



September 25, 2020

VIA ELECTRONIC MAIL

Honorable Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, NJ 08625-0350

RE: IN THE MATTER OF THE PETITION OF NEW JERSEY NATURAL GAS COMPANY FOR APPROVAL OF ENERGY EFFICIENCY PROGRAMS AND THE ASSOCIATED COST RECOVERY MECHANISM PURSUANT TO THE CLEAN ENERGY ACT, N.J.S.A. 48:3-87.8 et seq. and 48:3-98.1 et seq. BPU DOCKET NO.

Dear Secretary Camacho-Welch:

Enclosed for filing, please find the electronic files containing the petition of New Jersey Natural Gas Company for the approval of energy efficiency and the associated cost recovery mechanism.

In accordance with the Order issued by the Board in connection with I/M/O the New Jersey Board of Public Utilities' Response to the COVID-19 Pandemic for a Temporary Waiver of Requirements for Certain Non-Essential Obligations, BPU Docket No. EO20030254, Order dated March 19, 2020, this document is being electronically filed. No paper copies will follow.

Copies of the petition, including the supporting schedules and testimonies, are also being served electronically upon the New Jersey Division of Rate Counsel and the Division of Law.

Respectfully submitted,

A handwritten signature in blue ink that reads 'Andrew K. Dembia'. The signature is written in a cursive style and is contained within a thin blue rectangular border.

Andrew K. Dembia
Regulatory Affairs Counsel

AKD:sf
Enclosures
C: Service List

**IN THE MATTER OF THE PETITION OF NEW JERSEY NATURAL GAS
COMPANY FOR APPROVAL OF ENERGY EFFICIENCY PROGRAMS AND THE
ASSOCIATED COST RECOVERY MECHANISM PURSUANT TO THE CLEAN
ENERGY ACT, N.J.S.A. 48:3-87.8 et seq. and 48:3-98.1 et seq.
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**STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES**

**IN THE MATTER OF THE PETITION)
OF NEW JERSEY NATURAL GAS) PETITION
COMPANY FOR APPROVAL OF)
ENERGY EFFICIENCY PROGRAMS) BPU DOCKET NO.
AND THE ASSOCIATED COST)
RECOVERY MECHANISM PURSUANT)
TO THE CLEAN ENERGY ACT, N.J.S.A.)
48:3-87.8 et seq. and 48:3-98.1 et seq.)**

**TO: THE HONORABLE COMMISSIONERS OF
THE NEW JERSEY BOARD OF PUBLIC UTILITIES**

New Jersey Natural Gas Company (“NJNG” or the “Company”) respectfully petitions the New Jersey Board of Public Utilities (the “Board” or “BPU”) pursuant to N.J.S.A. 48:3-87.8 et seq. and 48:3-98.1 et seq., as follows:

1. NJNG is a corporation duly organized under the laws of the State of New Jersey and is a public utility engaged in the distribution and transportation of natural gas subject to the jurisdiction of the Board. The Company’s principal business office is located at 1415 Wyckoff Road, Wall Township, New Jersey 07719.

2. Communications and correspondence relating to this filing should be sent to:

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Andrew K. Dembia, Esq., Regulatory Affairs Counsel
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3. Through this Petition and the accompanying schedules and testimonies, NJNG seeks BPU approval of energy-efficiency (“EE”) programs offered through The SAVEGREEN™ Project (“SAVEGREEN”). The proposed programs are described further herein.

4. This Petition (**Exhibit P-1**) is supported by the schedules and exhibits attached hereto and made a part of this Petition:

Schedule NJNG-1	Comparative Balance Sheet
Schedule NJNG-2	Comparative Income Statement
Schedule NJNG-3	Balance Sheet (June 2020)
Schedule NJNG-4	Statement of Revenues
Schedule NJNG-5	Pro-Forma Income Statement
Schedule NJNG-6	Payments to Affiliates
Schedule NJNG-7	Consolidated Tax Adjustment (Confidential information subject to the NDA)
Schedule NJNG-8	Notice of Filing to Counties and Municipalities
Schedule NJNG-9	Proposed Tariff Sheets
Schedule NJNG-10	Draft Public Notice
Schedule NJNG-11	Accounting Entries
Schedule NJNG-12	Proposed Budget in New Jersey’s Clean Energy Program Format
Schedule NJNG-13	Evaluation, Measurement, and Verification (“EM&V”)
Schedule NJNG-14	Listing of Minimum Filing Requirements
Schedule NJNG-15	Non-Disclosure Agreement (“NDA”)
Schedule NJNG-16	Overview of Implementation Plan
Schedule NJNG-17	Reporting Plan

Schedule NJNG-18 Overview of Workforce Development

Schedule NJNG-19 Overview of Statewide Coordinator

Exhibit P-2 Testimony of Anne-Marie Peracchio (Program Description)

Schedule AMP-1 Summary of Existing and Proposed Incentives for NJNG Programs

Schedule AMP-2 Summary of Financing for NJNG Programs

Schedule AMP-3 Complaint Resolution Process for NJNG Programs

Schedule AMP-4 Summary of Customer Access to Current and Historic Energy Usage Data

Schedule AMP-5 Summary of Market Barriers

Schedule AMP-6 Savings Target Schedule

Exhibit P-3 Testimony of James M. Corcoran

Schedule JMC-1 SAVEGREEN Investments

Schedule JMC-2 Cost of Capital

Schedule JMC-3 Revenue Requirements Summary and Projected Bill Impact Workpapers

Exhibit P-4 Testimony of Brendon J. Baatz

Exhibit BJB-1 Baatz Resume

Exhibit BJB-2 NJNG Cost Effectiveness Results

Exhibit BJB-3 Cost Effectiveness Analysis Workpapers (Confidential information subject to the NDA)

Exhibit BJB-4	Summary of Avoided Emissions Results
Exhibit BJB-5	Summary of Economic Development and Job Creation
Exhibit BJB-6	Cost to Achieve Results
Exhibit BJB-7	Summary of Quantitative Performance Indicators
Exhibit BJB-8	NJNG Energy Savings Target Development Schedule

Exhibit P-5 Program Plan (Detailed Program Description)

Background

5. On May 23, 2018, Governor Murphy signed into law the Clean Energy Act of 2018, P.L. 2018, c. 17 (“CEA”).¹ The CEA supports and expands upon prior legislation enacted in 2008 (“2008 RGGI Legislation”).² The CEA calls for a significant overhaul of New Jersey’s energy systems while growing the economy, building sustainable infrastructure, creating well-paying local jobs, reducing carbon emissions, and improving public health to ensure a cleaner environment for current and future residents. The CEA plays a key role in achieving the State’s goal of 100% clean energy by 2050 by establishing aggressive energy reduction requirements, among other clean energy strategies. Pursuant to the CEA, the Board issued a comprehensive Decision and Order regarding the establishment of EE and Peak Demand Reduction (“PDR”) Programs and directed the utilities to

¹ P.L. 2018, c. 17 (N.J.S.A. 48:3-87.8 et seq.).

