of target earning opportunities and establishing performance incentive performance on the basis of cumulative three-year outcomes, as opposed to annual outcomes. Ultimately, this possibility was rejected, for the same reason that the possibility of a fixed payout rate over the Three-Year Plan term was rejected. Moving to three-year targets, payout rates, or performance evaluation would effectively move the planning process away from binding annual budgets and savings goals to binding three-year budgets and savings goals. In light of the value that stakeholders attributed to the annual planning process and the establishment of binding savings goals and budgets each year, with the benefit of the most current information and outlooks, any potential benefit of a cumulative earning opportunity or performance evaluation period was outweighed by the downsides of the associated lost agility associated with moving away from annual planning processes.
- e. The Plan's proposed performance incentive mechanism is similar to the current Massachusetts mechanism (in effect for the current plan term of 2019-2021) on two key dimensions:
- Actual performance incentive earnings are calculated on the basis of 'payout rates', which are determined as a function of a negotiated performance incentive pool earning opportunities and planned total and net benefits, as determined by energy efficiency plan savings goals, implementation budgets, and measure mixes.
 - The Massachusetts performance incentive mechanism includes both a threshold of achieved benefits and net benefits, as a percent of planned benefits and net benefits, that must be achieved before performance incentive can be earned, as well as a cap on maximum earnings, as a function of the 'design level' incentive pool, that can be earned. The current earnings threshold within Massachusetts is 75%, and the current cap is 125% of planned benefit and performance incentive earnings.

There are a number of key differences between the proposed performance incentive mechanism and the current Massachusetts mechanism.

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- The first core difference between the Massachusetts energy efficiency plan and the proposed Rhode Island performance incentive mechanism is that the Massachusetts incentive pool and earning opportunity are split between “savings” (total benefits) and “value” (net benefits) pools. The proposed Rhode Island mechanisms is built entirely around net benefits (i.e. total benefits less utility implementation costs to achieve those benefits). The specific components and drivers of benefits calculations in Massachusetts are also different on multiple dimensions than the benefit calculations within Rhode Island.
- A second core difference between Massachusetts energy efficiency plans and Rhode Island energy efficiency plans is that, in Massachusetts, binding plan budgets and savings and benefits goals are established over a full three-year term, not on an annual basis. As such, within Massachusetts, performance incentive payout rates are fixed over the three-year term of each plan, and individual program administrator achievement and performance incentive earnings are evaluated over the cumulative three-year term of each plan, not on an annual basis.
- Payout rates are established and performance incentive earnings are determined in Massachusetts at the portfolio level (i.e. the overall portfolio of all electric programs and measures have a single payout rate, incentive pool and earning opportunity, as does the overall gas program portfolio), not at the sector level (i.e. non-income eligible residential vs. income eligible residential vs. commercial and industrial). The proposed performance incentive mechanism in the 2021 Rhode Island energy efficiency plan uses the sector based approach.
- The current Massachusetts performance incentive mechanism provides for an ‘enhanced payout rate’ for the achievement of benefits within the program administrator’s electric active demand reduction programs. Despite the nomenclature, this does not have the effect of increasing the overall performance incentive opportunities for program administrators – rather, because the overall pool is separately established and fixed, it re-apportions a share of the overall performance incentive earnings pool away from those sources of benefits that are not subject to the enhanced payout rate towards the measures that are.

PUC 4-12

Request:

How does National Grid expect to maximize net benefits? Please be as specific as possible.

Response:

The Company believes that the path to maximizing net benefits will start with maximizing total customer benefits achieved through the delivery of its energy efficiency programs. Consistent with the Company's obligations under Least Cost Procurement (and with the Company's current performance incentive structure), the Company plans to achieve this through maximizing its realization of savings during the 2021 program year. One implication of the shift away from the current performance incentive mechanism focus on *annual* savings to a benefits-based framework is that *lifetime* measure savings now become a more important determinant of Company performance and performance incentive earnings. As such, the Company plans to increase its focus on delivering measures with longer measure lives (and therefore larger lifetime savings and benefits), at the expense of a focus on measures with shorter measure lives.

In addition to maximizing its achievement of total benefits through the aggressive pursuit of savings, the second lever available to the Company to maximize net benefits is the realization of cost efficiencies in the achievement of these savings and benefits. The Company expects to maximize the realization of these cost efficiencies through the application of its standard financial, cost and program management controls in the administration of its energy efficiency programs.

PUC 4-13

Request:

Please calculate the performance incentive that National Grid would have earned for the last 5 years if the proposed PIM design was in effect.

Response:

Please see the Company's response to PUC 1-51, and specifically Column c. of the electric and gas tables provided in that response, which shows the performance incentive that the Company would have earned for the last 5 years if the proposed PIM design was in effect.

PUC 4-14

Request:

Please revise National Grid's response to 1-9 to include existing information for years 2022 and 2023. Please also provide this in machine-readable format.

Response:

See Attachment PUC 4-14 for the inclusion of 2022 and 2023 values.

Please note the Company made several updates to the values reflected in Attachment PUC 1-9-1 (Supplemental) with this response. Values which have been updated are highlighted in green in Attachment PUC 4-14.

2020 values for all lighting energy savings and spending were updated from year to date values in the original Attachment PUC 1-9-1 (Supplemental) to 2020 planned values in Attachment PUC 4-14-1 to give the PUC a better view of year to year changes in lighting energy savings and spending values.

C&I Lighting Saving and Spending had four updates. These updates are due to the Company inadvertently omitting or including the below items.

- Historical values now include energy savings and spending associated with custom lighting not included in the original Attachment PUC 1-9-1 (Supplemental).
- Historical values now include spending associated with the upstream lighting subprogram from 2016-2019 not included in the original Attachment PUC 1-9-1 (Supplemental).
- Historical values have removed energy savings from the Small Business Services (Small Business Direct Install) program which had been counted in the C&I Lighting Energy Savings in the original Attachment PUC 1-9-1 (Supplemental).
- 2021 planned energy savings was updated to include savings previously omitted.

Direct Install Lighting Spending historical values from 2015 to 2019 and 2020-2021 planned values were updated to isolate lighting incentive spending and provide a more accurate comparison between historical spending values and planned spending values.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
2021-2023 Energy Efficiency Program Plan &
2021 Annual Energy Efficiency Program Plan
Responses to Commission's Fourth Set of Data Requests
Issued on November 20, 2020

Attachment PUC 4-14

The Company is also providing the Excel version of Attachment PUC 4-14.

Table E-10: Rhode Island Electric Energy Efficiency 2003 - 2021 - Expanded

Notes:

(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.

(8) Reflects the annual cost excluding Gross Earnings Tax.

(9) Reflects the annual cost including Gross Earnings Tax.

(11) Target incentivization is calculated in the same manner as in 2020 in order to provide a more accurate estimate of the anonym efficiency improvements.

(12) <https://www.bls.gov/web/laws/laws.htm>, accessed on 11/11/2020. Rate shown is the rate in January of that year for 2003 - 2020. <http://omb.n.gov/document/revenues/conference%20May%202020%20Revenue%20Estimate%20Conference%20Report.pdf>, accessed on 11/23/2020. Rate shown is the projection for calendar year 2021 - 2023.

(13) <https://apps.bea.gov/table/Table.cfm?ReqID=70&step=1>, accessed on 11/1/2020. Real GDP is in millions of chained 2012 dollars. Calculations are performed on unrounded data. Chained (2012) dollar series are calculated as the product of the chain-type quantity index and the 2012 current-dollar value of the corresponding series, divided by 100. Because

(14) Spending budget adjusted to reflect revenue from the upcoming billing period

(15) Implementation costs including participant costs. Participant cost not included

(16) C&I Lighting Spending is incentive spending only. For 2012–2015 C&I upstream lighting costs are not included in spending totals. 2010 values are planned but exclude custom lighting savings and costs because custom lighting savings and costs were not broken out from overall custom measures in planning until 2012.

(18) Res Lighting Spending includes incentives and programmatic implementation costs.

(19) Direct install lighting spending is based on Year End annual kWh to estimate spending from 2007–2014. This includes lighting from EnergyWise, Multifamily, Income Eligible Services, Income Eligible Multifamily, and Residential New Construction. For 2015–2019, an estimated \$/kWh for incentives from applicable measures was used. For 2020–2023, spending is total incentive spending only, and estimated from the 2023 Direct Install Lighting Spending by Measure.

PUC 4-15

Request:

Reference is made to National Grid's response to PUC 1-7 in Docket No. 5076. Please answer the following:

- a. Is photovoltaic (PV) generation the only distributed generation resource considered in the forecast or are there others (for example, wind)? If so, why? If not, how are these other resources accounted for in the response to 1-7?
- b. In response to PUC 5-5 in Docket No. 5010, National Grid explained that it estimates monthly load reduction from behind-the-meter (BTM) PV by applying monthly capacity factors to the total nameplate capacity of BTM PV facilities. Monthly BTM load that is in excess of monthly usage at each site will create a negative meter read, and such meter reads have the same effect on total metered consumption as front-of-the-meter (FTM) PV, which is no effect. Is this excess monthly generation considered PV reduction and therefore reconstituted, or is it currently excluded from the forecast like FTM PV?
- c. When adjusting its delivery forecast for PV (both historic reconstitution and forward-looking PV forecasts), how does National Grid distinguish FTM PV from BTM PV?

Response:

- a. PV is the only generation Distributed Energy Resource (DER) considered in the Company's load forecast, similar to the ISO-NE's practices (i.e., PV is included as a DER, the wind is not). Wind is not considered because there is no distributed wind in the queue.
- b. If there is excess BTM PV (i.e. BTM PV generation that exceeds on-site usage), this is considered to be net generation, like FTM PV, and does not lower the monthly delivery kWh that is measured on a monthly basis. In general, BTM systems should be properly sized to meet the usage on an annual basis so no assumption is made to specifically distinguish net generation.
- c. All PV in the residential sector are BTM PV. In the non-residential sector, 13% of the total PV nameplate capacity is estimated to be BTM PV. This estimate is based on the past five-year FTM share of PV.

PUC 4-16

Request:

Regarding electric energy use and forecasts:

- a. In a single table, please provide the following columns for electric energy (kWh or MWh):
 - i. Calendar month
 - ii. 2019 Actual monthly energy demand
 - iii. 2020 Forecast monthly energy demand
 - iv. 2020 Actual monthly energy demand and remaining forecast
 - v. 2021 Forecast monthly energy demandPlease add totals to the bottom of columns ii-iv.
- b. To date, has 2020 actual total usage deviated from either the 2019 actual use or 2020 forecast in an amount similar to the projected decrease in the forecast for 2021?
- c. If not, please explain why National Grid believes it is reasonable to expect a decrease in energy use in 2021 that did not occur in 2020—in other words, please provide the direct evidence that the factors that will drive decreased energy use in 2021 did not persist in 2020.

Response:

- a. Please refer to Attachment PUC 4-16:
 - Calendar month is listed in column A
 - 2019 actual monthly energy demand in kWh is listed in column B
 - 2020 forecast monthly energy demand in kWh, assuming normal weather, is listed in column C
 - 2020 actual monthly energy demand and remaining forecast in kWh is listed in column D. The values for Jan to Oct are actuals, and the values for Nov and Dec are forecasts
 - 2021 forecast monthly energy demand in kWh, assuming normal weather is listed in column E
 - Column F and G list the weather-normalized (or weather-adjusted) actual for 2020 and 2019, respectively. That is what the energy would be assuming normal weather.

Row 15 has the annual total for the aforementioned columns.

PUC 4-16, page 2

- b. To date, the 2020 actual is 1.4% lower than the actual of the same period of 2019 and 1.2% higher than the forecast for 2020.

Some of the difference between forecast and actual energy consumption, and year-over-year change is driven by differences in weather. Since future weather is unknown, the forecast is developed based on normal (average) weather. The 2020 Cooling Degree Days (CDD) for this period are 12% higher than the normal weather indicating more cooling is needed compared to normal weather, while the 2019 CDD of this period is 4% lower than the normal weather indicating less cooling is needed than if it were the normal weather. After accounting for the differences in the weather (or on a normal-weather basis), the 2020 January to October energy is 2.4% lower than the same periods of 2019 and 0.6% higher than the forecasts.

The to-date 2020 energy usage is lower than that of same period of 2019, although the decrease is smaller than the expected 2021 decrease from 2020. Part c below will provide discussions on the reasons for the decrease expected for 2021.

- c. The decrease in energy use for 2021 is driven by lower economic expectations and higher cumulative Distributed Energy Resource (DER) impacts. The DERs include energy efficiency, electric vehicles, solar PV, and electric heat pumps.

Expectations on regional economic and demographic variables are significant drivers of pre-DER forecasts. The COVID-19 pandemic since March 2020 has already caused a substantial decline in many aspects of the economy. For 2021, Moody's forecasts some sectors to start a slow recovery but will still not recover to their pre-pandemic level, while others are expected to continue to decline. Please refer to the response to 4-18 for detailed discussions on the key economic variables.

The pre-DER energy use in each of the revenue sectors shows a decline from its 2020 level. In detail:

- For the residential sector, the 2021 pre-DER energy expects a 5% decline from its 2020 level but a 1% growth from its pre-pandemic (i.e., 2019) level. The 2020 residential energy is higher than normal because of the behavior changes (i.e., working from home, schooling from home, etc.) caused by the pandemic. The forecast accounts for the pandemic by incorporating observed usage during the pandemic from March 2020 through August 2020 and by incorporating Moody's economic forecasts which capture the projected economic impacts from COVID-19.

PUC 4-16, page 3

In 2021, the Per Capita Income that drives the residential delivery forecasts is expected to recover to the 2019 level, so the 2019 and 2021 pre-DER energy forecasts are similar.

- For the commercial sector, the 2021 pre-DER energy is expected to decline by 1% from its 2020 level. It is caused by the expectation that the economy will not fully recover to the pre-pandemic level.
- For the industrial sector, the 2021 pre-DER energy is expected to decline by 1.8% from its 2020 level, which is similar to the rate of previous years (1.7% decline in 2017 and 1.8% decline in 2019). This is driven by the continued decline in the manufacturing employment forecast.

The pre-DER energy forecasts are then reduced by the projected cumulative impacts from DERs. In 2021, incremental growth is expected for all DERs. This leads to higher cumulative energy impacts for DERs. The energy reduced by DERs is expected to be 8% higher in 2021 than in 2020, resulting in a net lower energy usage in 2021.

	A	B	C	D	E	F	G
	Calendar Month	2019 Actual (kWh)	2020 Forecast (kWh)	2020 Actual (Jan to Oct) and Forecast (Nov and Dec) (kWh)	2021 Forecast (kWh)	2020 Weather-adjusted Actual (kWh)	2019 Weather-adjusted Actual (kWh)
1							
2	Jan	638,448,709	652,135,716	552,545,065	593,178,691	568,153,547	646,178,078
3	Feb	607,568,994	603,859,489	587,066,082	544,253,804	608,314,427	607,297,808
4	Mar	592,067,747	576,707,614	577,133,879	529,725,921	596,182,219	582,122,241
5	Apr	551,871,685	562,146,739	562,982,274	520,730,962	566,279,899	554,939,739
6	May	532,544,596	502,216,544	532,243,383	449,411,420	523,745,152	532,095,257
7	Jun	547,498,568	536,819,891	550,076,296	510,346,489	543,600,694	568,624,740
8	Jul	680,901,154	688,720,001	704,150,227	650,338,728	687,500,203	668,596,718
9	Aug	805,445,779	684,296,108	807,396,652	672,095,210	738,887,313	768,831,812
10	Sep	665,085,875	639,049,133	656,634,583	616,035,712	656,634,583	702,158,144
11	Oct	533,083,945	544,900,650	535,200,998	495,113,634	535,200,998	540,907,446
12	Nov	519,997,481	530,254,534	506,666,429	478,187,794	506,666,429	515,347,737
13	Dec	582,220,676	592,192,885	556,078,854	547,127,026	556,078,854	567,351,237
14							
15	ANNUAL TOTAL	7,256,735,209	7,113,299,305	7,128,174,722	6,606,545,391	7,087,244,317	7,254,450,957

PUC 4-17

Request:

Please provide the same as in data request 4-14, but for gas usage.

Response:

Please see Attachment PUC 4-17.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
2021-2023 Energy Efficiency Program Plan &
2021 Annual Energy Efficiency Program Plan
Responses to Commission's Fourth Set of Data Requests
Issued on November 20, 2020

Attachment PUC 4-17

The Company is also providing the Excel version of Attachment PUC 4-17

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 4-17-1
Table G-10: Rhode Island Gas Energy Efficiency 2003 - 2021 - Expanded
\$(000)

Gas	2007 ⁽⁴⁾	2008	2009	2010	2011 ⁽⁵⁾	2012	2013 ⁽⁶⁾	2014	2015	2016	2017	2018	2019	2020 ⁽⁷⁾	2021 ⁽⁸⁾	2022 - Base Case Scenario	2022 - High Case Scenario	2023 - Base Case Scenario	2023 - High Case Scenario
Energy Efficiency Budget (\$Million) ⁽¹⁾	-	\$7.3	\$7.6	\$4.8	\$7.3	\$13.7	\$19.5	\$23.5	\$24.5	\$27.7	\$29.7	\$28.1	\$31.6	\$34.3	\$38.6	\$40.8	\$46.6	\$47.8	\$59.4
Yearly Percentage Increase in Energy Efficiency Budget	-	-	4%	-3%	52%	88%	42%	21%	4%	13%	7%	-5%	12%	9%	12%	6%	21%	17%	27%
Spending Budget (\$Million) ⁽²⁾	-	\$6.6	\$6.1	\$4.5	\$6.2	\$12.9	\$17.9	\$21.8	\$22.4	\$25.0	\$27.8	\$26.2	\$29.2	\$31.6	\$36.0	\$38.1	\$43.7	\$44.9	\$56.2
Actual Expenditures (\$Million) ⁽³⁾	-	\$7.4	\$6.3	\$5.5	\$4.9	\$13.3	\$19.6	\$21.5	\$21.5	\$24.6	\$29.1	\$28.8	\$29.5						
Incentive Percentage ⁽¹²⁾	-	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%	5.0%	NA	NA	NA	NA
Target Incentive	-	\$288,734	\$266,980	\$199,743	\$274,460	\$570,382	\$898,285	\$1,089,700	\$1,119,800	\$1,251,654	\$1,387,550	\$1,309,076	\$1,460,570	\$1,578,601	\$1,700,000	\$1,700,000	\$1,700,000	\$1,700,000	\$1,700,000
Earned Incentive	-	\$288,734	\$262,121	\$231,310	\$239,863	\$586,036	\$968,229	\$1,362,108	\$1,387,079	\$1,496,869	\$1,633,531	\$1,541,255	\$1,580,119						
Annual MMBtu Energy Savings Goal Achieved (%)	-	109%	139%	127%	117%	99%	109%	124%	111%	106%	113%	120%	104%						
System Benefits Charge (\$/therm) - all non-exempt customers ⁽¹¹⁾	\$0.0071	\$0.0107	\$0.0150	\$0.0150	\$0.0411	\$0.0384	\$0.0417	-	-	-	-	-	-	-	-	NA	NA	NA	NA
Residential System Benefits Charge (\$/therm)	-	-	-	-	-	-	-	\$0.0600	\$0.0781	\$0.0748	\$0.0888	\$0.0869	\$0.0715	\$0.1011	\$0.1011	\$0.1234	\$0.1410	\$0.1403	\$0.1743
C&I System Benefits Charge (\$/therm)	-	-	-	-	-	-	-	\$0.0492	\$0.0637	\$0.0487	\$0.0726	\$0.0671	\$0.0420	\$0.0704	\$0.0704	\$0.0859	\$0.0982	\$0.0977	\$0.1214
Annual Cost to Ratepayers/Year Residential Customer w/o tax ⁽¹⁰⁾	\$6.04	\$9.05	\$12.69	\$12.69	\$18.28	\$32.49	\$35.28	\$50.76	\$66.07	\$63.28	\$75.12	\$73.52	\$60.49	\$85.53	\$85.53	\$104.40	\$119.26	\$118.66	\$147.47
Annual Cost to Ratepayers/Year Residential Customer w/ tax ⁽¹⁰⁾	\$6.23	\$9.33	\$13.08	\$13.08	\$18.85	\$33.49	\$36.37	\$52.33	\$68.11	\$65.24	\$77.44	\$75.79	\$62.36	\$88.18	\$88.18	\$107.63	\$122.95	\$122.33	\$152.03
RI Unemployment Rate ⁽¹³⁾	4.7%	6.2%	10.1%	11.1%	11.0%	11.2%	9.5%	8.8%	6.6%	5.4%	4.5%	4.3%	3.7%	3.4%	11.3%	5.1%	5.1%	4.1%	4.1%
RI GDP (\$Million) ⁽¹⁴⁾	\$ 51,994	\$ 50,412	\$ 50,217	\$ 51,365	\$ 51,263	\$ 51,607	\$ 51,679	\$ 52,006	\$ 52,958	\$ 53,030	\$ 52,728	\$ 53,136	\$ 53,668	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Yearly Percentage Change in RI GDP	-2.8%	-3.0%	-0.4%	2.3%	-0.2%	0.7%	0.1%	0.6%	1.8%	0.1%	-0.6%	0.8%	1.0%	-	-	-	-	-	-
Adjusted Spending Budget (\$Million) ⁽¹⁵⁾	-	\$6.6	\$3.2	\$6.7	\$7.9	\$13.1	\$14.0	\$21.3	\$26.9	\$25.8	\$31.0	\$28.6	\$22.3	\$35.3	\$32.8	\$40.8	\$46.6	\$47.8	\$59.4
Actual Implementation Costs (\$Million) ⁽¹⁶⁾	-	\$6.7	\$9.0	\$11.0	\$7.9	\$20.7	\$24.3	\$29.3	\$27.6	\$29.0	\$36.4	\$34.8	\$41.9						

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, Copyys, 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 assessment 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) Gas programs began during July 2007 and were not reported on separately that year since programs were still in development. The 2007 gas programs are included in 2008 reporting. Systems Benefit Charge shown for 2007 is the weighted average of \$0.063 per decatherm from January 1, 2007 - June 30, 2007 and \$0.107 per decatherm from July 1, 2007 through December 31, 2008.
- (5) On July 25, 2011, the Commission ordered that National Grid could increase the gas System Benefits Charge from \$0.15 to \$0.411 per decatherm for the period of August 1, 2011 through December 31, 2011. Annual cost represents 7 months usage (632 therms) at \$0.015 per therm and 5 months usage (214 therms) at \$0.0411 per therm.
- (6) 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.
- (7) 2020 values are planned.
- (8) 2021 values are proposed.
- (9) Reflects the annual cost excluding Gross Earnings Tax.
- (10) Reflects the annual cost including Gross Earnings Tax.
- (11) The Gas EE Program Charge was uniform for all customers until 2014, at which time the Company proposed and the PUC approved individual factors for the residential and C&I sectors.
- (12) Incentive Percentage not applicable for 2021 due to new performance incentive mechanism developed for the 2021 Annual Plan. See Section 12 of the Main Text of the 2021 Annual Plan for additional details.
- (13) <https://www.bls.gov/web/laws/launstrk.htm>, accessed on 11/11/2020. Rate shown is the rate in January of that year for 2003 - 2020. http://www.omb.nrg.gov/documents/revenues/conference/5800_May%202020%20Revenue%20Estimating%20Conference%20Report.pdf, accessed on 11/23/2020. Rate shown is the projection for calendar year 2021 - 2023.
- (14) <https://apps.bea.gov/table/?table=70&step=1>, accessed on 11/11/2020. Real GDP is in millions of chained 2012 dollars. Calculations are performed on unrounded data. Chained (2012) dollar series are calculated as the product of the chain-type quantity index and the 2012 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The difference between the United States and sum-of-states reflects federal military and civilian activity located overseas, as well as the differences in source data used to estimate GDP by industry and the expenditures measure of real GDP.
- (15) Spending budget adjusted to reflect revenue from the upcoming billing period.
- (16) Implementation costs including participant costs. Participant cost not included in reporting prior to 2009.

