STATE OF RHODE ISLAND
PUBLIC UTILITIES COMMISSION

IN RE: THE NARRAGANSETT ELECTRIC	**:**	
COMPANY d/b/a NATIONAL GRID'S 2021-2023	**:**	**DOCKET NO. 5076**
ENERGY EFFICIENCY AND CONSERVATION	**:**	
PROCUREMENT PLAN AND 2021 ANNUAL	**:**	
ENERGY EFFICIENCY AND CONSERVATION	**:**	
PROCUREMENT PROGRAM PLAN	**:**	

REPORT AND ORDER

On October 15, 2020, The Narragansett Electric Company d/b/a National Grid (National Grid or Company) filed with the Public Utilities Commission (PUC or Commission) its 2021-2023 Energy Efficiency and Conservation Procurement Plan (Three-Year Plan) and 2021 Annual Energy Efficiency and Conservation Procurement Program Plan (Annual Plan) (the Three-Year Plan and 2021 Annual Plan are referred to collectively as the Combined Plan).[1] The 2021 Combined Plan was filed as a joint proposal[2] by National Grid, the Division of Public Utilities and Carriers (Division), the Office of Energy Resources (OER), the Energy Efficiency and Resources Management Council (EERMC), Acadia Center, and the Green Energy Consumer Alliance, Inc. (collectively the Parties).[3]

The Joint Proponents submitted the Combined Plan pursuant to the System Reliability and Least Cost Procurement (LCP) statute, R.I. Gen. Laws § 39-1-27.7, and the Least Cost Procurement Standards (LCP Standards), as approved by the PUC on July 23, 2020 in Docket No.

[1] National Grid's Combined Plan; http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid-2021EEPlan(10-15-2020).pdf. All filings in this docket are available at the PUC offices, located at 89 Jefferson Boulevard, Warwick R.I. or at http://www.ripuc.ri.gov/eventsactions/docket/5076page.html.
[2] The filing letter described the Combined Plan as a "settlement." The Commission, however, treated the filing as a joint proposal. There was no testimony describing any disputes among any of the parties which resulted in a "settlement." The Commission recognizes that the Combined Plan is the result of negotiations among the parties.
[3] OER and EERMC also filed notices of participation as an interested party in the above-captioned proceeding pursuant to RIGL §39-1-27.9. The Rhode Island Infrastructure Bank (RIIB) filed a Motion for Intervention which was granted by the Commission.

5115.[4] R.I. Gen. Laws § 39-1-27.7 requires the Company to meet the "electrical and natural gas energy needs in Rhode Island in a manner that is optimally cost effective, reliable, prudent, and environmentally responsible." Section 1.3.A of the LCP Standards states that: "Least-Cost Procurement shall be cost-effective, reliable, prudent, and environmentally responsible. Least-Cost Procurement that is Energy Efficiency and Conservation Procurement shall also be lower than the cost of additional energy supply."

The primary goal of the Combined Plan is to create energy and economic cost savings for Rhode Island consumers through electric and natural gas energy efficiency, as required by the LCP Statute. Consistent with the Standards, the framework for the program consists of three-year planning periods and savings goals, followed by the development and implementation of annual plans, with the focus on achieving cost-effective energy efficiency. The Annual Plan covers the first year of the 2021-23 Three-Year Plan.

For the reasons stated in this Order, the Commission approves both the Three-Year Plan and the 2021 Annual Plan, with certain modifications set forth herein.

I. 2021-2023 Energy Efficiency and Conservation Procurement Plan (Three-Year Plan)

The Three-Year Plan outlines the Company's overall programmatic focus and strategies, and includes illustrative and provisional budgets, system benefits charges, and savings goals for

[4] *See* PUC Order No. 23890 (August 25, 2020) in Docket 5115; http://www.ripuc.ri.gov/eventsactions/docket/5015-LCPStandards-Ord23890 (8-25-20).pdf. The System Reliability and Least Cost Procurement statute (R.I. Gen. Laws § 39-1-27.7) encourages the investment in cost-effective energy efficiency. Subsection (d)(5) of the statute provides the responsibility to review the filed plan and approve those measures the Commission finds are cost-effective and lower than the cost of acquiring additional supply. The statute also provides a role for the EERMC to review and approve the energy efficiency plans before they are filed with Commission. The EERMC reviewed and approved the Combined Plan, reflecting the EERMC's view that it was cost effective according to the Rhode Island Test (RI Test) and the Total Resource Cost Test, and projecting the cost to be less than the acquisition of additional supply. *See* Cost Effectiveness Report: National Grid's 2021 Energy Efficiency Plan and National Grid's 2021-2023 Energy Efficiency Three Year Plan (Cost Effectiveness Report); http://www.ripuc.ri.gov/eventsactions/docket/5076-EERMC-CostEffect 2021 EEP; 2021-2023 3YP EERMC (10-20-20).pdf.

the three years of implementation.[5] The Combined Plan proposed binding savings goals and budgets for year 2021 (which are also included in the Company's Annual Plan) and a range of illustrative savings goals and budgets for years 2022 and 2023 that the Company believed to be achievable only in the context of a robust economic recovery in 2022 and 2023.[6]

The savings goals and spending budgets proposed for years 2 and 3 in the Three-Year Plan are illustrative and provisional and guide future binding annual plans.[7] The savings goals presented were developed using the Targets approved by the PUC in Docket No. 5023 for electric and natural gas energy efficiency, combined heat and power, and active electric demand response as guideposts and then the Company adjusted the Targets downward to account for prudency and reliability that were not considered when the Targets are set. In addition, and different from previous Three-year Plans, National Grid provided both "High" and "Base" scenarios – where the "High" scenario recognized aspirational savings that were in addition to what the Company believed was achievable based on available information. Under the proposed

[5] *See* Docket No. 5023. At the Open Meeting on May 8, 2020, the Commission unanimously approved the Energy Efficiency Savings Targets (Targets) proposed by the EERMC. The Commission found that the proposed electric and natural gas lifetime energy efficiency savings targets and associated annual electric and natural gas saving, electric peak demand reduction targets, and Combined Heat and Power electric energy savings and peak demand reduction targets for 2021, 2022, and 2023 were a reasonable estimate of Rhode Island's energy efficiency potential over the next three-year period. The Commission made clear that the targets represent achievable savings and the it was not approving targets as representing prudent, reliable, environmentally responsible levels of energy efficiency, nor finding that the energy savings estimated by the EERMC are less than the cost of supply. The PUC also noted that it expected the Company to file three-year and annual energy efficiency plans that balance short and long-term energy savings to address intergenerational equity considerations, portfolio diversity, and customer demand.

[6] Joint Testimony of Christopher Porter, Matthew Ray, and John Tortorella, Combined Plan at 9; http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid-2021EEPlan(10-15-2020).pdf. The range of savings for 2022 and 2023 spans from a "Base Case" to a "High Scenario." The "Base Case" represented savings goals and budgets that the Company believed, conditional upon the economic recovery expectations, could be attained in those years. The "High Scenario" was consistent with the electric and gas savings goals presented in the "Mid Scenario" of the Market Potential Study filed in Docket 5023 adjusted for known evaluation, measurement and verification impacts that differ from assumptions used in that study. The Company did not believe those goals were achievable in years 2 and 3 of the Three-Year Plan. *Id.* at 10, 19.

[7] Section 3.3(A)(ii) of the LCP Standards, provides that the "initial budgets and goals [of the Three-Year Plan] shall be illustrative and provisional and shall guide [annual Energy Efficiency plans] over the three-year period."

"Base" and "High" scenarios, the implementation budgets for the electric and gas efficiency proposals projected the following funding:[8]

ELECTRIC	2021	2022	2023	3-YEAR TOTAL
BASE	$115,114,909	$127,991,046	$140,193,625	$383,299,580
HIGH	$115,114,909	$135,193,341	$158,306,651	$406,614,901

GAS	2021	2022	2023	3-YEAR TOTAL
BASE	$36,274,165	$38,339,083	$45,169,851	$119,783,099
HIGH	$36,274,165	$44,023,751	$56,521,052	$136,818,968

National Grid averred that the range of spending budgets and savings goals in the proposed Three-Year Plan would create total net annual savings of 442,076 – 460,689 MWh (electric) and 1,398,927 – 1,561,692 MMBtu (natural gas), and net lifetime savings of 4,678,382 – 4,905,459 MWh (electric) and 14,468,336 – 16,553,713 MMBtu (natural gas). The Company claimed that achieving these goals will generate benefits between $2.5 - $2.7 billion over the life of the measures, with $2.0 – $2.1 billion in benefits coming from electric efficiency and $500 – $600 million from natural gas efficiency.

National Grid averred that, in accordance with the LCP statute and Standards, the proposed Three-Year Plan was reliable, prudent, environmentally responsible, and cost effective. In regard

[8] Combined Plan, Schedule A, at 147-54. The implementation budgets do not include funding required for other expenses including the target incentive and regulatory expenses. *Id.* Due to COVID-19 related uncertainties facing the Rhode Island economy, the Company proposed to maintain the 2021 energy efficiency surcharge at the same amounts as the approved 2020 Annual Plan surcharges. *Id.* at 252-53.

to prudency, the Company asserted that it uses the illustrative goals and budgets in establishing binding goals and budgets in the Annual Plans based on several factors, including economic conditions, customer ability and appetite to adopt energy efficiency, and potential sources of funding outside of the system benefit charge. Likewise, in regard to reliability, the Company asserts that the Three-Year Plan provides the foundation to reliably establish binding goals in future Annual Plans after assessing the state of existing programs, the potential for program scalability, the economic environment, and the program's ability to deliver reliable energy savings as a result. The Company also claims that the programs and portfolios are environmentally responsible as they provide significant emissions reductions benefits, reduce the potential environmental costs and footprint of avoided infrastructure investments, support the ongoing growth and development of a sustainable, green job ecosystem in Rhode Island, and contribute to the realization of state environmental policy goals and initiatives.[9]

National Grid asserted that the proposed electric and natural gas programs and portfolios are cost effective under the RI Test.[10] For the three years 2021-23 and under both the "Base Case" and "High Scenarios" the electric portfolio achieves a RI Test benefit cost ratio range of 4.02 – 4.31 and the gas portfolio achieves a RI Test benefit cost ratio range of 3.00 – 3.06.[11] In addition, National Grid averred that all programs within the electric and gas portfolios are also cost effective per the RI Test.[12]

[9] Joint Testimony of Christopher Porter, Matthew Ray, and John Tortorella, Combined Plan at 14-16.
[10] In accordance with Section 1.3.C.i of the LCP Standards, as approved in Docket No. 5015, and the PUC's guidance in Docket No. 4600, the Company assessed cost effectiveness of the proposed investments using the RI Test as the primary test. The Company also provides Total Resource Cost (TRC) Test results for comparability with past plans. As required by the revised LCP Standards, the Company assessed the cost effectiveness of the Three-Year Plan at the program and portfolio level. In prior iterations of the LCP Standards, cost effectiveness was required exclusively at the portfolio level.
[11] Pursuant to the LCP Standards, any program with a quantified BC ratio greater than 1.0 (i.e., where quantified benefits are greater than quantified costs), should be considered cost effective.
[12] Combined Plan at 11-12.

National Grid also asserted that the cost of the proposed energy efficiency is less than the cost of supply when measured at the portfolio level.[13] For the three years 2021-23 and under the "Base Case" and "High Scenarios," National Grid asserts that the cost of procuring between 4,678,382 – 4,905,459 MWh of lifetime electric energy efficiency savings through the Three-Year Plan is between $397,318,112 - $435,266,031 less than the cost of purchasing additional electric supply. The cost of procuring between 14,468,336 – 16,553,713 MMBtu lifetime natural gas energy efficiency savings through the Three-Year Plan is between s $44,398,334 - $51,607,519 less than the cost of purchasing additional natural gas supply.[14]

National Grid's Three-Year Plan included a proposed performance incentive (Proposed PIM) by which National Grid could earn a share of net benefits by effectively implementing the energy efficiency program. The Proposed PIM is based on a net benefits framework, where the Company's earning opportunity is defined as a percentage of the total benefits generated by energy efficiency programs less the cost to achieve those benefits. The purpose of the net benefits framework is to properly incent the Company to maximize benefits while maintaining cost controls to do so.[15]

Differing from previous incentive mechanisms, the Proposed PIM decoupled the historical formulaic 5% link between planned implementation budgets and the design level performance

[13] The Company evaluates the cost of energy efficiency compared to additional supply at the portfolio level and not at the program or measure level because it believes it better accounts for the aggregate impact generated by the set of measures and programs included within the portfolios and the nature of some costs of energy efficiency being aggregated at the portfolio level. More specifically, the Company notes that a single measure may not be less than the cost of additional supply when viewed on its own, however, as part of a program and portfolio it may play a key role in serving a particular market segment, enabling additional savings from complementary measures, and furthering opportunities for customers to manage their energy use. Id. at 17.

[14] National Grid Response to PUC 1-17(revised). National Grid had originally stated that the cost of procuring the lifetime electric energy efficiency savings through the Three-Year Plan was between $347,367,903 – $364,578,538 less than the cost of purchasing additional electric supply and the cost of procuring the lifetime natural gas energy efficiency savings was between s $347,367,903 – $364,578,538 less than the cost of purchasing additional natural gas supply. Combined Plan at 106. National Grid corrected these figures during discovery.