² In the 2008 RGGI Legislation, the New Jersey Legislature found that New Jersey can help to address the global-warming problem through the establishment of energy-efficiency and conservation programs as well as Class I renewable energy programs. An additional finding in the 2008 RGGI Legislation highlights that public utilities in New Jersey need to be involved with and participate in efforts to reduce greenhouse gas emissions, specifically through the establishment of energy-efficiency, conservation and renewable energy programs. The active participation of New Jersey utilities provides an integral element in developing a coordinated approach to successfully reducing energy usage. Section 13 of the 2008 RGGI Legislation, N.J.S.A. 48:3-98.1a (1), establishes that an electric or natural gas utility can offer and invest in regulated energy-efficiency and conservation programs and provides that the utility may file with the BPU for approval of the recovery of costs related to such programs. That recovery may include a return on equity, the establishment of incentives and the development of a rate mechanism that breaks the link between utility revenues and customer usage. The eligible ratemaking treatment can provide for the inclusion of certain related investments in rate base or the recovery of such costs through another BPU-approved method.

establish EE and PDR Programs.³ As stated by the Board, this action by the Governor came at a critical time in our global fight against climate change and set New Jersey on a path to once again be a leader in charting a course towards a greener future.⁴

6. The Board, in its CEA Order, believes New Jersey faces significant threats from climate change and, more recently, the health and economic impacts of COVID-19; now, more than ever, EE will assume a vital role in the State's response to both. EE helps reduce greenhouse gas ("GHG") emissions and mitigate climate impacts while bolstering the economy, a necessary co-benefit during this global crisis. EE projects are labor intensive, and increased achievement of EE will greatly strengthen the job market. EE projects also reduce energy use and can reduce energy bills, allowing customers to use those funds elsewhere, including injecting them back into the economy. While EE already employs over 36,000 people in New Jersey, it ranks near the bottom of U.S. states in EE jobs per capita.⁵ The robust goals of the CEA and this EE transition are expected to spur substantial growth in EE jobs. In addition to creating thousands of green jobs, EE also provides long term benefits for participants, such as reducing utility bills and improving health, comfort, and safety.

7. As set forth in the CEA Order, the CEA emphasizes the importance of EE and PDR and calls upon New Jersey's electric and gas public utilities⁶ to play an increased role in delivering EE and PDR programs to customers. The CEA requires each utility in the state to reduce the use of electricity and natural gas in its service territory. Specifically, the CEA directs the BPU to require that:

³ See, In The Matter Of The Implementation Of P.L. 2018, c. 17 Regarding The Establishment Of Energy Efficiency And Peak Demand Reduction Programs, et al; Order Directing The Utilities To Establish Energy Efficiency And Peak Demand Reduction Programs ("CEA Order"), BPU Docket Nos. QO19010040; QO19060748; and QO17091004. (June 10, 2020).

⁴Id at 2.

⁵ CEA Order at 2, fnt 2; <https://e4thefuture.org/wp-content/uploads/2019/09/Energy-Efficiency-Jobs-in-America-2019.pdf>

⁶Id., fnt 3, New Jersey's electric and gas public utilities include Atlantic City Electric Company ("ACE"), Butler Power and Light Company ("Butler"), Elizabethtown Gas Company ("Elizabethtown"), Jersey Central Power & Light Company ("JCP&L"), New Jersey Natural Gas Company ("NJNG"), Public Service Electric and Gas Company ("PSE&G"), Rockland Electric Company ("RECO"), and South Jersey Gas Company ("SJG") (collectively, "utilities").

- (a) each electric public utility to achieve, within its territory by its customers, annual reductions of at least 2% of the average annual electricity usage in the prior three years within five years of implementation of its electric energy efficiency program; and
- (b) each natural gas public utility to achieve, within its territory by its customers, annual reductions in the use of natural gas of at least 0.75% of the average annual natural gas usage in the prior three years within five years of implementation of its gas energy efficiency program.⁷

8. The CEA also notes that the Board may mandate reductions that exceed 2% of the average annual usage for electricity and 0.75% of the average annual usage for natural gas for the prior three years, pursuant to the market potential study until the reduction in energy usage reaches the full economic, cost-effective potential in each service territory, as determined by the Board.

9. EE is also one of the seven key strategies identified in New Jersey's 2019 Energy Master Plan⁸ ("EMP") and will play an essential role in meeting the State's long-term clean energy goals. According to the Board's CEA Order, EE initiatives are one of the easiest and cheapest resources in our fight against the global climate crisis. EE programs are available for all sectors and offer a wide variety of targeted incentives for residents and businesses with varying needs throughout the state.

10. As set forth in the CEA Order, in addition to setting New Jersey on a path to 100% clean energy by 2050 as laid out in the EMP, New Jersey must meet targets set forth in the CEA in a way that is consistent with the principles expressed in both documents. To this end, the EE transition is designed with the following primary objectives:

⁷ Id., ftnt 4, N.J.S.A. 48:3-87.9(a).

⁸ Id at 3, ftnt 5, https://www.nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf.

- Afford access to EE programs for all market segments and for all New Jersey residents and businesses, regardless of geographic location;
- Decrease energy burdens for all ratepayers, with a specific focus on increasing affordability for lower income customers and those living in environmental justice communities;
- Ensure that low and moderate-income communities share the same level of access to the benefits associated with EE investments as wealthier communities;
- Increase accountability and reporting of spending and savings related to EE and peak demand reduction;
- Reduce costs for energy saved through reliable and consistent program delivery;
- Reduce administrative costs passed through to ratepayers; and
- Expand job opportunities and increased economic benefits of EE for New Jersey.