PUC 4-18

Request:

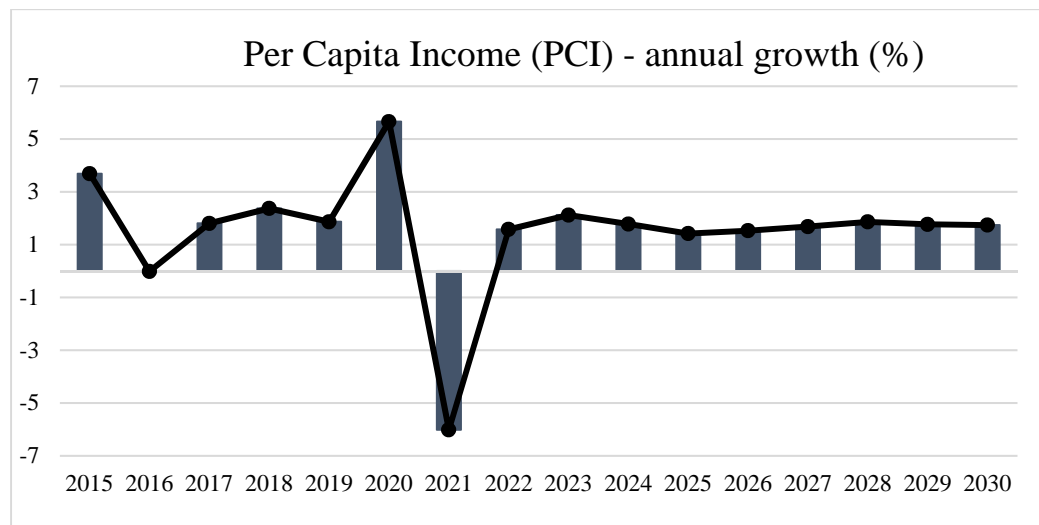
Please provide the main economic factor(s) in the Moody's economic forecast that leads to a forecasted decrease in energy use in 2021.

Response:

The forecasts were developed for each of the revenue sectors: residential, commercial, and industrial separately. Key economic drivers are per capita income (PCI) for residential deliveries, gross state product (GSP) for commercial deliveries, and manufacturing employment for industrial deliveries. The economic forecasts were from Moody's September 2020 release. The COVID-19 pandemic since March 2020 has already caused a substantial decline in the economy. In some areas, further decline is expected in the near-term. In other areas, some recovery is expected, but they will not fully recover to pre-pandemic levels in the near-term. The continued decline or slow recovery of the regional economy drives the lower energy forecasts.

The annual growth rate of these key economic drivers are presented below:

Figure 1 below shows the PCI annual growth percent of Rhode Island from Moody's: positive growth is expected in 2020 from its 2019 level, driven by the fiscal stimulus during the COVID-19 pandemic. In 2021, PCI is expected to decline 6% from 2020 but is similar to its 2019 level. In the residential sector, the 2021 pre-DER energy expects a 5% decline from its 2020 level but a 1% growth from its pre-pandemic (i.e., 2019) level.



PUC 4-18, page 2

Figure 2 below shows the GSP annual growth percent of Rhode Island from Moody's: it is expected to return to growth in 2021 after a large decline in 2020, however, such growth will not bring the GSP back to the pre-pandemic level. In the commercial sector, a 1% decline of the pre-DER energy from its 2020 level is expected for 2021.

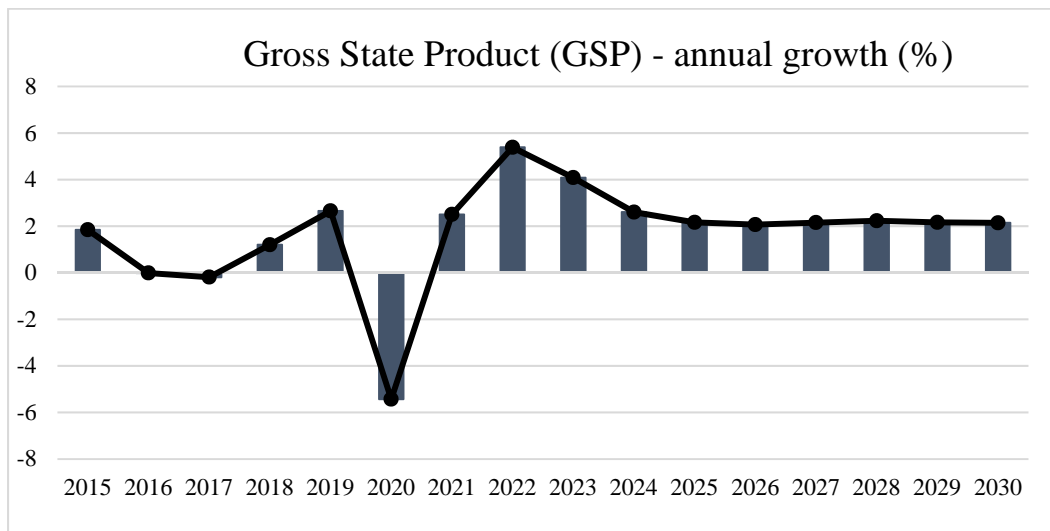
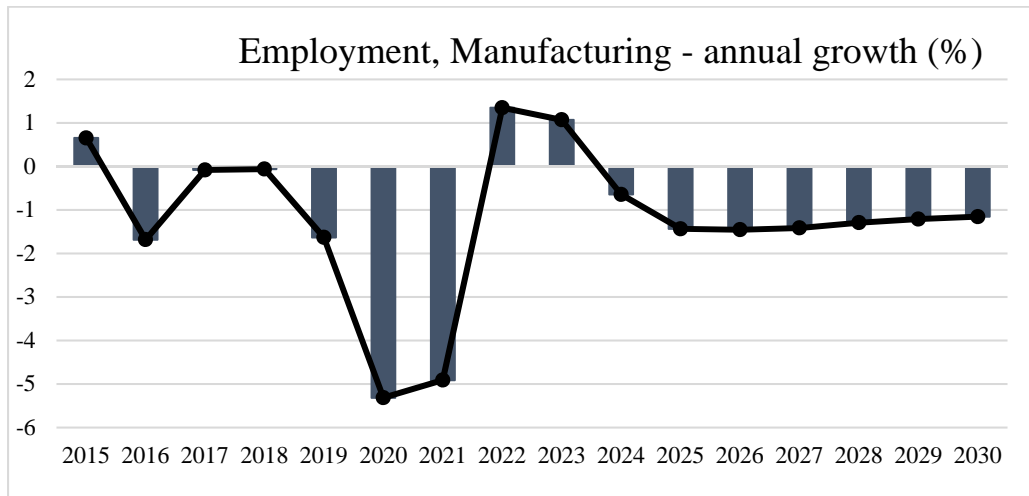


Figure 3 below shows the manufacturing employment annual growth percent of Rhode Island from Moody's: a significant decline is expected for 2020, and another significant decline from the already low 2020 level is expected for 2021. In the industrial sector, a 1.8% decline of the pre-DER energy from its 2020 level is expected for 2021.

PUC 4-18, page 3



PUC 4-19

Request:

Please explain if the economic factors described in data request 4-16 should also affect forecasts of electric energy related each of the “DER Impacts” categories provided in response to PUC 1-7. If so, please explain how this factor(s) was applied to each DER Impact category. If the factor(s) were not applied, please explain why.

Response:

The four DER items: energy efficiency, solar photovoltaic, electric vehicles, and electric heat pumps are discussed individually below as each was developed using its own methodology.

- **Energy efficiency (EE)**
Consistent with historic practice, the assumption for energy efficiency contributions included in the 2021 delivery forecast produced in July matched the then current draft of the 2021-2023 energy efficiency three-year plan that the Company had prepared and distributed to stakeholders as of the preparation of the delivery forecast. While the planned savings in this draft did not directly reflect anticipated economic impacts through 2021, energy efficiency savings levels in that draft were explicitly limited as a result of constraints on budget growth, effectively reducing planned energy efficiency savings from what otherwise would likely have been planned but for the economic impacts driving these budget constraints.
- **Solar PV (PV)**
The 2021 projection is based on the PV applications in the queue (as of July 2020): only applications that had the first or second payment processed were considered. The Company is on its 2020 target and thus also expects to make the 2021 target as well.
- **Electric vehicles (EV)**
The Company does not currently run any EV incentive projects to promote EV adoption. The EV adoption projection was based on Bloomberg's fifth annual Long-term Electric Vehicle Outlook (“BNEF”), dated May 18, 2020. It is a well-known and comprehensive study of the electric vehicle sector, where technology, policy, and economic factors that drive the electric vehicle market were thoroughly studied. Considering the impacts of the COVID-19 pandemic, BNEF expects the electric vehicle sales to be relatively modest through 2025. The projection on the 2021 incremental EV growth is lower than its 2018 and 2019 level due to the COVID-19 pandemic and its impacts to the economy.

PUC 4-19, page 2

- **Electric heat pumps (EH)**

This is the first year that EH has been introduced into the forecast. Its 2021 adoption projection was based on ISO-NE's EH projection for the region.

PUC 4-20

Request:

Is National Grid's electric energy forecast provided in response to PUC 1-7 indicating that, because of poor economic conditions forecasted in 2021, Rhode Islanders will severely reduce their energy use, but increase their investment in Energy Efficiency, distributed generation, electric vehicles, and electric heat? If not, explain why that is not the indication. If so, please provide the evidence that this forecast is reliable.

Response:

The decrease in energy use for 2021 is driven by lower economic expectations and higher cumulative DER impacts as discussed in PUC 1-7 and further discussed in PUC 4-16, part c., PUC and 4-18.

The anticipated impacts from DERs represent the cumulative impacts of these resources. They are the impacts from cumulatively installed energy efficiency (EE) programs, installed solar photovoltaic (PV) projects, adopted electric vehicles, and installed electric heat pumps over many years plus their expected increments in 2021. The Company expects some level of incremental increase for all DERs in 2021.

- **Energy efficiency (EE)**
Consistent with historic practice, the incremental energy efficiency contributions to the 2021 sales forecast were consistent with the savings associated with the then current draft of the 2021-2023 three-year energy efficiency plan. Given the Company's historical track record of achieving savings targets as laid out in these plans, the Company believes that they represented a reliable basis for estimating the impacts of incremental energy efficiency on forecasted electric deliveries.
- **Solar PV (PV)**
The 2021 projection is based on the PV applications in the queue (as of July 2020): only applications that had the first or second payment processed were considered. The Company is on target for the 2020 goal and thus also expects to achieve the 2021 target.
- **Electric vehicles (EV)**
The Company does not currently run any EV incentive programs to promote EV adoption. The EV adoption projection was based on Bloomberg's fifth annual Long-term Electric Vehicle Outlook ("BNEF"), dated May 18, 2020. It is a well-known and

PUC 4-20, page 2

comprehensive study of the electric vehicle sector, where technology, policy, and economic factors that drive the electric vehicle market were thoroughly studied. Considering the impacts of the COVID-19 pandemic, BNEF expects the electric vehicle sales to be relatively modest through 2025. The projection on the 2021 incremental EV growth is already lower than its 2018 and 2019 level due to the COVID-19 pandemic and its impacts to the economy.

- **Electric heat pumps (EH)**

This is the first year that EH gets introduced into the forecasts. Its 2021 adoption projection was based on ISO-NE's EH projection for the region.

PUC 4-21

Request:

Referring to Bates page 102 of the three-year plan, there is a statement: "In addition to planned annual transfers to RIIB, the Company has included potential savings and incentives in this Plan that are anticipated to be associated with projects financed through EBF (see Table 19, Table 20, Table 21, and Table 22). These savings are based on a pipeline provided by RIIB to the Company during the preparation of the 2021 Annual Plan (see Table 18), which shows a potential for 11,700 gross MWh."

- a. Please provide a copy of the actual document or documents that was provided to the Company from RIIB, reflecting the "pipeline" of projects.
- b. Please provide back-up information supporting the estimate of savings in each instance.

Response:

This response was drafted, in part, on the basis of information provided by RIIB.

- a. Please see Attachment PUC 4-21-1 for the spreadsheet that was provided to the Company detailing total possible savings associated with the EBF loans. Based on the Company's review of and response to this question, the Company noticed an error in Table 18 (on Bates pages 102-103) within the 2021-2023 Energy Efficiency Program Plan & 2021 Energy Efficiency Plan ("Plan"). In the column entitled "Savings Estimate-MWh annual", the project level numbers total to 11,600 MWh, as opposed to the 11,700 MWh that is listed as the 'total' in the table and that were the basis of the Company's program level allocation of anticipated savings resulting from RIIB financed projects across the full term of the Three-Year Plan. Given the de minimis nature of this 100MWh difference across the Company's illustrative savings goals and budgets in years 2 and 3 of the Three-Year Plan, the Company is not proposing a correction to the Plan at this time – the Company will account for this (as well as any other adjustments to planned 2022 and 2023 savings resulting from the RIIB pipeline) at the time of filing those Annual Plans.

Included as Attachment PUC 4-21-2 is the Company's estimation of gross savings based on the historical measure mix of projects supported by the EBF transfer. The Company allocated these savings based on the weighted potential of projects, with more savings estimated for 2022 and 2023 based on extended project lead and completion times.

PUC 4-21, page 2

- b. Lifetime electricity savings estimates were calculated using a value of 17 cents of electric financing per kWh saved and rounded to the nearest 1,000 MWh. Lifetime gas savings estimates were calculated using a value of \$1 of gas financing per therm saved. These calculations were provided to RIIB by the Company. Savings from historical street light projects were used in this estimation and were based on estimated numbers of lights in various communities and compared to projects that had gone through a technical review. This process begins with an OER application with scoping studies conducted by the Company. As this is an estimation, costs and savings may be off by +/- 25 percent. Actual scope, including firm costs from contractors after competitive bidding and actual incentives/rebates are finalized after applications are submitted and approved. This process can take two years from the original OER application.

In all cases, the Company is held to account for these estimated savings through the Company's achievement of all C&I sector savings and through associated performance incentive mechanisms. Additionally, even with approved transfer budget, any Company transfers to RIIB of SBC-funded amounts are predicated upon RIIB's demonstration of need for these funds and the successful completion of Company due diligence requirements as outlined in the Company's response to PUC 4-25.

2021 EBF Pipeline										Savings Estimates Provided by National Grid	
Loan Number	Total Eligible Project Costs	Probability	Project Description	Construction Estimates	Financing Estimates - EE	Weighted Financing Estimate	Percent of Financing Amount Devoted To Gas Improvements	Annual Savings Estimate - MWh*	Annual Savings Estimate - Therms**	Lifetime Savings Estimate - MWh*	Lifetime Savings Estimate - Therms**
1 \$	4,000,000	75%	Lighting upgrades, will move forward once MOU completed between National Grid and RIDOT	2021/2022	\$ 4,000,000	\$ 3,000,000	0%	1,600	-	24,000	-
2 \$	2,500,000	75%	Comprehensive efficiency, already listed on PPL	2021/2022	\$ 2,500,000	\$ 1,875,000	10%	867	16,667	13,000	250,000
3 \$	5,000,000	75%	Comprehensive Energy Efficiency, financing in May 2021	2021	\$ 5,000,000	\$ 3,750,000	10%	1,733	33,333	26,000	500,000
4 \$	5,000,000	75%	Seeking borrowing authority for energy efficiency projects in November	2021/2022	\$ 4,000,000	\$ 3,000,000	10%	1,400	26,667	21,000	400,000
5 \$	15,000,000	75%	Building Energy Efficiency, has borrowing authority	2021/2022	\$ 15,000,000	\$ 11,250,000	10%	5,267	100,000	79,000	1,500,000
6 \$	2,000,000	50%	Building Energy Efficiency, on PPL, seeking borrowing authority in November	2021/2022	\$ 2,000,000	\$ 1,000,000	10%	733	13,333	11,000	200,000
Subtotal	\$ 33,500,000				\$ 32,500,000	\$ 23,875,000		11,600	190,000	174,000	2,850,000
7 \$	80,000,000	25%	Building Energy Efficiency - Schools, in discussion and has bonding authority	2021/2022/2023	\$ 8,000,000	\$ 2,000,000	30%	2,200	160,000	33,000	2,400,000
8 \$	106,500,000	25%	Building Energy Efficiency - Schools - bond on November ballot	2021/2022/2023	\$ 10,650,000	\$ 2,662,500	30%	2,933	213,000	44,000	3,195,000
9 \$	132,000,000	25%	Building Energy Efficiency - Schools - bond on November ballot	2021/2022/2023	\$ 13,200,000	\$ 3,300,000	30%	3,600	264,000	54,000	3,960,000
10 \$	140,000,000	25%	Building Energy Efficiency - Schools - bond on November ballot	2021/2022/2023	\$ 5,000,000	\$ 1,250,000	30%	1,400	100,000	21,000	1,500,000
11 \$	56,000,000	25%	Building Energy Efficiency - Schools - bond on November ballot	2021/2022/2023	\$ 5,600,000	\$ 1,400,000	30%	1,533	112,000	23,000	1,680,000
12 \$	65,900,000	25%	Building Energy Efficiency - Schools - bond on November ballot	2021/2022/2023	\$ 6,590,000	\$ 1,647,500	30%	1,800	131,800	27,000	1,977,000
13 \$	85,000,000	25%	Building Energy Efficiency - Schools	2021/2022/2023	\$ 8,500,000	\$ 2,125,000	30%	2,333	170,000	35,000	2,550,000
14 \$	5,000,000	25%	HVAC Improvement - Quasi, bond on ballot in early 2021	2021/2022	\$ 5,000,000	\$ 1,250,000	30%	1,400	100,000	21,000	1,500,000
15 \$	38,000,000	25%	New Construction, bond on ballot in early 2021	2021/2022	\$ 3,800,000	\$ 950,000	30%	1,067	76,000	16,000	1,140,000
	\$ 741,900,000				\$ 98,840,000	\$ 40,460,000		29,867	1,516,800	448,000	22,752,000

		2021			2022			2023		
Program	Measure	Gross Annual kWh	Incentive	Total Incentive	Gross Annual kWh	Incentive	Total Incentive	Gross Annual kWh	Incentive	Total Incentive
C&I Retrofit	EI HVAC	0	\$0.330	\$0	878,125	\$0.330	\$289,781	334,375	\$0.330	\$110,344
C&I Retrofit	Custom: Street Lighting	500,000	\$0.210	\$105,000	1,000,000	\$0.210	\$210,000	0	\$0.000	\$0
C&I Retrofit	EI Light: Prescriptive	0	\$0.330	\$0	878,125	\$0.350	\$307,344	334,375	\$0.350	\$117,031
C&I Retrofit	HVAC - Custom	0	\$0.420	\$0	878,125	\$0.460	\$403,938	334,375	\$0.460	\$153,813
C&I Retrofit	Lighting - Custom	0	\$0.310	\$0	878,125	\$0.310	\$272,219	334,375	\$0.310	\$103,656
C&I NC	D2 HVAC Prescriptive	0	\$0.230	\$0	878,125	\$0.230	\$201,969	334,375	\$0.230	\$76,906
C&I NC	D2 Lights	0	\$0.195	\$0	878,125	\$0.280	\$245,875	334,375	\$0.280	\$93,625
C&I NC	HVAC - Custom	250,000	\$0.530	\$132,500	878,125	\$0.530	\$465,406	334,375	\$0.530	\$177,219
C&I NC	Lighting - Custom	250,000	\$0.230	\$57,500	878,125	\$0.230	\$201,969	334,375	\$0.230	\$76,906
Total		1,000,000	\$0.295	\$295,000	8,025,000	\$0.324	\$2,598,500	2,675,000	\$0.340	\$909,500

PUC 4-22

Request:

What administrative costs (if any) does the Company expect to incur in connection with the RIIB program in 2021 and under which program(s) are those costs accounted for in the budget?

Response:

The Company has not allocated any direct administrative costs to the RIIB program for 2021. The activities related to RIIB financing support cost-effective energy efficiency projects and are performed by National Grid staff. These activities include bi-monthly coordination meetings with the Office of Energy Resources, RIIB, and National Grid during which the status of current projects is discussed. The Company plans to charge staff time spent performing these activities generally across energy efficiency programs.

PUC 4-23

Request:

Please provide copies of any communications and documents (electronic or on paper) received by the Company from RIIB or any other party during calendar year 2020, discussing any transfers made to RIIB in 2020, discussing any prospective transfers that the Company expects to be making to RIIB before the end of calendar year 2020, and/or addressing the question whether RIIB has sufficient funds to make expected loans in 2020 without a transfer from the energy efficiency budget in 2020.

Response:

Please see Attachment PUC 4-23-1 for electronic communications regarding the 2020 EBF transfer (responsive attachments to the emails are included in Attachments 4-23-2 to 4-23-10).

Attachments PUC 4-23-2 to 4-23-10 are various documents supporting this transfer and reflected in the Company's answer to PUC 4-25 and include:

- Letter from RIIB explaining need for SBC funds
- Original and corrected request for funds from RIIB
- EBF Cash Flow dated 6/30/2020
- Letters from both municipal borrowers for 2020 projects
- Project Priority List scorings

Please note that the Company is respectfully requesting confidential treatment of Attachment PUC 4-23-6 (an EBF Application) and has redacted banking information in Attachment PUC 4-23-1. A Motion for Protective Treatment has been included with filing.

Please note that this response is the result of a search and retrieval for emails conducted in coordination with Legal and IT.

From: Michael Baer [<mailto:MBaer@riib.org>]
Sent: Thursday, October 01, 2020 9:23 AM
To: Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: EXT || Receipt of Funds

Matt,

I can confirm that we received the SBC funds.

Thanks for your help in getting this over.

Michael

Sent from my iPhone

From: Michael Baer [<mailto:MBaer@riib.org>]
Sent: Tuesday, September 29, 2020 11:38 AM
To: Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: EXT || Updated Letter

Matthew,

Attached is an updated and executed letter as requested.

Michael

Michael Baer
Managing Director, Program and Business Development

Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908
401-453-4430,127
www.riib.org



From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Tuesday, September 22, 2020 3:08 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Michael Baer <mbaer@riib.org>; Sydney Usatine <SUsatine@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>
Subject: Re: [EXTERNAL] : RE: EXT || 2020 EBF transfer

Hi Ben,

Thanks for the update, that is great news! Appreciate everyone's hard work to keep this transfer on schedule.

Best,
Nathan

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Tuesday, September 22, 2020 11:26 AM
To: Michael Baer <mBaer@riib.org>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Sydney Usatine <SUsatine@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>
Subject: [EXTERNAL] : RE: EXT || 2020 EBF transfer

Michael,

The request was approved by my VP this morning. It has been sent to Accounts Payable and should be received by RIIB on 9/29.

-Ben

From: Michael Baer <MBaer@riib.org>
Sent: Monday, September 21, 2020 10:57 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Sydney Usatine <SUsatine@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Becca Trietch (<Becca.Trietch@energy.ri.gov>
<Becca.Trietch@energy.ri.gov>
Subject: EXT || 2020 EBF transfer
Importance: High

Ben,

Please confirm the date of the 2020 transfer. We need the funding transferred as soon as possible to not delay our financing of Warwick and East Providence projects.

Michael

Michael Baer

Managing Director, Program and Business Development

Rhode Island Infrastructure Bank

235 Promenade Street, Suite 119

Providence, RI 02908

401-453-4430, 127

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From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Monday, September 21, 2020 2:44 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: EXT || Project Priority Lists for 2020 EBF projects

Hi Ben,

Thanks for the call just now and attached are the Project Priority Lists (PPL) where the projects being supported by the 2020 EBF transfer to the Rhode Island Infrastructure Bank are listed. Warwick's Streetlight project was listed on the Round 2 PPL and East Providence's High School project is on the Round 9 PPL.

Two notes:

1. Projects listed on the PPL have met all the rules and regulations of the EBF program and have passed the cost-effectiveness screening OER completes as part of its evaluation of projects. Only projects listed on a PPL are eligible to move forward to financing.
2. The East Providence project originally appeared on the Round 8 PPL, but the project was re-scoped and additional materials were included in a subsequent application for Round 9 that changed the evaluation of this project and supersedes the Round 8 version. I have included both PPLs here in case that is of use, but the Round 9 PPL is the one reflects the project as it currently stands and is the one the transfer is in support of.

Please let me know if you need anything else from me in support of this transfer.

Best,
Nathan

From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Friday, September 11, 2020 1:36 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: Re: [EXTERNAL] : FW: EXT || EBF transfer update?

OK, thanks Ben. That's about what I suspected and just wanted to make sure with you.
Appreciate the quick response on this as we work towards getting a document to you from RIIB.

Nathan

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, September 11, 2020 1:34 PM
To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Subject: RE: [EXTERNAL] : FW: EXT || EBF transfer update?

Nathan,

I have been working with RIIB on general issues. Sydney has been speaking to Jerry Drummond to get savings guidance for projects should they be completed. I am not aware of any other party from National Grid working with RIIB.

-Ben

From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Friday, September 11, 2020 1:17 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: Re: [EXTERNAL] : FW: EXT || EBF transfer update?

Thanks, Ben. I'm working on setting up a call with RIIB to talk about pipeline for monday or tuesday next week since we recognize how critical this information is to the plan and budget for 2021.

Have you or anyone else from the Grid team been having conversations with RIIB or doing any analysis to support the 2021 transfer amount for EBF? I heard mention that the Company and RIIB were working on an updated justification, and wanted to see if that was correct, or if the updated justification effort was coming from RIIB entirely? Want to make sure I have a clear picture of who is/isn't working on what and that our agencies are clear on what the expectations of RIIB are to support this potential funding allocation in 2021.