[15] Combined Plan at 142-143.

incentive pool. Under the Proposed PIM, individual annual total incentive pools for the gas and electric portfolios would be established each year on a negotiated basis across four sub-segments: market rate residential programs, income-eligible programs, commercial and industrial programs, and an, as yet not fully defined, "equity metric."[16] The total benefits achieved in each sector are the benefits that are quantified and monetized in the RI Test, with the exception of the macroeconomic benefits. In order to calculate the pool of net benefits, the costs that are directly tied to the programmatic activities that generate savings and benefits (the "eligible spending budget") are subtracted from the pool of benefits. The Company proposed omitting the following categories from the calculation of the eligible spending budget: participating customer costs, commitments, regulatory costs for OER and EERMC, pilot costs, assessment costs, and performance incentive.[17]

Incentive earnings within each sub-segment would be based on Company achievement of net benefits within that sector, relative to planned achievement of specific net benefits.[18] Achievement of earnings within each sub-segment is independent, and subject to earning thresholds and caps. The proposal set the default earning threshold for each sub-segment at 75% of planned net benefit, and the default earning cap at 125% of planned net benefits, though each cap and threshold may be independently evaluated and adjusted for each sub-segment within each subsequent Annual Plan. Thus, under the proposal, the Company would not earn any performance incentive until 75% of planned net benefits have been achieved in a sector. Upon achievement of 75% of planned net benefits, the Company would be eligible to earn 75% of the target performance incentive for that sector. The Company's sector specific earning opportunity will grow linearly,

[16] Section 11 of the Three-Year Plan includes a detailed description of the Proposed PIM.
[17] Combined Plan 143-44.
[18] The specific measure of performance within the "equity metric" pool will be negotiated each year, based on availability of measurable data and on desired outcomes related to equity. *Id*. at 142.

in line with the proportion of realized net benefits to planned net benefits and will be capped at 125% of the target incentive pool.[19] However, National Grid proposed lowering the earnings threshold to 65% for 2021 due to the "unusual degree of delivery risk associated with the COVID-19 pandemic and resulting economic uncertainty."[20]

The incentive that the Company would earn for delivering 100% of planned net benefits -- referred to as the "target incentive" – was proposed at $7.2 million. Of this pool of dollars, $5.5 million was allocated to the electric portfolio, and $1.7 million to the gas portfolio.[21]

In accordance with the LCP Standards, the Company requested that the PUC approve: (i) the illustrative range of three-year energy savings goals and strategies for programs and portfolios, provided that such goals will be updated annually in the Annual Plans; (ii) the illustrative range of three year budgets associated with the proposed programs and portfolios, provided that specific budgets will be proposed, and approval sought annually through the Annual Plans; and (iii) the structure of the performance incentive mechanism, provided that specific goals, earnings rates, allocations and target earning opportunities will be proposed and approved annually through the Annual Plans.

II. Proposed Energy Efficiency Program Plan for 2021

A. Overview of Costs, Benefits and Savings

The Annual Plan contained proposed savings goals, budgets, funding plans, and a proposed performance incentive mechanism earning opportunity. The Annual Plan contained a projected budget for the electric programs of approximately $122.3 million.[22] National Grid proposed an Energy Efficiency Program (EEP) charge of $0.01323 per kWh for all customers receiving Last

[19] *Id.* at 144-45.
[20] *Id*. at 260.
[21] *Id.* at 259.
[22] *Id.* at 185.

Resort Service for effect January 1, 2021.[23] The proposed 2021 Annual Plan contained a proposed budget for the gas programs of approximately $38.6 million. National Grid proposed an Energy Efficiency Program (EEP) charge of $1.011 per dekatherm for residential gas customers and $0.704 per dekatherm for commercial and industrial gas customers for effect January 1, 2021.[24] Thus, the combined electric and gas budgets being proposed equated to approximately $161 million which represented an increase of $16 million over the approved combined budgets from 2020.

The proposed EEP charge for electric and gas, which is collected through a fully reconciling funding mechanism, represented no change from the EEP charge in effect for 2020, resulting in no rate impact on customers. The reason was due to the fact that the Company was forecasting a substantial over-collection of funds from ratepayers during 2020 due to the fact that the Company had substantially underspent the budget as a result of the challenges from the COVID-19 pandemic. Given the COVID-19 related uncertainties still facing the Rhode Island economy for 2021, National Grid proposed maintaining flat electric and gas EEP surcharges in the proposed Annual Plan compared to the rates that were in effect to recover the then-forecasted costs under the approved 2020 Annual Plan which never materialized.[25]

On December 1, 2020, however, National Grid submitted revised schedules that demonstrated an increase in expected fund balances because the Company's updated forecast of expenses incurred for 2020 were even lower than originally forecasted when the plan was filed.[26] The revised schedules showed a larger over-collection from ratepayers, based on a fund balance

[23] *Id.*
[24] *Id.*
[25] *Id.* at 253-54.
[26] National Grid Revised Tables E-1 and G-1, Dec. 1, 2020; http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid-Updated E-1 G-1 Tables (PUC 12-1-2020)V1.pdf.

that included actual revenues and expenses through October 2020 and updated projections for November and December 2020. The increase in the electric fund balance resulted in a proposed decrease in the electric rate, from $0.01323 per kWh to $0.01313 per kWh, compared to the originally proposed 2021 electric EEP charge. Similarly, the increase in the gas fund balance resulted in a proposed decrease in the proposed 2021 natural gas energy efficiency residential program from $1.011 per Dth to $1.010 per Dth.[27]

National Grid proposed using a forecast for electrical deliveries of 6.6 billion kWh in calculating the EEP charge per kWh. This represented a substantial projected decrease from 2020 expected deliveries of 7.1 billion kWh. National Grid represented that its forecasted decrease in kWh deliveries was "mainly driven by the lower economic outlook driven by the COVID-19 recession based on Moody's economic forecasts and adjustments made to the DERs."[28]

National Grid estimated that the Annual Plan would generate $751.5 million in total benefits over the life of the installed electric, demand response, and natural gas energy efficiency measures.[29] The electric-funded portion of the Annual Plan would create electric of 1,306,562 net lifetime MWhs, 139,478 net annual MWhs, and 22,723 net annual kW from passive energy efficiency.[30] In addition, the Annual Plan would generate savings of 39,339 net annual kW from active demand reduction measures.[31] The natural gas portion of the plan would save 4,206,444 lifetime MMBtu over the lifetime of installed natural gas measures and 425,359 annual MMBtu.[32]

[27] National Grid Revised Tables E-1 and G-1, Dec. 1, 2020; http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid-Updated E-1 G-1 Tables (PUC 12-1-2020)V1.pdf.
[28] National Grid Resp. COMM 1-7(a) (Second Revised). National Grid explained that some of the forecasted decrease was due to a change in how it accounted for behind-the-meter solar-PV. *Id.* *See also* COMM 4-16(c) ("The decrease in energy use for 2021 is driven by lower economic expectations and higher cumulative Distributed Energy Resource (DER) impacts.").
[29] *Id.* at 179.
[30] *Id.* at 179-80.
[31] *Id.* at 181.
[32] *Id.* at 180.

Of the total $751.5 million benefits, $606.5 million stems from the electric portfolio and $145 million is derived from the natural gas portfolio.[33] For all fuels (electric, gas, oil, propane), combined the proposals would save 8,577,361 net lifetime MMBtu and 854,337 net annual MMBtu.[34]

The Company also represented that the Annual Plan was cost-effective using the RI Test.[35] National Grid stated that the energy efficiency portfolio will create $4.31 in lifetime benefits for every $1.00 invested in the Plan's electric portfolio and $3.00 in lifetime benefits for every $1.00 invested in the natural gas portfolio.[36] Overall, National Grid represented that the Annual Plan would generate lifetime benefits of more than $746 million, with $602.7 million in benefits coming from electric and delivered fuels efficiency, passive demand response, and active demand response, and $143.4 million in benefits coming from natural gas efficiency.[37] The Company further asserted that the investments made to achieve these savings would add $341.8 million to Rhode Island's state gross domestic product.[38]

National Grid represented that the Annual Plan satisfied the statutory requirement that the cost of procuring energy efficiency be less expensive than the cost of acquiring additional energy supply. National Grid calculated the cost of procuring the lifetime savings for the electric efficiency portfolio at $121.3 million less than if the electric load was met by purchasing additional

[33] *Id.* at 181.
[34] *Id.* at 180.
[35] *Id.* at 183 and Attachment 5, Table E-5and G-5. The Standards require National Grid to assess the cost-effectiveness of measures, programs, and portfolios according to the RI Test that was approved by the Commission in Docket 4600. The RI Test is intended to capture all benefits and costs of interest in Rhode Island energy policy and will allow a fair comparison of diverse resources in Rhode Island. A detailed summary of the benefits and costs included in the RI Test is included in Attachment 4 of the Annual Plan/
[36] *Id.* at 183 and Attachment 5, Table E-5 and G-5. A detailed summary of the benefits and costs included in the Rhode Island Test are included in Attachment 4 Rhode Island Benefit Cost Test of the Combined Plan. These benefits will flow to all Rhode Islanders.
[37] *Id.* at 94.
[38] *Id*. at 184.

electric supply, and $14.2 million less than if the natural gas load was met by purchasing additional natural gas supply.[39]

B. Programs

National Grid emphasized that the program designs included in the Annual Plan built on prior plans and on prior programs, but that 2021 also represented a "pivotal year" for residential energy efficiency programming.[40] National Grid noted that 2021 marks the completion of the transformation of the residential lighting market and the final year incentives will be offered for residential lighting at the retail level. In the first year of the Three-Year Plan, National Grid seeks to initiate a similar transformation in the way Rhode Island homes use energy for heating, cooling, and hot water.[41] In an effort to "supercharge" this transformation, National Grid proposed new bundled incentive designs, enhancements that make participation in multiple programs easier or more attractive, and reduced barriers to adoption of comprehensive measures.[42]

An overview of these programs was included in Tables E-2 and G-2 of the filing and the specific programs were set forth in detail within the proposal.[43] The Commission will not re-state all of the programs here which have undergone extensive review in prior years.

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[39] *Id*. at 185.
[40] Id. at 271.
[41] Id. at 271.
[42] Id.
[43] The non-income eligible residential programs are: (1) Residential New Construction; (2) Energy Star® HVAC; (3) EnergyWise; (4) EnergyWise Multi-Family; (5) Energy Star® Lighting; (6) Residential Consumer Products; (7) Home Energy Reports; (8) Residential ConnectedSolutions; (9) Energy Efficiency Education Programs; (10) Residential Pilots; (11) Community Based Initiatives – Residential; and (12) Comprehensive Marketing – Residential. The income eligible residential programs are: (1) Single Family – Income Eligible Services; and (2) Income Eligible MultiFamily. The commercial and industrial programs are: (1) Large Commercial New Construction; (2) Large Commercial Retrofit; (3) Small Business Direct Install; (4) Commercial ConnectedSollutions; (5) Commercial Pilots; and (5) Community Based Initiatives – C&I. *See* 2020 Efficiency Plan at Tables E-2 and G-2 and Attach. 1 and 2.
Attachment 1 of the Annual Plan provides detailed descriptions of the residential energy efficiency and active demand programs, including detail on the market (customer/building types) targeted, eligibility requirements, offers, the implementation and delivery design, and new items for 2021.

The main focus of the remainder of this written Order is to address a limited number of matters which were reviewed in detail by the Commission in the course of the proceedings this year. They included budget issues, the electric forecast for 2021, benefit/cost analyses, and the performance incentive mechanism. This Order also addresses a few programs or initiatives which are highlighted below. [44]

i. Efficient Buildings Fund

National Grid proposed to continue to provide funding for the Efficient Buildings Fund (EBF), a financing option for municipalities and quasi-public agencies to complete energy efficiency and renewable energy projects.[45] EBF provides upfront loans rather than reimbursable incentives given upon project completion. Additionally, customers who borrow money through EBF still receive incentives from the Company if they are eligible to do so.[46] EBF does not have a dedicated revenue stream and is supported from electric and gas ratepayer funds and Regional Greenhouse Gas Initiative funds that allow it to operate.[47] However, as borrowers repay their loans over the financing term, the funds are returned to the pool and can be recycled to issue new loans. To date, the energy efficiency program has transferred $21.8 million to the Infrastructure Bank, which has made $20.5 million in loans, resulting in claimed savings of 5,551 net annual MWh (76,578 lifetime MWh) and 56,092 net annual therms (390,592 lifetime therms).[48] National Grid asserts that more than 85% of the claimed electric savings generated since inception come from streetlighting projects.

[44] The absence of any substantial discussion in this Order regarding many of the programs in the filing should not be construed as meaning that they were not evaluated by the Commission. It is simply a matter of necessity that the Order would focus on those matters where the Commission found modifications to be needed.
[45] EBF is administered in partnership with the OER and the RIIB. The OER is responsible for determining project eligibility, reviewing project applications, and producing a priority list of projects. RIIB then finances projects that are on the priority list. Combined Plan at 232-33.
[46] *Id.* at 413.
[47] *Id*. at 415.
[48] *Id.* at 101-102. The first EBF loan was issued in 2016. *Id.* at 414.

The Company has included a transfer of $5 million to RIIB in the 2021 budget tables for the Annual Plan.[49] The Company estimated that, if all projects in the current pipeline provided by RIIB with a 2021/2022 completion estimate were completed in 2021 and were able to be claimed by National Grid within the term of the Annual Plan, it would result in 11,700 gross annual MWh savings in 2021.[50] However, the Company emphasized that working with municipalities, state agencies, and quasi-state agencies can introduce approval and delivery timing challenges, including long municipal approval times and resolving legal issues surrounding street lighting, and that spreading out the estimated savings (and associated incentives) across three years represented the most likely reflection of when associated savings will be claimable.[51]

ii. Energy Management Framework Platform

National Grid proposed to explore how to collect, catalog, and store specific nameplate information from customer's facilities via an Energy Management Framework Platform (EMFP).[52] National Grid represented that the platform would be utilized to facilitate the decision-making processes via advanced insights and data processing and had the potential to help better inform the Company as to what specific energy conservation measures are needed, when such measures should be proposed, and with what level of financing. The Company indicated that it was in the process of developing the EMFP and the Combined Plan did not provide a further description of its cost or functionalities.[53]

[49] *Id.* at 102. The Company has also included placeholder anticipated annual transfers of $5,000,000 in the illustrative Three-Year Plan budgets for 2022 and 2023 based on expressions of anticipated need by RIIB.
[50] See Attachment 2 C&I Programs, Table 11 Forecasted 2021 Pipeline Loan Descriptions Savings
[51] *Id.* at 233.
[52] *Id.* at 421.
[53] *Id.*

iii. Workforce Development

National Grid anticipated increasing its workforce development efforts and budgets in 2021. While National Grid did not provide a detailed budget for these efforts, it stated that it anticipated "increasing its workforce development budget to roughly 1 percent of total portfolio expenditures."[54] In general terms, National Grid intended to improve its labor market intelligence, upsize and upskill the state's energy efficiency workforce, and build a more sustainable, equitable pipeline.[55]

iv. EV Demand Response Demonstration

Starting in 2021, the Company proposed offering an electric vehicle (EV) based demand response program (EV Demand Response Demonstration). This program uses the on-board telematics included in virtually all new EV and PHEV (plug-in hybrid electric vehicles) to automatically stop vehicles from charging when the electric grid is at or near its annual peak.[56] Customers receive an enrollment incentive for joining the program, and a participation incentive for each event they participate in.[57]

III. Discovery and Hearing

The Commission conducted a comprehensive and in-depth review of the Combined Plan.[58] In conducting this review, the Commission issued 193 pre-hearing data requests to National Grid, convened 3 days of hearings, issued record requests and post-hearing data requests to National

[54] *Id.* at 218.
[55] *Id.* at 218.
[56] *Id.* at 323-24.
[57] *Id.* at 324.
[58] In addition, the RIIB, the Division, and Acadia Center all filed comments in support of the Combined Plan. OER filed the pre-filed testimony of Becca Trietch, an Administrator at OER. Public comment was filed by the City of Providence, the City of Pawtucket, and the, RI Office of General Treasurer. *See* docket at http://www.ripuc.ri.gov/eventsactions/docket/5076page.html.