11. The CEA also calls for the Board to adopt programs that “ensure universal access to energy efficiency measures, and serve the needs of low-income communities,” and the EMP establishes that the State’s priorities in developing its statewide EE structure are affordability, equity, environmental justice, economic development, decarbonization, and public health.⁹ This framework for the next generation of EE programs seeks to reduce the inequity currently experienced by groups and individuals across New Jersey who disproportionately lack access to energy-efficient housing, appliances, and technologies. The lack of access is often reflected in a household’s energy burden. Research has shown that the average low-income household devotes more than three times of their income to energy bills than the average higher income household.¹⁰ Families who face higher energy

⁹ Id, ftnt 6, N.J.S.A.48:3-87(g). On September 9, 2020, the BPU released the proposed plans for NJCEP FY21 which included \$4.5 million budget for Workforce Development initiatives but no details regarding the plans for the proposed program have been released.

¹⁰ Id, ftnt 7, <https://www.energy.gov/eere/slsc/low-income-community-energy-solutions>

burdens experience many negative long-term effects, a reality that has been exacerbated by the recent pandemic.

12. As stated in the CEA Order, New Jersey's next generation of EE will play a central role in rising to meet the challenge of the climate crisis while providing significant benefits to residents and businesses throughout the state and growing a clean energy workforce.¹¹ In order to achieve the robust goals of the CEA, the Board approved Staff's recommendations to transition in the framework for EE, as set forth in the CEA Order and will be supported by anticipated future modifications, to meet the state's clean energy goals.

13. As noted above, the CEA directed the Board to require each electric and gas public utility to develop EE and PDR programs that reduce the use of electricity and natural gas in its service territory. The CEA further required the Board to complete a study to determine energy savings targets for each utility to achieve the full economic, cost effective potential for energy usage reductions and the timeframe to achieve those reductions.¹² The CEA further required the Board to adopt quantitative performance indicators ("QPIs") to establish utility targets for energy usage reduction and peak demand reduction.¹³ The CEA required the Board to establish a stakeholder process to evaluate the economically achievable EE and PDR requirements, rate adjustments, QPIs, and the process for evaluating, measuring, and verifying energy usage reductions and peak demand reductions by the public utilities.¹⁴ As part of that stakeholder process, the CEA directed the Board to establish an independent advisory group charged with studying the evaluation, measurement, and verification ("EM&V") process for EE and PDR programs.¹⁵

¹¹ It should be noted, that at the time of this filing, the Work Force Development Working Group has not been commenced. Therefore, a fully developed WFD Plan cannot be provided at this time.

¹² Id. at 6, ftnt 17, N.J.S.A. 48:3- 87.9(b).

¹³ Id., ftnt 18, N.J.S.A. 48:3- 87.9(c).

¹⁴ Id., ftnt 19, N.J.S.A. 48:3- 87.9(f)(1).

¹⁵ Id. ftnt 20.

The Board's CEA Order Findings

Utility Programs:

14. The Board directed the utilities to utilize the utility demographic analysis report and the demographic information contained therein, about electricity and gas utility customers, combined with information regarding factors that contribute to customers' access to and participation in EE and PDR programs, to design programs that maximize access to and participation by all customers.

15. The Board directed the utilities to administer a suite of core programs that serve the residential, commercial and industrial, and multifamily sectors as set forth in the CEA Order, and that are consistently available throughout the state, as recommended by Staff. These programs should include coordinated and common program elements, as recommended by Staff. The Board views these elements as important to ensure consistency of core program delivery, which will ease participation by customers and contractors, while advancing key policy goals such as improving access to programs by low to moderate income customers, and expanding opportunities for EE jobs for local, underrepresented, and disadvantaged workers and businesses. Further, the Board directed that, where applicable, the utilities shall collaborate with Staff to develop program designs and requirements that are complementary to and non-competitive with the designs and requirements of State-administered programs. The Board approved Staff's guidelines for the cost of utility core programs to achieve energy savings and directed the utilities to provide justification if they propose core programs whose costs to achieve fall outside of these guidelines.

16. In areas where electric and gas service territories overlap, the Board directed the utilities to design a program structure that results in coordinated, consistent delivery of programs among all utilities.

17. The Board adopted the revised Minimum Filing Requirements ("MFRs"), as recommended by Staff, and set forth in Appendix B of the CEA Order. The Board directed the utilities

to file three-year program petitions by September 25, 2020, for approval by the Board by May 1, 2021 and implementation beginning July 1, 2021.

18. The Board adopted Staff's recommendations on adjustments to utility-led programs, including adjustments to budgets and incentives.

Additional Utility Initiatives, Pilots, and Program Enhancements:

19. The Board adopted Staff's recommendations to allow utilities to propose additional initiatives and program enhancements. These initiatives can be developed collaboratively and filed by all utilities, developed and filed individually, or piloted in individual territories and eventually considered for adoption by other utilities as additional initiatives or core programs to be administered by some or all utilities.

Co-Managed Programs:

20. The Board adopted Staff's recommendation for the utilities and the State to continue to co-manage the low-income program offerings through the Comfort Partners program and to explore and pursue options for increasing access to EE and PDR for low-income customers through the Comfort Partners program or other opportunities in a co-managed format.¹⁶

Performance Targets:

21. The Board accepted Staff's recommendations for establishing utility-specific and State targets for net energy use reduction as a percentage of load, as well as Staff's recommendations about what energy savings utilities may and may not apply in assessing compliance with their targets. More specifically, the Board directed the utilities to report on energy use reduction for PY1 and adopts the energy use reduction targets and their associated weights for PY2 and PY3. The Board further directed the utilities to file annual QPI values in response to the established targets within their program filings

¹⁶ Comfort Partners is intended to remain the primary energy efficiency program for serving the needs of low income customers. It is not addressed in this filing because the program will continue to be funded by the Societal Benefits Charge and filed coincident with the NJCEP filing schedules. Accordingly, it is not addressed as part of this filing.

consistent with Staff’s recommendations. The Board adopted Staff’s recommendations that the average of energy usage in the prior three years in each utility’s territory be used to determine whether the utility has achieved its energy use reduction targets.

22. For Petitioner, NJNG, the energy use reduction targets established by the Board,¹⁷ are as follows:

NJNG Program Year	Overall Utility-Specific Annual Energy Use Reduction Target <i>Net Savings (% of retail sales)</i>	Utility Program Annual Energy Savings Target <i>Net Savings (% of retail sales)</i>
PY1	No energy use reduction targets (July 1, 2021 – June 30, 2022)	No energy use reduction targets (July 1, 2021 – June 30, 2022)
PY2	0.50%	0.34%
PY3	0.75%	0.51%
PY4 ¹⁸	0.95%	0.65%
PY5 ¹⁹	1.10%	0.75%

Annual Utility Petitions:

23. The Board directed each utility to file an annual petition no later than 75 days following the end of each PY to demonstrate compliance with the EE and PDR programs, compliance with the performance targets, and for cost recovery of the programs, including any performance incentives or penalties, consistent with the MFRs.