Thanks!
Nathan

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, September 11, 2020 12:47 PM

To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Subject: [EXTERNAL] : FW: EXT || EBF transfer update?

Nathan,

Just heard from Sydney. Please see below.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 11, 2020 12:45 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || EBF transfer update?

Thanks Ben! To clarify, do you mean September 25 or 28?

I'll check in on the request amount and spreadsheet for 2021 and aim to get you something ASAP.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, September 11, 2020 12:18 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: RE: EXT || EBF transfer update?

Sydney,

The documentation was completed a couple of days ago. It is now being reviewed by legal and our financial controls team. After that it will go to my SVP and then to accounts payable. Based on past timelines I would expect the bank to receive the transfer on 7/25 or 7/28.

Does the bank have an updated request amount and supporting spreadsheet for 2021? If so, please send it over as soon as possible. Many decisions and adjustments will need to be made based on the final number.

Thank you.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 11, 2020 11:48 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: EXT || EBF transfer update?

Hi Ben,

Wanted to check in about the EBF 2020 transfer. Do you have a date for when RIIB will receive it? What is the next step in the process? Is there any additional information you need? I want to make sure everything is lined up for our bond issue.

Best,
Sydney

Sydney Usatine
Senior Business Development Analyst

Rhode Island Infrastructure Bank
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Providence, RI 02908
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[\[nationalgrid.com\]](http://nationalgrid.com)

From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Monday, August 31, 2020 3:30 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Michael Baer <mbaer@riib.org>
Subject: EXT || Re: [EXTERNAL] : 2020 EBF transfer

Hi Ben,

I can address the first point for you.

If a project is listed on OER's PPL, it has met all of the requirements of the EBF rules and regulations, including OER's cost-effectiveness screening. That information is posted online and shared with the Bank directly to inform their conversation with borrowers on final financing amounts.

I think the Bank is best positioned to address the other 3 questions, though I will say that my understanding is that both Warwick and East Providence are eager to close their respective loans as soon as possible. If I can be helpful in any other way, please let me know.

Best,
Nathan

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Monday, August 31, 2020 3:13 PM
To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Sydney Usatine <SUsatine@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Michael Baer <mbaer@riib.org>
Subject: [EXTERNAL] : 2020 EBF transfer

Nathan and Sydney,

Things are progressing well in pulling together documentation for the transfer. I watched the open meeting again to make sure my notes from the session were correct and that I understood the third condition that Commissioner Anthony placed on the transfer(s) in addition to what is written in the plan. Notes from the 2020 EE plan and the open meeting are below.

Matt and I have four questions:

1. Can it be assumed that if a municipality's projects made it to the PPL that they have met the EBF rules and regulations including requirements for cost-effectiveness as defined by OER?
2. If we understand the documentation correctly, the current transfer will support Warwick's STL project and various measures at the new East Providence High School. Do you have the notifications from both

of these towns that they intend to close a loan in calendar year 2020 as is required by point 2 highlighted in yellow below?

3. How much less would this transfer amount be if one or both of the projects listed above indicate that they are not closing in calendar year 2020? The Company believes that this question is relevant considering commissioner Anthony's comment (below in green) and commissioner Curran's comments after commissioner Anthony was done speaking.
4. If one or both of the projects do not close in fall 2020, how will the potential deallocation of funds in winter 2020/2021 from the 2018A bond revenue account effect future transfers?

-Ben

Bates page 364 of 2020 plan –

"New in 2020, RIIB will request funds transferred on as needed basis with no more than no more than three funding transfers. A funding a request from RIIB will consist of the following, supporting documentation: 1. The relevant, final Project Priority List(s)(PPLs) indicating which projects have been approved for EBF funds and have met the EBF rules and regulations for cost-effectiveness, and; 2. Notification from an EBF applicant(s) that they intend to close a loan in calendar year 2020. The Company will transfer funds to RIIB within sixty (60) days of receiving a confirming funding request from RIIB."

Notes from open meeting

Commissioner Anthony's motion for EBF (38:37)

Almost verbatim - I move that the Commission add a third condition to the conditions on regarding when National Grid can transfer SBC funds to RIIB found on page 354 of the 2019 EE plan. (I think she means 2020 – presented and approved in 2019) That condition is that documentation from RIIB to National Grid must be provided that shows that the RIIB does not have sufficient funds in its SBC and SBC repayment / recycled funds available accounts to commit towards those loans. National Grid should only transfer these efficient funds for RIIB to commit those funds...

"My effect of the motion that I intend, as I described in the motion, is that RIIB would have to provide documentation to National Grid that they don't they don't have sufficient funds from SBC sources and that they need additional funds to make the loan. I intend that National Grid will manage this. That they will review the documentation and determine if RIIB has those funds on hand. They are receiving an incentive on these funds so the burden is should be on National Grid to make a smart transfer that is consistent with this motion and that we will review it later."

Benjamin (Ben) Rivers

Senior Analyst

Customer Energy Management RI

nationalgrid

1-781-907-2256

1-781-608-0023

benjamin.rivers@nationalgrid.com

Reservoir Woods, 40 Sylvan Road – Waltham, MA 02451

nationalgrid.com [\[nationalgrid.com\]](http://nationalgrid.com)

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From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Friday, August 21, 2020 1:56 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Chandra, Mona <Mona.Chandra@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: Re: EXT || Fw: [EXTERNAL] : EBF 2020 Transfer Request

Perfect, thanks so much, Ben. Please do let me know if additional information is required and i'll get that to you right away.

Best,
Nathan

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, August 21, 2020 1:55 PM
To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Cc: Chandra, Mona <Mona.Chandra@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: RE: EXT || Fw: [EXTERNAL] : EBF 2020 Transfer Request

Nathan,

Thank you for this information. I will verify with our attorney that this what the PUC requires and put this in motion.

-Ben

From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Friday, August 21, 2020 9:02 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Chandra, Mona <Mona.Chandra@nationalgrid.com>
Subject: EXT || Fw: [EXTERNAL] : EBF 2020 Transfer Request
Importance: High

Hi Ben,

Attached please find the Project Priority List for Round 9 of EBF, which lists the East Providence project.

I have also attached a memo sent to RIIB outlining in more detail OER's evaluation of this project using each of our evaluation methodologies - the standard evaluation of cost-effectiveness in line with LCP standards we have traditionally done and an evaluation of all the energy related costs encompassed in the project. The purpose of the second evaluation is to allow the Bank to finance larger portions of new construction projects if they are able to secure additional, non-SBC funds to support a larger loan. Please let me know if you have any questions on any of this.

Coupled with the Bank's cash flow statement and transfer request narrative (also attached for convenience) I believe you should have everything you need to initiate the transfer of funds. Please let me know as soon as possible if that is not the case, as we are hoping to close a loan with East Providence at the end of October and want to ensure you have enough time to complete the transfer.

Best,
Nathan

From: Sydney Usatine <SUstatine@riib.org>
Sent: Monday, July 27, 2020 3:28 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Cc: Michael Baer <mbaer@riib.org>; Chandra, Mona <Mona.Chandra@nationalgrid.com>
Subject: [EXTERNAL] : EBF 2020 Transfer Request

Hi Ben and Nathan,

Please see attached for an updated cash flow spreadsheet and narrative documenting the need for a 2020 SBC transfer.

Best,
Sydney

Sydney Usatine
Senior Business Development Analyst

Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908
401-808-6676
www.riib.org [riib.org]

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[\[nationalgrid.com\]](https://www.nationalgrid.com)

From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Tuesday, May 05, 2020 2:52 PM
To: Sydney Usatine <SUsatine@riib.org>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Webster, Raquel <Raquel.Webster@nationalgrid.com>; Pimentel, Leticia C. <LPimentel@rc.com>
Subject: Re: [EXTERNAL] : RE: EXT || Transferring Funds to RIIB for EBF

Thanks Ben and Sydney!

Ben, glad to hear that things are well and I agree that the elimination of commuting has been a nice upside and small silver lining to the current health crisis.

Your notes are in line with what I had written down in mine as well, and so I am glad we're all on the same page as to what the transfer request requirements are. Once Sydney sends the step 1 information to me I can get the relevant PPL(s) needed and include those in an email to the National Grid team to start the transfer process.

Once you have a sense of the turnaround time on the transfer process from receipt of documentation, please just let us all know so the Bank can plan accordingly.

Best,
Nathan

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, May 1, 2020 9:01 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Webster, Raquel <Raquel.Webster@nationalgrid.com>; Pimentel, Leticia C. <LPimentel@rc.com>
Subject: [EXTERNAL] : RE: EXT || Transferring Funds to RIIB for EBF

Hi Ben and Nathan,

Nathan: Thank you for starting this conversation and making sure we are coordinated.

Ben: Your suggested steps make sense to me and I agree with the proposed process. I will work on providing National Grid and OER an update to the cash flow excel sheet and the paragraph explaining the need. Please understand that the cash flow statement will take some time to prepare.

Best,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Thursday, April 30, 2020 1:22 PM
To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Sydney Usatine <SUsatine@riib.org>

Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Webster, Raquel
<Raquel.Webster@nationalgrid.com>; Pimentel, Leticia C. <LPimentel@rc.com>
Subject: RE: EXT || Transferring Funds to RIIB for EBF

Nathan,

I'm well. Not commuting has been wonderful.

Below is the language in our plan (Bates pg. 354) –

“New in 2020, RIIB will request funds on an as-needed basis with no more than three funding transfers. A funding request from RIIB will consist of an email to the Company with the following, supporting documentation:

1. The relevant, final Project Priority List(s) (PPLs) indicating which projects have been approved for EBF funds and have met the EBF rules and regulations including requirements for cost-effectiveness, and;
2. Notification from an EBF applicant(s) that they intend to close a loan in calendar year 2020. The Company will transfer funds to RIIB within sixty days (60) days of receiving a confirming funding request from RIIB.”

Based on my notes from the open meeting, the PUC wants to know that this loan cannot be made from funds that RIIB currently has or will be returning to RIIB.

- Motion passed unanimously: A third condition be added to the transfer requirements outlined in the Company's EEP (Page 354 of 10/15 filing) that would require RIIB to show it needs the specific transfer;
- Motion passed unanimously: Quarterly filing of updated Cash Flow excel sheet (PUC Attachment 2-3-1)

Below are my suggested steps –

1. RIIB sends OER and National Grid an updated cash flow excel sheet (PUC Attachment 2-3-1) as of 3/31/2020 along with a paragraph on why the transfer is required. This kills two birds with one stone – quarterly reporting and transfer documentation.
2. OER will send the amount of the transfer required and the supporting documents including the PPL to National Grid.
3. National Grid will begin to prepare the preliminary documentation for the transfer. I can give you a more accurate sense of how the transfer will take by Monday.

-Ben

From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Thursday, April 30, 2020 11:41 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
Subject: EXT || Transferring Funds to RIIB for EBF

Hi Ben,

I hope you are doing well and staying safe and sane during this extended quarantine.

I wanted to reach out to connect the three of us to make sure that we are all on the same page with the documentation required for transferring funds to RIIB for EBF and what the potential turn-around time for that process would be. We have a large application in process now that will necessitate a transfer of funds in 2020 in order for the bank to finance it and so I wanted to get out in front of this as much as possible.

What are the requirements that National Grid needs for documentation from RIIB in order to process a transfer - including the asks of the PUC as voted on in the public meeting on March 18th?

What is the estimated turnaround time from receipt of a transfer request to when RIIB would receive the money. I remember our initial conversations around transfers being somewhere between 6 and 8 weeks - is that still accurate?

Thanks all!
Nathan

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Sent: Thursday, April 30, 2020 11:41 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
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What are the requirements that National Grid needs for documentation from RIIB in order to process a transfer - including the asks of the PUC as voted on in the public meeting on March 18th?

What is the estimated turnaround time from receipt of a transfer request to when RIIB would receive the money. I remember our initial conversations around transfers being somewhere between 6 and 8 weeks - is that still accurate?

Thanks all!
Nathan

From: Sydney Usatine <SUsatine@riib.org>
Sent: Monday, November 02, 2020 11:13 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Michael Baer <MBaer@riib.org>
Cc: Richards, John <John.Richards@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: EXT || RE: PUC Written order re 2020 Plan

Hi Ben,

Thanks for the note. I will aim to provide you the cash flow spreadsheet through 9/30/20 on Wednesday morning. FYI, we are not in the "office" Tuesday to allow for voting in the election.

Best,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, October 30, 2020 4:29 PM
To: Sydney Usatine <SUsatine@riib.org>; Michael Baer <MBaer@riib.org>
Cc: Richards, John <John.Richards@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: PUC Written order re 2020 Plan
Importance: High

Sydney and Michael,

Our team has finished reading the written order from the PUC on Docket 4979 (2020 EE Plan). In the order it says that:

"The PUC also directed National Grid to file an updated EBF Cash Flow Schedule on a quarterly basis and provide whether it received any requests and requested documentation from RIIB."

Given this text, the Company believes that we are required to submit a cash flow statement with our 3rd quarter report. Please provide one Tuesday night or Wednesday morning of next week. Thank you.

-Ben

Benjamin (Ben) Rivers

Senior Analyst
Customer Energy Management RI
nationalgrid
1-781-907-2256
1-781-608-0023
benjamin.rivers@nationalgrid.com

Reservoir Woods, 40 Sylvan Road – Waltham, MA 02451

nationalgrid.com

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From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 11, 2020 12:45 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || EBF transfer update?

Thanks Ben! To clarify, do you mean September 25 or 28?

I'll check in on the request amount and spreadsheet for 2021 and aim to get you something ASAP.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, September 11, 2020 12:18 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: RE: EXT || EBF transfer update?

Sydney,

The documentation was completed a couple of days ago. It is now being reviewed by legal and our financial controls team. After that it will go to my SVP and then to accounts payable. Based on past timelines I would expect the bank to receive the transfer on 7/25 or 7/28.

Does the bank have an updated request amount and supporting spreadsheet for 2021? If so, please send it over as soon as possible. Many decisions and adjustments will need to be made based on the final number.

Thank you.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 11, 2020 11:48 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: EXT || EBF transfer update?

Hi Ben,

Wanted to check in about the EBF 2020 transfer. Do you have a date for when RIIB will receive it? What is the next step in the process? Is there any additional information you need? I want to make sure everything is lined up for our bond issue.

Best,
Sydney

Sydney Usatine
Senior Business Development Analyst

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From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 11, 2020 11:48 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: EXT || EBF transfer update?

Hi Ben,

Wanted to check in about the EBF 2020 transfer. Do you have a date for when RIIB will receive it? What is the next step in the process? Is there any additional information you need? I want to make sure everything is lined up for our bond issue.

Best,
Sydney

Sydney Usatine
Senior Business Development Analyst

Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908
401-808-6676
www.riib.org

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 04, 2020 12:45 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: EXT || FW: East Providence EBF application

Hi Ben,

An additional email from East Providence confirming their intent to close in 2020 just came in. Please keep this for your records and share with anyone who needs it. I've attached the email as a PDF in case that's helpful.

Best,
Sydney

From: Malcolm Moore <mmoore@eastprovidenceri.gov>
Sent: Friday, September 4, 2020 12:32 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: Re: East Providence EBF application

Hi Sydney,

Please accept this email as my confirmation that the City of East Providence intends on closing on the EBF loan by the end of calendar 2020.

Let me know if you have any questions.

Malcolm Moore
Finance Director
East Providence

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 4, 2020 8:26 AM
To: Malcolm Moore <mmoore@eastprovidenceri.gov>
Subject: RE: East Providence EBF application

Hi Malcolm,

Wonderful, thank you. One last item: could you please send me an email confirming your intent to close on the EBF loan in 2020?

Thanks again,
Sydney

From: Malcolm Moore <mmoore@eastprovidenceri.gov>
Sent: Thursday, September 3, 2020 4:30 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: East Providence EBF application

Hi Sydney,

I submitted the application.

Let me know if you have any questions.

Malcolm Moore
East Providence

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 04, 2020 11:51 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Michael Baer <MBaer@riib.org>
Subject: RE: EXT || RE: [EXTERNAL] : 2020 EBF transfer

Hi Ben,

Please find attached documentation for 2020 EBF financing commitments.

First, I've attached an email from Warwick stating their intent for EBF financing in 2020. Warwick has also signed a commitment letter committing to an EBF loan although there was no 2020 deadline.

I've also provided the East Providence financing application to RIIB - on the second page, the finance director indicates that they would like financing by 12/15/20. You can find the finance director's information in the Certification section at the end of the document.

Both the Warwick and East Providence projects will be included in the upcoming bond issue. The bond and the individual loans will close in November. RIIB will need the funds to be transferred prior to the bond pricing date in early October.

Best,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Tuesday, September 1, 2020 5:33 PM
To: Sydney Usatine <SUsatine@riib.org>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Michael Baer <MBaer@riib.org>
Subject: RE: EXT || RE: [EXTERNAL] : 2020 EBF transfer

Sydney,

Thank you for your quick response. We are working quickly to make sure that RIIB is able to receive the funds in a timely fashion. But, first we need to ensure that the transfer is made in accordance to the conditions approved and added by the PUC.

To that end, we will need the following documentation:

1. From each prospective borrower, something in writing demonstrating that the municipality intends to close its loan in calendar year 2020. This can be as simple as an email from the appropriate person at each municipality stating the municipality's intention to close on loans in 2020. (This requirement is to satisfy the PUC's directive that was offered during the open meeting when Commissioners Anthony and Curran were quite clear that money was only to be transferred when they have committed to borrow money.)

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Monday, August 31, 2020 5:16 PM
To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Michael Baer <MBaer@riib.org>
Subject: EXT || RE: [EXTERNAL] : 2020 EBF transfer

Hi Ben,

For your remaining three questions:

Yes, the current transfer will support Warwick's streetlight project and East Providence's high school new construction project. Both borrowers have expressed urgency in closing their respective loans and both projects are expected to be included in the Bank's upcoming November bond issue. The two loans will close at that time. The Bank needs to receive the transferred funds prior to the pricing date of the bond in early October. The Bank has engaged an underwriter to support the upcoming transaction.

Both projects are strongly anticipated to close prior to the end of the calendar year. In the event that a project is delayed, we would need funds in the first quarter of the following year. Each community is committed and the projects are already underway – East Providence is currently in construction and Warwick has a contract in hand and cannot move forward with the contract without financing.

Deallocated funds will support the 2021 pipeline and will not affect the transfer amount required in 2020.

Please let me know if there is anything else you need.

Best,
Sydney

From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Monday, August 31, 2020 3:30 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Michael Baer <MBaer@riib.org>
Subject: Re: [EXTERNAL] : 2020 EBF transfer

Hi Ben,

I can address the first point for you.

If a project is listed on OER's PPL, it has met all of the requirements of the EBF rules and regulations, including OER's cost-effectiveness screening. That information is posted online and shared with the Bank directly to inform their conversation with borrowers on final financing amounts.

I think the Bank is best positioned to address the other 3 questions, though I will say that my understanding is that both Warwick and East Providence are agree to close their respective loans as soon as possible. If I can be helpful in any other way, please let me know.

Best,
Nathan

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Monday, August 31, 2020 3:13 PM
To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Sydney Usatine <SUsatine@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Michael Baer <mbaer@riib.org>
Subject: [EXTERNAL] : 2020 EBF transfer

Nathan and Sydney,

Things are progressing well in pulling together documentation for the transfer. I watched the open meeting again to make sure my notes from the session were correct and that I understood the third condition that Commissioner Anthony placed on the transfer(s) in addition to what is written in the plan. Notes from the 2020 EE plan and the open meeting are below.

Matt and I have four questions:

1. Can it be assumed that if a municipality's projects made it to the PPL that they have met the EBF rules and regulations including requirements for cost-effectiveness as defined by OER?
2. If we understand the documentation correctly, the current transfer will support Warwick's STL project and various measures at the new East Providence High School. Do you have the notifications from both of these towns that they intend to close a loan in calendar year 2020 as is required by point 2 highlighted in yellow below?
3. How much less would this transfer amount be if one or both of the projects listed above indicate that they are not closing in calendar year 2020? The Company believes that this question is relevant considering commissioner Anthony's comment (below in green) and commissioner Curran's comments after commissioner Anthony was done speaking.
4. If one or both of the projects do not close in fall 2020, how will the potential deallocation of funds in winter 2020/2021 from the 2018A bond revenue account effect future transfers?

-Ben

Bates page 364 of 2020 plan –

“New in 2020, RIIB will request funds transferred on as needed basis with no more than no more than three funding transfers. A funding a request from RIIB will consist of the following, supporting documentation: 1. The relevant, final Project Priority List(s)(PPLs) indicating which projects have been approved for EBF funds and have met the EBF rules and regulations for cost-effectiveness, and; 2. **Notification from an EBF applicant(s) that they intend to close a loan in calendar year 2020.** The Company will transfer funds to RIIB within sixty (60) days of receiving a confirming funding request from RIIB.”

Notes from open meeting

Commissioner Anthony’s motion for EBF (38:37)

Almost verbatim - I move that the Commission add a third condition to the conditions on regarding when National Grid can transfer SBC funds to RIIB found on page 354 of the 2019 EE plan. (I think she means 2020 – presented and approved in 2019) That condition is that documentation from RIIB to National Grid must be provided that shows that the RIIB does not have sufficient funds in its SBC and SBC repayment / recycled funds available accounts to commit towards those loans. National Grid should only transfer these efficient funds for RIIB to commit those funds...

“My effect of the motion that I intend, as I described in the motion, is that RIIB would have to provide documentation to National Grid that they don’t they don’t have sufficient funds from SBC sources and that they need additional funds to make the loan. I intend that National Grid will manage this. That they will review the documentation and determine if RIIB has those funds on hand. They are receiving an incentive on these funds so the burden is should be on National Grid to make a smart transfer that is consistent with this motion and that we will review it later.”

Benjamin (Ben) Rivers

Senior Analyst

Customer Energy Management RI

nationalgrid

1-781-907-2256

1-781-608-0023

benjamin.rivers@nationalgrid.com

Reservoir Woods, 40 Sylvan Road – Waltham, MA 02451

nationalgrid.com [nationalgrid.com]

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Both projects are strongly anticipated to close prior to the end of the calendar year. In the event that a project is delayed, we would need funds in the first quarter of the following year. Each community is committed and the projects are already underway – East Providence is currently in construction and Warwick has a contract in hand and cannot move forward with the contract without financing.

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Please let me know if there is anything else you need.

Best,
Sydney

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Sent: Monday, August 31, 2020 3:30 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
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Subject: Re: [EXTERNAL] : 2020 EBF transfer

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Best,
Nathan

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Monday, August 31, 2020 3:13 PM
To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Sydney Usatine <SUsatine@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Michael Baer <mbaer@riib.org>
Subject: [EXTERNAL] : 2020 EBF transfer

Nathan and Sydney,

Things are progressing well in pulling together documentation for the transfer. I watched the open meeting again to make sure my notes from the session were correct and that I understood the third condition that Commissioner Anthony placed on the transfer(s) in addition to what is written in the plan. Notes from the 2020 EE plan and the open meeting are below.

Matt and I have four questions:

5. Can it be assumed that if a municipality's projects made it to the PPL that they have met the EBF rules and regulations including requirements for cost-effectiveness as defined by OER?
6. If we understand the documentation correctly, the current transfer will support Warwick's STL project and various measures at the new East Providence High School. Do you have the notifications from both of these towns that they intend to close a loan in calendar year 2020 as is required by point 2 highlighted in yellow below?
7. How much less would this transfer amount be if one or both of the projects listed above indicate that they are not closing in calendar year 2020? The Company believes that this question is relevant considering commissioner Anthony's comment (below in green) and commissioner Curran's comments after commissioner Anthony was done speaking.
8. If one or both of the projects do not close in fall 2020, how will the potential deallocation of funds in winter 2020/2021 from the 2018A bond revenue account effect future transfers?

-Ben

Bates page 364 of 2020 plan –

"New in 2020, RIIB will request funds transferred on as needed basis with no more than no more than three funding transfers. A funding a request from RIIB will consist of the following, supporting

documentation: 1. The relevant, final Project Priority List(s)(PPLs) indicating which projects have been approved for EBF funds and have met the EBF rules and regulations for cost-effectiveness, and; 2. Notification from an EBF applicant(s) that they intend to close a loan in calendar year 2020. The Company will transfer funds to RIIB within sixty (60) days of receiving a confirming funding request from RIIB.”

Notes from open meeting

Commissioner Anthony’s motion for EBF (38:37)

Almost verbatim - I move that the Commission add a third condition to the conditions on regarding when National Grid can transfer SBC funds to RIIB found on page 354 of the 2019 EE plan. (I think she means 2020 – presented and approved in 2019) That condition is that documentation from RIIB to National Grid must be provided that shows that the RIIB does not have sufficient funds in its SBC and SBC repayment / recycled funds available accounts to commit towards those loans. National Grid should only transfer these efficient funds for RIIB to commit those funds...