Grid, conducted a post-hearing technical session and workshop, and received and reviewed several rounds of public comment.[59]

Significant issues discovered during the discovery process are reviewed below.

A. Discovery

i. Program Budgets and Cost Effectiveness

On December 1, 2020, National Grid filed revised Tables E-1 and G-1 to reflect the updated fund balance projections. As explained above, the revised tables include a projected fund balance that includes actual revenues and expenses through October 2020 and projections for November and December 2020. The updated projected year-end 2020 electric fund balance increased by $649,710, to $20,611.39 and the updated projected year-end 2020 natural gas fund balance increased by $38,909. In response to Commission data requests issued before the revised Tables were filed, National Grid explained that the primary cause of the underspending relative to the approved budget is due to the COVID-19 pandemic and the resulting impacts on customer demand for energy efficiency services and the Company's and its vendor's ability to fulfill this demand.[60]

National Grid stated that it anticipated that there would be lingering impacts of the COVID-19 pandemic to address in 2021 and acknowledged that significant near-term uncertainty remains with respect to energy efficiency market conditions in 2021.[61] COVID-19 significantly impacted the Company's and its vendors' ability to deliver on-premises service, which represent a substantial share of planed savings. Moreover, National Grid asserted that macro-economic

[59] The Commission also issued data requests to OER, EERMC, and the RIIB.
[60] National Grid's Response to PUC 1-11(revised). National Grid also provided updates on its expected achievement of 2020 savings targets. National Grid expected to achieve 89% of planned non-income eligible residential, 68% of planned income eligible residential and 81% of commercial and industrial electric annual kWh savings; 89% of planned non-income eligible residential, 67% of planned income eligible residential and 64% of planned commercial and industrial electric annual kW savings; and 87% of planned non-income eligible residential, 62% of planned income eligible residential and 67% of planned commercial and industrial annual therm gas savings. National Grid's Response to PUC 2-19(revised).
[61] National Grid's Response to PUC 1-11(revised).

impacts of the COVID-19 pandemic, in the form of GDP contraction, elevated unemployment rates, and business failures, also were expected to reduce customer demand for energy efficiency services. All sectors would be impacted by the disruption in on-premise service delivery, while the macro-economic impacts would most directly affect the market rate residential and commercial and industrial sectors, as income eligible measures are typically implemented at no cost to participating customers.[62] In an apparent contradiction to these disrupting impacts, and inconsistent with the Company's forecasted decrease in deliveries which were based upon an extremely pessimistic economic outlook for 2021, National Grid proposed increasing the aggregate spending budgets for both the electric and gas programs to levels that were higher than any other budgets in the history of the energy efficiency programs. For example, the total electric budget for 2020 was approximately $106 million and the total gas budget for 2020 was approximately $32.7 million. Yet, National Grid proposed increasing these budgets for 2021 to $122.3 million for electric and $38.6 million for gas.[63]

The Commission conducted extensive discovery relating to the costs and benefits of the energy efficiency program and its impact on customers. National Grid provided detailed charts showing the long-term rate impacts (bill impacts) for each sector and group (non-participants, average customers, and participants) for all modeled years of the Combined Plan. For many sectors and groups, the proposed energy efficiency program resulted in an increase in the average

[62] National Grid's Response to PUC 2-21. However, National Grid did not recommend reducing the spending budgets, instead asserting that customers are shielded from risk in the event that the Company significantly underspends and underperforms. First, the Company asserted, the fully reconciling nature of the funding mechanism ensures that any unspent funds are returned to customers, and second, reduced achievement of savings and benefits contributes directly to lower performance incentive earnings reducing future surcharges. National Grid's Response to PUC 2-22.
[63] Combined Plan at 185.

customers' bills.[64] For example, non-participant customers in the electric residential and income-eligible programs would see a 6.04% and 6.95% percent increase in their respect 2021 bills.[65]

In addition, National Grid provided schedules comparing the cost of the spending budgets (consisting of the program implementation budget and the shareholder incentive) against the electric energy costs and the electric generation costs, but excluding all other costs. For 2021, the cost of the spending budgets exceeds the electric energy costs and the electric generation costs by $24,391,904.[66] National Grid also provided detailed analyses comparing both the total implementation costs and the implementation costs of each individual electric and gas program against the acquisition cost of additional supply. The analyses showed that for many of the electric and gas programs, the cost of the energy efficiency exceeded the cost of additional supply.[67]

Of particular note, National Grid proposed expanding the EnergyWise program by offering a 100% incentive design for "moderate" income customers and making greater effort to bring more customers into the income eligible program where 100% of costs are also covered.[68] Table E-5 indicates that the electric non-income eligible EnergyWise program has a cost that equates to a cost of achieving kWh savings of approximately $1.20 per kWh, well above the market price of electricity, full retail rates, and the cost of additional supply.[69] In response to a Commission request, National Grid provided an alternative Table E-5 and Table G-5 showing the benefit-cost ratio for each individual program without economic benefits in the calculation. The alternative Tables showed that for some programs the implementation expenses and customer contribution

[64] National Grid's Response to PUC 1-3. The bill impact attempts to compare the change in rates after the effect of the energy efficiency program compared to the counterfactual where there is no energy efficiency program, both in terms of savings and associated surcharge. I*d.*
[65] *Id.*
[66] National Grid's Response to PUC 1-18 (revised).
[67] *See* National Grid's Response to PUC 1-22 and PUC 1-22-1 to PUC 1-22-29.
[68] Combined Plan at 271-2.
[69] *See* Table E-5, Combined Plan at 561.

exceeded the total benefits, excluding assumed economic benefits.[70] For example, the implementation expenses and customer contribution exceeded the total benefits for the electric non-income eligible EnergyWise program.

Regarding the gas EnergyWise program, National Grid explained that in 2020, there was an impact evaluation of the program and net claimable per participant gas weatherization savings changed from 11.09 MMBTU in 2020 to 8.35 MMBTU. This 24.7% reduction in program claimable savings for the 2021 Annual Plan results in a lowering of natural gas benefits relative to the implementation costs of the program.[71]

National Grid also provided payback periods at the program level using the cost of supply, TRC Test, and RI Test. Again, for some programs, including the gas and electric residential EnergyWise programs, the calculated payback period using the cost of supply and TRC Test was greater than the average measure life for the program.[72]

ii. Forecast

In response to data requests from the PUC, National Grid explained why the new energy efficiency forecast differed from the 2020 expected deliveries and the forecast recently approved by the Commission in Docket No. 5054.[73] In 2020 the expected deliveries were 7.1 billion kWh and in Docket No. 5054, the Commission approved a deliveries forecast of 6.95 billion kWh for effect beginning October 1, 2020. National Grid explained that the decrease in kWh deliveries to the forecasted 6.6 billion kWh in 2021 is mainly driven by the lower economic outlook driven by

[70] National Grid's Response to PUC 1-24. It is important to note that the economic benefits calculation contains assumptions that may be significantly over-stating the calculated benefits. *See* testimony of Tim Woolf, Transcript December 11, 2020 at 289-90 (noting that he economic benefits "include some amount of double counting with the other benefits in the benefit/cost analysis.")
[71] National Grid's Response to PUC 7-5.
[72] National Grid's Response to PUC 9-2.
[73] Docket No. 5054 is National Grid's Electric Pension/PBOP Adjustment Factor Filing and went into effect on October 1, 2020

the COVID-19 recession and the impacts of Distributed Energy Resources (DER) and adjustments made to how the Company accounts for those DER.[74] National Grid also explained that the forecasts differed because the Annual Plan forecast is based on a calendar year 2021 forecast while the Docket No. 5054 forecast was for the October 1, 2020 – September 30, 2021 period. Moreover, the Docket No. 5054 forecast was made in 2019 and did not include the impacts of COVID-19.[75]

National Grid further explained that its forecast was greatly driven by Moody's September 2020 economic forecasts. For 2021, Moody's forecasts some sectors to start a slow recovery but not recover to their pre-pandemic level, while others are expected to continue to decline.[76] National Grid explained that its forecast accounts for the pandemic by incorporating observed usage during the pandemic from March 2020 through August 2020 in conjunction with Moody's economic forecasts which capture the projected economic impacts from COVID-19.[77] However, after accounting for the differences in the weather, the 2020 January to October energy use was 2.4% lower than the same periods of 2019 and 0.6% higher than the forecasted use for 2020.[78]

iii. Efficient Buildings Fund

National Grid averred that it could confirm that all measures for which the Company pays an incentive are approved measures included in an approved program; however, National Grid could not confirm that all measures and investments made with funds transferred to the EBF are in an approved Energy Efficiency Program.[79] Similarly, it could not confirm that all measures

[74] National Grid's Response to PUC 4-16.
[75] National Grid's Resp. to PUC 1-7(second revised).
[76] National Grid's Response to PUC 4-16.
[77] National Grid's Response to PUC 4-18. In seeming contrast, the Company appeared to rely primarily on the "Company's historical track record of achieving savings targets" in estimating the impacts of incremental energy efficiency on forecasted electric deliveries. *See* National Grid's Response to PUC 4-20.
[78] National Grid's Response to PUC 4-16.
[79] National Grid's Response to PUC 8-9. National Grid explained that RIIB uses transferred funds to cover costs for measures such as window replacements that cannot be supported by funds under the Company's control. *Id.*

and investments supported by the transfer to RIIB pass the RI Test.[80] However, the Company asserted that all Large Commercial and Industrial programs are cost effective.[81]

iv. Energy Management Program Framework

The Company proposed spending $1,000,000 for the development of an EMFP software tool.[82] According to the Company, the cost would support the design and procurement and/or development and implementation of a software system that would support Company collection and utilization of data about large C&I customer facility attributes, with a goal of enabling more targeted outreach, engagement, and selling to customers who would most benefit from specific energy efficiency measures at specific times.[83]

In response to data requests from the PUC, National Grid acknowledged projecting the energy savings resulting from this initiative with any degree of accuracy is difficult. However, the Company argued that the platform "could be a core example of a programmatic enhancement that could enable the Company to achieve savings above the business as usual scenario identified by the market Potential Study."[84] National Grid acknowledged that the specific features and functionality of the EMFP had not yet been fully developed.[85] Rather, it only had a high-level aspirational description of the intended and desired functionality for the platform.[86] National Grid also acknowledged that the proposed EMFP concept had not been sufficiently developed to the

[80] National Grid's Response to PUC 8-10. National Grid represented that each of the projects financed by RIIB was cost effective according to OER's cost effectiveness test. The OER definition of cost effectiveness focuses on whether the energy savings plus operations savings plus maintenance savings from a group of measures are greater than the total financing costs for the customer. If the financial savings from the three aforementioned areas exceed total financing costs for the customer, the project is considered to be cost effective by OER. National Grid's Response to PUC 8-11.
[81] The most recent LCP Standards require that programs, not individual measures, be cost effective.
[82] National Grid's Response to PUC 3-16.
[83] Id.
[84] National Grid's Response to PUC 3-16.
[85] National Grid's Response to PUC 6-1 and 10-14.
[86] *Id.*

point that a detailed cost schedule has been developed.[87] Rather, the proposed $1 million in funding requested represented a high-level, initial cost estimate, and that additional feasibility analysis, requirements gathering, and project scoping were needed before the Company could develop a more precise budget estimate.[88] Moreover, the Company did not yet have a project development schedule for the platform.[89] Nor had the Company submitted the project through the Company's IT Project Sanctioning process.[90] In sum, the $1 million which the Company sought to recover in rates from ratepayers for this software program was not supported by any substantial cost data and had not even been approved by management through the ordinary procurement and review processes.

v. Workforce Development

National Grid proposed increased spending of $1.05 million on workforce development activities in 2021. The Company argued that increasing its investment in workforce development was needed to mitigate the workforce losses caused by COVID-19 and to help bring new workers into growth areas of clean energy technologies.[91] National Grid acknowledged that it could not predict the energy savings resulting from this initiative with any degree of accuracy, although it believed that failure to address this area would make it less likely that the Company will be able to achieve the illustrative savings goals proposed in years 2 and 3 of the Three-Year Plan.[92] Much like the EMFP project, the Company provided no substantial cost data to support the recovery of $1.05 million in excess of what had been budgeted in 2020 from ratepayers for this initiative.