Cost Recovery:

24. As part of its annual petition above, the Board directed each utility to file to recover on a full and current basis through a surcharge, all reasonable and prudent costs incurred as a result of EE

¹⁷ Id. at 20-22.

¹⁸ The Board adopted Staff recommendation that the energy use reduction targets for PY 4 and PY 5 are “preliminary and subject to further review and utility-specific modifications before finalization.” CEA Order at 20.

¹⁹ Id.

and PDR programs, including, but not limited to, recovery of and on capital investment, and the revenue impact of sales losses resulting from implementation of the programs.

25. Regarding investment treatment, the Board agreed with Staff's reasoning and adopted Staff's recommendations on the following aspects of cost recovery of program investments: amortization of program investments over a 10-year period; no cap at this time on the customer distribution rate or customer bill associated with program investments; and use of the capital structure established in each utility's most recent base rate case as the carrying costs for program investments, incorporating both the cost of debt and the Return On Equity ("ROE"), with no basis point reduction on the ROE.

26. The Board established the Conservation Incentive Program ("CIP") in 2006 as a pilot for NJNG and the South Jersey Gas Company ("SJG") as a mechanism to separate the link between customer usage and a company's gross margin (sales minus cost of goods sold), while the utility encourages customer conservation. The CIP has gone through modifications over the years, with the most recent approval by the Board in 2014. The CIP includes ratepayer protections such as an earnings test, rate caps on amounts collected from ratepayers, and required shareholder contributions.

27. Throughout the EE transition stakeholder process, stakeholders voiced their concerns about Staff's proposed Lost Revenue Adjustment Mechanism ("LRAM"), arguing that it does not remove the utilities' throughput incentive and thereby disincentivizes utilities from aggressively pursuing the EE reductions mandated by the CEA. With respect to the potential to use a CIP mechanism as an alternative to the LRAM, stakeholders commented that the current CIP would need to be modified in order to allow electric distribution companies ("EDCs"), as well as the remaining two gas distribution companies ("GDCs"), to participate.

28. The Board recognized that the LRAM is an important component of the cost recovery mechanism and the energy efficiency transition in furthering the goals of the CEA. Based on this, the

Board found that the lost revenue recovery mechanism adopted in the state should encourage, not hinder, active utility participation in EE investments by removing the utilities' throughput incentive and enabling the utilities to aggressively endorse and pursue EE while providing adequate ratepayer protections. Having considered the comments submitted by all stakeholders, the Board directed the utilities and Staff to work with Rate Counsel to develop a CIP that could be applicable to all the state's EDCs and GDCs. The Board ordered that, for any utility that does not agree to a modified CIP, Staff's LRAM as presented in the Full Proposal will be the lost revenue recovery mechanism. As noted by the Board, NJNG's and SJG's previously approved CIP mechanisms are reasonable and appropriate and will remain in place for these two GDCs.

29. Regarding performance incentives and penalties, the Board adopted Staff's recommendation that each utility's potential incentive and penalty both take the form of a ROE adjustment applied to EE and PDR program investment, with the Weighted Average Cost of Capital ("WACC") comprising the utility's cost of debt and the ROE. The Board found Staff's recommendation on the performance incentive and penalty structure to represent a reasonable range between incentives and penalties based on a utility's ROE and accepted Staff's recommendation that achievement of 90% to 110% of a utility's total weighted performance will represent compliance with the Board-established targets and that no incentive be awarded or penalty assessed within this range. The Board also adopted Staff's recommendation to include no award of incentives or assessment of penalties until after the conclusion of PY5, based on Year 5 performance. Furthermore, the Board agreed that the Board may exercise its discretion in levying penalties for performance results that are due to circumstances outside of utility control, such as COVID-19.

EM&V:

30. The Board found that the standard, transparent, and replicable statewide approach to EM&V recommended by Staff will serve to ensure the successful evaluation, measurement, and

verification of the State's energy efficiency programs. Accordingly, the Board directed all program administrators to utilize the consistent methods established in the Protocols to report all energy savings from EE and PDR programs. The Board further directed Staff to develop a Request For Proposal ("RFP") or other appropriate approaches to complete a comprehensive update of the Protocols and to work with the EM&V Working Group and program administrators to ensure that the Protocols are regularly updated and include methodologies or references to establish deemed energy savings for all measures and technologies approved in the EE and PDR programs.²⁰

31. The Board adopted Staff's recommendations on net vs. gross savings and directed State and utility program administrators to (1) report energy use reductions in both gross and net savings, (2) use net savings for all aspects of program review, including compliance and cost-effectiveness testing, and (3) use a net-to-gross ("NTG") value of 1.0 for all programs until more New Jersey-specific NTG values for specific programs are developed.

Minimum Filing Requirements ("MFRs"):

32. The MFRs for petitions under N.J.S.A. 48:3-98.1, which apply to EE and PDR program petitions, currently comprise six sections and encompass the information that electric and gas public utilities submit about their program proposals on the following topics: general filing requirements, program description, additional filing information, cost recovery mechanism, benefit-cost analysis, and EM&V.²¹

²⁰ It should be noted, that at the time of this filing, the EM&V Working Group has not been commenced. Therefore, a comprehensive EM&V Plan cannot be presented at this time.

²¹ *Id.* at 24, fnt 48; See, the Board's May 8, 2008 Order in BPU Docket No. EO08030164, as updated in the Board's October 20, 2017 Order in BPU Docket No. QO17091004. Subsequent to the passage of the 2008 RGGI Legislation, the BPU issued an Order on May 12, 2008 (the "May 2008 Order"), establishing the procedures through which electric and natural gas utilities can seek approval to offer energy-efficiency and conservation programs on a regulated basis. The May 2008 Order also set out specific information that is to be provided in such filings by delineating MFRs. The Board revisited the MFRs and through its Order dated October 10, 2017 revised the MFRs. See, In The Matter of Electric Public Utilities and Gas Public Utilities Offering Energy Efficiency and Conservation Programs, Investing In Class I Renewable Energy Resources, And Offering Class I Renewable Energy Programs In Their Respective Service Territories On A Regulated Basis Pursuant To N.J.S.A. 48:3-98.1 – Minimum Filing Requirements, BPU Docket No. QO17091004 (the "October 2017 MFR Order"). The October 2017 MFR Order superseded the Board's May 2008 Order.