“My effect of the motion that I intend, as I described in the motion, is that RIIB would have to provide documentation to National Grid that they don’t they don’t have sufficient funds from SBC sources and that they need additional funds to make the loan. I intend that National Grid will manage this. That they will review the documentation and determine if RIIB has those funds on hand. They are receiving an incentive on these funds so the burden is should be on National Grid to make a smart transfer that is consistent with this motion and that we will review it later.”

Benjamin (Ben) Rivers

Senior Analyst

Customer Energy Management RI

nationalgrid

1-781-907-2256

1-781-608-0023

benjamin.rivers@nationalgrid.com

Reservoir Woods, 40 Sylvan Road – Waltham, MA 02451

nationalgrid.com [\[nationalgrid.com\]](http://nationalgrid.com)

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[Contacts Page \[nationalgridus.com\]](#) (accessed by clicking on the appropriate link)

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[\[nationalgrid.com\]](#)

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, August 28, 2020 8:35 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: EXT || RE: Formal letterhead request

Hi Ben,

Please see attached. Thank you.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Wednesday, August 26, 2020 4:02 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: FW: Formal letterhead request

Your attachments have been security checked by Mimecast Attachment Protection. Files where no threat or malware was detected are attached.

The docket number is 4979.

From: RIVERS, BENJAMIN
Sent: Wednesday, August 26, 2020 4:01 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: Formal letterhead request

Sydney,

Please provide an updated version of the attached document. This year it should be addressed to Matthew Ray. Our Accounts Payable team does not consider the documentation complete without it. Thank you.

-Ben

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REDACTED VERSION

From: Sydney Usatine <SUsatine@riib.org>
Sent: Wednesday, August 26, 2020 3:21 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Michael Baer <MBaer@riib.org>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: EXT || RE: Account confirmation for EBF transfer

Hi Ben,

Yes, our finance department has confirmed that that is the correct account information. Thank you.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Wednesday, August 26, 2020 2:51 PM
To: Sydney Usatine <SUsatine@riib.org>
Cc: Michael Baer <MBaer@riib.org>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: Account confirmation for EBF transfer

Sydney,

Please confirm that this is the proper account to receive the 2020 EBF transfer.

Thanks,
Ben

Bank of America



Benjamin (Ben) Rivers

Senior Analyst
Customer Energy Management RI
nationalgrid
1-781-907-2256
1-781-608-0023
benjamin.rivers@nationalgrid.com

Reservoir Woods, 40 Sylvan Road – Waltham, MA 02451
nationalgrid.com

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For the registered information on the UK operating companies within the National Grid group please use the attached link: <https://www.nationalgrid.com/group/about-us/corporate-registrations>

From: Sydney Usatine <SUsatine@riib.org>
Sent: Monday, July 27, 2020 3:28 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Cc: Michael Baer <MBaer@riib.org>; Chandra, Mona <Mona.Chandra@nationalgrid.com>
Subject: EXT || EBF 2020 Transfer Request

Hi Ben and Nathan,

Please see attached for an updated cash flow spreadsheet and narrative documenting the need for a 2020 SBC transfer.

Best,
Sydney

Sydney Usatine
Senior Business Development Analyst

Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908
401-808-6676
www.riib.org

From: Sydney Usatine <SUsatine@riib.org>
Sent: Monday, July 27, 2020 1:02 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben,

Great, I'd be happy to meet from 3-3:30. I think Michael wanted to be part of the call as well. I just re-attached the excel sheet, please let me know if you received it.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Monday, July 27, 2020 12:01 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Sydney,

I can do 2:30-3:00 or 3:00-3:30 today. Does that work for you?

I didn't see the attachment that you mentioned in your 7/24 10:53 AM come through. Would you please resend? Thanks you.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Monday, July 27, 2020 10:44 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben, wanted to follow up on your request for a meeting - are you able to meet this afternoon or another time this week?

From: Sydney Usatine
Sent: Friday, July 24, 2020 10:53 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Michael Baer <mbaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben,

I am happy to schedule our meeting now – would Monday at 1pm work for you? I've attached a draft EBF pipeline that Jerry and I worked on. Please let me know if you have any questions or suggestions.

I will be making a 2020 transfer request imminently. Could you give my cell a call to discuss what I need to include in the request? I believe we planned on an update to the cash flow spreadsheet as well as a narrative documenting the request.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Thursday, July 23, 2020 1:18 PM
To: Sydney Usatine <SUsatine@riib.org>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Sydney,

That would be fine. Please understand that the Council is "extremely disappointed" in the savings the Company presented in the first draft of our three year plan. The Company is concerned about the EE charge going up dramatically during an economic crisis. All this is to say that there will be a lot of competition for the funds that we traditionally transfer to RIIB going forward. The case for future transfers must be exceptionally well documented.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Thursday, July 23, 2020 9:51 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben,

Thanks for reaching out. I am waiting on some numbers internally. Once we have them, I'll be better prepared to discuss transfer needs for the 3YR plan as well as make the 2020 transfer request.

Would it be ok if I reach out to schedule a meeting once I have received the numbers from RIIB? I've been told to expect them any day now.

Best,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Tuesday, July 21, 2020 7:38 PM
To: Sydney Usatine <SUsatine@riib.org>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EBF numbers for 3yr plan and 2021 annual plan
Importance: High

Sydney,

I hope you are well. My team has a few things that we need to discuss with RIIB regarding EBF.

1. Do you have any more clarity regarding the amounts that the bank will be requesting in 2021, 2022, and 2023?
2. I would like to schedule a meeting for next week to discuss the specifics of the 2021 transfer request. Can all of you meet after 11:00 AM on Monday or Tuesday?
 - a. Sydney and Jerry – Please develop a preliminary forecast of savings and transfer amount for 2021. Chris wants to review these numbers before we meet.
3. Do you foresee requesting a 2020 transfer coming in the next 8 weeks? If so, please let me know ASAP as things are only getting crazier and crazier around here with both the annual and three year plan due.

Please call me if you have any questions.

-Ben

From: Sydney Usatine <SUatine@riib.org>
Sent: Friday, June 05, 2020 8:32 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EXT || RE: EBF numbers for 3yr plan

Hi Ben,

I'll work on putting together an estimate. By when do you need this information?

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Thursday, June 4, 2020 5:36 PM
To: Sydney Usatine <SUatine@riib.org>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EBF numbers for 3yr plan
Importance: High

Sydney,

I hope you are well. I know the past couple of months have been really stressful for a lot of people.

National Grid is finalizing numbers for the first draft of the 2021-2023 EE plan and I realized that I don't have numbers for EBF. Does the bank have an estimate for the dollar amount that that would be needed to support EE EBF projects in 2021, 2022, and 2023?

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, May 01, 2020 9:01 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Webster, Raquel <Raquel.Webster@nationalgrid.com>; Pimentel, Leticia C. <LPimentel@rc.com>
Subject: RE: EXT || Transferring Funds to RIIB for EBF

Hi Ben and Nathan,

Nathan: Thank you for starting this conversation and making sure we are coordinated.

Ben: Your suggested steps make sense to me and I agree with the proposed process. I will work on providing National Grid and OER an update to the cash flow excel sheet and the paragraph explaining the need. Please understand that the cash flow statement will take some time to prepare.

Best,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Thursday, April 30, 2020 1:22 PM
To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Sydney Usatine <SUsatine@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Webster, Raquel <Raquel.Webster@nationalgrid.com>; Pimentel, Leticia C. <LPimentel@rc.com>
Subject: RE: EXT || Transferring Funds to RIIB for EBF

Nathan,

I'm well. Not commuting has been wonderful.

Below is the language in our plan (Bates pg. 354) –

“New in 2020, RIIB will request funds on an as-needed basis with no more than three funding transfers. A funding request from RIIB will consist of an email to the Company with the following, supporting documentation:

1. The relevant, final Project Priority List(s) (PPLs) indicating which projects have been approved for EBF funds and have met the EBF rules and regulations including requirements for cost-effectiveness, and;
2. Notification from an EBF applicant(s) that they intend to close a loan in calendar year 2020. The Company will transfer funds to RIIB within sixty days (60) days of receiving a confirming funding request from RIIB.”

Based on my notes from the open meeting, the PUC wants to know that this loan cannot be made from funds that RIIB currently has or will be returning to RIIB.

- Motion passed unanimously: A third condition be added to the transfer requirements outlined in the Company's EEP (Page 354 of 10/15 filing) that would require RIIB to show it needs the specific transfer;

- Motion passed unanimously: Quarterly filing of updated Cash Flow excel sheet (PUC Attachment 2-3-1)

Below are my suggested steps –

1. RIIB sends OER and National Grid an updated cash flow excel sheet (PUC Attachment 2-3-1) as of 3/31/2020 along with a paragraph on why the transfer is required. This kills two birds with one stone – quarterly reporting and transfer documentation.
2. OER will send the amount of the transfer required and the supporting documents including the PPL to National Grid.
3. National Grid will begin to prepare the preliminary documentation for the transfer. I can give you a more accurate sense of how the transfer will take by Monday.

-Ben

From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Thursday, April 30, 2020 11:41 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
Subject: EXT || Transferring Funds to RIIB for EBF

Hi Ben,

I hope you are doing well and staying safe and sane during this extended quarantine.

I wanted to reach out to connect the three of us to make sure that we are all on the same page with the documentation required for transferring funds to RIIB for EBF and what the potential turn-around time for that process would be. We have a large application in process now that will necessitate a transfer of funds in 2020 in order for the bank to finance it and so I wanted to get out in front of this as much as possible.

What are the requirements that National Grid needs for documentation from RIIB in order to process a transfer - including the asks of the PUC as voted on in the public meeting on March 18th?

What is the estimated turnaround time from receipt of a transfer request to when RIIB would receive the money. I remember our initial conversations around transfers being somewhere between 6 and 8 weeks - is that still accurate?

Thanks all!
Nathan

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From: Sydney Usatine <SUsatine@riib.org>
Sent: Wednesday, January 15, 2020 8:24 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || System benefit charge reporting

Wonderful, thank you Ben!

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Tuesday, January 14, 2020 6:38 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: RE: EXT || System benefit charge reporting

Sydney,

Thank you. I hope are doing well too!

I will send over the template before noon tomorrow. I need to get it from someone else.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Tuesday, January 14, 2020 9:58 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: EXT || System benefit charge reporting

Hi Ben,

Hope you are well. I have in my notes that the Infrastructure Bank will need to provide a report on system benefit charge funds to National Grid due January 20. Could you provide me with a report template, or what the Bank has reported on in the past? Are you the correct person to send the completed report to? Any information you have on this would be very helpful.

Best,
Sydney

Sydney Usatine
Senior Business Development Analyst

Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908
401-453-4430, 126
www.riib.org

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RI Infrastructure Bank

2020 SBC Transfer Request

July 2020

The RI Infrastructure Bank is requesting \$5,126,666 of SBC funds to capitalize the Efficient Building Fund (EBF). This request is to fund the energy efficient components of a new construction high school in East Providence. The total project cost through the Efficient Building Fund is anticipated to be \$24 million. The RI Infrastructure Bank intends to finance this project in Fall 2020 through a combination of SBC funds already available (around \$2.9 million), SBC funds obtained through this transfer request (\$5,126,666) and bond proceeds (around \$12 million). The anticipated source of funds breakdown is shown in the updated Cash Flow spreadsheet.

The updated Cash Flow spreadsheet details the funds available through the EBF. Since the last report as of December 31, 2019, two EBF loans closed: a battery enabling project for \$1,419,045 funded with RGGI dollars and a streetlight retrofit project for \$1,000,000 funded by SBC revolved and SBC first use dollars. Around \$550,000 of SBC revolved funds were used, roughly the entire account balance, to maximize the use of revolved dollars.

\$3.2 million of SBC funds are reserved for Warwick's streetlight retrofit project anticipated to close in Fall 2020. This project is listed on OER's Round 2 PPL and the City Council recently approved the project bid from the contractor.

\$2.0 million of RGGI funds are reserved for future renewable energy projects as they are not eligible for SBC funds. Rhode Island communities have expressed interest in solar ownership including the City of Cranston, where the City Council recently approved a \$5 million renewable energy and energy conservation bond proposal.

A significant amount of funds repaid from borrower loans (approximately \$2.24 million) are in an EBF 2018A bond revenue account. This account is used to support the debt service on the 2018A bond and is required for the bond's AA S&P rating. In Fall 2020, RI Infrastructure Bank will conduct an analysis with financial advisors to determine how much, if any, of these funds can be deallocated from the Bond Revenue account and be made available for new loans. Should the RI Infrastructure Bank determine that funds can be deallocated, this transfer is anticipated to occur Winter 2020/2021. The RI Infrastructure Bank annually will determine the amount eligible for deallocation and initiate any deallocation process prior to requesting future SBC transfers. This process occurs after the Bank's June 30 fiscal year end.



235 Promenade Street, Suite 119
Providence, Rhode Island 02908
Riib.org

September 29, 2020

Matthew Ray
Manager, Customer Energy Management – Rhode Island
National Grid
280 Melrose St.
Providence, RI 02907

Dear Matthew,

Rhode Island Infrastructure Bank (the "Bank") requests that National Grid transfer the \$5,216,666 of ratepayer funds for the Efficient Buildings Fund allocated pursuant to the Public Utilities Commission approved Energy Efficiency Program Plan for 2020, Docket 4979 (the "2020 Plan") to the Bank. The Bank agrees to use such funds in accordance with the approved 2020 Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Diehl", written over a horizontal line.

Jeffrey R. Diehl



235 Promenade Street, Suite 119
Providence, RI 02908
T 401.453.4430
F 401.453.4094
riib.org

Jeffrey R. Diehl
Executive Director and CEO

August 27, 2020

Matthew Ray
Manager, Customer Energy Management – Rhode Island
National Grid
280 Melrose St.
Providence, RI 02907

Dear Mr. Ray,
Rhode Island Infrastructure Bank (the “Bank”) requests that National Grid transfer the \$5,126,666 of ratepayer funds for the Efficient Buildings Fund allocated pursuant to the Public Utilities Commission approved Energy Efficiency Program Plan for 2020, Docket 4979 (the “2020 Plan”) to the Bank. The Bank agrees to use such funds in accordance with the approved 2020 Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey R. Diehl". The signature is fluid and cursive, with a large, stylized "J" and "D".

Rhode Island Infrastructure Bank
Efficient Buildings Fund
Cash Flow
Amounts in \$ millions

Date	Description	SBC (including legislative transfer)	SBC Repayments / Recycled Funds Available	Bond Revenue Account	Bond Debt	Bond Anticipation Note Debt	R.G.G.I funds & R.G.G.I. revolved funds	EBF Loan Balance (Committed Funds)	RIIB Contribution	Total
12/30/2015	Balance	-	-	-	-	-	-	-	-	-
4/20/2016	RGGI Transfer						3.00			3.00
7/8/2016	BAN cost of issuance					(0.15)				(0.15)
7/8/2016	6 loans closed; with BANS (ultimately 2 SBC, 4 bond proceeds)					(17.18)		17.18		0.00
11/2/2016	Transfer from NGrid EE	1.87								1.87
11/4/2016	RGGI Transfer						2.00			2.00
12/31/2016	Balance	1.87	0.00	0.00	0.00	(17.33)	5.00	17.18	0.00	6.73
3/1/2017	year		0.01		0.19		0.00			0.21
11/1/2017	Loan principal repayment available	0.00			0.06		0.00	(0.06)		0.00
11/1/2017	Transfer from NGrid EE	5.00								5.00
12/13/2017	5 loans closed; with BANS (ultimately, 3 RGGI, 1 SBC, 1 bond proceeds)	(2.37)				(6.02)	(2.07)	10.45		0.00
12/28/2017	1 loan closed with SBC	(0.25)						0.25		0.00
12/31/2017	Balance	4.25	0.01	0.00	0.25	(23.35)	2.93	27.83	0.00	11.93
3/1/2018	year		0.09		0.32		0.00			0.41
10/1/2018	BAN interest repayment				(0.17)					(0.17)
10/1/2018	Bond cost of issuance (and rounding)				(0.38)					(0.38)
10/5/2018	1 loan closed with SBC/N Grid funds	(2.50)						2.50		0.00
10/16/2018	Transfer from NGrid EE	5.00								5.00
11/1/2018	Loan principal repayment available		0.48		0.76		0.02	(1.25)		0.00
11/29/2018	BAN principle repayment and DSRF established	(5.13)			(18.86)	23.35	(0.74)		(1.22)	(2.60)
11/29/2018	1 loan closed with Bond proceeds				(0.94)			0.94		0.00
	Interest on Funds (R.G.G.I. approx)	0.07	0.00				0.04			0.11
12/31/2018	Balance	1.69	0.59	0.00	(19.02)	0.00	2.25	30.01	(1.22)	14.30
3/1/2019	year			0.19	0.36		0.04			0.59
11/2019	Transfer from NGrid EE	5.00								5.00
11/1/2019	Loan principal repayment available			0.77	1.19		0.18	(2.13)		0.00
10/8/2019	RGGI Transfer						1.00			1.00
	Interest on Funds (R.G.G.I. approx)	0.04	0.00				0.04			0.08
12/31/2019	Balance	6.73	0.59	0.95	(17.46)	0.00	3.50	27.88	(1.22)	20.97
3/1/2020	Loan interest repayment available			0.29						0.29
5/12/2020	Loan - Closed	(0.45)	(0.55)					1.00		0.00
3/1/2020	Loan - Closed						(1.42)	1.42		0.00
	Account reconciliation		(0.04)	0.06	0.20					
	Interest on Funds (approx)	0.03					0.02			0.05
6/30/2020	Balance	6.31	0.00	1.30	(17.27)	0.00	2.10	30.30	(1.22)	21.31
Forward Looking Expected Activity										
9/1/2020	Transfer from NGrid EE (anticipated)	5.13								5.13
Fall 2020	Loan - Funds committed, currently in pipeline	(3.20)						3.20		0.00
Fall 2020	Loan - Anticipated, currently in pipeline	(8.00)			(16.00)			24.00		0.00
11/1/2020	Loan principal repayment available			0.94	1.19			(2.13)		0.00
	Interest on Funds (approx)	0.00					0.02			
12/31/2020	Balance (Estimate)	0.24	0.00	2.24	(32.07)	0.00	2.12	55.37	(1.22)	26.43

Note: The Bond Revenue account contains loan repayments after the EBF 2018A bond issue. Revenue funds can be deallocated and made available for new loans annually. First deallocation is expected in 2021; exact amount to be determined.

REDACTED VERSION

Sydney Usatine

From: Malcolm Moore <mmoore@eastprovidenceri.gov>
Sent: Friday, September 4, 2020 12:32 PM
To: Sydney Usatine
Subject: Re: East Providence EBF application

Hi Sydney,

Please accept this email as my confirmation that the City of East Providence intends on closing on the EBF loan by the end of calendar 2020.

Let me know if you have any questions.

Malcolm Moore
Finance Director
East Providence

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 4, 2020 8:26 AM
To: Malcolm Moore <mmoore@eastprovidenceri.gov>
Subject: RE: East Providence EBF application

Hi Malcolm,

Wonderful, thank you. One last item: could you please send me an email confirming your intent to close on the EBF loan in 2020?

Thanks again,
Sydney

From: Malcolm Moore <mmoore@eastprovidenceri.gov>
Sent: Thursday, September 3, 2020 4:30 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: East Providence EBF application

Hi Sydney,

I submitted the application.

Let me know if you have any questions.

Malcolm Moore
East Providence

Sydney Usatine

From: Murray Lucas <lucas.murray@warwickri.com>
Sent: Friday, September 4, 2020 9:02 AM
To: Sydney Usatine
Subject: Intent to move forward with Energy Building Fund financing in 2020

Good morning Sydney,

As you know the City of Warwick is in the process of purchasing the existing street lighting infrastructure from National Grid with the intent of replacing the existing light fixtures with upgraded LED lamp technology. It is the City's intent to pursue financing through the RIIB/ OER Efficient Buildings Fund Program in 2020 to fund this effort. We will be in touch very soon with additional information to support our request. Please contact me with any questions or concerns.

Regards,

Lucas W. Murray, RLA
Principal Planner/ Special Projects Manager

City of Warwick Rhode Island Annex
Buttonwoods Community Center
3027 West Shore Road
Warwick, RI 02889
401-921-9683



warwickri.gov
lucas.murray@warwickri.com



STATE OF RHODE ISLAND
**OFFICE OF
ENERGY RESOURCES**

August 21, 2020

Michael Baer
Managing Director, Program & Business Development
Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908

Re: Round 9 Project Priority List for the Efficient Buildings Fund

Dear Michael:

The Office of Energy Resources (OER) respectfully submits the enclosed Project Priority List (PPL) for Round 9 of the Efficient Buildings Fund. Based on the scoring detailed below, OER has completed its review and evaluation of the applicants for this round. The Infrastructure Bank can now engage in conversation with these borrowers to discuss financing terms and loan closing based on the ranking and scores below. OER is providing the Least-Cost Procurement (LCP) Eligible and All Energy Eligible numbers below to support the Infrastructure Bank in its determination of eligible funds for these loans.

EBF Project Priority List - Round 9					
RANK	App #	Project	LCP Eligible	All Energy Eligible	TOTAL AVE SCORE
1	1	East Providence	\$10,483,722.00	\$48,127,086.30	47.50
TOTAL			\$10,483,722.00	\$48,127,086.30	

If you have any questions regarding this evaluation and scoring, please contact me at any time.

Sincerely,

Nathan Cleveland
Programming Services Officer
Rhode Island Office of Energy Resources
Nathan.Cleveland@energy.ri.gov

EBF Project Priority List - Round 2 - January 25, 2017				
RANK	App #	Project	Amount Requested	TOTAL AVE SCORE
1	3	City of Pawtucket- EE	\$32,309.30	89.33
2	8	City of Warwick- EE	\$3,460,838.00	88.00
3	6	Town of Warren- EE	\$437,465.00	86.00
4	7	City of East Providence- EE	\$2,855,714.00	81.00
5	11	City of Woonsocket- EE	\$3,008,268.00	79.00
6	9	City of Providence- EE	\$939,049.00	74.00
7	10	Providence Schools- EE	\$3,474,500.00	71.00
8	13	Woonsocket Schools- RE	\$744,000.00	66.00
9	12	City of Woonsocket- RE	\$72,250.00	65.00
10	5	Town of West Warwick- EE	\$608,049.00	62.00
11	1	Town of Cumberland- EE	\$564,472.40	37.00
12	4	Town of West Warwick- RE	\$11,750,000.00	NA
TOTAL			\$27,946,914.70	

PUC 4-24

Request:

Please provide copies of any communications and documents (electronic or on paper) received by the Company from RIIB or any other party during calendar year 2020, discussing why RIIB will need another transfer of EE funds in 2021 and/or beyond.

Response:

Please see Attachment PUC 4-24-1 for electronic communications concerning the need for EE funds in 2021. Attached as 4-24-2 please find the more recent pipeline document that was the basis of the numbers used in the filed Three-Year and Annual Plans. Also included here as Attachments PUC 4-24-3 and 4-24-4 are earlier pipeline documents from July and September provided to the Company by the RIIB.

Please note that this response is the result of a search and retrieval for emails conducted in coordination with Legal and IT.

From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Friday, September 11, 2020 1:19 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Adam Jacobs <jacobs@optenergy.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Dan Mellinger <dmellinger@energyfuturesgroup.com>; George Lawrence <George@caerbannogconsulting.com>; Munoz, Joel <Joel.Munoz@dpuc.ri.gov>; Chiodo Jennifer <jco2free@gmail.com>; Chandra, Mona <Mona.Chandra@nationalgrid.com>; Tukey, Daniel <Daniel.Tukey@nationalgrid.com>; Mike Guerard <guerard@optenergy.com>
Cc: Craig Johnson <Johnson@optenergy.com>; Jennifer Kallay <jkallay@synapse-energy.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: Re: [EXTERNAL] : RE: EXT || RI C&I Planning Call (week of Sept 21st)

Thanks, Ben. I'm working to touch base with RIIB Monday or Tuesday and we'll make sure any documentation is provided next week so it is in hand and can be factored into these conversations the week of the 21st.

Best,
Nathan

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, September 11, 2020 12:43 PM
To: Adam Jacobs <jacobs@optenergy.com>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Dan Mellinger <dmellinger@energyfuturesgroup.com>; George Lawrence <George@caerbannogconsulting.com>; Munoz, Joel <Joel.Munoz@dpuc.ri.gov>; Chiodo Jennifer <jco2free@gmail.com>; Chandra, Mona <Mona.Chandra@nationalgrid.com>; Tukey, Daniel <Daniel.Tukey@nationalgrid.com>; Mike Guerard <guerard@optenergy.com>
Cc: Craig Johnson <Johnson@optenergy.com>; Jennifer Kallay <jkallay@synapse-energy.com>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: [EXTERNAL] : RE: EXT || RI C&I Planning Call (week of Sept 21st)

Adam,

We certainly can. To make this discussion as fruitful as possible we will need to have the updated sales forecast, our latest estimate of the YEFB, and RIIB's final request. I will check on the timing of those elements.