[87] National Grid's Response to PUC 10-5.
[88] National Grid's Response to PUC 10-5 and PUC 10-6. National Grid stated that this additional analysis could result in additional costs, a reduction in functionality of the platform, and/or a delay in its implementation. National Grid's Response to PUC 10-6.
[89] National Grid's Response to PUC 10-8.
[90] National Grid's Response to PUC 10-8 and PUC 10-10.
[91] National Grid Response to PUC 3-16,
[92] *Id.*

vi. Performance Incentive Mechanism

In response to Commission data requests, National Grid explained that its Proposed PIM would allow the Company to earn more than the target incentive, up to the 125% cap, even if the actual program spending exceeds the approved spending budget. The Company explained that this could occur because the Proposed PIM links the Company's performance incentive earnings only to absolute achievement of net benefits, with no specific limitation on Company earning opportunity based on the level of program spending relative to the approved spending budget.[93] The Company acknowledged that, as proposed, it would have the incentive to seek out incremental savings opportunities, even when the achievement of such benefits would require spending above approved spending budgets.[94] Moreover, National Grid explained that the primary budgetary controls contained in the Proposed PIM is limited to the Company's spending notification and approval obligations as outlined in Section 11.5 of the Annual Plan.[95]

B. Hearing

On December 7, 9, and 11, 2020, the PUC conducted evidentiary hearings.[96]

At the beginning of the hearing, National Grid informed the Commission that on December 3, 2020, the company received a letter from the Executive Directors of the Community Action Program, the organizations which deliver several aspects of the single family income-eligible gas and electric programs, urging the Company to temporarily suspend the delivery of on-premise services to customers in the single family, income-eligible electric and gas programs in Rhode

[93] National Grid's Response to PUC 4-9 and 4-10.
[94] Thus, the largest possible incentive for National Grid results from spending 125% of the approved spending budget so that it could reap 125% of the target incentive. *See* National Grid's Response to PUC 4-11.
[95] National Grid's Response to PUC 4-9 and 4-10.
[96] The hearings were conducted remotely with witnesses and counsel participating via videoconferencing. The following witnesses testified for National Grid: Christopher Porter, John Tortorella, John Richards, Shira Horowitz, Joseph Gredder, Jingrui Xie, Angela Li, Amy Vanek, Laura Rodormer, Robin Pieri, Ran Scheib, Ezra McCarthy, Mona Chandra, Daniael Tukey, Kevin Rose, Jared Goldfarb, Michael Nappi, Melissa Little, Alfred Morrissey, and Ben Rivers.

Island given the current COVID situation in Rhode Island. Mr. Porter testified that the Company anticipated this suspension would further decrease the Company's projected spend and saving performance within the single family, income-eligible programs in both gas and electric for 2020. Mr. Porter also testified that this suspension would not impact the Annual Plan as the Company expected to develop mitigation strategies to resume these services and that the suspension would not be lengthy.[97]

Mr. Porter, Ms. Horowitz, Miss Xie, and Mr. Gredder testified for National Grid regarding the Company's forecasting process. The witnesses explained that the Company purchased economic forecasts from Moody's in September 2020 that it incorporates into its forecasting models. Moody's economic forecasts expected a decrease in per capita income and a slowing of the recovery of gross state product in 2021. The witnesses explained that per capita income significantly impacts the Company's forecast for residential deliveries and gross state product significantly impacts the forecast for commercial deliveries. The witnesses, however, believed that Moody's economic forecasts do not include the possible effects of any potential government stimulus in 2021. The witnesses emphasized that this was the Company's forecast as of September 2020 and that it already incorporated several months of COVID-19 related impacts.[98] The witnesses later confirmed that Moody's forecast assumed a federal stimulus in late 2020 but none in 2021 or 2022.[99]

Ms. Horowitz testified, however, that there was "more uncertainty than usual in this forecast because of the additional uncertainty in the economy and in . . . customer behavior due to

[97] Hr'g. Tr. at 31-35 (Dec. 7, 2020). National Grid provided a copy of the correspondence in its Response to RR-1; http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid-RRs(Complete Set)(12-16-2020)w Bates.pdf.
[98] Hr'g. Tr. at 84-92 (Dec. 7, 2020).
[99] National Grid's Response to RR-2; http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid-RRs(Complete Set)(12-16-2020)w Bates.pdf. Moody's forecast also made assumptions about the number of confirmed COVID-19 infections and the impact of a potential vaccine in 2021. *Id*.

the pandemic."[100] Because of the "extreme amount of uncertainty in . . . the economic outlook this year," the Company developed forecasts using high and low scenarios to attempt to assess whether the forecast was sensible or not.[101] While the Company stood behind its forecast, Ms. Horowitz acknowledged that the "number is a shift from sort of what you traditionally see, however, the economy is also shifting from what you would traditionally see."[102] Despite these uncertainties, Ms. Horowitz testified that it would not be appropriate to deviate from the Company's forecasting methodology because of COVID-19. Ms. Horowitz explained that the Company's forecast already accounted for the impact of COVID-19 in two ways – first by incorporating observed data from the pandemic from March through August of 2020, and second, through incorporating a Moody's projected economic outlook that already accounts for projected economic impacts of the pandemic.[103]

Mr. Tortorella testified for National Grid regarding the payback periods for programs. Mr. Tortorella confirmed that the Company's Response to PUC 9-2 evidenced that for certain programs the payback period, or how long it takes for a benefit stream to payback an investment, was infinite, meaning the program would not pay back the initial upfront costs through the annual streams of cost savings.[104]

Mr. Tortorella and Mr. Richards testified for the Company regarding rate and bill impacts. The Company models rate and bill impacts by taking all the possible impacts of an energy efficiency program and summing all that are included on a bill and then modelling that over a long-

[100] Hr'g. Tr. at 94 (Dec. 7, 2020). Similarly, Mr. Porter testified that, while he could not speak for the forecasting team, "there is from the energy efficiency side what I would characterize as an unprecedented level of uncertainty and variability in a number of the exogenous conditions or variables that would impact our ability to deliver energy efficiency." *Id.* at 93.
[101] *Id.* at 111.
[102] *Id.* at 112.
[103] Hr'g. Tr. at 295-96 (Dec. 11, 2020).
[104] Hr'g. Tr. at 124-28 (Dec. 7, 2020)

term period to calculate the long-term rate impacts. Mr. Tortorella confirmed that the information that the Company provided in the Combined Plan and in its Response to PUC 1-3, evidenced that in many instances gas and electric non-participants experience higher bills due to the energy efficiency program. For example, Mr. Richards confirmed that non-participant customers in the electric income-eligible program would have an increase in their electric bill of 6.95 percent in 2021 and smaller increases in each yearly bill until 2029. Similarly, Mr. Tortorella confirmed that if the 2022 high aspirational scenario is put into place, non-participant customers in the electric income-eligible program would see a 10.12 percent increase on their bill for 2022. [105]

Mr. Rose testified for National Grid regarding the Company's proposed expansion of workforce development. Mr. Rose testified that the Company's workforce development efforts were focused on increasing the size of the workforce, or upsizing, and increasing the skillset of the workforce, or upskilling. Mr. Rose testified that the focus of the Company for 2021 was weighted toward upskilling workers. However, when the Commission questioned Mr. Rose regarding why the Company stated in the Combined Plan that its focus was on recruiting, training, and retaining talent from frontline and environmental justice communities, Mr. Rose testified that the Company's focus was a balance of the two. Upon further questioning from the Commission regarding the lack of a specific breakdown of the proposed spending between recruitment and training in the Combined Plan, Mr. Rose acknowledged that the Company saw a benefit of having a "high level" of flexibility and not committing to a more precise spending plan.[106]

Given the lack of specifics in the Combined Plan and National Grid's inability to provide more detail at hearing, the Commission requested that the Company provide further information on the workforce development proposal and budget. In response, the Company provided a

[105] *Id.* at 129-44.
[106] Hr'g. Tr.at 106-122 (Dec. 9, 2020).

schedule breaking down the total proposed 2021 workforce development budget.[107] The one-page schedule indicated that the Company was seeking $1.05 million in incremental funding and contained very brief descriptions of proposed workforce development activities associated with portions of the incremental funding.[108]

Mr. Porter testified for National Grid regarding the EMFP. Mr. Porter acknowledged that the Company had not yet developed specific features and functionalities for the software and that the concept had not been sufficiently developed to the point that a detailed cost schedule could be developed. Mr. Porter also acknowledged that the Company had a software sanctioning process, and if the Company had submitted the information that was in the record for the present docket to that sanctioning committee, the committee would not have sanctioned the project.[109]

In response to a record request made at hearing, the Company provided information showing its affiliate was conducting a pilot program in Massachusetts involving 11,000 customers relating to studying electric vehicle charging patterns and evaluating the same communication technologies the Company was proposing in this case.[110] This program appeared very similar to the proposed EV Demand Response Demonstration in the Company's 2021 Plan.

Becca Trietch, Administrator for the OER, testified on behalf of OER. Ms. Trietch testified that OER remained in support of the Combined Plan as presented. In response to questioning from National Grid, Ms. Trietch testified that the Combined Plan represented an opportunity to "send a signal to the market that Rhode Island continues to want to be aggressive about energy efficiency programs and deployment."[111]

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[107] National Grid's Response to RR-10.
[108] *Id.* For example, the schedule showed that National Grid sought $50,000 in incremental funding, equally allocated to the upskill and upsize budgets, to "improve our labor market intelligence." National Grid also sought $100,000 allocated to the upsize budget to "build [a] more sustainable and equitable pipeline."
[109] Hr'g. Tr. at117-132 (Dec. 11, 2020).
[110] National Grid's Response RR-13 (revised).
[111] Hr'g. Tr. at 247-248 (Dec. 11, 2020).

Michael Guerard, Managing Consultant at Optimal Energy, Samuel Ross, Consultant with Optimal Energy, and Eric Belliveau testified on behalf of EERMC. Mr. Ross, the author of the EERMC's Cost Effectiveness Report testified that, after hearing witnesses' testimony, he believes that the fundamental findings of the report, that the plan is cost effective and less than the cost of supply, were unchanged. Mr. Ross, however, testified that the EERMC generally relied on evaluating the cost effectiveness of the plan utilizing the RI Test, and that the consultant team had not presented the EERMC with the expected payback periods. Mr. Guerard testified that the EERMC remained in support of the Combined Plan as presented. However, Mr. Guerard testified that the EERMC had not been presented with any of the information in National Grid's responses to data requests.[112]

Joel Munoz, Rate Analyst, and Tim Woolf, from Synapse Energy Economics, testified for the Division. Mr. Munoz testified that the Division continued to support the Combined Plan as presented. Mr. Woolf testified that he was concerned that macroeconomic benefits, such as employment and gross domestic product, are double counted in the benefit-cost analysis. Mr. Woolf also commented on the low TRC benefit-cost ratios for the EnergyWise program. Mr. Woolf emphasized that, despite the lower ratios, he viewed the EnergyWise program as a "extremely important program for reaching a really important sector" of National Grid's system.[113]

Jeff Diehl, Executive Director, and Michael Baer, Managing Director of Business Development, testified on behalf of RIIB. In summation, Mr. Diehl testified that municipalities depend on the EBF to finance retrofits in public buildings and that RIIB assists and incentivizes

[112] *Id.* at 249-272.
[113] *Id*. at 287-292.

municipalities to pursue broad and deep energy efficiency projects by providing access to long-term discounted rate loans.[114]

IV. Commission Findings and Decisions

At Open Meetings on December 22, 28, and 30, 2020, the PUC considered the evidence and ruled on substantial portions of the Combined Plans. With respect to the Combined Plans, the Commission approved them with a limited number of modifications which are discussed below. The Commission deferred decision on portions of the Combined Plans until it had the opportunity to conduct further discovery and proceedings.[115] While the Commission made some modifications, the Commission believes it is important to emphasize its support for the programs which bring substantial benefits to Rhode Island.

Those modifications are addressed below.

A. Electric Delivery Forecast Used to Calculate the Rate

The Commission ordered the Company to use an electric sales forecast consisting of the average of 2020 weather normalized actual sales and the 2021 forecast, as submitted in the Company's October 15, 2020 filing, to calculate the electric EEP charge per kWh.[116] The Commission was skeptical of the Company's forecast for electrical sales in 2021.[117] The Company's proposed forecast was not simply lower than the actual sales from previous years, but assumed a reduction in deliveries that were different from 2019 and 2020. For example, actual

[114] *Id*. at 273-283.
[115] The Commission deferred consideration and decision on the transfer to the RIIB, Sections 11.4 and 11.5 of the Annual Plan, approval of the savings, goals, and strategies for years 2022-2023, and the performance incentive mechanism (PIM) and its associated components for both electric and gas, including restricting National Grid from allocating $5.5 million and $1.7 million to the electric and gas shareholder incentive, until further discovery.
[116] In response to a request from the Commission at hearing, the Company stated that the average of the weather normalized actuals from 2020 (using actuals through November 2020) and its 2021 forecast was 6,856,927,553 kWh. *See* National Grid's Response to RR-12, Attachment 12-5.
[117] The Commission had requested the Company to provide the Commission with a forecast using the average of 2020 weather normalized actual sales and the 2021 Company forecast. *See* National Grid's Response to RR 12-5.

deliveries for 2019 were 7,256,735,209 kWh, and deliveries for 2020 were on pace to exceed 7,000,000,000 kWh for 2020.[118] Yet, the Company was forecasting a monumental drop in usage to 6,606,545,391 kWh for 2021. The Commission noted that the Company's forecast is significantly driven by the economic outlook and, in particular, expected per capita income. However, the impact of COVID-19 and the resultant economic stimulus has created significant uncertainties in terms of the economic outlook and per capita income which both impact demand. The Commission was concerned that the Company's forecast was too low and that setting a rate based on a forecast that was much lower than recent actual sales would result in a significant over collection by the Company in rates.

In order to address these uncertainties, the Commission chose to approve a forecast using the average of 2020 weather normalized actual sales and the 2021 Company forecast, which amounted to 6,856,927,553 kWh. The Commission noted that the forecast could be adjusted during the year if the actual sales differed significantly from the approved forecast and directed National Grid to provide the Commission with an update on actual electric sales no later than June 15, 2021.

B. Funding Levels

The Commission maintained the 2020 funding level for the following programs for both electric and gas: Non-Income Eligible Residential EnergyWise, Non-Income Eligible Residential EnergyWise Multifamily, Income Eligible Residential Single family, and Income Eligible Residential Multifamily. The Commission discussed the proposed growth of the programs, specifically noting that the Company struggled in 2020 to meet the projected spending budgets – which were lower than the proposed 2021 spending budgets. Moreover, the Commission noted

[118] *See* National Grid's Response to PUC 4-16.

that the Company proposed expanding these programs in 2021 beyond what they proposed for 2020 and that, even after accounting for the effects of COVID-19 on the program, the Company failed to explain why they expected more demand for these programs in 2021. The Commission expressed doubt about the ability of the Company to meet the proposed increases in these programs.[119]

The justification for a system benefit charge has always been that *all customers* who pay into the program benefit from the collective bill savings achieved, including customers who do not partake in energy efficiency investments themselves. In fact, one of the most compelling reasons for growing the energy efficiency programs rapidly over the years has been that all ratepayers will save money on their energy bills from the programs because it is cheaper to procure energy efficiency than the cost of providing additional supply. Based on the evidence in this case, however, this reason is no longer true for a number of the programs included in the portfolio.