33. Pursuant to N.J.S.A. 48:3-87.9(d)(3) which requires filings with implementation and reporting plans and EM&V strategies to determine the energy usage and peak demand reductions achieved by approved programs, as well as details of expenditures and resultant reductions in energy usage and peak demand, the Board adopted Staff's changes to the current MFRs, which are set forth in Appendix B of the CEA Order.²²

Reporting

34. The Board directed the utilities to submit public reports to the Board according to the revised MFRs and adopted Staff's recommendations for quarterly progress reports, annual progress reports, and triennial progress reports.²³

Tracking:

35. The Board directed the utilities to work with their contractors to ensure that the utilities' independent tracking systems will receive, track, and be used to report to the Board all required information related to the implementation of EE and PDR programs and that, where appropriate, these systems integrate into any statewide tracking systems developed for similar purposes.

NJNG EE Filing History:

36. Based on the 2008 RGGI Legislation and the May 2008 Order, NJNG has made multiple filings in BPU Docket Nos. EO09010056 and GO09010057, GO10030225, GR11070425, GO12070640 and GR12070641, GO14121412, and GO18030355²⁴ seeking approval to implement

²² As stated in the CEA Order at 24, "The proposed MFRs add requirements for program descriptions, implementation, marketing, quality assurance, QPIs, EM&V, and reporting plans that are consistent with Staff's recommendations herein. The proposed MFRs remove existing requirements for comparisons to other utility programs and to state energy policy. They also remove certain requirements – including information about market barriers, impact on the competitive marketplace, job creation, emissions savings – that will be evaluated through the EM&V process."

²³ It should be noted, that at the time of this filing, the EM&V Working Group has not been commenced. Therefore, a comprehensive Reporting Plan cannot be presented at this time.

²⁴ In re Energy Efficiency Programs and Associated Cost Recovery Mechanisms and I/M/O the Petition of New Jersey Natural Gas Company for Approval of Energy Efficiency Programs with an Associated Cost Recovery Mechanism, BPU Docket Nos. EO09010056 and GO09010057, Order dated July 17, 2009 ("July 2009 Order"); In re the Petition of New Jersey Natural Gas for Approval of Regional Greenhouse Gas Initiative Programs and Associated Cost Recovery Mechanisms Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. GO10030225, Order dated September 24, 2010 ("September 2010 Order"); In re the Petition of New Jersey Natural Gas for Approval of Regional Greenhouse Gas Initiative Programs

energy-efficiency programs through the SAVEGREEN Program that complemented or supplemented existing programs offered through NJCEP. In Orders dated July 17, 2009 (the “July 2009 Order”), September 24, 2010 (the “September 2010 Order”), January 18, 2012 (the “January 2012 Order”), June 21, 2013 (the “June 2013 Order”)²⁵, July 23, 2015 (“the July 2015 Order”), June 29, 2016 (the “June 2016 Order”) and September 17, 2018 Order (the “September 2018 Order”), the BPU adopted the terms of Stipulations entered into among representatives from the BPU Staff, the New Jersey Division of Rate Counsel (“Rate Counsel”) and NJNG approving the implementation of energy-efficiency programs and the associated cost recovery mechanism. Recovery of the costs necessary to deliver these programs, including grants, incentives, incremental operation and maintenance (“O&M”) expenses and carrying costs is provided through Rider F to the Company’s Tariff.

37. In the instant proceeding, NJNG is seeking Board approval to expand the existing suite of programs through SAVEGREEN the energy-efficiency programs described herein and the On-Bill-Repayment-Program (“OBRP”) initially approved in the September 2010 Order, and as further approved in subsequent Board Orders referenced in the preceding Paragraph. The expansion is required to meet the both the requirements of the CEA Order and the needs of our customers, and reflects the transfer of existing programs currently run by New Jersey’s Clean Energy Program

and Associated Cost Recovery Mechanisms Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. GR11070425, Order dated January 19, 2012 (“January 2012 Order”); In re the Petition of New Jersey Natural Gas Company for Approval of the Extension of Energy Efficiency Programs and the Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1 and In re the Petition of New Jersey Natural Gas Company for Approval of the Cost Recovery Associated with Energy Efficiency Program, BPU Docket Nos. GO12070640 and GR12070641, Order dated June 21, 2013 (“June 2013 Order”); In re the Petition of New Jersey Natural Gas Company for Approval of the Extension of Energy Efficiency Programs and the Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. GO14121412, Order dated July 23, 2015 (“July 2015 Order”); In re the Petition of New Jersey Natural Gas Company for Approval of the Extension of Energy-Efficiency Programs and the Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. GO14121412, Order dated June 29, 2016. (“June 2016 Order”); In The Matter Of The Petition Of New Jersey Natural Gas Company For Approval Of Existing And New Energy-Efficiency Programs And A Class I Renewable Energy Program And The Associated Cost Recovery Mechanism Pursuant To N.J.S.A. 48:3-98.1, BPU Docket No. GO18030355, Order dated September 17, 2018 (“September 17, 2018 Order”).

²⁵ The June 21, 2013 Order was subsequently amended by the Board to correct the amount that the Company can provide to Direct Install customers through its On-Bill Repayment Program. See, In The Matter Of The Petition Of New Jersey Natural Gas Company For Approval Of The Extension Of Energy Efficiency Program And The Associated Cost Recovery Mechanism Pursuant To N.J.S.A. 48:3-98.1, BPU Docket No. GO12070640 (August 21, 2013).

(“NJCEP”) and plans for significant utility coordination. The programs are further described in the pre-filed testimony and exhibits of Anne-Marie Peracchio (“Peracchio Testimony”) Exhibit P-2 and the Program Plan, Exhibit P-5 included with the submission of this Petition.

NJNG Proposed Programs

38. In this filing, NJNG proposes to continue and expand the ongoing work of SAVEGREEN with modifications to current BPU approved programs as well as launching new programs that have been developed to meet the obligations and policy objectives established by the CEA Order and with consideration of customer needs. NJNG seeks approval to provide customers with the opportunities proposed in this filing over a three-year period beginning as of July 1, 2021. However, NJNG must begin preparatory work prior to the effective date of the Board Order approving this filing to ensure there is no disruption to the markets that are currently being served by NJCEP that will be shifting to utility responsibility on July 1, 2021.