Nathan,

I have requested that RIIB provide the final transfer amount and supporting documentation for 2021 several times but have not received a response. Would you please see if RIIB will provide you this information? There are areas of our plan that could change dramatically based on that number. Thank you.

-Ben

From: Adam Jacobs <jacobs@optenergy.com>
Sent: Friday, September 11, 2020 12:24 PM
To: Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Dan Mellinger <dmellinger@energyfuturesgroup.com>; George Lawrence <George@caerbannogconsulting.com>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Munoz, Joel <Joel.Munoz@dpuc.ri.gov>; Chiodo Jennifer <jco2free@gmail.com>; Chandra, Mona <Mona.Chandra@nationalgrid.com>; Tukey, Daniel <Daniel.Tukey@nationalgrid.com>; Mike Guerard <guerard@optenergy.com>
Cc: Craig Johnson <Johnson@optenergy.com>; Jennifer Kallay <jkallay@synapse-energy.com>; 'Cleveland, Nathan (DOA)' <Nathan.Cleveland@energy.ri.gov>
Subject: EXT || RI C&I Planning Call (week of Sept 21st)

Hey Folks,

Looking to schedule 1 more C&I sector team planning call for the week of September 21st before the next draft of the plans are due -

<https://doodle.com/poll/q8pyfpqrn7khnsqh>

Please work to complete this poll by close of business Monday 9/14.

Best,
Adam

Adam Jacobs, CBO
Optimal ENERGY
Integrated Energy Resources
10600 Route 116, Suite 3
Hinesburg, VT 05461
802.482.5645 (direct) • 781.307.3106 (mobile)
jacobs@optenergy.com • <http://www.optenergy.com>

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the attached link: [https://www.nationalgrid.com/group/about-us/corporate-registrations\[nationalgrid.com\]](https://www.nationalgrid.com/group/about-us/corporate-registrations[nationalgrid.com])

From: Trietch, Becca (DOA) [<mailto:Becca.Trietch@energy.ri.gov>]
Sent: Thursday, September 10, 2020 10:42 AM
To: Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Cc: Porter, Christopher <Christopher.Porter@nationalgrid.com>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: EXT || RE: [EXTERNAL] : RIIB Follow Up Question
Importance: High

Thanks Matt! I'll share this with Nick. I believe he is intending to email/connect with Jeff today to ask for more clarification around RIIB's 2021 ask.

Best,
Becca

From: Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Sent: Thursday, September 10, 2020 9:36 AM
To: Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>
Cc: Porter, Christopher <Christopher.Porter@nationalgrid.com>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: [EXTERNAL] : RIIB Follow Up Question

Good Morning Becca,

As you requested, below is the \$/annual kwh for the other C&I programs by incentive budget versus the RIIB allocation for '21. The original estimate given to us for savings in '21 was 525MWh gross for a few projects with a medium level of confidence for those savings materializing. When looking at the high cost, and the need to push closer to the aggressive targets while also minimizing rate impacts to customers, you can see why we initially proposed reallocating these funds to serve more customers in programs that were identified as important to stakeholders (i.e. SMB, Mod Income, Multifamily, etc.).

With the above said, as we discussed on the phone, the company is planning on making an allocation to RIIB for '21 with the understanding we would still just need to know what exactly is needed. Did you hear any more clarification from them on that? The spreadsheet and email from Jeff is a bit confusing as to what amount is actually needed for CY21.

	Net Annual MWh	2021 Incentive Budget	\$/ annual kwh
Large Commercial New Construction	12,651	\$ 6,051,877	\$ 0.48
Large Commercial Retrofit	74,718	\$ 26,385,075	\$ 0.35
Small Business	12,116	\$ 8,108,667	\$ 0.67
RIIB	525	\$ 4,700,000	\$ 8.95

Best,

Matthew Ray

Manager, Customer Energy Management - Rhode Island
nationalgrid

1-401-784-4356

1-401-302-4985 (m)

Matthew.Ray2@nationalgrid.com

280 Melrose St. Providence, RI 02907

nationalgrid.com [\[nationalgrid.com\]](http://nationalgrid.com) | Twitter [\[twitter.com\]](https://twitter.com) | LinkedIn [\[us.linkedin.com\]](https://us.linkedin.com) |

Facebook [\[facebook.com\]](https://facebook.com)

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[\[nationalgrid.com\]](http://nationalgrid.com)

From: Jeff Diehl <JDiehl@riib.org>
Sent: Tuesday, September 15, 2020 4:00 PM
To: Porter, Christopher <Christopher.Porter@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Ucci, Nicholas (DOA) <Nicholas.Ucci@energy.ri.gov>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Michael Baer <Mbaer@riib.org>; Christopher P. Vitale (cvitale@hvlawltd.com) <cvitale@hvlawltd.com>
Subject: EXT || FW: Efficient Buildings Fund pipeline

Dear Chris, Matthew and Ben,

Please find attached a copy of the Efficient Building Fund pipeline of energy efficiency projects that have been identified for calendar years 2021, 2022 and 2023. This pipeline supports our request for \$5 million from the 2021 Energy Efficiency Program Plan.

We would be pleased to answer any questions regarding this pipeline and our request for capital for the Efficient Building Fund.

Regards,
Jeff

Jeffrey R. Diehl
Executive Director and CEO

Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908
401-453-4430, 114
www.riib.org

Please note our new email domain (JDiehl@riib.org) and update your contact information accordingly.



From: Jeff Diehl
Sent: Tuesday, September 8, 2020 3:57 PM
To: Ucci, Nicholas (DOA) <Nicholas.Ucci@energy.ri.gov>
Cc: Verdi, Nicole (GOV) <Nicole.Verdi@governor.ri.gov>; Michael Baer <mbaer@riib.org>; Christopher P. Vitale (<cvitale@hvlawltd.com>) <cvitale@hvlawltd.com>
Subject: Efficient Buildings Fund pipeline

Dear Nick,

As requested, attached is the Bank's Efficient Buildings Fund pipeline for calendar years 2021 through 2023. We have visibility into \$742 MM of energy and building projects, of which we think almost \$100 MM will be eligible for the EBF program over the next three years. For calendar year 2021, we have high confidence in \$10 MM to \$20 MM of projects that would close with EBF. Included in this pipeline is an estimate of the energy savings that would be attributable to these projects, which was provided by Jerry Drummond of National Grid.

Please let us know if you have any further questions or comments.

Regards,
Jeff

Jeffrey R. Diehl
Executive Director and CEO

Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908
401-453-4430, 114
www.riib.org

Please note our new email domain (JDiehl@riib.org) and update your contact information accordingly.



From: Michael Baer <MBaer@riib.org>
Sent: Tuesday, September 29, 2020 4:05 PM
To: Richards, John <John.Richards@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
Cc: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: RE: EXT || RE: EBF Fund Injection Table for 2021 Annual Plan Filing

John,

Those numbers are correct in the spreadsheet that you sent.

Michael Baer
Managing Director, Program and Business Development

Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908
401-453-4430,127
www.riib.org



From: Richards, John <John.Richards@nationalgrid.com>
Sent: Tuesday, September 29, 2020 3:21 PM
To: Michael Baer <MBaer@riib.org>; Sydney Usatine <SUsatine@riib.org>
Cc: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: RE: EXT || RE: EBF Fund Injection Table for 2021 Annual Plan Filing

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

Michael,

Thanks for this. I think one of the numbers in here sent back was an equation that got inadvertently hardcoded with a total from last year. Please see attachment with equation updated and the two lines that change totals highlighted in green. Please confirm and I'll include this in our annual plan (without highlighting).

Best,
John R.

From: Michael Baer <MBaer@riib.org>
Sent: Monday, September 28, 2020 3:40 PM
To: Richards, John <John.Richards@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
Cc: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: EXT || RE: EBF Fund Injection Table for 2021 Annual Plan Filing

John,

Attached is our rollforward.

Michael

Michael Baer

Managing Director, Program and Business Development

Rhode Island Infrastructure Bank

235 Promenade Street, Suite 119
Providence, RI 02908
401-453-4430,127
www.riib.org



From: Richards, John <John.Richards@nationalgrid.com>
Sent: Saturday, September 26, 2020 4:12 PM
To: Michael Baer <MBaer@riib.org>; Sydney Usatine <SUsatine@riib.org>
Cc: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: EBF Fund Injection Table for 2021 Annual Plan Filing
Importance: High

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

Michael and Sydney,

Please find attached to this email the Efficient Buildings Fund table for the 2021 Annual Plan.

Please complete this and return to us for inclusion in the final draft of our 2021 Annual Plan filing. I have highlighted in yellow the lines which need to be updated by RIIB.

Please complete and return this **by Tuesday morning this week**. Reach out with any questions, I'll be available this weekend or Monday if you have any inquiries for completing this table. It's the same format as past annual plans.

Best,
John Richards

John Richards

Analyst
Customer Energy Management – Rhode Island

nationalgrid

781-907-1687

John.richards@nationalgrid.com

RPCV Dominican Republic (2012-2014)

40 Sylvan Road, Waltham, MA 02451

nationalgrid.com

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Advance notice of vacation:

None

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From: Michael Baer <MBaer@riib.org>
Sent: Saturday, September 26, 2020 3:53 PM
To: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || RE: EBF 2021 text

Matthew,

Attached are edits whereby this now only reflects EE projects. I have made the edits in track changes.

Michael

Michael Baer
Managing Director, Program and Business Development

Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908
401-453-4430, 127
www.riib.org



From: Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Sent: Saturday, September 26, 2020 12:18 PM
To: Sydney Usatine <SUsatine@riib.org>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Michael Baer <MBaer@riib.org>
Subject: RE: EXT || RE: EBF 2021 text

Hi Sydney,

Thank you for sending this over. We appreciate the effort on these very short deadlines with the plan due to the EERMC on October 1st. Do you happen to have the information provided within the document without the Renewable Energy numbers included? The PUC has found it confusing to breakout what is actually EE.

Best,

Matthew Ray
Manager, Customer Energy Management - Rhode Island
nationalgrid

1-401-784-4356
1-401-302-4985 (m)

Matthew.Ray2@nationalgrid.com

280 Melrose St. Providence, RI 02907
nationalgrid.com | [Twitter](#) | [LinkedIn](#) | [Facebook](#)

Please consider the environment before printing this email.

From: Sydney Usatine [<mailto:SUstatine@riib.org>]
Sent: Friday, September 25, 2020 3:24 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Michael Baer <MBaer@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: EXT || RE: EBF 2021 text

Hi Ben,

Please find attached an updated EBF narrative for 2021. In addition to the highlights, I updated the document more broadly to reflect this year's program and pipeline details. While we were able to accommodate the tight timeline today, please provide additional notice for future requests. Thanks very much.

All best, and have a wonderful weekend,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, September 25, 2020 11:02 AM
To: Michael Baer <MBaer@riib.org>; Sydney Usatine <SUstatine@riib.org>
Cc: Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: EBF 2021 text
Importance: High

Michael and Sydney,

Please fill in the numbers and text highlighted in yellow in the attached document. All numbers shall include EE only. Please strike any RE areas.

We need this as soon as you can make the changes but no later than the end of the day.

-Ben

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From: Sydney Usatine <SUsatine@riib.org>
Sent: Thursday, September 10, 2020 10:00 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: RE: EXT || RE: RIIB and EBF - 2021

Hi Ben,

Yes, we have expanded the pipeline document primarily by adding in additional projects. I believe the Bank will be providing this with the written comments on the plan today – if you don't receive it and would like to, please let me know.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Wednesday, September 9, 2020 2:15 PM
To: Sydney Usatine <SUsatine@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: RE: EXT || RE: RIIB and EBF - 2021

Sydney,

Has the projected pipeline changed from the initial document you sent over? If so, did the savings numbers change or probability of completion or both?

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Wednesday, September 09, 2020 9:28 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EXT || RE: RIIB and EBF - 2021

Hi Ben and Jerry,

Thanks for setting this up, Ben. I actually think I'm all set, however – the information you gave me plus information from Jerry on the EBF call should be all I need right now.

I am checking with folks at the Bank regarding our 2021 pipeline and if they would like National Grid to provide estimated savings numbers. In the meantime, I used \$0.17/kwh and \$1/therm factors (thanks Jerry!) for a rough estimation.

Best,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Tuesday, September 8, 2020 4:54 PM
To: Drummond, Jerry <jerry.drummond@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
Subject: RE: RIIB and EBF - 2021

Jerry,

The only item on the agenda is getting updates on a few projects so that RIIB may give the Company some better estimates of timing and demand for 2021.

Sydney,

Would you prefer to ask Jerry your questions via email and potentially resolve a couple issues so that the meeting is shorter or not needed?

-Ben

From: Drummond, Jerry

Sent: Tuesday, September 08, 2020 4:50 PM

To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>

Subject: Re: RIIB and EBF - 2021

It has to be 8 or 830, I have 5 meetings after that starting at nine

Agenda???

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From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>

Sent: Tuesday, September 8, 2020 4:48:47 PM

To: Drummond, Jerry <jerry.drummond@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>

Subject: RE: RIIB and EBF - 2021

Sydney and Jerry,

Does a 30 minute meeting on Thursday morning work for both of you? Say in the 8:30-10AM range?

-Ben

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From: Sydney Usatine <SUsatine@riib.org>
Sent: Wednesday, September 09, 2020 9:28 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EXT || RE: RIIB and EBF - 2021

Hi Ben and Jerry,

Thanks for setting this up, Ben. I actually think I'm all set, however – the information you gave me plus information from Jerry on the EBF call should be all I need right now.

I am checking with folks at the Bank regarding our 2021 pipeline and if they would like National Grid to provide estimated savings numbers. In the meantime, I used \$0.17/kwh and \$1/therm factors (thanks Jerry!) for a rough estimation.

Best,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Tuesday, September 8, 2020 4:54 PM
To: Drummond, Jerry <jerry.drummond@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
Subject: RE: RIIB and EBF - 2021

Jerry,

The only item on the agenda is getting updates on a few projects so that RIIB may give the Company some better estimates of timing and demand for 2021.

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Would you prefer to ask Jerry your questions via email and potentially resolve a couple issues so that the meeting is shorter or not needed?

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Sent: Tuesday, September 08, 2020 4:50 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
Subject: Re: RIIB and EBF - 2021

It has to be 8 or 830, I have 5 meetings after that starting at nine

Agenda???

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From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Tuesday, September 8, 2020 4:48:47 PM

To: Drummond, Jerry <jerry.drummond@nationalgrid.com>; Sydney Usatine <SUsatine@riib.org>
Subject: RE: RIIB and EBF - 2021

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Does a 30 minute meeting on Thursday morning work for both of you? Say in the 8:30-10AM range?

-Ben

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From: Sydney Usatine <SUsatine@riib.org>
Sent: Wednesday, August 05, 2020 1:34 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben,

Now that we have had the chance to take a first look at the pipeline spreadsheet, I'm going to continue to add in detail and specifics. I don't anticipate the funding request amount to change.

By when do you need any update to make it into the next document? I believe the next three year draft is being released at the end of August?

Best,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Monday, July 27, 2020 1:19 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: FW: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

Sydney,

Great. I will send out an invite soon. I received the spreadsheet.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Monday, July 27, 2020 1:02 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben,

Great, I'd be happy to meet from 3-3:30. I think Michael wanted to be part of the call as well. I just re-attached the excel sheet, please let me know if you received it.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Monday, July 27, 2020 12:01 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Sydney,

I can do 2:30-3:00 or 3:00-3:30 today. Does that work for you?

I didn't see the attachment that you mentioned in your 7/24 10:53 AM come through. Would you please resend? Thanks you.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Monday, July 27, 2020 10:44 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben, wanted to follow up on your request for a meeting - are you able to meet this afternoon or another time this week?

From: Sydney Usatine
Sent: Friday, July 24, 2020 10:53 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Michael Baer <mbaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben,

I am happy to schedule our meeting now – would Monday at 1pm work for you? I've attached a draft EBF pipeline that Jerry and I worked on. Please let me know if you have any questions or suggestions.

I will be making a 2020 transfer request imminently. Could you give my cell a call to discuss what I need to include in the request? I believe we planned on an update to the cash flow spreadsheet as well as a narrative documenting the request.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Thursday, July 23, 2020 1:18 PM
To: Sydney Usatine <SUsatine@riib.org>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Sydney,

That would be fine. Please understand that the Council is "extremely disappointed" in the savings the Company presented in the first draft of our three year plan. The Company is concerned about the EE charge going up dramatically during an economic crisis. All this is to say that there will be a lot of

competition for the funds that we traditionally transfer to RIIB going forward. The case for future transfers must be exceptionally well documented.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Thursday, July 23, 2020 9:51 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben,

Thanks for reaching out. I am waiting on some numbers internally. Once we have them, I'll be better prepared to discuss transfer needs for the 3YR plan as well as make the 2020 transfer request.

Would it be ok if I reach out to schedule a meeting once I have received the numbers from RIIB? I've been told to expect them any day now.

Best,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Tuesday, July 21, 2020 7:38 PM
To: Sydney Usatine <SUsatine@riib.org>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EBF numbers for 3yr plan and 2021 annual plan
Importance: High

Sydney,

I hope you are well. My team has a few things that we need to discuss with RIIB regarding EBF.

1. Do you have any more clarity regarding the amounts that the bank will be requesting in 2021, 2022, and 2023?
2. I would like to schedule a meeting for next week to discuss the specifics of the 2021 transfer request. Can all of you meet after 11:00 AM on Monday or Tuesday?
 - a. Sydney and Jerry – Please develop a preliminary forecast of savings and transfer amount for 2021. Chris wants to review these numbers before we meet.
3. Do you foresee requesting a 2020 transfer coming in the next 8 weeks? If so, please let me know ASAP as things are only getting crazier and crazier around here with both the annual and three year plan due.

Please call me if you have any questions.

-Ben

From: Sydney Usatine <SUatine@riib.org>
Sent: Friday, June 05, 2020 8:32 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EXT || RE: EBF numbers for 3yr plan

Hi Ben,

I'll work on putting together an estimate. By when do you need this information?

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Thursday, June 4, 2020 5:36 PM
To: Sydney Usatine <SUatine@riib.org>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EBF numbers for 3yr plan
Importance: High

Sydney,

I hope you are well. I know the past couple of months have been really stressful for a lot of people.

National Grid is finalizing numbers for the first draft of the 2021-2023 EE plan and I realized that I don't have numbers for EBF. Does the bank have an estimate for the dollar amount that that would be needed to support EE EBF projects in 2021, 2022, and 2023?

-Ben

From: Sydney Usatine <SUatine@riib.org>
Sent: Friday, May 15, 2020 11:50 AM
To: Drummond, Jerry <jerry.drummond@nationalgrid.com>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Beland, Shauna (DOA) <Shauna.Beland@energy.ri.gov>; Anna Coelho Cortes <acoelho@riib.org>
Subject: EXT || Newport solar inspection

Hi Jerry and Ben,

Hope you both are doing well. Do either of you have any information from National Grid regarding Newport's EBF solar project interconnection? I am not quite sure who to ask so I thought I'd check in with both of you. The inspection is likely delayed due to COVID, but are there any thoughts on when or how it could safely take place? We are in peak production season for solar so I'd love to get the system turned on (and the funds disbursed) if it can be done safely.

Best,
Sydney

Sydney Usatine
Senior Business Development Analyst

Rhode Island Infrastructure Bank
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Providence, RI 02908
401-808-6676
www.riib.org

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From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Friday, September 11, 2020 1:36 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: Re: [EXTERNAL] : FW: EXT || EBF transfer update?

OK, thanks Ben. That's about what I suspected and just wanted to make sure with you.
Appreciate the quick response on this as we work towards getting a document to you from RIIB.

Nathan

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, September 11, 2020 1:34 PM
To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Subject: RE: [EXTERNAL] : FW: EXT || EBF transfer update?

Nathan,

I have been working with RIIB on general issues. Sydney has been speaking to Jerry Drummond to get savings guidance for projects should they be completed. I am not aware of any other party from National Grid working with RIIB.

-Ben

From: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Sent: Friday, September 11, 2020 1:17 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: Re: [EXTERNAL] : FW: EXT || EBF transfer update?

Thanks, Ben. I'm working on setting up a call with RIIB to talk about pipeline for monday or tuesday next week since we recognize how critical this information is to the plan and budget for 2021.

Have you or anyone else from the Grid team been having conversations with RIIB or doing any analysis to support the 2021 transfer amount for EBF? I heard mention that the Company and RIIB were working on an updated justification, and wanted to see if that was correct, or if the updated justification effort was coming from RIIB entirely? Want to make sure I have a clear picture of who is/isn't working on what and that our agencies are clear on what the expectations of RIIB are to support this potential funding allocation in 2021.

Thanks!
Nathan

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, September 11, 2020 12:47 PM

To: Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>
Subject: [EXTERNAL] : FW: EXT || EBF transfer update?

Nathan,

Just heard from Sydney. Please see below.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 11, 2020 12:45 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || EBF transfer update?

Thanks Ben! To clarify, do you mean September 25 or 28?

I'll check in on the request amount and spreadsheet for 2021 and aim to get you something ASAP.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Friday, September 11, 2020 12:18 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: RE: EXT || EBF transfer update?

Sydney,

The documentation was completed a couple of days ago. It is now being reviewed by legal and our financial controls team. After that it will go to my SVP and then to accounts payable. Based on past timelines I would expect the bank to receive the transfer on 7/25 or 7/28.

Does the bank have an updated request amount and supporting spreadsheet for 2021? If so, please send it over as soon as possible. Many decisions and adjustments will need to be made based on the final number.

Thank you.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Friday, September 11, 2020 11:48 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: EXT || EBF transfer update?

Hi Ben,

Wanted to check in about the EBF 2020 transfer. Do you have a date for when RIIB will receive it? What is the next step in the process? Is there any additional information you need? I want to make sure everything is lined up for our bond issue.

Best,
Sydney

Sydney Usatine
Senior Business Development Analyst

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Providence, RI 02908
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www.riib.org

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You may report the matter by contacting us via our [UK Contacts Page \[nationalgrid.com\]](http://nationalgrid.com) or our [US Contacts Page \[nationalgridus.com\]](http://nationalgridus.com) (accessed by clicking on the appropriate link)

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For the registered information on the UK operating companies within the National Grid group please use the attached link: <https://www.nationalgrid.com/group/about-us/corporate-registrations>
[\[nationalgrid.com\]](http://nationalgrid.com)

From: Michael Baer <MBaer@riib.org>
Sent: Wednesday, September 23, 2020 4:13 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Porter, Christopher <Christopher.Porter@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Cc: Jeff Diehl <JDiehl@riib.org>; Becca Trietch (Becca.Trietch@energy.ri.gov) <Becca.Trietch@energy.ri.gov>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; cvitale@hvlawltd.com; Sydney Usatine <SUsatine@riib.org>
Subject: RE: EXT || FW: Efficient Buildings Fund pipeline

Ben,

The Bank has a weighted average pipeline of \$23.875 MM in projects and we will be challenged to meet all of this demand even with the requested new \$5 MM infusion of capital from the energy efficiency plan. The Bank will use the very limited amount of recycled capital to supplement the new allocation plus we will leverage with private sector bond capital. However, this is unlikely to provide sufficient funding to meet demand. If additional energy efficiency fund capital could be allocated to the EBF, we would spend additional funding to advance additional projects. Over time, we expect, based upon the results of how the Bank manages our other revolving loan fund programs, to leverage EBF capital 3x to 4x.

The definition of weighted average loan amount and weighted average finance estimate are the same.

Attached is the pipeline report in excel and I have included annual estimates for MWh and therms.

Michael

Michael Baer

Managing Director, Program and Business Development

Rhode Island Infrastructure Bank

235 Promenade Street, Suite 119
Providence, RI 02908
401-453-4430, 127
www.riib.org



From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Tuesday, September 22, 2020 6:34 PM
To: Michael Baer <MBaer@riib.org>; Porter, Christopher <Christopher.Porter@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Cc: Jeff Diehl <JDiehl@riib.org>; Becca Trietch (Becca.Trietch@energy.ri.gov) <Becca.Trietch@energy.ri.gov>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>;

cvitale@hvlawltd.com; Sydney Usatine <SUsatine@riib.org>

Subject: RE: EXT || FW: Efficient Buildings Fund pipeline

Michael,

Thank you. Please see my comments/questions in blue.