For example, the EnergyWise program has been a core component of the residential programs for many years. For the 2021 program year, National Grid proposed a spending budget of approximately $17 million.[120] The Company's calculation comparing the total cost of the program against the cost of acquiring supply – measured by electric energy costs, electric generation costs, electric transmission costs, electric distribution capacity costs, and other market price effects – indicated that the net cost to ratepayers over the lifetime of the measures was over $16 million.[121] While the program obtains other societal benefits that are taken into account in the benefit/cost analysis, the Company's analysis shows that the EnergyWise program does not provide net bill savings to the ratepayers taken as a whole.

[119] The Commission reviewed the Company's response to PUC 1-11(revised), which indicated the Company spent between 52% and 100% of the projected budget on these programs in 2020.
[120] Combined Plan at 558, Attachment 5, p. 2 of 13.
[121] National Grid's Response to PUC 1-22, Attachment PUC 1-22-29, p. 2 of 5.

Similarly, net negative bill impacts also occur for the Residential New Construction program ($695,930 net cost),[122] EnergyWise Multifamily ($2,364,165 net cost),[123] Single Family – Income Eligible Services ($9,671,858 net cost),[124] and Income Eligible Multifamily ($4,734,456 net cost).[125] In addition, the Commission is concerned that neither the EnergyWise program nor the Income Eligible Multifamily program passed the cost/benefit test when assumed economic benefits are excluded.[126] The Division's witness, Tim Woolf, testified that the economic benefit calculation may be double-counting certain claimed benefits.[127] This is an issue that may have to be addressed in future proceedings when a business case for any proposed program only passes a benefit/cost test because of the value included from an economic benefits calculation.[128]

C. Disallowances on Specific Proposals

Next, the Commission reviewed several individual programs. The Commission disallowed funding or funding increases for several proposals that were not sufficiently supported.

(i) Energy Management Framework Platform

The Commission disallowed funding for the Energy Management Framework Platform software system.[129] The Company failed to present appropriate, concrete cost information necessary to support ratepayer funding of an investment of this magnitude and failed to present a business case supporting the need for this software system. The Company could only provide a high-level description of the functionalities of the platform, and significant questions remained

[122] *Id.,* Attachment PUC 1-22-29, p. 1 of 5.
[123] *Id*. p. 2 of 5.
[124] *Id*. p. 4 of 5.
[125] *Id*.
[126] National Grid's Response to PUC 1-24, Attachment PUC 1-24-1.
[127] Tr. (Dec. 11, 2020), pp. 289-290.
[128] Nevertheless, the Commission continued to fund these programs at the same level budgeted for 2020 because they still bring benefits. The Commission recognizes that there are qualitative benefits for serving low income customers, even though all ratepayers may not benefit when benefits are measured only quantitatively.
[129] The denial is without prejudice to the Company resubmitting the proposal at a later date with showing the how the benefits exceed the costs.

about the need, benefits, development schedule, and total cost of implementation of the system. The Commission noted that the Company had not put the program through its internal review and sanctioning process. It is imperative with capital additions such as this – upon which the Company or its affiliate National Grid USA Service Company will earn a return – that the Company provide a solid business case before ratepayers are required to fund it.

(ii) $1.05 Million Increase in Workforce Development Spending

The Commission disallowed $1.05 million in incremental spending for workforce development. The incremental funding requested was in addition to the $440,900 already embedded into the total energy efficiency budget.[130] The Commission finds that the Company did not present appropriate, concrete cost information necessary to support ratepayer funding for an initiative of this magnitude and did not present a persuasive business case to justify a three-fold increase in the workforce development budget. The testimony presented at hearing suggested to the Commission that the proposal was not yet mature. Further, the Company had underspent its workforce budgets for the prior two years and the Commission maintained the EnergyWise programs at 2020 levels suggesting that the previously approved workforce budget would be sufficient in 2021 as well.[131] The Company's response to the Commission's request for a detailed budget and justification was also insufficient, consisting of general categories, with no support for how the individual line items were determined or estimated.[132] The Commission does not find sufficient evidence to justify the incremental increase requested for 2021.

(iii) EV Demand Response Demonstration

[130] National Grid's Response to RR-10.
[131] *Id*.
[132] *Id*.

The Commission also disallowed funding for the EV Demand Response Demonstration. While the Company only expected to spend $40,000 on the demonstration, the Commission finds that the spending is unnecessary. The demonstration involves testing a technology utilized in conjunction with electric vehicles and the Company is already testing that same technology in a pilot program in Massachusetts involving 11,000 customers.[133] As both studies involve testing the communication technology, the results of the Massachusetts pilot can be applied to Rhode Island.

D. **Other Decisions**

(i) *Definition of "Moderate Income"*

The Commission directed National Grid that, when a description and plan for "moderate income" has been developed, the Company file a description with the Commission, prior to implementation, for the Commission's consideration. The Commission was concerned about approving an initiative without significant details and directed the Company to file those further details, once developed, for Commission review. The Commission noted that this initiative was not fully developed and expressed concern about how the Company would implement certain aspects, particularly income verification and the potential for unreasonable discrimination.

(ii) *Efficient Buildings Fund (EBF)*

Regarding the transfer to the EBF, the Commission allowed the collection of $5 million for the transfer but placed a hold on the actual transfer until the Commission had the opportunity to conduct further discovery. The Commission expressed concern that it still lacked a complete understanding of how the EBF loans tie into the energy efficiency program, particularly with how the Company establishes a baseline to determine energy efficiency savings and how the EBF program recycles funds.

[133] See National Grid's Response to RR-13 (revised).

(iv) Program Portfolios, Budgets, and Annual Plan

The Commission approved the programs and portfolios and Annual Plan as modified by the Commission's previous decisions and approved the final budget, annual savings goals, and rate factors as shown in National Grid's compliance filing, subject to design level incentives being provided as placeholders for purpose of calculating the rate. [134] The Commission restricted the Company from allocating $5.5 million to the RIIB and $1.7 million to the shareholder incentive, until such time the PUC completed its review of the EBF transfer and the PIM proposals. [135]

As a result of the decisions made, the Commission approved a budget of $116.7 million for the electric program, an increase of $5.6 million over the 2020 budget. Similarly, the Commission approved a budget of $34.9 million for the gas program, an increase of $0.6 million over the 2020 budget. The Company also reported that it expected to have fund balances, or unspent funds from its 2020 budget, of $25.3 million from the electric program and $6.9 million from the gas program, primarily due to the effects of Covid-19 on the operations of the energy efficiency program.[136] A significant portion of this surplus of unspent funds was applied to substantially reduce the energy efficiency program electric and gas rates, providing rate decreases for electric and gas distribution ratepayers.

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[134] At the December 22, 2020 open meeting, the Commission instructed National Grid to file updated Year 1 implementation budgets, goals and targets and associated tables for gas and electric reflecting decisions made at this open meeting. At the December 28, 2020 open meeting, the Commission approved these final budget and annual goals as shown in National Grid's December 23, 2020 compliance filing, subject to design level incentives being provided as placeholders for purpose of calculating the rate.

[135] The Commission also deferred approval of the savings, goals, and strategies for years 2022-2023 until after a review of the Company's additional compliance filing, to be submitted. On January 29, 2021, the Company filed updated illustrative implementation budgets for Years 2 and 3 (2022 and 2023) and updated goals, targets, and proposed energy efficiency rates for Years 2 and 3. See http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid-ComplianceFiling (PUC 1-29-2021).pdf. On August 11, 2021, the Commission approved the initial savings, goals, and strategies for years 2022-2023 in the Three-Year Plan as modified by the January 29, 2021 Compliance Filing.

[136] *See* Revised Tables E-1 and G-1, filed Dec. 1, 2020; http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid-Updated E-1 %20G-1 Tables (PUC 12-1-2020)V1.pdf .

The Commission approved illustrative budgets for both electric and gas of 5% annual increases for years 2022 and 2023, noting that 5% increases would be meaningful increases on an already robust budget and that the increases proposed by National Grid for 2022 and 2023 were significantly higher than historical average increases.[137] The Commission noted that these budgets are illustrative and non-binding and are used for planning purposes, and, thus, the Commission was not pre-approving any actual budgets and may reject proposed budget increases in the Annual Plan filings. Additionally, the Parties could propose budgets higher than the 5% incremental increase. However, in the event that National Grid proposed a spending budget, or savings targets, that deviated from the approved savings and spending limitations, National Grid must present evidence that facts or other information presented at the time when the PUC set the target have since changed justifying those deviations.

(v) Approved Rates

The proposed EEP charge for electric customers was reduced from the proposed $.01323 per kWh to $.01113 per kWh. The proposed EEP charge for residential gas customers was reduced from the proposed $1.011 per Dth to $.871 per Dth. The proposed EEP charge for commercial and industrial gas customers was reduced from the proposed $.704 per Dth to $.596 per Dth.

(vi) Performance Incentive Mechanism (PIM)

At Open Meeting on December 22, 2020, the Commission also discussed a proposed modification to the National Grid's Proposed PIM submitted by Commissioner Abigail Anthony (Modified PIM).[138] The Commission did not vote on either the Proposed PIM or the Modified PIM, but instead sought written comments on the Modified PIM. The PUC met again at open

[137] The Company was ordered to file updated illustrative budgets for Year 2022 and 2023.
[138] The Commission provided the Modified PIM to parties and stakeholders on December 22. 2020.
A copy of the initial Modified PIM proposal is available at http://www.ripuc.ri.gov/eventsactions/docket/5076-PUC-proposedPIM.pdf.

meeting on December 28, 2020 and December 30, 2020 to review National Grid's compliance filings and to further discuss the Modified PIM and to review the written comments received.[139] In further discussing the Modified PIM and the written comments received, the Commission discussed alternatives to modifying the benefits eligible to be counted toward National Grid's incentive, including potentially reducing the target incentive from the $7.2 million proposed by National Grid.[140] The Commission also discussed comments from some parties that the design of the service quality adjustments created the incentive for National Grid to achieve a certain level of achievement, but no more and no less than that achievement. Based on the review of the written comments, the Commission decided to continue to defer any decisions on the performance incentive mechanism.[141] The Modified PIM and further proceedings are discussed supra.

(vii) Effect of Potential Legislative Action on Budget

Finally, the Commission discussed the resulting outcome if the Legislature approved a budget transfer from the energy efficiency program during 2021. The Commission decided that in the event of an approved transfer, the Commission would reopen the docket to examine its effects on the energy efficiency budget and programs.[142]

V. Post-Decision Proceedings

A. Commission Modifications to the PIM Proposal

[139] National Grid, EERMC, OER, and the Division submitted written comments on the Modified PIM proposal. Copies of those comments are available at http://www.ripuc.ri.gov/eventsactions/docket/5076-PUC-proposedPIM.pdf.

[140] Written comments were submitted by EERMC, the Division, OER, Acadia Center, and National Grid. Copies of the written comments are available at http://www.ripuc.ri.gov/eventsactions/docket/5076page.html.

[141] As discussed supra, the Commission also continued to defer any decision on Section 11.4 and Section 11.5 of the Annual Plan. The Commission moved to restrict the Company from allocating $5.5 million to the RIIB and $1.7 million to the shareholder incentive, until such time the PUC completed its review of the EBF transfer and the PIM proposals. The Commission also deferred approval of the savings, goals, and strategies for years 2022-2023 until after a review of the Company's additional compliance filing, to be submitted.

[142] The Commission also discussed the future effects on benefits if the State moved to a 100% renewable goal for 2030. The Commission noted that if that happens, the non-embedded carbon value of energy efficiency could decrease to zero, as supply could be presumed to have zero carbon emissions. This would significantly impact the benefit-cost analysis.

As described earlier, the Commission discussed National Grid's Proposed PIM and the Modified PIM proposal in open meetings in December 2020. During those discussions, the Commission explained that it sought to have a performance incentive mechanism that had several intended effects.

The Commission sought to focus National Grid on maximizing customers' share of net benefits by driving budget efficiency while also disincentivizing spending above the approved budget. The Commission finds that the budget cannot be open-ended, and any performance incentive should be designed to slow the Company's incentive to spend amounts that exceed the approved budget, and disincentivize low value investments at that point.

The second was to limit National Grid's share of the incentives to only benefits that are related to electric service and other resource benefits (like natural gas, delivered fuels, water, and wastewater benefits), and to give greater weight to the achievement of benefits related to electric and natural gas service relative to other resource benefits. This weighting seeks to ensure that all electric and natural gas customers receive utility cost savings from the energy efficiency program. Therefore, the Commission sought to include Capacity, Energy, Energy DRIPE, and natural gas, oil, and other resource benefits in the calculation of net benefits, and to assign non-resource and societal benefits a weighting of zero in the calculation of net benefits.[143] The Commission also sought to focus the incentive on utility system benefits, which are realized as utility cost savings, by discounting the non-electric fuel and other resource benefits by 50%. The Commission also sought to include all program implementation expenses and regulatory costs in the calculation of net benefits and to exclude customer contributions from the net benefit calculation.

[143] These benefits are shown on Table E-6. The Commission did not believe that National Grid could be held accountable for societal benefits and that it was not fair to customers to have them pay a cash incentive based on an assumption that benefits were realized.

The Modified PIM added a third element to address the result that, for some customer sectors, the weighted sum of electric and resource benefits is lower than the planned spending. In other words, National Grid's energy efficiency program for certain sectors would result in negative net benefits, resulting in nothing to share between ratepayers and National Grid. The Modified PIM created a service quality adjustment for these sectors in which, if National Grid failed to deliver a certain level of energy efficiency to these sectors, its incentive achieved in other sectors would be reduced. This addressed stakeholders' concerns that National Grid could ignore residential customers in favor of commercial and industrial customers.

Finally, to allow National Grid a similar financial motivation for delivering the Annual Plan as proposed, the Modified PIM increased the potential payout in customer sectors that are expected to have electric and resource net benefits by the same amount that the payout was decreased in sectors that were not expected to have electric and resource net benefits.