39. The detailed description of each component of the Company’s proposed SAVEGREEN Program is set forth in the Program Plan contained in Exhibit P-5. Ms. Peracchio’s pre-filed Direct Testimony (Exhibit P-2) provides further context for each of the program categories and addresses each program and respective subprograms.

40. The SAVEGREEN energy-efficiency programs proposed herein and within the supporting documents enhance and complement ongoing efforts in New Jersey that are directed toward lowering energy costs for New Jersey residents, support Governor Murphy’s state policies as well as those policies articulated in the 2019 Energy Master Plan, the CEA, the Board’s CEA Order and address environmental concerns while stimulating the economy through opportunities for local businesses to grow and jobs to be created for residents of New Jersey. The SAVEGREEN programs address and support economic growth through increased activity specifically in the energy-efficiency industries. Increased economic activity will benefit not only developers and installers of high-

efficiency equipment, but also the associated businesses and service personnel in other industries and fields providing ancillary services.

41. The total cost of the SAVEGREEN Program is \$249.12 million which is comprised of \$127.29 million of direct investment, \$98.45 million of OBRP/Loans and \$23.39 million of operation and maintenance expenses over the proposed program. NJNG has requested that the Board allow the Company to recover the costs of the program, including a return on and return of the investments associated with the program. It is estimated that NJNG would recover a total of approximately \$221.53 million from ratepayers from 2019 through 2036. In this Petition, NJNG has requested a contemporaneous change to the EE rate. If these programs are approved as filed, customers will see a change in their bill effective July 1, 2021. The annual rate impact of the program for a typical residential heating customer using 1000 therms of natural gas per year is expected to average \$21.71 per year or 1.9 percent over the 2019-2036 period, and is expected to peak at \$40.10 in 2024.

42. In this Petition, NJNG is seeking approval to continue the SAVEGREEN programs and approval of the new SAVEGREEN programs through June 30, 2024. Pursuant to the structure approved by the Board in the CEA Order, NJNG proposes that work related to a SAVEGREEN program may continue for close-out and completion of projects approved or committed prior to June 30, 2024.

43. Consistent with prior approvals, if funds allocated for SAVEGREEN are not fully expended or committed, NJNG will transfer those amounts to the program work in future years. There may be instances wherein some program investments, while committed during the three-year term, will occur beyond the three-year term. NJNG proposes to commit these dollars during the program term, and will seek cost recovery after the program term has ended, unless the term is extended by the Board.

Cost Recovery Mechanism

44. NJNG is requesting that the BPU approve the continued use of deferred accounting for all costs associated with the SAVEGREEN Programs, including the costs of the grants, customer incentives, O&M expenses, amortization expense, return on investments and income taxes.²⁶ The recovery of those costs shall be through a per-therm charge applicable to all jurisdictional volumes through NJNG's system. The investments associated with the SAVEGREEN Programs will be amortized over a ten-year period for the direct investments and over five, seven or ten-year periods for OBRP/Loans from the month in which they are incurred. It is proposed that the recovery be through Rider F of the NJNG Tariff, the previously-approved mechanism now in place for the recovery of costs for SAVEGREEN. The cost recovery mechanism is discussed in further detail in the Mr. Corcoran's Direct Testimony, Exhibit P-3.

45. Consistent with the CEA Order and as agreed to by the Signatory Parties and authorized in the September 2010, January 2012, June 2013, July 2015, June 2016, and September 2018 Orders, the Company proposes that any variance between costs and recoveries will accrue interest at a rate equal to the Company's monthly commercial paper rate. In the event that commercial paper was not utilized by the Company in the preceding month, the last calculated rate will be used. The interest rate shall not exceed the Company's rate of return as authorized by the BPU in the Company's most recent base rate case, BPU Docket No. GR19030420, or until changed by Board Order. Interest on over/under recoveries will be calculated using simple interest, based on the average beginning and ending over/under recovery balances for the month, on a net-of-tax basis and shall be rolled into the EE balance at the end of each EE recovery year.

²⁶ The July 2009 Order and all subsequent orders have also addressed the recovery of the costs necessary to deliver SAVEGREEN programs to customers, including grants, incentives, incremental O&M expenses and investment-related carrying costs and income taxes. Specifically, the Company was authorized to implement the EE Rider to its Tariff, designated as Rider F, which enables the recovery of SAVEGREEN program offerings.

46. As with the current Board-approved SAVEGREEN cost recovery mechanism, NJNG will submit for approval by the Board an annual filing to establish future rates for Rider F. In that filing, the Company will provide a reconciliation of the SAVEGREEN recoveries to actual investments and operating costs incurred. Any federal or state benefits, if applicable, received by the Company and associated with the SAVEGREEN programs will be used to reduce the revenue requirement or costs to be collected from ratepayers.

Procedural Matters

47. The May 2008 Order, as modified by and superseded by the Board's October 2017 MFR Order, which was then superseded by the Board's June 10, 2020 CEA Order, established that certain information must be included in any petition for approval to offer energy-efficiency programs in order to permit a comprehensive review of these filings by BPU Staff and Rate Counsel within the statutorily designated 180-day review period. The MFRs detail the information, analyses and data that generally must be included within such a filing. Attached hereto as Schedule NJNG-14 is a listing of the MFRs and the locations within NJNG's filing where the respective information can be found.

48. NJNG requests that the BPU retain this matter at the Agency for an administrative review and issuance of a Decision and Order pursuant to the terms of the CEA, CEA Order and the May 2008 and October 2017 MFR Orders.

49. The May 2008 Order also requires that a utility must meet with Board Staff and Rate Counsel at least 30 days in advance of submitting a filing to provide an overview of the elements and cost recovery mechanism proposed. Accordingly, NJNG conferred with representatives of various divisions within the BPU, Rate Counsel, and the Division of Law within the Department of Law and Public Safety on August 20, 2020, to provide an overview of the programs and cost recovery mechanism proposed within this filing.

50. Attached hereto and made part of this Petition is a draft form of notice (Schedule NJNG-10) that will be published in papers of general circulation within NJNG's service territory providing notice to customers of this filing and the details about the public hearing that will be scheduled. A proposed notice to counties and municipalities within the service territory is attached as Schedule NJNG-8.

51. NJNG has proposed the expansion of our energy-efficiency programs to meet the obligations and policy objectives of the CEA Order with the modifications addressed herein and within the supporting documents. The Company reserves the right to amend this filing should that be necessitated by future modifications or changes to the current NJCEP offerings, incentives, grants, program management, evaluation, statewide policies, overall budget, and/or coordination with other utilities and state agencies at any time during the review period. Since NJNG anticipates that any amendment would serve to better align its program with State policy, the Company requests that such amendment be addressed within the original 180-day period.