-Ben

From: Michael Baer <MBaer@riib.org>

Sent: Tuesday, September 22, 2020 4:06 PM

To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Porter, Christopher <Christopher.Porter@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>

Cc: Jeff Diehl <JDiehl@riib.org>; Becca Trietch (Becca.Trietch@energy.ri.gov)

<Becca.Trietch@energy.ri.gov>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>;
cvitale@hvlawltd.com; Sydney Usatine <SUsatine@riib.org>

Subject: FW: EXT || FW: Efficient Buildings Fund pipeline

Ben,

Attached please find a revised pipeline document with weightings for each project and energy savings estimates. The energy savings estimates were provided with guidance from Jerry Drummond. I have provided the Bank's response to your other questions within the body of your email which can be found below.

Please let me know if you have any additional questions or need any further clarification.

Michael

1. Is the current amount being requested \$4.75MM or \$5.00MM? Previous documents show \$4.75MM, but RIIB's comments on the first draft of the 2021 EE Plan imply that the amount being requested is \$5.00MM.
 - The Infrastructure Bank is requesting \$5MM total from a combination of gas and electric plans. How will \$5.0MM fund \$23.875MM in loans? Is the predicted leverage ratio expected to rise dramatically or do I not completely understand the term "Weighted Financing Estimate?" Is the "Weighted Financing Estimate" the same as "Weighted Average Loan Amount" in previous plans? (Bates pg. 352, Docket 4979)

It is not clear to National Grid how RIIB arrived at its current request. Please help us to provide a more compelling case to the EERMC and the PUC.

- a. Which municipalities does RIIB anticipate borrowing funds in 2021?
- b. How much will each borrow?
- c. In previous years RIIB has provided National Grid with a "Likelihood Weighting Factor" (Bates pg. 352 of Docket 4979). Please provide add those weighting factors to the document you attached to your previous email. The definitions of these weighting factors are on Bates pg. 351 of Docket 4979.

- The Efficient Buildings Fund program has a strong pipeline of projects over the next three year plan. This pipeline identifies almost \$100MM of eligible projects. Of these, each public entity either has borrowing authority or is seeking borrowing authority in November 2020 for energy efficiency projects. For 2021, we are highly confident that at minimum, \$24MM in energy efficiency loans will be closed in 2021 and start construction in 2021 across a number of municipalities with upside that additional projects move faster. Attached you will find a pipeline, with energy savings estimates, that outlines the need.
- 3. **Please provide annual kWh or MWh and therms in addition to lifetime numbers. This allows stakeholders to obtain a sense of both. Please provide the annual values.**
 - 174,000 MWh lifetime and 2,850,000 therms lifetime, see the attached pipeline report. **Please provide this pipeline report in a “values only” spreadsheet so that we may port estimates into the plan more easily.**
- 4. Please define “Construction Estimates.” Does the second or third year shown represent when the project will be completed or something else?
 - The Efficient Buildings Fund (EBF) is a construction finance program that provides long-term loans for comprehensive multi-building, multi-measure energy efficiency projects. As indicated in the pipeline, the loan numbers 1 – 6 will begin construction in 2021, and will need cash to start construction. Some of these improvements will be completed in 2021, for which savings can be attributed to and others will complete the following year.
- 5. **The PUC has previously asked, on multiple occasions, why the transfer amount is almost always \$5.00MM. Please explain why the requested amount is consistent from year to year. Please explain why this number is not higher or lower than \$5.00MM in 2021.**
 - The Bank believes that a stable allocation of \$5 MM provides clarity to the Bank’s clients, knowing that there will be funding available on an annual basis for energy efficiency project. We also believe a stable allocation of \$5 MM provides clarity for stakeholders involved in the energy efficiency plan process while not negatively impacting ratepayers with changes in the request on an annual basis. The Bank also leverages the funding with private capital from the bond market and we typically invest more than is allocated to the EBF by the plan in any given year. If the energy efficiency plan could accommodate an allocation of more than \$5MM, the Bank would take these funds and put them to use in 2021.

Annual and three year plan

1. Members of National Grid’s team as well members of RI OER staff have expressed concerns that municipalities may not be borrowing money in the next two years due to the economic fallout from Covid-19. RIIB appears to have a different opinion. Please explain the foundation of this opinion.

The EBF program pipeline includes projects from borrowers that have already received authority to borrow or are seeking borrowing authority in November 2020. The Bank’s conversations with our municipal clients have provided indications that those clients with existing debt capacity will borrow in the near term to take advantage of the historically low interest rates to invest in critical energy efficiency infrastructure projects while not drawing on any rainy day reserve funds. Not only do these critical energy projects upgrade municipal facilities such as schools, these improvements provide improved wellbeing for municipal employees and better air quality, resulting in improved productivity.

Municipal energy efficiency projects reduce energy costs, resulting in net positive cash flow whereby those cash savings can be deployed to other municipal priorities.

Michael Baer

Managing Director, Program and Business Development

Rhode Island Infrastructure Bank

235 Promenade Street, Suite 119

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401-453-4430, 127

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From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>

Sent: Sunday, September 20, 2020 7:46 PM

To: Jeff Diehl <JDiehl@riib.org>; Porter, Christopher <Christopher.Porter@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>

Cc: Ucci, Nicholas (DOA) <Nicholas.Ucci@energy.ri.gov>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Michael Baer <MBaer@riib.org>; Christopher P. Vitale (cvitale@hvlawltd.com) <cvitale@hvlawltd.com>; Sydney Usatine <SUsatine@riib.org>

Subject: RE: EXT || FW: Efficient Buildings Fund pipeline

Importance: High

Jeff,

Thank you for the attached document. I apologize for my delay in responding. I was ill most of last week.

Our team has several questions and requests, which are detailed below. Although all the answers are important, the sections in bold need responses by COB Tuesday.

1. **Is the current amount being requested \$4.75MM or \$5.00MM? Previous documents show \$4.75MM, but RIIB's comments on the first draft of the 2021 EE Plan imply that the amount being requested is \$5.00MM.**
 - The Infrastructure Bank is requesting \$5MM total from a combination of gas and electric is being requested.
2. **It is not clear to National Grid how RIIB arrived at its current request. Please help us to provide a more compelling case to the EERMC and the PUC.**
 - a. **Which municipalities does RIIB anticipate borrowing funds in 2021?**

- b. **How much will each borrow?**
- c. **In previous years RIIB has provided National Grid with a “Likelihood Weighting Factor” (Bates pg. 352 of Docket 4979). Please provide add those weighting factors to the document you attached to your previous email. The definitions of these weighting factors are on Bates pg. 351 of Docket 4979.**
- The Efficient Buildings Fund program has a strong pipeline of projects over the next three year plan. This pipeline identifies almost \$100MM of eligible projects. Of these, each public entity either has borrowing authority or is seeking borrowing authority in November 2020 for energy efficiency projects. For 2021, we are highly confident that at minimum, \$24MM in energy efficiency loans will be closed in 2021 across a number of municipalities with upside that additional projects move faster. Attached you will find a pipeline, with energy savings estimates, that outlines the need.
3. **Please provide annual kWh or MWh and therms in addition to lifetime numbers. This allows stakeholders to obtain a sense of both.**
 - 174,000 MWh lifetime and 2,850,000 therms lifetime, see the attached pipeline report.
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 - The Bank believes that a stable allocation of \$5 MM provides clarity to the Bank’s clients, knowing that there will be funding available on an annual basis for energy efficiency project. We also believe a stable allocation of \$5 MM provides clarity for stakeholders involved in the energy efficiency plan process while not negatively impacting ratepayers with changes in the request on an annual basis. The Bank also leverages the funding with private capital from the bond market and we typically invest more than is allocated to the EBF by the plan in any given year. If the energy efficiency plan could accommodate an allocation of more than \$5MM, the Bank would take these funds and put them to use in 2021.

Annual and three year plan

1. Members of National Grid’s team as well members of RI OER staff have expressed concerns that municipalities may not be borrowing money in the next two years due to the economic fallout from Covid-19. RIIB appears to have a different opinion. Please explain the foundation of this opinion.
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these improvements provide improved wellbeing for municipal employees and better air quality, resulting in improved productivity. Municipal energy efficiency projects reduce energy costs, resulting in net positive cash flow whereby those cash savings can be deployed to other municipal priorities.

-Ben

From: Jeff Diehl <JDiehl@riib.org>
Sent: Tuesday, September 15, 2020 4:00 PM
To: Porter, Christopher <Christopher.Porter@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Ucci, Nicholas (DOA) <Nicholas.Ucci@energy.ri.gov>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Michael Baer <MBaer@riib.org>; Christopher P. Vitale (cvitale@hvlawltd.com) <cvitale@hvlawltd.com>
Subject: EXT || FW: Efficient Buildings Fund pipeline

Dear Chris, Matthew and Ben,

Please find attached a copy of the Efficient Building Fund pipeline of energy efficiency projects that have been identified for calendar years 2021, 2022 and 2023. This pipeline supports our request for \$5 million from the 2021 Energy Efficiency Program Plan.

We would be pleased to answer any questions regarding this pipeline and our request for capital for the Efficient Building Fund.

Regards,
Jeff

Jeffrey R. Diehl
Executive Director and CEO

Rhode Island Infrastructure Bank
235 Promenade Street, Suite 119
Providence, RI 02908
401-453-4430, 114
www.riib.org

Please note our new email domain (JDiehl@riib.org) and update your contact information accordingly.



From: Jeff Diehl
Sent: Tuesday, September 8, 2020 3:57 PM
To: Ucci, Nicholas (DOA) <Nicholas.Ucci@energy.ri.gov>
Cc: Verdi, Nicole (GOV) <Nicole.Verdi@governor.ri.gov>; Michael Baer <mbaer@riib.org>; Christopher P. Vitale (<cvitale@hvlawltd.com>) <cvitale@hvlawltd.com>
Subject: Efficient Buildings Fund pipeline

Dear Nick,

As requested, attached is the Bank's Efficient Buildings Fund pipeline for calendar years 2021 through 2023. We have visibility into \$742 MM of energy and building projects, of which we think almost \$100 MM will be eligible for the EBF program over the next three years. For calendar year 2021, we have high confidence in \$10 MM to \$20 MM of projects that would close with EBF. Included in this pipeline is an estimate of the energy savings that would be attributable to these projects, which was provided by Jerry Drummond of National Grid.

Please let us know if you have any further questions or comments.

Regards,
Jeff

Jeffrey R. Diehl
Executive Director and CEO

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For the registered information on the UK operating companies within the National Grid group please use the attached link: <https://www.nationalgrid.com/group/about-us/corporate-registrations>

From: Michael Baer <MBaer@riib.org>
Sent: Tuesday, September 22, 2020 4:06 PM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>; Porter, Christopher <Christopher.Porter@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Cc: Jeff Diehl <JDiehl@riib.org>; Becca Trietch (Becca.Trietch@energy.ri.gov) <Becca.Trietch@energy.ri.gov>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; cvitale@hvlawltd.com; Sydney Usatine <SUsatine@riib.org>
Subject: FW: EXT || FW: Efficient Buildings Fund pipeline

Ben,

Attached please find a revised pipeline document with weightings for each project and energy savings estimates. The energy savings estimates were provided with guidance from Jerry Drummond. I have provided the Bank's response to your other questions within the body of your email which can be found below.

Please let me know if you have any additional questions or need any further clarification.

Michael

2. **Is the current amount being requested \$4.75MM or \$5.00MM? Previous documents show \$4.75MM, but RIIB's comments on the first draft of the 2021 EE Plan imply that the amount being requested is \$5.00MM.**
 - The Infrastructure Bank is requesting \$5MM total from a combination of gas and electric plans.
3. **It is not clear to National Grid how RIIB arrived at its current request. Please help us to provide a more compelling case to the EERMC and the PUC.**
 - a. **Which municipalities does RIIB anticipate borrowing funds in 2021?**
 - b. **How much will each borrow?**
 - c. **In previous years RIIB has provided National Grid with a "Likelihood Weighting Factor" (Bates pg. 352 of Docket 4979). Please provide add those weighting factors to the document you attached to your previous email. The definitions of these weighting factors are on Bates pg. 351 of Docket 4979.**
- The Efficient Buildings Fund program has a strong pipeline of projects over the next three year plan. This pipeline identifies almost \$100MM of eligible projects. Of these, each public entity either has borrowing authority or is seeking borrowing authority in November 2020 for energy efficiency projects. For 2021, we are highly confident that at minimum, \$24MM in energy efficiency loans will be closed in 2021 and start construction in 2021 across a number of municipalities with upside that additional projects move faster. Attached you will find a pipeline, with energy savings estimates, that outlines the need.
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Annual and three year plan

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The EBF program pipeline includes projects from borrowers that have already received authority to borrow or are seeking borrowing authority in November 2020. The Bank's conversations with our municipal clients have provided indications that those clients with existing debt capacity will borrow in the near term to take advantage of the historically low interest rates to invest in critical energy efficiency infrastructure projects while not drawing on any rainy day reserve funds. Not only do these critical energy projects upgrade municipal facilities such as schools, these improvements provide improved wellbeing for municipal employees and better air quality, resulting in improved productivity. Municipal energy efficiency projects reduce energy costs, resulting in net positive cash flow whereby those cash savings can be deployed to other municipal priorities.

Michael Baer

Managing Director, Program and Business Development

Rhode Island Infrastructure Bank

235 Promenade Street, Suite 119

Providence, RI 02908

401-453-4430,127

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From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Sunday, September 20, 2020 7:46 PM
To: Jeff Diehl <JDiehl@riib.org>; Porter, Christopher <Christopher.Porter@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Cc: Ucci, Nicholas (DOA) <Nicholas.Ucci@energy.ri.gov>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Michael Baer <MBaer@riib.org>; Christopher P. Vitale (cvitale@hvlawltd.com) <cvitale@hvlawltd.com>; Sydney Usatine <SUsatine@riib.org>
Subject: RE: EXT || FW: Efficient Buildings Fund pipeline
Importance: High

Jeff,

Thank you for the attached document. I apologize for my delay in responding. I was ill most of last week.

Our team has several questions and requests, which are detailed below. Although all the answers are important, the sections in bold need responses by COB Tuesday.

2. **Is the current amount being requested \$4.75MM or \$5.00MM? Previous documents show \$4.75MM, but RIIB's comments on the first draft of the 2021 EE Plan imply that the amount being requested is \$5.00MM.**
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From: Jeff Diehl <JDiehl@riib.org>

Sent: Tuesday, September 15, 2020 4:00 PM

To: Porter, Christopher <Christopher.Porter@nationalgrid.com>; Ray, Matthew <Matthew.Ray2@nationalgrid.com>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>

Cc: Ucci, Nicholas (DOA) <Nicholas.Ucci@energy.ri.gov>; Trietch, Becca (DOA) <Becca.Trietch@energy.ri.gov>; Cleveland, Nathan (DOA) <Nathan.Cleveland@energy.ri.gov>; Michael Baer <MBaer@riib.org>; Christopher P. Vitale (cvitale@hvlawltd.com) <cvitale@hvlawltd.com>

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Regards,
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Jeffrey R. Diehl
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Sent: Tuesday, September 8, 2020 3:57 PM
To: Ucci, Nicholas (DOA) <Nicholas.Ucci@energy.ri.gov>
Cc: Verdi, Nicole (GOV) <Nicole.Verdi@governor.ri.gov>; Michael Baer <mbaer@riib.org>; Christopher P. Vitale (<cvitale@hvlawltd.com>) <cvitale@hvlawltd.com>
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Regards,
Jeff

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Executive Director and CEO

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For the registered information on the UK operating companies within the National Grid group please use the attached link: <https://www.nationalgrid.com/group/about-us/corporate-registrations>

From: Michael Baer [<mailto:MBaer@riib.org>]
Sent: Thursday, August 27, 2020 10:04 AM
To: Ray, Matthew <Matthew.Ray2@nationalgrid.com>
Subject: Re: EXT || Agenda for Noon Meeting

Good morning Matthew,

Can you please refresh my memory as to the process for the three year plan and annual plan? Will these both be filed together or has the three year plan been filed before the PUC already? I couldn't find it on the Commission website.

Thanks,

Michael

On Aug 24, 2020, at 11:35 AM, Ray, Matthew <Matthew.Ray2@nationalgrid.com> wrote:

Hi Michael,

Really just looking to discuss the 2021 EE Plan and specifically the allocation of dollars to RIIB and associated transfer. Want to talk through this with you before we submit the first draft of the '21 plan.

Best-

Matthew Ray

Manager, Customer Energy Management - Rhode Island
nationalgrid

1-401-784-4356

1-401-302-4985 (m)

Matthew.Ray2@nationalgrid.com

280 Melrose St. Providence, RI 02907
nationalgrid.com | Twitter | LinkedIn | Facebook

Please consider the environment before printing this email.

From: Michael Baer [<mailto:MBaer@riib.org>]
Sent: Monday, August 24, 2020 9:54 AM
To: Ray, Matthew <Matthew.Ray2@nationalgrid.com>; RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: EXT || Agenda for Noon Meeting

Matthew, Ben – can you please provide an agenda for the noon meeting?

Thanks,

Michael

Michael Baer

Managing Director, Program and Business Development

Rhode Island Infrastructure Bank

235 Promenade Street, Suite 119

Providence, RI 02908

401-453-4430, 127

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<image002.png>

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From: Sydney Usatine <SUsatine@riib.org>

Sent: Monday, July 27, 2020 1:02 PM

To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>

Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben,

Great, I'd be happy to meet from 3-3:30. I think Michael wanted to be part of the call as well. I just re-attached the excel sheet, please let me know if you received it.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Monday, July 27, 2020 12:01 PM
To: Sydney Usatine <SUsatine@riib.org>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Sydney,

I can do 2:30-3:00 or 3:00-3:30 today. Does that work for you?

I didn't see the attachment that you mentioned in your 7/24 10:53 AM come through. Would you please resend? Thanks you.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Monday, July 27, 2020 10:44 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben, wanted to follow up on your request for a meeting - are you able to meet this afternoon or another time this week?

From: Sydney Usatine
Sent: Friday, July 24, 2020 10:53 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Michael Baer <mbaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben,

I am happy to schedule our meeting now – would Monday at 1pm work for you? I've attached a draft EBF pipeline that Jerry and I worked on. Please let me know if you have any questions or suggestions.

I will be making a 2020 transfer request imminently. Could you give my cell a call to discuss what I need to include in the request? I believe we planned on an update to the cash flow spreadsheet as well as a narrative documenting the request.

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Thursday, July 23, 2020 1:18 PM
To: Sydney Usatine <SUsatine@riib.org>

Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: RE: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Sydney,

That would be fine. Please understand that the Council is “extremely disappointed” in the savings the Company presented in the first draft of our three year plan. The Company is concerned about the EE charge going up dramatically during an economic crisis. All this is to say that there will be a lot of competition for the funds that we traditionally transfer to RIIB going forward. The case for future transfers must be exceptionally well documented.

-Ben

From: Sydney Usatine <SUsatine@riib.org>
Sent: Thursday, July 23, 2020 9:51 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EXT || RE: EBF numbers for 3yr plan and 2021 annual plan

Hi Ben,

Thanks for reaching out. I am waiting on some numbers internally. Once we have them, I'll be better prepared to discuss transfer needs for the 3YR plan as well as make the 2020 transfer request.

Would it be ok if I reach out to schedule a meeting once I have received the numbers from RIIB? I've been told to expect them any day now.

Best,
Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Tuesday, July 21, 2020 7:38 PM
To: Sydney Usatine <SUsatine@riib.org>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EBF numbers for 3yr plan and 2021 annual plan
Importance: High

Sydney,

I hope you are well. My team has a few things that we need to discuss with RIIB regarding EBF.

1. Do you have any more clarity regarding the amounts that the bank will be requesting in 2021, 2022, and 2023?
2. I would like to schedule a meeting for next week to discuss the specifics of the 2021 transfer request. Can all of you meet after 11:00 AM on Monday or Tuesday?
 - a. Sydney and Jerry – Please develop a preliminary forecast of savings and transfer amount for 2021. Chris wants to review these numbers before we meet.

3. Do you foresee requesting a 2020 transfer coming in the next 8 weeks? If so, please let me know ASAP as things are only getting crazier and crazier around here with both the annual and three year plan due.

Please call me if you have any questions.

-Ben

From: Sydney Usatine <SUstatine@riib.org>
Sent: Friday, June 05, 2020 8:32 AM
To: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EXT || RE: EBF numbers for 3yr plan

Hi Ben,

I'll work on putting together an estimate. By when do you need this information?

Sydney

From: RIVERS, BENJAMIN <BENJAMIN.RIVERS@nationalgrid.com>
Sent: Thursday, June 4, 2020 5:36 PM
To: Sydney Usatine <SUstatine@riib.org>
Cc: Michael Baer <MBaer@riib.org>; Drummond, Jerry <jerry.drummond@nationalgrid.com>
Subject: EBF numbers for 3yr plan
Importance: High

Sydney,

I hope you are well. I know the past couple of months have been really stressful for a lot of people.

National Grid is finalizing numbers for the first draft of the 2021-2023 EE plan and I realized that I don't have numbers for EBF. Does the bank have an estimate for the dollar amount that that would be needed to support EE EBF projects in 2021, 2022, and 2023?

-Ben

2021 EBF Pipeline										Savings Estimates Provided by National Grid	
Loan Number	Total Eligible Project Costs	Probability	Project Description	Construction Estimates	Financing Estimates - EE	Weighted Financing Estimate	Percent of Financing Amount Devoted To Gas Improvements	Annual Savings Estimate - MWh*	Annual Savings Estimate - Therms**	Lifetime Savings Estimate - MWh*	Lifetime Savings Estimate - Therms**
1 \$	4,000,000	75%	Lighting upgrades, will move forward once MOU completed between National Grid and RIDOT	2021/2022	\$ 4,000,000	\$ 3,000,000	0%	1,600	-	24,000	-
2 \$	2,500,000	75%	Comprehensive efficiency, already listed on PPL	2021/2022	\$ 2,500,000	\$ 1,875,000	10%	867	16,667	13,000	250,000
3 \$	5,000,000	75%	Comprehensive Energy Efficiency, financing in May 2021	2021	\$ 5,000,000	\$ 3,750,000	10%	1,733	33,333	26,000	500,000
4 \$	5,000,000	75%	Seeking borrowing authority for energy efficiency projects in November	2021/2022	\$ 4,000,000	\$ 3,000,000	10%	1,400	26,667	21,000	400,000
5 \$	15,000,000	75%	Building Energy Efficiency, has borrowing authority	2021/2022	\$ 15,000,000	\$ 11,250,000	10%	5,267	100,000	79,000	1,500,000
6 \$	2,000,000	50%	Building Energy Efficiency, on PPL, seeking borrowing authority in November	2021/2022	\$ 2,000,000	\$ 1,000,000	10%	733	13,333	11,000	200,000
Subtotal	\$ 33,500,000				\$ 32,500,000	\$ 23,875,000		11,600	190,000	174,000	2,850,000
7 \$	80,000,000	25%	Building Energy Efficiency - Schools, in discussion and has bonding authority	2021/2022/2023	\$ 8,000,000	\$ 2,000,000	30%	2,200	160,000	33,000	2,400,000
8 \$	106,500,000	25%	Building Energy Efficiency - Schools - bond on November ballot	2021/2022/2023	\$ 10,650,000	\$ 2,662,500	30%	2,933	213,000	44,000	3,195,000
9 \$	132,000,000	25%	Building Energy Efficiency - Schools - bond on November ballot	2021/2022/2023	\$ 13,200,000	\$ 3,300,000	30%	3,600	264,000	54,000	3,960,000
10 \$	140,000,000	25%	Building Energy Efficiency - Schools - bond on November ballot	2021/2022/2023	\$ 5,000,000	\$ 1,250,000	30%	1,400	100,000	21,000	1,500,000
11 \$	56,000,000	25%	Building Energy Efficiency - Schools - bond on November ballot	2021/2022/2023	\$ 5,600,000	\$ 1,400,000	30%	1,533	112,000	23,000	1,680,000
12 \$	65,900,000	25%	Building Energy Efficiency - Schools - bond on November ballot	2021/2022/2023	\$ 6,590,000	\$ 1,647,500	30%	1,800	131,800	27,000	1,977,000
13 \$	85,000,000	25%	Building Energy Efficiency - Schools	2021/2022/2023	\$ 8,500,000	\$ 2,125,000	30%	2,333	170,000	35,000	2,550,000
14 \$	5,000,000	25%	HVAC Improvement - Quasi, bond on ballot in early 2021	2021/2022	\$ 5,000,000	\$ 1,250,000	30%	1,400	100,000	21,000	1,500,000
15 \$	38,000,000	25%	New Construction, bond on ballot in early 2021	2021/2022	\$ 3,800,000	\$ 950,000	30%	1,067	76,000	16,000	1,140,000
	\$ 741,900,000				\$ 98,840,000	\$ 40,460,000		29,867	1,516,800	448,000	22,752,000

2021 EBF Pipeline										Savings Estimates Provided by National Grid	
Community	Financing Estimate	Project Description	Construction Estimates	Housing Aid (%)	Housing Aid \$ with 10% Adder	Eligible Non-housing Aid Financing Amount	Financing Estimates - EE	Percent of Financing Amount Devoted To Gas Improvements	Lifetime Savings Estimate - MWh*	Lifetime Savings Estimate - Therms**	
Multiple communities	\$ 4,000,000	LED streetlight upgrades	2021/2022				\$ 4,000,000	0%	24,000	-	
South Kingstown	\$ 2,500,000	Comprehensive efficiency	2021/2022				\$ 2,500,000	10%	13,000	250,000	
North Kingstown	\$ 5,000,000	Comprehensive Energy Efficiency	2021/2022				\$ 5,000,000	10%	26,000	500,000	
Cranston	\$ 5,000,000	Re and ee improvements; bond on ballot	2021/2022				\$ 4,000,000	10%	21,000	400,000	
Pawtucket	\$ 15,000,000	Building Energy Efficiency	2021/2022				\$ 15,000,000	10%	79,000	1,500,000	
Jamestown	\$ 2,000,000	Building Energy Efficiency	2021/2022				\$ 2,000,000	10%	11,000	200,000	
Cumberland Schools	\$ 80,000,000	Building Energy Efficiency	2021/2022/2023	35%	\$ 36,000,000.00	\$ 44,000,000.00	\$ 8,000,000	30%	33,000	2,400,000	
Newport Schools	\$ 106,500,000	Building Energy Efficiency	2021/2022/2023	35%	\$ 47,925,000.00	\$ 58,575,000.00	\$ 10,650,000	30%	44,000	3,195,000	
Cranston Scools	\$ 132,000,000	Building Energy Efficiency	2021/2022/2023	54%	\$ 84,480,000.00	\$ 47,520,000.00	\$ 13,200,000	30%	54,000	3,960,000	
Providence Schools	\$ 140,000,000	Building Energy Efficiency	2021/2022/2023	83%	\$ 130,200,000.00	\$ 9,800,000.00	\$ 5,000,000	30%	21,000	1,500,000	
Warwick Schools	\$ 56,000,000	Building Energy Efficiency	2021/2022/2023	35%	\$ 25,200,000.00	\$ 30,800,000.00	\$ 5,600,000	30%	23,000	1,680,000	
Portsmouth Schools	\$ 65,900,000	Building Energy Efficiency	2021/2022/2023	35%	\$ 29,655,000.00	\$ 36,245,000.00	\$ 6,590,000	30%	27,000	1,977,000	
South Kingstown Schools	\$ 85,000,000	Building Energy Efficiency	2021/2022/2023	35%	\$ 38,250,000.00	\$ 46,750,000.00	\$ 8,500,000	30%	35,000	2,550,000	
URI HVAC	\$ 5,000,000	HVAC Improvement	2021/2022				\$ 5,000,000	30%	21,000	1,500,000	
RIC New Building	\$ 38,000,000	Science Building	2021/2022				\$ 3,800,000	30%	16,000	1,140,000	
Total	\$ 741,900,000						\$ 98,840,000		448,000	22,752,000	

*Lifetime electricity savings estimates were calculated using a value 17 cents of electric financing per kwh saved and rounded to the nearest 1,000 MWh.