The Commission developed a PowerPoint presentation describing the Modified PIM and providing examples of how the mechanism would work.[144] The PowerPoint presentation was provided to parties and stakeholders and discussed at open meeting on January 22, 2021. In order to allow the parties and stakeholders further time to review the Modified PIM, the Commission held a technical session on February 4, 2021. During the technical session, Commission staff again reviewed the Modified PIM proposal and answered questions from the parties.[145]

[144] A copy of the Final PIM Proposal that was noticed for public comment is located at http://www.ripuc.ri.gov/eventsactions/docket/5076-PUC PIM Proposal2-18-21.pdf. The Final PIM noticed for public comment included a PowerPoint presentation containing a visual representation of the operation of the Final PIM on a two-dimensional space - broken into four quadrants by two axis - that represented the interplay between the percentage of plan savings achieved varying on the vertical axis and the percentage of planned eligible costs varying on the horizontal axis. The Final PIM also included "boundary rules" that defined locations within the four quadrants where the application of the PIM changed. A similar plane of benefits vs. costs was used to represent a service quality adjustment – where low achievement of eligible net benefits and high percentage of spending would result in a decrease in the performance incentive.

[145] The technical session also a transfer of SBC funds to the RIIB. Further proceedings regarding this issue are discussed supra.

Following the technical session, the Commission made further enhancements to the Modified PIM ("Final PIM").[146] The Commission noticed the Final PIM for public comment.[147] In requesting public comment, the Commission further detailed the objectives it sought to address in its proposed incentive mechanism. The Commission sought to design the mechanism to address the following:

> 1. Create a signal or guardrail to disincentivize spending above the planned budget;
> 2. Focus National Grid's implementation on creating net benefits that maximize electric and gas customers' share of low-risk quantifiable, verifiable net benefits and limit National Grid's share of more risky net benefits and societal benefits;
> 3. Provide National Grid the same degree of financial incentive for delivering the proposed program as was proposed in the Combined Plan;
> 4. Reduce potential volatility in outcomes created by the sharp transitions at 65% achievement of sector targets that were reflected in the original Modified PIM and provide an incentive for National Grid to achieve savings targets in the Market Residential and Income-Eligible Sectors; and
> 5. Provide National Grid an opportunity to earn an incentive in all sectors, even those for which the approved plan is not expected to create incentive-eligible net benefits and thus are subject to potential service quality adjustments.[148]

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[146] A copy of the Final PIM Proposal that was noticed for public comment is located at http://www.ripuc.ri.gov/eventsactions/docket/5076-PUC PIM Proposal2-18-21.pdf. The Final PIM noticed for public comment included a PowerPoint presentation containing a visual representation of the operation of the Final PIM on a two-dimensional space - broken into four quadrants by two axis - that represented the interplay between the percentage of plan savings achieved varying on the vertical axis and the percentage of planned eligible costs varying on the horizontal axis. The Final PIM also included "boundary rules" that defined locations within the four quadrants where the application of the PIM changed. A similar plane of benefits vs. costs was used to represent a service quality adjustment – where low achievement of eligible net benefits and high percentage of spending would result in a decrease in the performance incentive.

[147] A copy of the Notice to Solicit Comments at http://www.ripuc.ri.gov/eventsactions/docket/5076-Notice to Solicit Comments 2-18-21.pdf.

[148] *Id.* The Commission specifically requested that the parties consider and comment on the following:

> 1. Anything that remains unclear about the Commission PIM Proposal.
> 2. The allocation of regulatory costs.
> 3. Whether the graduations included in the Commission PIM Proposal adequately address the concerns about abrupt changes in the prior proposal.
> 4. Whether certain gas resource benefits should be categorized as system benefits.
> 5. Whether the PUC should adopt the Commission PIM Proposal for one or three years. If adopted for three years, what, if any, parts of the Commission PIM Proposal would change each year, and what would National Grid need to establish prior to the PUC adopting the Commission PIM Proposal for three years.
> 6. What, if any, impact would the Commission PIM Proposal have on National Grid's ability to deliver programs to renters.
> 7. To what extent should the rules pertaining to the ability of the Company to transfer funds between programs be modified? Is the requirement that the Commission approve certain transfers necessary in light of the Commission PIM Proposal?

On February 25, 2021 the Commission convened a staff-led workshop to allow the parties to ask Commission staff clarifying questions directed at understanding how the Final PIM functions. Following the workshop, OER, the Division, EERMC, the Acadia Center, and National Grid filed written comments with the Commission.

B. Transfer to RIIB

On February 4, 2021, the PUC convened a technical session to further review the transfer of SBC funds to the RIIB. The Commission reviewed the loan payback schedules and availability of recycled funds and attempted to get a greater understanding of how the transferred funds were utilized, how the benefits were calculated, and whether the transferred funds resulted in incremental energy efficiency.

C. Findings

On April 29, 2021, the Commission convened an open meeting to address the Performance Incentive Mechanism, the transfer to RIIB, and remaining issues in the docket.

The Commission addressed the Parties' written comments regarding the Final PIM. First, the Commission noted that the general tone of some of the parties' comments expressed concern with the changes made to the Proposed PIM, in particular the Commission's focus on energy system benefits over the broader set of benefits the Parties had proposed. The Commission noted that these comments mischaracterized the Commission's proposal and confused the record regarding the goals and intentions of the Proposed PIM and the Commission's modifications to the PIM Proposal. Contrary to the Proposed PIM, the Commission's modifications are consistent with long-standing practice and regulatory goals. The Proposed PIM departed from the past practice in seeking to reward National Grid for oil savings, other resource savings, and societal

benefits, while the Commission's proposal is consistent with longstanding regulatory practice of holding National Grid accountable for kilowatt, kWh, and therm savings. Furthermore, the regulatory goal of the 2021 Annual Plan was clearly established by the Commission as kilowatt, kWh, and therm savings in Docket 5023. The Proposed PIM was not aligned with that decision. Finally, the Commission has consistently held that a performance incentive must hold the utility accountable for ratepayer savings – the Final PIM attempts to do just that.

The Commission then reviewed specific comments and discussed and accepted modifications suggested by the parties. First, the Commission agreed with EERMC that there was an undefined boundary area in Quadrant 4 that was not covered by either Rule 1 or 3.[149] The Commission corrected this omission by applying Rule 1 in the vertical space up to the horizontal axis and Rule 3 in the horizontal space.

Second, the Division was concerned that National Grid could achieve its performance incentive in certain sectors without actually executing on the approved plan.[150] The Commission agreed and corrected this possibility by removing step 2 from the Electric and Gas Energy Efficiency Service Quality Adjustment Steps of the Final PIM.

Third, the Division had noted that certain impacts that were classified as non-energy impacts, such as income eligible, reduced arrearages, bad-debt write-offs, terminations and reconnections, notices, and safety related emergency calls, were actually power system impacts that benefit all customers.[151] The Commission agreed and accepted the reclassification of the benefits identified by National Grid in Post-Hearing Data Request 2-1 as power system benefits

[149] *See* page 4 of EERMCs comments, March 18, 2021; http://www.ripuc.ri.gov/eventsactions/docket/5076-EERMC-Comments 3-18-21.pdf.
[150] http://www.ripuc.ri.gov/eventsactions/docket/5076-DIV-Comments-PIMs (3-19-21).pdf.
[151] http://www.ripuc.ri.gov/eventsactions/docket/5076-DIV-Comments-PIMs (3-19-21).pdf.

and adopted the numbers provided by National Grid in Revised Table 7 and Revised Table 9 in Post-Hearing Data Request 2-1.

Fourth, National Grid pointed out typographical errors in Rules 2 and 3 which the Commission accepted.[152]

Finally, the Commission noted that the market residential gas sector had a small amount of expected benefits. Originally the Commission did not have a service quality adjustment applied to that sector. The Commission was concerned that National Grid might not focus on that sector and corrected this by adopting a service quality adjustment for market residential gas and set the design service achievement equal to the cost of that program.

The Commission adopted the Final PIM with the five approved modifications. The Commission believed the Final PIM addressed its concerns regarding budget discipline by providing a disincentive to spending above the planned budget, provided National Grid with financial incentive to deliver the Annual Plan as proposed, and focused the energy efficiency program on creating power system benefit. Overall, the Commission found that the Final PIM - which ensured that customers and National Grid were sharing real avoided cash benefits - was a fair deal for both customers and National Grid.

The Commission also approved the Final PIM for program years 2022-2023 with the qualification that the Parties may provide evidence for its continuation or modification in program years 2022 and 2023. The Commission's expectation is that the parties would plan for the approved PIM to be applicable for years 2022 and 2023. However, the Commission acknowledged that there could be unexpected issues with the approved PIM or that the parties may discover

[152] http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid Comments on Proposed PIMs (PUC3-19-2021).pdf. National Grid pointed out that Rule 2 should reference column (e) in the first tables on Slides 2 and 3 rather than column (h) and that Rule 3 should "are greater than" rather than "are less than."

improvements that could be made that would warrant the parties seeking modifications to the PIM. However, the Commission would need to see evidence that clearly warrants modification or adjustment.

Finally, the Commission directed the Commission to publish an updated document showing the approved PIM with all of the accepted modifications. Attached to this Order as Appendix A is the approved PIM with all of the accepted modifications.

The Commission approved the inter-sector budget transfer rules proposed in Sections11.4 and 11.5 of the Combined Plan. These transfer rules pertain to parties other than Commission and those parties have mutually agreed amongst themselves to the various notifications and approvals desired by those parties. Regardless of the approved notifications and approvals, the Commission still retains the ability to review deviations from an approved plan after the fact. Moreover, the approved PIM is designed to address spending within each sector and budget management and provides guidance and signals to the parties as to budget parameters.

The Commission also approved the $5 million transfer to RIIB with all previous conditions remaining in place. The Commission noted that there was not sufficient evidence that the transfer resulted in incremental energy efficiency. Rather, a large portion of the transferred funds appeared to be used for project costs other that energy efficiency or are used to subsidize lower interest rates for municipalities. However, the Commission noted that the transfer has broad support amongst the parties and, at this point, would simply consider the transfer as not directly tied to the energy efficiency program.[153] Nevertheless, the Commission ordered National Grid to report in the next Annual Plan and the year-end report whether the transferred funds were used to support

[153] After the Commission's decision, but prior to the issuance of this final order, the annual transfer of funds from ratepayers to the RIIB was codified into law by the General Assembly. *See* H-6144 Sub A/S-634 Sub B (passed on July 1, 2021).

incremental investments and measures included in an approved plan. In addition, National Grid is to report whether or not the amount transferred covers more than the participant's contribution for investment measures. Finally, National Grid is to report whether the transfer is cost effective including the cost of any interest rate reduction.

VI. Conclusion

The Commission continues to support the implementation of the portfolio of energy efficiency programs. They have brought national recognition to Rhode Island. All of the stakeholders, including the utility, OER, the EERMC, and other intervenors who have been actively involved in planning are to be commended for the extensive amount of work and effort that has been dedicated to the continuation and enhancement of the programs. The most compelling reason for supporting the annual rise in energy efficiency program budgets since the inception of energy efficiency is that that for many years the program has been the most cost-effective way to lower the overall bills of all ratepayers over time – not just the bills of the individual customers participating in the given program year. Unfortunately, the bill impact data that was provided in this year's program shows that there are several programs that do not meet this standard. In other words, while they achieve desirable benefits, several of the programs are simply not lowering electric and natural gas bills for the large body of ratepayers. This does not mean that those programs cannot be approved. The reason is that there are other desirable benefits. Yet, bill impacts on ratepayers caused by substantial, year-over-year increases in budgets and investment for energy efficiency must be taken into account when determining the prudence of a Plan. In fact, the PUC's LCP Standards require rate and bill impact assessments to support a finding that a Plan is prudent. Further, for even those programs forecasted to eventually save costs for ratepayers, many do not reach the payback period for many years in the future. Thus, for the near term, increasing budgets

increase the bills to a wide body of ratepayers immediately, on the assumption of savings many years later. This also represents an investment made by ratepayers that comes with risk, an issue also reflected as a consideration in the LCP Standards relating to prudency in Section 1.3(E)(i)(c).

This concern becomes more pronounced when considering the sharp escalation in energy efficiency budgets since 2018. Specifically, the combined electric and gas energy efficiency proposed budgets have grown from approximately $123 million in 2018, to $139 million in 2019, to $145 million in 2020. In turn, the Company was proposing yet another substantial increase with the proposed combined budget for 2021 filed at $161 million in the initial filing.

While the parties in this case were focused on energy efficiency in isolation, the Commission addresses electric and natural gas rates in a much broader context and must monitor their overall trajectory caused by many factors. And in that context, we are experiencing substantial upward pressure on rates that cause great concern from ratepayers generally in many areas not related to energy efficiency.

Related to the concern of the trajectory of electric rates is another emerging policy issue. Specifically, we are at a transition point where the State of Rhode Island has formal and informal goals to move away from fossil fuels by encouraging the electrification of the transportation and heating sectors. One of the challenges to meeting this objective is the cost of electricity. As a practical matter, it will become very difficult to persuade people to convert from their fossil-fueled heating systems to heating technologies that rely upon electricity if doing so causes a substantial spike in the annual cost of heating on the family budget. Rising electricity costs make this daunting challenge even more pronounced.

In addition to the program budget for 2021, National Grid also proposed increases in the illustrative budgets for the 2022 and 2023 program years that were significantly higher than

historical average increases. The illustrative limit of 5% adopted by the Commission still assumes meaningful increases on an already robust budget, but it tempers the effect that recovery of the program costs through rates has on the pace of escalating electric and natural gas bills for Rhode Islanders. While the increases in rates are driven by numerous factors, the energy efficiency program should be tempering increases through least-cost procurement, not incrementally adding to the increases.

The targeted 5% increase in budget is illustrative and non-binding. Thus, the utility may propose a budget that deviates from that 5% target. Nevertheless, the utility and stakeholders should be mindful that the bar is very high for the utility to obtain approval of a budget that is higher than the non-binding 5% target and the Commission needs to be satisfied that such an increase is in the best interest of ratepayers. In that regard, the starting point for consideration of a higher budget needs to be founded upon evidence that facts or other information presented at the time when the PUC set the target have since changed.