52. During the course of the proceeding initiated by this filing, NJNG will submit any confidential, proprietary or competitively sensitive information not covered by privilege once a mutually agreed-upon Non-Disclosure Agreement has been executed by and among the Company, Board Staff, Rate Counsel and its and/or their consultants, and any permitted intervenors. A Non-Disclosure Agreement has been included as part of this filing as Schedule NJNG-15 to Exhibit P-1.

53. A summary of the results of the Cost Benefit Analysis is provided in Exhibit P-4, Schedule BJB-2. Detailed workpapers supporting the Cost Benefit Analysis are contained in a proprietary model and will be provided to those parties who execute the Non-Disclosure Agreement.

NOTICE AND SERVICE OF FILING:

54. Due to the COVID-19 Pandemic, NJNG has electronically served notice and a copy of this filing, together with a copy of the annexed exhibits and supporting schedules being filed herewith,

upon the New Jersey Division of Rate Counsel and the Department of Law and Public Safety. Copies of this Petition and supporting exhibits and schedules will also be sent electronically to the persons identified on the service list provided with this filing. Moreover, copies of the Company's filing will be available on the Company's website at: www.njng.com

WHEREFORE, NJNG respectfully requests that the Board issue an Order finding that:

1. The Board will retain this matter for review at the Agency in the manner and timeframe incorporated in the CEA and the 2008 RGGI Legislation, specifically Section 13 and expeditiously designate a Commissioner as Presiding Officer to establish a procedural schedule, rule on motions and conduct any hearings;
2. The SAVEGREEN Programs proposed by NJNG and associated cost recovery mechanism are in the public interest and NJNG is fully authorized to implement and administer these Programs on a regulated basis for at least three years under the terms and conditions set forth in this Petition, as well as the Exhibits and Schedules attached thereto;
3. NJNG is authorized to utilize deferred accounting and recover all reasonably incurred costs associated with the SAVEGREEN Programs herein through Rider F to the NJNG tariff.
4. The return and associated taxes on the investments related to the SAVEGREEN Programs herein will be set pursuant to NJNG's overall Weighted Average Cost of Capital as authorized by the BPU in the most recent NJNG base rate case (Docket No. GR19030420);
5. The information contained in the filing, specifically, the EM&V Plan (Exhibit P-1, Schedule-NJNG-13), the Reporting Plan (Exhibit P-1, Schedule-NJNG-17), and the Workforce Development Plan (Exhibit P-1, Schedule NJNG-18) satisfy the MFRs given the status of the respective Working Groups;

6. Regarding this program, projects committed and/or started prior to June 30, 2024 may continue for close-out and completion activities; and
7. Granting such other relief as the Board deems just, reasonable and necessary.

Respectfully submitted,

NEW JERSEY NATURAL GAS COMPANY

By:



Andrew K. Dembia, Esq.
Regulatory Affairs Counsel

Dated: September 25, 2020

STATE OF NEW JERSEY)

COUNTY OF MONMOUTH)

VERIFICATION

MARK G. KAHRER of full age, being duly sworn according to law, on his oath deposes and says:

1. I am Vice President, Regulatory Affairs for New Jersey Natural Gas Company, the Petitioner in the foregoing Petition.
2. I have read the annexed Petition, along with the Exhibits attached thereto, and the matters and things contained therein are true to the best of my knowledge, information and belief.



Mark G. Kahrer
Vice President, Regulatory Affairs

Sworn and subscribed to
before me this 24th day
of September 2020



ANDREW K. DEMBIA, Esq.
ATTORNEY AT LAW
STATE OF NEW JERSEY

New Jersey Natural Gas
Comparative Balance Sheet

Description	December 2019 Balance	December 2018 Balance	December 2017 Balance
Utility Plant Net	2,401,158,268	2,093,885,504	1,887,624,076
Current Assets			
Cash	(2,496,239)	1,285,046	2,388,747
Other Special Deposits	1,390,690	315,250	286,000
Accts Receivable-Customers	78,365,016	73,747,902	72,066,571
Accts Receivable-Other	1,062,971	5,036,287	4,362,347
Reserve For Uncollectible Acct	(5,010,472)	(4,783,178)	(4,621,754)
Plant Materials-Operations	11,992,861	13,016,550	10,794,843
Other Material & Supplies	50,987	58,191	50,432
Gas Stored Underground	98,923,936	88,439,956	55,554,105
Liquefied Natural Gas Stored	4,062,798	4,202,957	3,436,851
Derivatives	26,210	5,084,349	487,029
Prepays	15,177,643	8,869,976	11,297,028
Accrued Utility Revenue	63,655,665	55,155,434	70,137,684
Total Current Assets	267,202,066	250,428,720	226,239,885
Deferred Charges			
Unamortized Debt Expense	9,542,789	7,940,569	7,690,016
Regulatory Assets	485,431,848	391,046,656	426,686,262
Deferred Income Taxes	8,121,702	8,955,758	9,831,896
Other Deferred Charges	6,714,441	13,981,709	8,913,366
Unrecovered Gas Cost	1,480,638	6,148,809	490,046
Total Deferred Charges	511,291,418	428,073,501	453,611,587
Total Assets	3,179,651,752	2,772,387,725	2,567,475,547
Capitalization			
Common Stock	(16,074,615)	(16,074,615)	(16,074,615)
Premium On Capital Stock	(11,269,176)	(11,269,176)	(11,269,176)
Donation From Stockholders	(551,753,056)	(456,753,056)	(351,753,056)
Unappropriated Retained Earnings	(696,010,388)	(608,574,758)	(526,923,796)
Total Common Stock Equity	(1,275,107,235)	(1,092,671,605)	(906,020,642)
Long-Term Debt	(919,253,191)	(704,641,883)	(580,535,327)
Total Capitalization	(2,194,360,426)	(1,797,313,488)	(1,486,555,969)
Current Liabilities			
Current Portion Of L/T Debt		-	(125,000,000)
Short-Term Debt	(49,600,000)	(91,700,000)	(46,000,000)
Accts Payable-Gas Purchases	(24,929,339)	(35,121,440)	(25,658,122)
Accts Payable-Rec Credit Balance	(16,677,315)	(19,334,696)	(23,904,493)
Accts Payable-Other	(23,016,953)	(24,593,212)	(24,710,067)
Accts Payable-Assoc Co'S	(6,729,300)	(4,667,857)	(4,303,449)
Customer Deposits	(12,798,579)	(10,225,163)	(9,080,325)
Accrued Taxes-Federal Income	(11,728,672)	(13,137,373)	(15,973,321)
Accrued Taxes-Energy & Other	8,487,787	9,400,897	8,498,312
Accrued Interest-L/T Debt	(8,598,368)	(4,833,281)	(6,576,868)
Accrued Interest-Other	(97,521)	(66,648)	(62,214)
Dividends Declared		-	(23,831,175)
Misc Current & Accrued Liabilities	(19,094,411)	(19,253,104)	(34,764,369)
Cur Lease Obligation	(11,081,670)	(10,738,217)	(11,473,915)
Total Current Liabilities	(175,864,342)	(224,270,095)	(342,840,006)
Deferred Credits & Other Liabilities			
Operating Reserves	(58,758,634)	(40,223,703)	(22,192,504)
Customer Advances For Construction	(2,935,306)	(2,886,851)	(2,872,127)
Regulatory Liabilities	(454,315,431)	(423,594,452)	(443,509,714)
Other Deferred Credits		-	20
Deferred Investment Tax Credits	(1,584,931)	(1,736,082)	(1,887,192)
Deferred Tax Depreciation	(216,647,073)	(212,171,187)	(199,663,390)
Other Deferred Taxes	(75,185,609)	(70,191,867)	(67,954,665)
Deferred Credits & Oth Liab	(809,426,984)	(750,804,142)	(738,079,572)
Total Capitalization & Liab.	(3,179,651,752)	(2,772,387,725)	(2,567,475,547)