**Lifetime gas savings estimates were calculated using a value of \$1 gas financing per therm saved.

***Schools assuming energy efficiency projects are 10% of total budget as a conservative estimate. Providence is half of eligible project costs after housing aid.

****All energy savings estimates provided by Jerry Drummond from National Grid.

Notes	
Middletown, Newport, Portsmouth, Jamestown plan to do LED streetlight upgrade projects.	
Anticipating \$2.5MM of \$6.5MM bond comes through EBF. Town has completed audits and bonding will move projects forward.	
Town's bond anticipation notes expire in May 2021, building energy efficiency work to be financed through EBF. HVAC, lighting and other energy related improvements in Town Hall, and numerous facilities across the Town. \$9-\$10mm is for building work in authorized bonding.	
\$5MM Climate Bond going to voters in November 2020. Energy efficiency work in City Hall, Libraries across the City and other improvements. Potentially \$1MM of solar.	
Municipal improvement bond going on the ballot in November for \$4MM. TIF building efficiency projects in development and to close in Q1/Q2 2021.	
Library and golf course improvements including HVAC already approved bond in 2018 - additional funding on ballot in November.	
In discussion with Colliers.	
Newport school bond on the ballot. City is interested in EBF upon bond passage.	
Cranston school bond on the ballot. City is interested in EBF upon bond passage.	
Significant investments in Providence Schools.	
Warwick school bond on the ballot. City is interested in EBF upon bond passage.	
Portsmouth school bond on the ballot. City is interested in EBF upon bond passage.	
South Kingstown school projects already approved, working with Town on opportunity.	
Dependent on passage of bond authorization on ballot.	
Dependent on passage of bond authorization on ballot.	

2020 EBF Pipeline (including closed loans)

Community	Financing Estimate	Notes	Completion Estimates	Probability	Weighting	Financing Weighted Average	Savings Estimate - MWh	Savings Estimate - Therms	Notes
Pawtucket	\$ 1,000,000	Streetslights	2020	Closed	100%	\$ 1,000,000			Closed - used recycled and non-recycled SBC funds
Pascoag Utility District	\$ 1,419,045	EE; energy storage and enabling work	2020	Closed	100%	\$ 1,419,045			Closed - used RGGI funds
Warwick	\$ 3,200,000	Streetslights	2020	High	100%	\$ 3,200,000			Closing anticipated in Fall, using 2019 SBC funds
East Providence High School	\$ 24,000,000	New construction; closing Sept/Oct 2020 anticipated	2022-2023	High	90%	\$ 21,600,000	1,059	10,555	Savings numbers are based on approved applications. Project will be funded with SBC funds already available, a 2020 SBC transfer request and bond funds.
Total	\$ 29,619,045					\$ 27,219,045	1,059	10,555	

2021 EBF Pipeline

Community	Financing Estimate	Notes	Completion Estimates	Probability	Weighting	Financing Weighted Average	Savings Estimate - MWh	Savings Estimate - Therms	Notes
Streetslights - multiple communities	\$ 4,000,000	Multiple communities	2020-2021	Medium	50%	\$ 2,000,000	250		
South Kingstown	\$ 500,000	Comprehensive efficiency; exact amount is TBD	2020	Medium	50%	\$ 250,000	25		
Cranston	\$ 5,000,000	Re and ee improvements; bond on ballot	2021-2026	Medium	50%	\$ 2,500,000	250		Additional \$2M of RGGI funds reserved for RE component, not included in financing weighted average
Total	\$ 9,500,000					\$ 4,750,000	525	\$ -	Anticipated \$4,750,000 SBC transfer request in 2021

2022 & 2023 EBF Pipeline - each year

Community	Financing Estimate	Notes	Completion Estimates	Probability	Weighting	Financing Weighted Average	Savings Estimate - MWh	Savings Estimate - Therms	Notes
Schools - new construction	\$ 10,000,000			Low	25%	\$ 2,500,000	250	10,000	
Schools - ee improvements	\$ 10,000,000			Low	25%	\$ 2,500,000	250	20,000	
Total	\$ 10,000,000					\$ 5,000,000	500	30,000	Anticipated \$5,000,000 SBC transfer request in 2022 and 2023

PUC 4-25

Request:

Referring to the responses to PUC 1-56 and 1-57,

- a. Please describe the due diligence process that National Grid performed before it transferred the \$5,216,666 in ratepayer funds to RIIB.
- b. On what date did National Grid transfer the \$5,216,666 to RIIB?
- c. Please provide a complete explanation supporting National Grid's conclusion that the conditions for transferring SBC funds required in the Commission's order in Docket 4979 were met.
- d. Please provide copies of all the documentation provided by RIIB to National Grid that showed why RIIB did not have sufficient funds in its SBC and SBC Repayment/Recycled Funds accounts to make the two actual loans totaling \$27.2 million that were closed on October 29, 2020;
- e. Please explain why RIIB needed SBC funds to make either of the loans and could not fund the two loans completely from bond proceeds and other funds already being held by RIIB.
- f. Please explain the relevancy of having a leverage ratio of 2.16x, as it relates to the question whether RIIB had the capability to make the loans and issue bonds without another transfer of energy efficiency funds in 2020.
- g. Please explain what is meant by the statement in PUC 1-56: "The EE loan became \$47,719.048," given that the actual loans issued totaled only \$27.2 million. In what sense did the loans become \$47.7 million?

Response:

- a. The Company engaged in a thorough process of due diligence consistent with the three requirements (detailed in part (c) below) for transferring the SBC funds to RIIB. This process entailed the gathering and review of documentation. The Company worked with RIIB and OER to gather all needed documentation that would support a transfer. This documentation included the below and, with the exception of the approved tables from Docket No. 4979, are included as Attachments to PUC 4-23:
 - Approved tables from Docket No. 4979 to ensure funding amount.
 - Written letters of intent from the prospective borrowers regarding their intent to close loans in 2020.
 - A copy of the EBF loan application for East Providence.

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- A RIIB EBF Cash Flow statement with rationale as to need for the transfer
- A formal letter issued by RIIB Executive Director requesting the transfer of ratepayer funds.
- The approved Project Priority List

National Grid concluded that the documentation satisfied the requirements for a transfer and that withholding the funds from RIIB would be inconsistent with the approved 2020 Plan and Order.

- b. National Grid transferred the \$5,216,666 on September 30, 2020. These funds were received by RIIB on October 1st, 2020.
- c. The Company understood there to be three conditions that must be met prior to transferring funds. First, the Company should be furnished the relevant, final Project Priority List(s)(PPLs) indicating which projects have been approved for EBF funds and have met the EBF rules and regulations for cost-effectiveness. Second, a notification from an EBF applicant(s) that they intend to close a loan in calendar year 2020. And third, that RIIB must provide to National Grid documentation that shows that the RIIB does not have sufficient funds in its SBC and SBC repayment / recycled funds available accounts to commit towards those loans. As noted in part (a) above, the Company relied upon documentation to determine whether a transfer was warranted. The Company requested/gathered and reviewed documentation from RIIB and OER. The documentation received by the Company was as follows:
 1. **Project Priority List:** Provided by OER on 9/21/2020. These projects met all rules and regulations of EBF program and have passed cost effectiveness screening conducted by OER. The two projects with loans closed on 10/29/2020 were featured on this list.
 2. **Letters of Intent:** Both Warwick and East Providence provided letters of intent to close the loans in calendar year 2020. Both borrowers provided this letter on September 4, 2020.

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3. **Availability of SBC repayments:** In July of 2020 RIIB furnished the Company with a Cash Flow spreadsheet dated 6/30/2020, showing insufficient SBC repayments or SBC recycled funds for use towards the two loans. The Company was also given a word document explaining the need for the transfer of funds in the amount of \$5,126,666 (This should have read \$5,216,666 as was approved in Docket No. 4979) to support the financing for a Fall 2020 East Providence high school project that would total \$24,000,000. Existing SBC funds in the amount of \$2,900,000 would be utilized along with the Company transfer and bond proceeds totaling ~\$12,000,000 in order to support the total amount of the loan.
- d. Please see Attachments PUC 4-25-1 and 4-25-2 for the EBF cash flow statement provided by RIIB, as well as a letter from RIIB explaining the need for the funds.
- e. This response is based on information provided by RIIB and references the more recent cash flow provided to the Commission in PUC 1-55 that utilizes actual amounts rather than the forecasted amounts in the 6/30/20 cash flow provided as part of this answer. As listed in the cash flow spreadsheet, in 2020 the Bank received \$3,003,463.15 in principal and interest payments and paid \$1,957,100 to bond holders, leaving the Bank with \$1,046,365.15 in additional recycled funds. These recycled funds include payments from both SBC and RGGI-funded loans. There were not enough funds in any of the Bank's EBF accounts to directly fund both loans closed in October.

There are a number of factors that determine the amount of bond proceeds that the Bank can access, including the amount of contributed program capital, level of interest rate reduction on loans to borrowers, borrower concentration within the loan pool and program debt outstanding. With the \$5.2MM contribution of System Benefits Charge funds, the Bank could only issue enough debt to fund \$27.2MM in loans. The Bank was not able to meet the City of East Providence's request for over \$28 MM in project financing and ultimately was only able to provide a \$24 MM loan.

- f. This response is based on information provided by RIIB. The Bank funds new long-term loans at a reduced interest cost with newly contributed SBC funds combined with recycled program capital and borrowed bond proceeds at a ratio of approximately 2x recycled and borrowed funds to new SBC program capital. A 2020 transfer of energy efficiency funds was necessary to support the 2020 lending program. The relevancy of the leverage ratio shows that with \$1 of System Benefit Charge provided to the Infrastructure Bank, the Bank is able to provide \$2 in additional project funds to municipalities, accelerating more projects per contributed ratepayer dollar.

PUC 4-25, page 4

- g. This response is based on information provided by RIIB. To date, the amount of EE loans lent through the program in total is \$47.7 million. The EE loans issued in October 2020 were \$27.2 million.

Rhode Island Infrastructure Bank
Efficient Buildings Fund
Cash Flow
Amounts in \$ millions

Date	Description	SBC (including legislative transfer)	SBC Repayments / Recycled Funds Available	Bond Revenue Account	Bond Debt	Bond Anticipation Note Debt	R.G.G.I funds & R.G.G.I. revolved funds	EBF Loan Balance (Committed Funds)	RIIB Contribution	Total
12/30/2015	Balance	-	-	-	-	-	-	-	-	-
4/20/2016	RGGI Transfer						3.00			3.00
7/8/2016	BAN cost of issuance					(0.15)				(0.15)
7/8/2016	6 loans closed; with BANS (ultimately 2 SBC, 4 bond proceeds)					(17.18)		17.18		0.00
11/2/2016	Transfer from NGrid EE	1.87								1.87
11/4/2016	RGGI Transfer						2.00			2.00
12/31/2016	Balance	1.87	0.00	0.00	0.00	(17.33)	5.00	17.18	0.00	6.73
3/1/2017	year		0.01		0.19		0.00			0.21
11/1/2017	Loan principal repayment available	0.00			0.06		0.00	(0.06)		0.00
11/1/2017	Transfer from NGrid EE	5.00								5.00
12/13/2017	5 loans closed; with BANS (ultimately, 3 RGGI, 1 SBC, 1 bond proceeds)	(2.37)				(6.02)	(2.07)	10.45		0.00
12/28/2017	1 loan closed with SBC	(0.25)						0.25		0.00
12/31/2017	Balance	4.25	0.01	0.00	0.25	(23.35)	2.93	27.83	0.00	11.93
3/1/2018	year		0.09		0.32		0.00			0.41
10/1/2018	BAN interest repayment				(0.17)					(0.17)
10/1/2018	Bond cost of issuance (and rounding)				(0.38)					(0.38)
10/5/2018	1 loan closed with SBC/N Grid funds	(2.50)						2.50		0.00
10/16/2018	Transfer from NGrid EE	5.00								5.00
11/1/2018	Loan principal repayment available		0.48		0.76		0.02	(1.25)		0.00
11/29/2018	BAN principle repayment and DSRF established	(5.13)			(18.86)	23.35	(0.74)		(1.22)	(2.60)
11/29/2018	1 loan closed with Bond proceeds				(0.94)			0.94		0.00
	Interest on Funds (R.G.G.I. approx)	0.07	0.00				0.04			0.11
12/31/2018	Balance	1.69	0.59	0.00	(19.02)	0.00	2.25	30.01	(1.22)	14.30
3/1/2019	year			0.19	0.36		0.04			0.59
11/2019	Transfer from NGrid EE	5.00								5.00
11/1/2019	Loan principal repayment available			0.77	1.19		0.18	(2.13)		0.00
10/8/2019	RGGI Transfer						1.00			1.00
	Interest on Funds (R.G.G.I. approx)	0.04	0.00				0.04			0.08
12/31/2019	Balance	6.73	0.59	0.95	(17.46)	0.00	3.50	27.88	(1.22)	20.97
3/1/2020	Loan interest repayment available			0.29						0.29
5/12/2020	Loan - Closed	(0.45)	(0.55)					1.00		0.00
3/1/2020	Loan - Closed						(1.42)	1.42		0.00
	Account reconciliation		(0.04)	0.06	0.20					
	Interest on Funds (approx)	0.03					0.02			0.05
6/30/2020	Balance	6.31	0.00	1.30	(17.27)	0.00	2.10	30.30	(1.22)	21.31
Forward Looking Expected Activity										
9/1/2020	Transfer from NGrid EE (anticipated)	5.13								5.13
Fall 2020	Loan - Funds committed, currently in pipeline	(3.20)						3.20		0.00
Fall 2020	Loan - Anticipated, currently in pipeline	(8.00)			(16.00)			24.00		0.00
11/1/2020	Loan principal repayment available			0.94	1.19			(2.13)		0.00
	Interest on Funds (approx)	0.00					0.02			
12/31/2020	Balance (Estimate)	0.24	0.00	2.24	(32.07)	0.00	2.12	55.37	(1.22)	26.43

Note: The Bond Revenue account contains loan repayments after the EBF 2018A bond issue. Revenue funds can be deallocated and made available for new loans annually. First deallocation is expected in 2021; exact amount to be determined.

RI Infrastructure Bank

2020 SBC Transfer Request

July 2020

The RI Infrastructure Bank is requesting \$5,126,666 of SBC funds to capitalize the Efficient Building Fund (EBF). This request is to fund the energy efficient components of a new construction high school in East Providence. The total project cost through the Efficient Building Fund is anticipated to be \$24 million. The RI Infrastructure Bank intends to finance this project in Fall 2020 through a combination of SBC funds already available (around \$2.9 million), SBC funds obtained through this transfer request (\$5,126,666) and bond proceeds (around \$12 million). The anticipated source of funds breakdown is shown in the updated Cash Flow spreadsheet.

The updated Cash Flow spreadsheet details the funds available through the EBF. Since the last report as of December 31, 2019, two EBF loans closed: a battery enabling project for \$1,419,045 funded with RGGI dollars and a streetlight retrofit project for \$1,000,000 funded by SBC revolved and SBC first use dollars. Around \$550,000 of SBC revolved funds were used, roughly the entire account balance, to maximize the use of revolved dollars.

\$3.2 million of SBC funds are reserved for Warwick's streetlight retrofit project anticipated to close in Fall 2020. This project is listed on OER's Round 2 PPL and the City Council recently approved the project bid from the contractor.

\$2.0 million of RGGI funds are reserved for future renewable energy projects as they are not eligible for SBC funds. Rhode Island communities have expressed interest in solar ownership including the City of Cranston, where the City Council recently approved a \$5 million renewable energy and energy conservation bond proposal.

A significant amount of funds repaid from borrower loans (approximately \$2.24 million) are in an EBF 2018A bond revenue account. This account is used to support the debt service on the 2018A bond and is required for the bond's AA S&P rating. In Fall 2020, RI Infrastructure Bank will conduct an analysis with financial advisors to determine how much, if any, of these funds can be deallocated from the Bond Revenue account and be made available for new loans. Should the RI Infrastructure Bank determine that funds can be deallocated, this transfer is anticipated to occur Winter 2020/2021. The RI Infrastructure Bank annually will determine the amount eligible for deallocation and initiate any deallocation process prior to requesting future SBC transfers. This process occurs after the Bank's June 30 fiscal year end.

PUC 4-26

Request:

Referring to the response to PUC 1-57, it states that the two loans closed on October 29, 2020. When the loans closed, was there a transfer of funds by RIIB to the borrowers? If there was no transfer to the borrowers, why was the transfer by National Grid needed and what is the schedule for the actual transfer of funds?

Response:

This response was drafted on the basis of information provided to the Company by RIIB.

When the loans closed on October 29, 2020, funds totaling the full loan amount transferred to an external Borrower Construction Proceeds Account ("BCPA") for each loan. Each BCPA is managed by an external trustee and funds in these accounts are only accessible to disburse against projects. To use loan funds in the BCPA, the borrower submits requisitions to RIIB which are used to pay contractors for progress payments during the construction period. Upon receiving approval from the Office of Energy Resources, RIIB instructs the BCPA trustee to release the funds to the borrower.

PUC 4-27

Request:

Referring to the third condition placed on the Company prior to transferring funds to the RIIB (p. 23 of order in Docket 4979) and the requirement that the Company file an updated EBF Cash Flow Schedule on a quarterly basis and provide whether it received any requests and requested documentation from RIIB, please provide copies of the quarterly reports that were required to be filed with the Commission in compliance with the referenced directive for 2020.

Response:

The Report and Order No. 23937 issued in Docket No. 4979 (the "Order") sets forth two requirements that are pertinent to this question. As explained below, the first requirement must be met prior to transferring funds to RIIB, whereas, the second requirement is not a condition to transferring funds to RIIB.

The first requirement (listed as the third modification on Page 24, Paragraph 1 of the Order) requires that "National Grid cannot transfer funds to the Rhode Island Infrastructure Bank unless and until RIIB provides documentation demonstrating that it does not have sufficient funds in its SBC and SBC Repayment/Recycled Funds accounts to make expected loans." Based on the language of the directive, this requirement must be met as a condition to transferring funds to RIIB. The documentation showing that the Company requested and received this information from RIIB will be provided in the Company's response to PUC 4-25. The Company requested, and the Commission granted, an extension of time until December 2, 2020, to file its response with the Commission. As explained in the Company's response to PUC 4-25, when the Company transferred funds to RIIB on September 30, 2020, the Company had requested and reviewed the Efficient Buildings Fund ("EBF") cash flow and complied with all components of the transfer requirements as it understood them at the time.

The second requirement pertinent to this question is that "National Grid shall file updated Rhode Island Infrastructure Bank Efficient Buildings Fund Cash Flow Schedules on a quarterly basis and provide whether it received any requests and requested documentation from the Rhode Island Infrastructure Bank" (listed on Page 24, Paragraph 3 of the Order). Based on the Company's interpretation of the Order, the quarterly reporting requirement is not a condition to transferring funds to RIIB. The quarterly reporting directive is contained within its own paragraph on both Pages 23 and 24 of the Order. (See the last Paragraph on Page 23 of the Order and Page 24, Paragraph 3 of the Order.) In each paragraph that sets forth this directive, there is no mention of it being a condition precedent to transfer funds to RIIB. This interpretation is also consistent with the PUC's March 18, 2020 Open Meeting during which motion was made

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regarding the quarterly reporting that was separate and distinct from the motion establishing the requirements associated with future transfers to RIIB. (See Minutes of Open Meeting held on March 18, 2020.)

To date, the Company has not filed the quarterly reports that are referenced in Paragraph 3 of the Order. The Company will file EBF cash flow statements with its quarterly energy efficiency reports, beginning with the forthcoming Quarter 3 Energy Efficiency Report. In addition, the Company will work with RIIB to secure and produce these reports both retroactively (for Quarter 1 and Quarter 2) and going forward.

PUC 4-28

Request:

Referring to Bates page 415 of the annual plan, there is a statement representing that energy efficiency and RGGI funds “are leveraged in the bond market to result in a pool of funds that is approximately 2x larger than the amount transferred,”

- a. Please explain what is meant by “leveraging” the energy efficiency funds.
- b. Why is it approximately 2x larger?
- c. Is the Company representing that RIIB would not be able to obtain adequate financing in the bond market if it did not have an allocation of funds in 2021 from the energy efficiency fund? If so, please explain.

Response:

The response to parts (a) and (b) were drafted on the basis of information provided to the Company by RIIB.

- a. Public capital in the form of zero cost program capital (SBC funds and, in past years, RGGI funds) is combined with private capital in the form of repayable bonds to issue loans. Additionally, as loans are repaid, principal and interest payments first go to repay outstanding bonds and the remaining principal and interest payments are recycled and available for new loans. Using the same dollar multiple times further leverages funds.
- b. To date, approximately twice as many dollars of EE loans (approximately \$48 million) have been made as SBC funds have been received (approximately \$22 million) into the program and so calculating the leverage ratio yields approximately two times. Over time, the leverage ratio is expected to increase as the program matures. In future years, more dollars will be recycled, and greater program history and borrower diversity will allow for larger bond transactions per new contributed capital.
- c. It is not the Company's representation that RIIB would not be able to obtain adequate financing in the bond market if it did not have an allocation of funds in 2021 from the energy efficiency fund. Rather, the Company is forwarding information that RIIB has conveyed to the Company. On this topic, RIIB conveyed to the Company that the Bank would have difficulty providing the same reduction in interest cost that provides the incentive for municipalities to complete comprehensive retrofits. The program's outstanding loans to Rhode Island cities and towns receive principal and interest over a fifteen- to twenty-year loan term. Therefore, the Bank only has access to limited recycled

PUC 4-28, page 2

- d. funds annually and the new funds are critical to add program capital. Without the program capital, the Bank would be constrained to lending the limited amount of annual recycled dollars.