Finally, there is the issue of how the utility makes its spending decisions during the year. The Commission is mindful of the rigorous process that the staff and members of the EERMC undertake to review the programs proposed by the utility, and greatly appreciate the efforts to assure that the cost per kWh of savings for each program are driven downward in the planning stages. However, once the planning process ends and the budgets are established, the responsibility for delivery of the programs at reasonable cost rests on the utility. For that reason, the Commission believes there must be a clear incentive for the utility to deliver the programs at least cost to ratepayers after the well-planned programs are launched. In the past, there have been some provisions embedded in the Performance Incentive Mechanism (PIM) which at least partially

recognized the need for some budget control signals. National Grid's Proposed PIM was missing this type of feature.

The negative effects on ratepayers when there are no budget control signals can be illustrated with a simple example. For example, assume the cost to save a kilowatt-hour is over $1.00 per kWh for an individual program (compared to a power and delivery cost of less than 12¢ per kWh). Under the Parties' Proposed PIM, the utility would have retained an incentive to spend over the budget for that individual program at $1.00 per kWh, regardless of its impact on ratepayers' bills. Now that the budgets are reaching substantially heightened levels, it becomes particularly important for regulatory boundaries and incentives to be established on spending that drives prudent program delivery. Thus, placing enhanced controls on the program delivery becomes very important to protect ratepayers.

This is especially true if higher spending can drive higher utility profits because the Company may be rewarded with an incentive payment for achieving incremental net benefits without material regard for how much it cost incrementally, or who paid that cost, or who received that net benefit. It is for this reason, among others, that the Commission approved the Final PIM. The Final PIM is now designed to encourage prudent spending decisions that drive benefits at least cost.

In the end, the budget that was approved for 2021 was still the highest budget ever approved in the more than 20-year history of ratepayer-funded energy efficiency programs in Rhode Island and the programs as planned remained substantially intact. Moreover, an annual increase of 5% per year would continue a significant upward trajectory of spending that could not fairly be described by any objective standard as pulling back from this program. We just need to be mindful of the bill impacts on all ratepayers going forward who are being asked to fund a myriad of

important public policy objectives in addition to energy efficiency that will continue to place cumulative upward pressure on rates. Procuring energy efficiency and clean energy at "least cost" among the alternatives has never been more important.

Accordingly, it is hereby

(24225) ORDERED:

1. The 2021-2023 Energy Efficiency and Conservation Procurement Plan is approved with the following modification. The Commission approved illustrative budgets for both electric and gas of 5% annual increases for years 2022 and 2023.
2. The Energy Efficiency Program Plan for 2021 is approved with five modifications. First, National Grid shall utilize an electric sales forecast of 6,606,545,391 kWh consisting of the average of 2020 weather normalized actuals and the 2021 forecast. Second, National Grid shall maintain the budgets for the Non-Income Eligible Residential EnergyWise. Non-Income Eligible Residential EnergyWise Multi-Family, Income Eligible Residential Single Family and Income Eligible Multi-Family Programs for both electric and gas at the 2020 budget levels. Third, National Grid shall remove the funding for the Energy Management Framework Platform. Fourth, National Grid shall remove the $1.05 million incremental funding for workforce development. Fifth, National Grid shall remove the funding for the EV Demand Response Demonstration.
3. The Performance Incentive Mechanism attached as Appendix A shall apply to the 2021 Annual Plan and to the 2022 and 2023 Annual Plans. National Grid may propose modifications or adjustments in the 2022 and 2023 Annual Plans if well supported and justified.

4. National Grid shall file the moderate-income classification definition and plan, once it is developed, prior to implementation for consideration and examination by the Commission.
5. National Grid may transfer the $5 million to the Rhode Island Infrastructure Bank with all previous conditions remaining in place. National Grid shall report in the next Annual Plan and the year-end report the following: 1) verify that funds were used to support incremental investments and measures included in an approved plan; 2) whether or not the amount transferred covers more than the participants contribution for investment in that measure; and 3) whether it's cost effective including the cost of any interest rate reduction.
6. The Narragansett Electric Company d/b/a National Grid's electric Energy Efficiency Program charge of $0.01113 per kWh is hereby approved for effect on and after January 1, 2021.
7. The Narragansett Electric Company d/b/a National Grid's gas Energy Efficiency Program charges of $0.871per Dth for residential customers and $0.596 per Dth for Commercial and Industrial customers are hereby approved for effect on and after January 1, 2021.

EFFECTIVE AT WARWICK, RHODE ISLAND ON JANUARY 1, 2021 PURSUANT TO OPEN MEETING DECISIONS ON DECEMBER 22, DECEMBER 28, DECEMBER 30, 2020, AND APRIL 29 AND AUGUST 11, 2021. WRITTEN ORDER ISSUED SEPTEMBER 21, 2021.

PUBLIC UTILITIES COMMISSION

Ronald T. Gerwatowski, Chairperson

*Marion S. Gold, Commissioner

Abigail Anthony, Commissioner

***Commissioner Gold participated in this matter but was unavailable for signature.**

NOTICE OF RIGHT OF APPEAL: Pursuant to R.I. Gen. Laws §39-5-1, any person aggrieved by a decision or order of the PUC may, within seven (7) days from the date of the order, petition the Supreme Court for a Writ of Certiorari to review the legality and reasonableness of the decision or order.

APPENDIX A

National Grid may earn a share of the eligible net benefits created in the 2021 Electric and Gas Energy Efficiency Program Plans. The shareholder incentive for each sector is the product of eligible net benefits achieved in the sector, the payout rate, any applicable payout rate adjustments. The shareholder incentive for each sector is subject to earnings caps (for over achievement) and is also subject to adjustments if actual spending exceeds certain thresholds. Finally, some sectors are subject to a service quality adjustment, the sum of which will not exceed the incentive earned for that Program Plan.

Applicable parameters and conditions are as follows:

I. Eligible Benefits include:
- Electric Utility System Benefits, including non-utility impacts related to Income Eligible Residential programs with 100% weight
- Resource Benefits with 50% weight

II. Eligible Costs include
- Program Planning & Administration;
- Marketing;
- Cost of services and product rebates/incentives provided to customers;
- Sales, Technical Assistance & Training, and
- Regulatory costs for OER and EERMC (this cost is spread evenly among the three sectors).

III. The payout rates for eligible net benefits are sector-based and are related to target shareholder incentive (in parentheses):
a. Electric
    i. Non-Income Eligible Residential: 25% ($500,000)
    ii. Income Eligible Residential: 25% ($500,000)
    iii. Commercial and Industrial: 6.14% ($5,500,000)
b. Gas
    i. Non-Income Eligible Residential: 81.8674% ($100,000)
    ii. Income Eligible Residential: 25% ($500,000)
    iii. Commercial and Industrial: 17.1316% ($1,600,000)

IV. Sectors have payout caps that are 125% of the target shareholder incentive:
a. Electric
    i. Non-Income Eligible Residential: $625,000
    ii. Income Eligible Residential: $625,000
    iii. Commercial and Industrial: $6,875,000
b. Gas
    i. Non-Income Eligible Residential: $125,000
    ii. Income Eligible Residential: $625,000
    iii. Commercial and Industrial: $2,000,000

V. Payout rates are adjusted up with increasing achievement of net benefits relative to the target achievement in each sector. The achievements thresholds and adjustment factors are the same for all sectors and are:
   a. Relative achievement is below 25%: factor = 0 (i.e., no incentive)
   b. Relative achievement is 25% to below 50%: factor = relative achievement/100+ 0.1
   c. Relative achievement is 50% to below 75%: factor = relative achievement/100+ 0.25
   d. Relative achievement is 75% or greater: factor = 1 (i.e., no adjustment)

VI. The target achievement of eligible net benefits (at which National Grid earns the target shareholder incentive) are:
   a. Electric
      i. Non-Income Eligible Residential: $2,000,000 to earn $500,000
      ii. Income Eligible Residential: $2,000,000 to earn $500,000
      iii. Commercial and Industrial: $89,510,198 to earn $5,500,000
   b. Gas
      i. Non-Income Eligible Residential: $122,149 to earn $100,000
      ii. Income Eligible Residential: $2,000,000 to earn $500,000
      iii. Commercial and Industrial: $9,339,492 to earn $1,600,000

VII. For each sector:
   a. if actual spending is less than the planned spending, or if actual spending is less 105% of planned spending and achievement is less than 100% of the target no further adjustments apply;
   b. if spending is greater than 100% of planned spending and achievement is equal to or less than 95% of the target, the shareholder incentive will be adjusted down;
   c. if:
      i. actual spending is greater than planned spending,
      ii. achievement is greater than 95% of the target, and
      iii. overspending is greater than overachievement,
      then the shareholder incentive is the target incentive;
   d. if:
      i. actual spending is greater than planned spending,
      ii. achievement is greater than of the target, and
      iii. relative overachievement is greater than relative overspending
      then the bonus shareholder incentive for overachievement will be adjusted down.

VIII. The following sectors are subject to Service Quality Plans, non-achievement of which will result in a reduction in the total earned shareholder incentive. The eligible benefits (rather than eligible net benefits) necessary to meet the target service achievement are:
   a. Electric
      i. Non-Income Eligible Residential: $33,287,475
      ii. Income Eligible Residential: $9,095,749
   b. Gas
      i. Non-Income Eligible Residential: $14,712,461
      ii. Income Eligible Residential: $5,369,343

IX. The maximum (downward) adjustment in each sector for performance below the target is:
   a. Electric
      i. Non-Income Eligible Residential: $1,251,250
      ii. Income Eligible Residential: $715,000
   b. Gas
      i. Non-Income Eligible Residential: $386,750
      ii. Income Eligible Residential: $276,250

X. Service quality adjustment decreases with increasing achievement of benefits relative to the target. This decrease is the same for all applicable sectors and is as follows:
   a. Adjusted relative achievement is below 65%: factor = 1 (i.e., maximum adjustment)
   b. Adjusted relative achievement is 65% to below 95%: factor = (95-Adjusted Achievement)/30
   c. Adjusted relative achievement is 95% or greater: factor = 0 (i.e., no adjustment)

XI. If the ratio of actual benefits to target benefits is 5% greater or less than the ratio of actual spending to planned costs, the service quality achievement will be adjusted as follows:

Adjusted relative achievement = Actual relative achievement * (1+ Performance Variance), Where:

$$\text{Performance Variance} = \frac{\text{Actual Benefits}}{\text{Design Achievement}} - \frac{\text{Spending}}{\text{Planned Eligible Cost}}$$

XII. Each sector's applicable service quality adjustment is calculated separately from its performance incentive.

XIII. The sum of service quality adjustments will be subtracted from the sum of the performance incentives to calculate the total incentive for the Electric and Gas Energy Efficiency Plans. If the sum of the service quality adjustments is greater than the total incentive, the total incentive is zero, and will not be negative.

Electric Energy Efficiency Performance Incentive

Sector PI = min{ Payout Cap(j), [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(i)] }

	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performanc e Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a) 100% Electric Utility System Benefits	(b) 50% Resource Benefits—	(c) As proposed + planned Regulatory costs	(d) =(a)+(b)-(c)	(e) Net benefits at which design incentive pool is achieved	(f)	(g) =(f)/(e)	(h) Achievement levels at which the Payout Rate Adjustments in (i) will be applied	(i) Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)	(j) =1.25*(f) Cap on sector payout regardless of achievement in sector	(k) Yes if (d) ≤ 0; No if (d) >0 See Service Quality Table
Mkt. Res.	$26,990,559	$6,296,916	$35,277,973	-$1,990,498	$2,000,000	$500,000	25%	a. Achievement < 25% b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement • Spending > Planned Eligible Costs	a. 0.0 b. Achievement/100 + 0.1 c. Achievement/100 + 0.25 d. 1.0 • See Boundary Rules	$625,000	Yes
IES	$5,949,644	$3,146,105	$16,887,402	-$7,791,653	$2,000,000	$500,000	25%			$625,000	Yes
C&I	$147,525,068	-$3,895,269	$54,119,601	$89,510,198	$89,510,198	$5,500,000	6.145%			$6,875,000	No

Electric Energy Efficiency Service Quality Adjustment

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a) 100% Electric Utility System Benefits	(b) 50% Resource Benefits	(c) As proposed + planned Regulatory costs	(d)	(e) Maximum downward adjustment to earned incentive	(f) Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)	(g) Factor to scale program achievement that fall within the ranges in (f)	(h) Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Mkt. Res.	$26,990,559	$6,296,916	$35,277,973	$33,287,475	$1,251,250	a. Adjusted Achievement < 65% b. 65% ≤ Adjusted Achievement < 95% c. 95% ≤ Adjusted Achievement	a. 1 b. (95-Adjusted Achievement)/30 c. 0	Performance Variance = $\frac{\text{Actual Benefits}}{\text{Design Achievement}} - \frac{\text{Spending}}{\text{Planned Eligible Cost}}$ If the absolute value(Performance Variance) ≤ 0.05, • Then Adjusted Achievement = Actual Achievement • Else Adjusted Achievement = Actual Achievement * (1+ Performance Variance)
IES	$5,949,644	$3,146,105	$16,887,402	$9,095,749	$715,000			
C&I	N/A	N/A	N/A	N/A	N/A			

Gas Energy Efficiency Performance Incentive

Sector PI = min{ Payout Cap(j), [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(i)] }

	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performance Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a) 100% Electric Utility System Benefits	(b) 50% Resource Benefits	(c) As proposed + planned Regulatory costs	(d) =(a)+(b)-(c)	(e) Net benefits at which design incentive pool is achieved	(f)	(g) =(f)/(e)	(h) Achievement levels at which the Payout Rate Adjustments in (i) will be applied	(i) Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)	(j) =1.25*(f) Cap on sector payout regardless of achievement in sector	(k) Yes if (d) ≤ 0; No if (d) >0 See Service Quality Table
Mkt. Res.	$14,388,455	$446,155	$14,712,461	$122,149	$122,149	$100,000	81.867%	a. Achievement < 25% b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement • Spending > Planned Eligible Costs	a. 0.0 b. Achievement/100 + 0.1 c. Achievement/100 + 0.25 d. 1.0 • See Boundary Rules	$125,000	Yes
IES	$5,249,197	$147,146	$9,145,150	-$3,748,806	$2,000,000	$500,000	25%			$625,000	Yes
C&I	$18,271,480	$205,019	$9,137,008	$9,339,492	$9,339,492	$1,600,000	17.132%			$1,800,000	No

Gas Energy Efficiency Service Quality Adjustment

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a) 100% Electric Utility System Benefits	(b) 50% Resource Benefits	(c) As proposed+ planned Regulatory costs	(d)	(e) Maximum downward adjustment to earned incentive	(f) Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)—	(g) Factor to scale program achievement that fall within the ranges in (f)	(h) Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Mkt. Res.	$14,388,455	$446,155	$14,712,461	14,712,461	$386,750	a. Adjusted Achievement < 65% b. 65% ≤ Adjusted Achievement < 95% c. 95% ≤ Adjusted Achievement	a. 1 b. (95-Adjusted Achievement)/30 c. 0	Performance Variance = $\frac{\text{Actual Benefits}}{\text{Design Achievement}} - \frac{\text{Spending}}{\text{Planned Eligible Cost}}$ If the absolute value(Performance Variance) ≤ 0.05, • Then Adjusted Achievement = Actual Achievement • Else Adjusted Achievement = Actual Achievement * (1+ Performance Variance)
IES	$5,249,197	$147,146	$9,145,150	$5,396,343	$276,250			
C&I	N/A	N/A	N/A	N/A	N/A			

Electric and Gas Energy Efficiency Performance Incentive
Performance Space Boundary Rules (Same as proposed by Cmr. AWA)

RULE 1: **When sector-level spending is equal to or less than Planned Eligible Costs (column c) do no further adjustments.**

RULE 2: **When sector-level spending exceeds the Planned Eligible Costs (column c) and net benefits achieved exceed the sector Design Performance Achievement (column e) and the overachievement exceeds the overspending:**

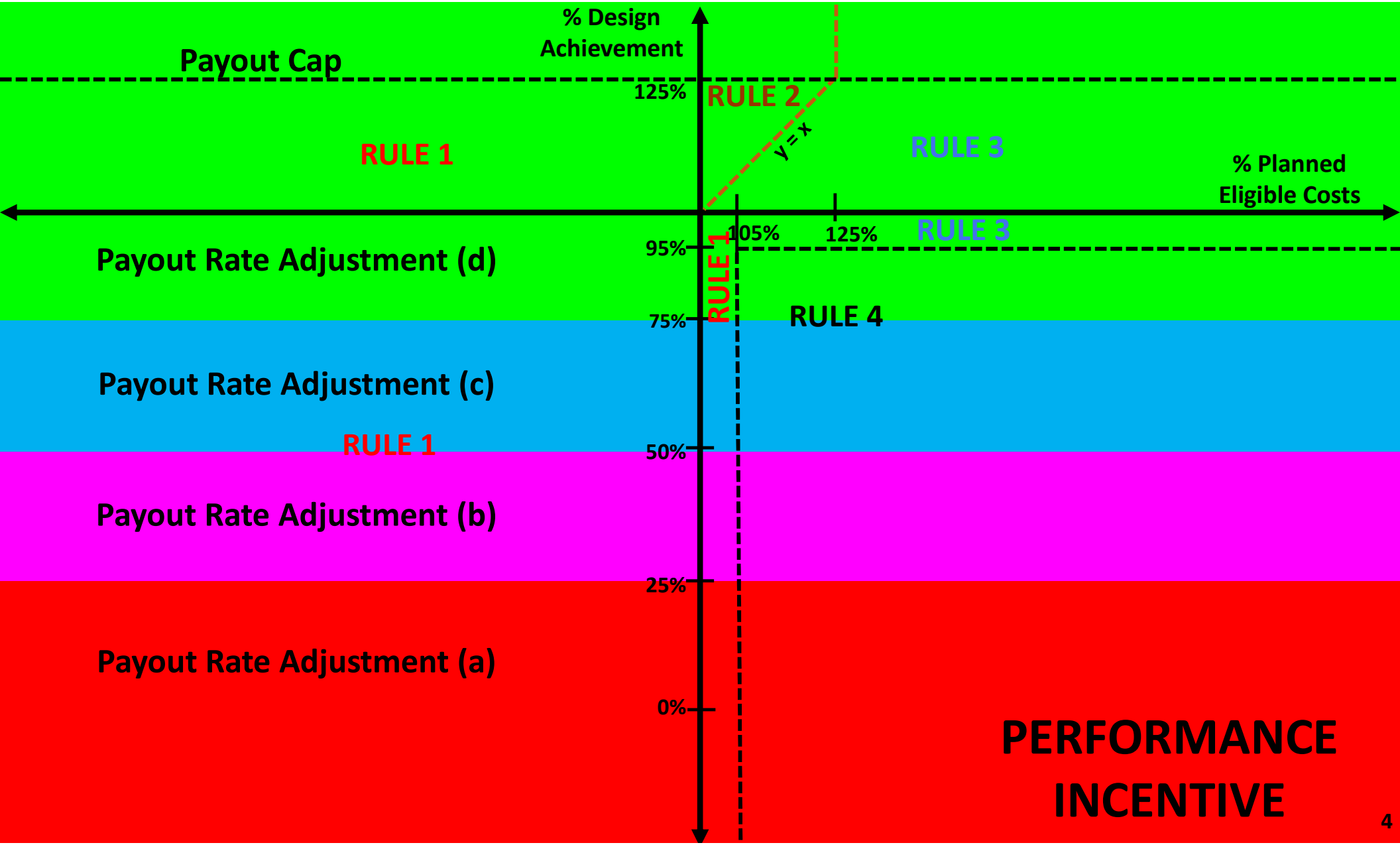
- **The outcome is above the theoretical planned performance line y=x in "Quadrant I"**
- **For every 1% that the spending exceeds the Planned Eligible Costs the sector Design Performance Payout (column f) applied to incremental net benefits above 100% of Design Performance Achievement will decrease by an amount equal to the Design Performance Payout divided by 25.**

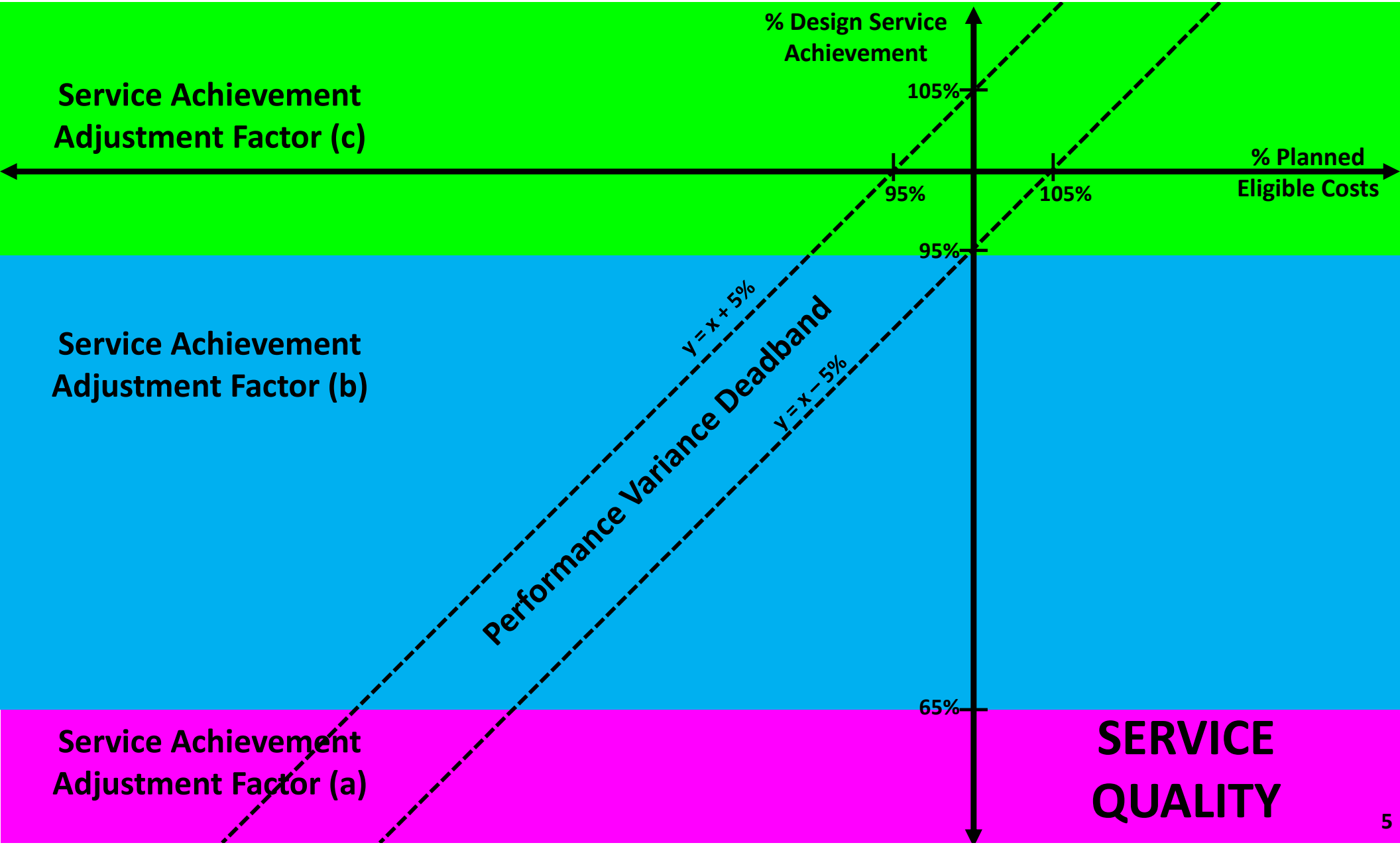
RULE 3: **When sector-level spending exceeds Planned Eligible Costs and net benefits achieved in the sector are greater than the sector Design Performance Achievement and the overspending exceeds the overachievement:**

- **The outcome is below the theoretical planned performance line y=x in "Quadrant I"**
- **National Grid is not eligible for an incentive on incremental net benefits that exceed 100% of Design Performance Achievement.**

RULE 4: **When sector-level spending exceeds the Planned Eligible Costs by more than 5% and net benefits achieved in the sector are below 95% sector Design Performance Achievement**

- **The outcome is below the theoretical planned performance line y=x in "Quadrant IV"**
- **For every 1% that the spending exceeds the Planned eligible Costs the sector Design Performance Payout, will decrease by an amount equal to the Design Performance Payout divided by 25.**


Payout Cap
% Design Achievement
125%
RULE 2
RULE 1
y = x
RULE 3
% Planned Eligible Costs
105%
125%
RULE 3
95%
RULE 1
Payout Rate Adjustment (d)
75%
RULE 4
Payout Rate Adjustment (c)
RULE 1
50%
Payout Rate Adjustment (b)
25%
Payout Rate Adjustment (a)
0%
PERFORMANCE INCENTIVE


Service Achievement Adjustment Factor (c)
Service Achievement Adjustment Factor (b)
Service Achievement Adjustment Factor (a)
% Design Service Achievement
105%
95%
% Planned Eligible Costs
95%
105%
65%
y = x + 5%
y = x – 5%
Performance Variance Deadband
SERVICE QUALITY

Electric and Gas Energy Efficiency Sector Performance Incentive Steps (for each Sector)

1. **Calculate the Achievement by dividing Actual Net Benefits by the Design Performance Achievement (column e).**
2. **Compare the Achievement to the Design Payout Rate Thresholds (column h) to determine applicable Payout Rate Adjustment (column i).**
3. **Determine which Performance Space Boundary Rule applies by comparing actual spending to the Planned Eligible Costs (column c).**
4. **Calculate the Potential Performance Incentive according to the applicable Boundary Rule:**

   Potential Performance Payout = …

   RULE 1: … Actual Net Benefits* Design Payout Rate * Payout Rate Adjustment

   RULE 2: … Design Performance Payout + { (Actual Net Benefits - Design Performance Achievement) * Design Payout Rate * Payout Rate Adjustment * [1 - 4 * round down to nearest 0.01 $\left(\frac{\text{Spending} - \text{Planned Eligible Cost}}{\text{Planned Eligible Cost}}\right)$ **] }**

   RULE 3: … Design Performance Payout

   RULE 4: … Actual Net Benefits* Design Payout Rate * Payout Rate Adjustment * [1 - 4 * round down to nearest 0.01 $\left(\frac{\text{Spending} - \text{Planned Eligible Cost}}{\text{Planned Eligible Cost}}\right)$ **]**

5. **Determine the Sector Performance Incentive as the lesser of the Potential Performance Payout and the Payout Cap (column j)**

Electric and Gas Energy Efficiency Service Quality Adjustment Steps (for Applicable Sectors)

1. **Determine if the sector is subject to a Service Quality Adjustment (column h).**

2. **Calculate the Achievement by dividing actual benefits by the Design Service Achievement (column d).**

3. **Calculate the Performance Variance:**

$$\text{Performance Variance} = \frac{\text{Actual Benefits}}{\text{Design Achievement}} - \frac{\text{Spending}}{\text{Planned Eligible Cost}}$$

4. **Determine the Adjusted Achievement:**

   If -0.05 ≤ Performance Variance ≤ 0.05, then Adjusted Achievement = Achievement

   Else, Adjusted Achievement = Achievement * (1 + Performance Variance)

5. **Compare the Adjusted Achievement to the Service Adjustment Thresholds (column f) to determine applicable Service Achievement Scaling Factor (column g).**

7. **Calculate the Sector Service Quality Adjustment:**

   Sector Service Quality Adjustment = Maximum Service Adjustment * Service Achievement Scaling Factor

Electric and Gas Energy Efficiency Performance Incentive Steps (for each Utility)

1. **Calculate the Total Potential Performance Incentive as the sum of the Sector Performance Incentives for the utility service (positive outcomes only; negative outcomes are treated as zero).**
2. **Calculate the Total Service Quality Adjustment as the sum of the Sector Service Quality Adjustments for the utility service.**
3. **Calculate the Adjusted Total Performance Incentive by subtracting the Total Service Quality Adjustment from the Total Potential Performance Incentive.**
4. **Determine the Final Performance Incentive for the utility service as the greater of zero and the Adjusted Total Performance Incentive.**