PUC 4-29

Request:

Referencing Table 3 in the response to PUC Post-Decisional Data Request 1-1 in Docket 4979, please provide a status update for each of the projects listed and an explanation of why they have not moved forward as of the end of October 2020.

Response:

This response was drafted on the basis of information provided to the Company by RIIB.

The below list of project updates relates back to the specific projects by number in Table 3 in the response to PUC Post-Decisional Data Request 1-1 in Docket 4979.

- Project 1: Loan was closed in October 2020 for \$3,200,000.
- Project 2: The municipality has not moved this project forward and it is no longer in the pipeline.
- Project 3: Loan was closed in October 2020 for \$24,000,000.
- Project 4: This project has been delayed and is now anticipated to close in 2021.
- Project 5: This bundle of projects is on hold due to budgetary constraints in the higher education sector resulting from COVID-19 impacts.
- Project 6: This school project is no longer in the immediate EBF pipeline although it may move forward in the next few years.
- Project 7: This school project is no longer in the immediate EBF pipeline although it may move forward in the next few years.

As project forecasting is uncertain, the Bank and the Company provided likelihood weighing factors and weighted average loan amounts in Table 3. Using these weighing factors, Table 3 showed that the Bank and the Company anticipated closing \$21,700,000 in 2020. The EBF program closed \$29,619,045 across four energy efficiency loans in 2020, exceeding the forecast.

PUC 4-30

Request:

Are any of the projects listed in Table 3 in the response to PUC Post-Decisional Data Request 1-1 in Docket 4979 re-appearing in Table 10 of the Docket 5076 Annual Plan (Bates page 416)? If so, please identify.

Response:

This response was drafted on the basis of information provided to the Company by RIIB.

Yes. Loan 3 in Table 10 of Docket 5076 previously appeared as project 4 in Table 3. The amount has increased due to conversations with the borrower.

PUC 4-31

Request:

Are any of the projects listed in Table 3 in the response to PUC Post-Decisional Data Request 1-1 in Docket 4979 (and not re-appearing in Table 10 of the 2021 plan) expected to receive financing in 2021? If so, please identify.

Response:

This response was drafted on the basis of information provided to the Company by RIIB.

No, not currently.

PUC 4-32

Request:

Referring to Bates page 417 of the 2021 Annual Plan, please provide support for the representation that “loan numbers 1-6 will begin construction in 2021 and will need funds to start construction.” Please clarify whether funds will necessarily need to come from the energy efficiency program in order for those projects to begin construction in 2021.

Response:

The Company reached out to RIIB for assistance with drafting this response as the Company does not have the details regarding the funds necessary to commence construction. This response reflects information provided to the Company by RIIB.

The Efficient Buildings Fund (EBF) is a construction loan program. Communities do not have the cash on hand to pay project contractor invoices during the construction period. Instead, EBF loans can be used to pay contractors on an ongoing basis during construction. The full amount of the loan is transferred to an external construction account at the time of loan closing and made available to the borrower through the requisition process. Therefore, funds from the energy efficiency program are needed at the time of loan closing and prior to the start of construction.

PUC 4-33

Request:

Referring to Bates page 412 and the table box labeled “More Information,” it states: “More detail on this mechanism can be found in Attachment 5, Table E-10 and at the end of this attachment in Section 13.” Please provide copies of the referenced sections that provide more information (they do not appear to be located as referenced).

Response:

The table located at Bates page 412 should have cited Attachment 5, Table E-9 for Revolving Loan Fund Projections. When headers were finalized in the combined version of the documents this was not updated in the text. Further, the reference to Section 13 should have been deleted as this only appears in the 2020 Annual Plan and was removed for 2021 as more robust information was instead provided in the Multi-Year Strategy sections of both the Annual and Three-Year plans at Bates page 101 and 232 respectively.

PUC 4-34

Request:

Please re-calculate the energy efficiency charge in Table E-1 format with all its components, substituting the following changes as indicated:

- a. For the total "Forecasted kWh Sales" on line 7, please use the "Weather Normalized total kWh" provided in column M, line 15 of Attachment PUC 2-13, of 7,152,814,540 kWhs,
- b. For re-calculating the "Projected Year-End 2020 Fund Balance and Interest," please use the "Projected 2020 Expenditures" provided in Attachment PUC 1-11-1 in place of the expenditures that were used in the original forecast for calculating the balance in Table E-1, and
- c. Assume the budget for implementation expenses is the same as was approved in the 2020 program.

Please also provide a separate schedule calculating the total amount that would be collected in the aggregate from customers through the energy efficiency charge if the factor provided in the alternative Table E-1 requested above was approved and the forecasted kWh equaled actual.

Response:

Please see Attachment PUC 4-34-1 which provide a response to parts (a)-(c) listed above of PUC 4-34.

Regarding part (b) of the re-calculations of the "Projected Year-End 2020 Fund Balance and Interest". Please note that what is provided in the Attachment PUC 4-34-1 is based on "Projected 2020 Expenditures" as provided in Attachment PUC 1-11-1-Revised filed with the PUC on November 20, 2020. In addition, the "Projected Year-End 2020 Fund Balance and Interest" also includes updated actual energy efficiency revenues through October 31, 2020.

Attachment PUC 4-34-2 provides a separate schedule calculating the total amount that would be collected in the aggregate from customers through the energy efficiency charge if the factor provided in the alternative Table E-1 requested above (Attachment PUC 4-34-1) was approved and the forecasted kWh equaled actuals.

Table E-1
National Grid
Electric DSM Funding Sources in 2021 by Sector
Attachment 4-34-1
\$(000)

	Income Eligible Residential	Projections by Sector Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from E-2):	\$17,267.57	\$46,506.51	\$47,309.83	\$111,083.91
Sources of Other Funding:				
(2) Projected DSM Commitments at Year-End 2020:	\$0.00	\$0.00	\$0.00	\$0.00
(3) Projected Year-End 2020 Fund Balance and Interest:	\$0.00	\$351.16	\$20,260.23	\$20,611.39
(4) Projected FCM Payments from ISO-NE:	\$492.30	\$6,432.10	\$9,093.60	\$16,018.00
(5) Total Other Funding:	\$492.30	\$6,783.26	\$29,353.83	\$36,629.39
(6) Customer Funding Required:	\$16,775.27	\$39,723.24	\$17,956.01	\$74,454.52
(7) Forecasted kWh Sales:	219,834,894	2,872,239,486	4,060,740,159	7,152,814,540
(8) Energy Efficiency Program charge per kWh, excluding uncollectible recovery:				\$0.01040
(9) Proposed SRP Opex Factor per kWh, excluding uncollectible recovery:				\$0.00000
(10) Total Proposed Energy Efficiency Charge per kWh, excluding uncollectible recovery:				\$0.01040
(11) Currently Effective Uncollectible Rate				1.30%
(12) Proposed Energy Efficiency Program Charge per kWh, including Uncollectible Recovery:				\$0.01053
(13) Currently Effective Energy Efficiency Program Charge per kwh				\$0.01323
(14) Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				(\$0.00270)

Notes:

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

Attachment 4-34-2

Electric

(a)	2021 Proposed EE Rate from Attachment 4-34-1(\$/kwh) (Line 13)	\$ 0.01053
(b)	2021 Forecast kWh Sales (Line 7)	7,152,814,540
(c)	2021 Proposed Customer Collections	\$ 75,319,137
(d)	2021 Proposed Customer Collections, Applying Uncollectible Rate of 1.30%	\$ 74,339,988

Footnotes

- (c) (a) x (b)
(d) (c) x (0.987)

PUC 4-35

Request:

Referring to the response to PUC 2-3 and the statement: “[A]n active financial disincentive could exist for the Company to pursue energy efficiency measures, as such measures could obviate the need for infrastructure investments that would otherwise allow the Company to grow rate base and associated earnings.” With this statement, is the Company maintaining that the Company makes management investment decisions based in large part by a motivation to grow rate base in order to grow associated earnings, as opposed to simply making infrastructure investments that are needed to provide reliable service? If yes, please elaborate and provide examples of when the motivation to grow rate base has been relevant. If the Company is not maintaining this, please explain what relevancy growing rate base has to obtaining an incentive for managing the energy efficiency program.

Response:

The Company makes infrastructure investment decisions on the basis of what level of prudent investment is required for the Company to fulfill its obligation to deliver safe and reliable energy to its customers. When the PUC approves a necessary investment, the impact of this incurred capital expenditure is that the Company's rate base, and thus potential earnings, increase. This regulatory framework, by providing an opportunity to earn on capital investment, ensures that the capital needed to support ongoing safe and reliable service to customers is readily available.

One of the fundamental benefits of a robust set of energy efficiency programs is that, when successful, these programs allow the utility to meet its obligations to customers at a reduced level of infrastructure investment, thus reducing rates and costs for all customers relative to what they otherwise would be. The traditional cost-of-service regulatory framework does not provide an inherent financial incentive to pursue non-infrastructure investments such as energy efficiency. In a universe without energy efficiency investments, continued customer load growth associated with population and economic growth would increase demands on the system, and consequently, the need for new infrastructure investments to accommodate load. Absent energy efficiency, meeting this demand implies a load-driven growth in rate base. The incentive that the Company receives for achieving energy efficiency targets supports investments that reduce load and avoid this system growth, to the benefit of customers. In doing so, it aligns the Company's performance with the public interest as described under PIMs Principle #1.

PUC 4-36

Request:

Please explain the negative dollar amounts in columns "Customer Contribution" in Tables E-5 and G-5.

Response:

Within the E-5 Electric Table for the ENERGY STAR® Lighting program, the customer cost is negative due to a high free-ridership rate.¹ Any financial incentives paid to free-riders are counted as a cost because the Company incurred those costs as part of the overall cost of the Plan regardless of whether the participant is free-rider or not. Therefore, the Company reduces benefits and the customer cost by the net-to-gross² ratio, but not the incentives.

Within the G-5 Gas Table for the Large Commercial New Construction program, the customer cost is negative due to a high free-ridership rate. Any financial incentives paid to free-riders are counted as a cost because the Company incurred those costs as part of the overall cost of the Plan regardless of whether the participant is free-rider or not. Therefore, the Company reduces benefits and the customer cost by the net-to-gross ratio, but not the incentives.

¹ The free-ridership rate is the percentage of savings attributable to participants who would have installed the measures in the absence of program intervention.

² The net-to-gross ratio is the ratio of net savings to the gross savings adjusted by any impact Factors.

PUC 4-37

Request:

Referencing the response to PUC 1-9, please extent the tables to include the known information for years 2022 and 2023.

Response:

Please see the Company's response to PUC 4-14.

PUC 4-38

Request:

Referencing the response to PUC 2-1, please provide the earning opportunities available to utilities delivering energy efficiency programs in other jurisdictions that the parties considered in setting the target company performance incentive.

Response:

Please see Attachment PUC 4-38, which was prepared by the consultant team to the EERMC based on a review of publicly available information as of May, 2020.

Notes & Data Sources

Data Sources

1. Performance Incentive Mechanism Descriptions

<https://www.aceee.org/sites/default/files/pims-121118.pdf>

<https://database.aceee.org/state/massachusetts>

<https://database.aceee.org/state/connecticut>

<https://database.aceee.org/state/rhode-island>

<https://database.aceee.org/state/new-york>

<https://database.aceee.org/state/new-hampshire>

<https://database.aceee.org/state/missouri>

<https://database.aceee.org/state/illinois>

Performance Incentive Mechanism
Descriptions by State

Rhode Island	<p>The Narragansett Electric Company, d/b/a National Grid or NG, can earn incentives for both electric (kWh) and gas (MMBtu) savings. There is a target base incentive rate of 5% for both electric and gas applied to the eligible spending budget. The threshold performance level for energy savings by sector is set at 75% of the annual energy and demand savings goal for the sector (Docket 4366). Further, in 2015, the Commission approved 30% of the target electric program incentive to be based on demand savings, while the remaining 70% will be based on energy savings (Docket 4527).</p>
Massachusetts	<p>The shareholder incentive provides performance incentives for IOUs to earn a return (depending on PA performance against planned metrics) on the 3-year plan spending for meeting program goals. The incentive is based on a combination of elements including energy savings, benefit-cost analysis, and market transformation results. The current performance incentive rewards PAs for acquiring additional lifetime energy and demand savings and project-associated other energy and non-energy benefits. The savings component of the performance incentive is 61.5% of the total pool and the value component is 38.5% of the total pool; the statewide design level PI pool is determined during the planning process. For 2016-2018, the performance incentive pool was 5.5% and 2.8% of total electric & gas PA costs, respectively. The pool is divided by planned statewide benefits and net benefits to calculate payout rates (amount to be paid per unit of benefit or net benefit). Performance incentive allocated to each individual PA based on its proportion of planned benefits and net benefits. The amount allocated is also applied and earned at the portfolio level, and for the three-year Plan period. The minimum threshold for earning a performance incentive is 75% of benefits/net benefits.</p>
Connecticut	<p>For managing Connecticut's energy efficiency programs and budgets, the electric and natural gas distribution companies earn an annual performance target incentive that is tied to program specific-oriented metrics, including but not limited to energy savings and net economic benefits. Performance management incentives are typically based on a percentage of energy efficiency program costs and this percentage varies dependent on if goals and/or targets are met or exceeded. For the 2019-2021 Plan, the utilities have a base target 4.5% performance management incentive at 100% of goal for all three program years. During the 2019-2021 Plan, the utilities also plan to introduce an MMBtu-based or a greenhouse gas emissions reductions-based metric for tracking purposes.</p>
Illinois	<p>ROE as base earnings (100%), plus or minus 200 basis points for performance, bandwidth varies, but biggest utility (ComEd) 75%-125%, scaled linearly. Note this is the earnings on the outstanding amortized balance they are holding, updated each year for prior year's performance. So, effectively, a good year means they are earning higher on past program investment too, and a bad year get dinged on some of prior investments. Finally, they have both cumulative lifetime and annual goals. While the PI is based on that years achievement of its annual goals, each years annual goals need to both do the additional new incremental savings plus make up for all lost savings from expiring measure lives. So effectively they are basically rewarded ultimately for lifetime. Illinois Public Act 99-0906 was passed in December 2016, including a mechanism for electric utility shareholder incentives for energy efficiency. The legislation provides either increased ROI or decreased ROI to electric utilities based on their performance relative to statutory goals. This went into effect on January 1, 2018.</p>
New Hampshire	<p>New Hampshire Electric and Natural Gas Utilities earn performance incentive (PI). PI formula is the same for electric and gas utilities. For EERS (2018-2020), the cap is set at 6.875% of Spending, with a target baseline of 5.5%. Also, the New Hampshire Commission approved establishment of a PI Working Group in 2019 to continue to review any other potential metrics for inclusion in the PI formula for calendar year 2020.</p>

Performance Incentive Mechanism
Descriptions by State

Missouri	<p>The approved DSM programs and DSIMs for Ameren Missouri (Case No. EO-2015-0055), KCP&L (Case No. EO-2015-0240), and KCP&L Greater Missouri Operations Company (Case No. EO-2015-0241) allow each utility to receive an earning opportunity determined after the completion of the 3-year plan period and to recover any approved earnings opportunity over a two-year period. The earnings opportunity amount for each utility is based upon the achievement of each DSM program relative to established performance metrics for the DSM program, which metrics are most commonly 3-year cumulative annual energy targets and/or 3-year cumulative annual demand savings targets. <u>Utility performance incentives pools generally account for about 15% of program costs.</u></p>
New York	<p>In 2008, the NY Public Service Commission established incentives for electric utility energy efficiency programs under the EEPS proceeding. Maximum potential incentives/negative adjustments for each utility are calculated by multiplying \$38.85/MWh for electric savings and \$3.00/Dth for gas savings times the utility's cumulative electric and gas energy savings targets for each portfolio. If a utility achieves over 80% of a portfolio's energy savings target, it earns an incentive scaled linearly from 0% of the available incentive at an 80% achievement level up to 100% at a 100% achievement level. Portfolio performance of 70-80% neither earns an incentive nor incurs a negative adjustment. Negative adjustments are calculated in a symmetrical manner to the incentives calculation with the full negative adjustment imposed at the 50% achievement level and decreasing linearly to 0% at the 70% level.</p>
New Jersey	<p>Each metric will have a weight applied, which represents the share of the total performance incentive funds (PI\$) available that is tied to that metric. This amount shall be considered to be the "plan-goal" earnings based on achieving 100% of the goal (earnings will actually stay constant for any achievement within the "buffer zone" range of 90% to 110% of the plan goal). Any performance above (from 110% to 150%) or below (from 50% to 90%) of the plan-goal shall earn more or less according to the PI linear scaling mechanism. For any metric performance that falls below the minimum level of 50% of plan goal, a penalty will be applied. The maximum possible penalty is equal to a negative adjustment to base rate distribution revenue of 0.75%. For any single metric performance that falls below 50% of plan goal, the penalty associated with that single metric shall equal 0.75% of base rate distribution revenue times the metric weight. All PI earnings (or penalties) shall be estimated annually based on utility tracked annual data, and incorporated into the reconciliation process for setting the next year's SBC, to ensure reasonable cost recovery on a timely basis. However, all utilities ultimate metric performance shall be based on total 3 year cumulative ex-post evaluated performance. As a result, following the third and final year of each plan, any true ups to adjust for any over- or under-collection will be made at the next annual reconciliation process.</p>
Michigan	<p>Michigan has a multifactor performance incentive in place for its investor-owned utilities, DTE and Consumers Energy, which represent about 76% of electric sales in Michigan. The mechanism includes savings-based metrics as well as program goals like expanding low-income programs, creating consistency in rebate amounts, promoting deep energy savings, and peak demand reduction. In 2016, legislation increased the maximum incentive for which <u>utilities could qualify from 15 to 20% of program spending if annual savings exceeded 1.5% of retail sales</u>. There was also a Long-Life Equipment Savings Multiplier implemented that awards a 10% savings multiplier to installed measures with measure life of 10 years or more. DTE and Consumers Energy have consistently exceeded energy savings targets and earned incentives of 15-20% of spending.</p>
Hawaii	<p>The Hawaii PUC allocates the incentive award to Hawaii Energy among four performance indicators: resource acquisition (70% of award), customer equity (17% of award), market transformation (10% of award), and customer satisfaction (3% of award). The performance indicators contain multiple focus areas, and each has quantitative performance metrics with specific targets. For the 2017 plan year, the <u>highest potential performance incentive was 3.3% of total estimated spending, which was an increase from the 2% of total program spending prior to 2014.</u></p>
Arizona	<p>Arizona Public Service (APS) has a tiered shareholder performance incentive that is based on a percentage of the net benefits from energy savings and capped as a tiered percentage of program costs. <u>The incentive is capped at \$0.0125 per kWh saved.</u> Tucson Electric Power (TEP) also has a <u>performance incentive in place which is a share (8%) of net benefits</u>; the incentive is also capped at \$0.0125 per kWh saved.</p>
Arkansas	<p>In December 2010 the PSC issued an order approving a general policy under which the Commission outlined steps to approve incentives to reward achievement in the delivery of essential energy conservation services by investor-owned utilities. Incentives were approved for all three gas utilities in the state and the two largest electric utilities in 2012 and 2013. Energy efficiency performance incentives are awarded annually for achievement ranging between 80% and 120% of the Commission-established performance goal. <u>The performance incentive is 10% of portfolio total resource cost net benefits, limited to a percentage of program budgets ranging from 4% of program budgets to 8% of program budgets, based linearly on the degree of achievement.</u></p>

Performance Incentive Mechanism
Descriptions by State

California	The California Public Utilities Commission defined a new Energy Savings and Performance Incentive (ESPI) for investor-owned utilities in Rulemaking 12-01-005. Decision 13-09-023 (September 2013) allocates incentive earnings among four major categories: Energy Efficiency Resource Savings; Ex Ante Review Process Performance; Codes and Standards Advocacy Programs; and Non-Resource Programs. <u>Incentives for energy efficiency resource savings are capped at 9% of resource program expenditures. Incentives for successful implementation of ex ante "lock down" are based on performance scores and are paid as an award of up to 3% of resource program expenditures. Incentives are also provided for utility involvement in codes and standards programs in the form of a management fee equal to 12% of approved program expenditures. For non-resource programs, utilities may earn a management fee equal to 3% of non-resource program expenditures (exclusive of administrative costs).</u>
Colorado	All Colorado investor-owned utilities achieving efficiency targets can earn a percentage of the net economic benefits generated by those savings. <u>Combined total incentive payments are capped at 20% of PSCo's annual DSM expenditures.</u> For natural gas utilities, the <u>incentive bonus is capped at 25% of the expenditures or 20% of the net economic benefits of the DSM programs</u> , whichever amount is lower.
Georgia	Georgia Code (O.C.G.A. § 46-3A-9) authorizes electric utilities to recover costs and an "additional sum" for approved programs. In the 2013 IRP, the Commission approved an <u>additional incentive sum of 8.5% of actual net benefits of electricity savings for achieving 50% or more of kWh projected savings.</u> If the additional sum exceeds program costs, the portion of the total that exceeds program cost is limited to 4% of actual net benefits.
Minnesota	Minnesota has had a shared benefit incentive in place since 1999. The incentive increases as the percentage of savings of retail sales increases. <u>There is a cap of 20% of net benefits on the amount of incentive that may be earned.</u> The incentive is set such that at savings of 1.5% of retail sales, electric utilities will earn an incentive of \$0.07 per kWh saved, and gas utilities will earn an incentive of \$9.00 per thousand cubic feet saved. The percentage of net benefits to be awarded to each utility at different energy savings levels will be set at the beginning of each year. <u>Net benefit caps are set at 13.5% for 2017, 12.0% in 2018, and 10.0% in 2019.</u>
New Mexico	El Paso Electric's 2016 profit incentive was decided in a stipulated agreement in Case No. 13-00176-UT and was set at <u>7% of a 2016 budget of approximately \$5.8 million.</u> Southwestern Public Service's 2016 profit incentive was decided in Case No. 15-00119-U. It earns a base level incentive of <u>6.8% on a budget of approximately \$11.5 million</u> , based on a minimum cumulative savings threshold. This amount can be adjusted downward if there is a shortfall in low income program spending in program year 2016. <u>Each GWh of additional savings above 31,805 net customer GWh earns an additional 0.1% in profit incentive, up to a maximum of 7.11%.</u> Finally, Public Service Company of New Mexico's 2016 profit incentive was also decided in a stipulated agreement in Case No. 14-00310-UT and is based on a linear progression of cumulative savings towards the 2020 goal. <u>The 2016 profit incentive is conditional on achieving energy savings of 6% of 2005 retail sales and is approximately 7.1% of program costs.</u>
North Carolina	Duke Energy Carolinas received approval of a new cost recovery mechanism (Docket No. E-7, Sub 1032) in October 2013. The new mechanism is a shared savings model providing recovery of program costs, lost revenues (up to 36 months), and a 11.5% portfolio performance incentive. Duke Energy Progress was granted a new recovery mechanism in January 2015 (Docket No. E-2, Sub 931 – Order dated January 20, 2015), also with a shared savings model for recovery of program costs, up to 36 months of net lost revenues, and a <u>bonus incentive of 11.75% on a shared savings model.</u> Dominion received approval of a revised cost recovery mechanism (May 7, 2015 in Docket No. E-22, Sub 464) that provides for program cost recovery, up to 36 months of net lost revenues, and a <u>program performance incentive (8% for DSM programs and 13% for EE programs).</u> <u>In the natural gas sector, the Duke mechanism permits the utility to earn a percentage of avoided costs which are capped as a percentage of actual program costs. The cap ranges from 5-15%. The Duke mechanism allows the utility to earn 8-13% of the net present value of the net savings from DSM programs.</u>
Oklahoma	Both Public Service Oklahoma (PSO) and Oklahoma Gas and Electric Company (OG&E) have shared benefit incentive plans. The Demand Program rules for electric utilities base the incentive on the performance of utility programs. Utilities must achieve at least 85% of goals to gain an incentive; the incentive is adjusted based on performance to goal. <u>Incentives are capped at 15% of total program costs.</u> Oklahoma Natural Gas and CenterPoint Oklahoma previously were allowed a shared benefit incentive plan for programs that pass the Total Resource Cost (TRC) Test. <u>The companies could potentially collect 15% of the net benefits of such programs and 15% of the program costs for those programs that did not pass the TRC Test</u>
Texas	All investor-owned utilities have a shared benefit incentive in place. When a utility exceeds its demand reduction goal within the prescribed cost limit, it is awarded a performance bonus. The performance bonus is based on the utility's energy efficiency achievements for programs implemented in the previous year. <u>A utility that exceeds 100% of its demand and energy reduction goals shall receive a bonus equal to 1% of the net benefits for every 2% that the demand reduction goal has been exceeded, with a maximum of 10% of the utility's total net benefits.</u>