NEW JERSEY NATURAL GAS COMPANY

COMPARATIVE INCOME STATEMENTS

	<u>December 31, 2019</u>	<u>December 31, 2018</u>	<u>December 31, 2017</u>
Revenue	\$ 773,316,092	\$ 734,721,968	\$ 720,137,819
Operation	\$ 517,128,928	\$ 531,532,086	\$ 460,233,164
Maintenance	27,851,172	14,065,614	13,402,032
Depreciation & Amortization	60,902,814	54,321,442	50,100,570
Income Taxes	11,992,098	(7,795,145)	40,564,210
Taxes Other than Income Taxes	45,583,653	43,863,459	44,018,888
Operating Expenses Total	<u>\$ 663,458,665</u>	<u>\$ 635,987,456</u>	<u>\$ 608,318,864</u>
Operating Income	\$ 109,857,427	\$ 98,734,512	\$ 111,818,955
Other Income	\$ 8,536,617	\$ 7,847,408	\$ 4,915,574
Other Income Deductions	\$ 79,360	\$ 53,530	\$ 775,922
Taxes Other Income and Deductions	\$ 246,353	\$ 11,351	\$ (262,377)
Interest Charges	<u>\$ 27,862,869</u>	<u>\$ 24,866,077</u>	<u>\$ 25,530,283</u>
Net Income	\$ 90,205,462	\$ 81,650,962	\$ 90,690,701

New Jersey Natural Gas
Balance Sheet
As June 30, 2020

Description	June 2020 Balance
Utility Plant Net	2,577,371,446.63
Current Assets	
=====	
Cash	29,126,675.39
Other Special Deposits	1,295,440.00
Accts Receivable-Customers	78,370,169.31
Accts Receivable-Other	2,093,075.90
Reserve For Uncollectible Acct	(5,412,374.62)
Plant Materials-Operations	15,431,539.25
Other Material & Supplies	68,751.77
Gas Stored Underground	69,709,009.22
Liquefied Natural Gas Stored	3,791,713.04
Derivatives	66,165.12
Prepays	6,793,582.14
Accrued Utility Revenue	8,738,460.90
	<hr/>
Total Current Assets	210,072,207.42
Deferred Charges	
=====	
Unamortized Debt Expense	9,813,344.67
Regulatory Assets	457,620,597.54
Deferred Income Taxes	8,121,702.14
Other Deferred Charges	10,563,303.43
Unrecovered Gas Cost	(6,774,007.04)
	<hr/>
Total Deferred Charges	479,344,940.74
Total Assets	<u>3,266,788,594.79</u>
Capitalization	
=====	
Common Stock	(16,074,615.00)
Premium On Capital Stock	(11,269,175.59)
Donation From Stockholders	(551,753,056.18)
Unappropriated Retained Earnings	(797,084,612.47)
	<hr/>
Total Common Stock Equity	(1,376,181,459.24)
Long-Term Debt	<u>(1,010,175,341.57)</u>
Total Capitalization	(2,386,356,800.81)
Current Liabilities	
=====	
Current Portion Of L/T Debt	-
Short-Term Debt	-
Accts Payable-Gas Purchases	(16,381,936.51)
Accts Payable-Rec Credit Balance	(7,322,443.85)
Accts Payable-Other	(24,054,585.76)
Accts Payable-Assoc Co'S	(6,219,963.03)
Customer Deposits	(12,623,222.29)
Accrued Taxes-Federal Income	(14,934,097.16)
Accrued Taxes-Energy & Other	(171,730,930.44)
Accrued Interest-L/T Debt	(9,046,605.62)
Accrued Interest-Other	(110,209.16)
Misc Current & Accrued Liabilities	(30,606,709.87)
Cur Lease Obligation	(10,925,349.37)
	<hr/>
Total Current Liabilities	(303,956,053.06)
Deferred Credits & Other Liabilities	
=====	
Operating Reserves	(39,972,815.29)
Customer Advances For Construction	(2,471,755.76)
Regulatory Liabilities	(210,241,066.04)
Other Deferred Credits	-
Deferred Investment Tax Credits	(2,220,329.98)
Deferred Tax Depreciation	(239,101,015.97)
Other Deferred Taxes	(82,468,757.88)
	<hr/>
Deferred Credits & Oth Liab	(576,475,740.92)
Total Capitalization & Liab.	<u>(3,266,788,594.79)</u>

**NEW JERSEY NATURAL GAS COMPANY
GAS REVENUE BY CLASS OF BUSINESS
TWELVE MONTHS ENDED JUNE 30, 2020**

<i>Residential:</i>			
	Residential Service	\$	478,677,562
	Transportation		13,344,103
<i>Commercial:</i>			
	Commercial Service		87,653,469
	Transportation		54,064,021
<i>Industrial:</i>			
	Interruptible		65,279
	Transportation		1,599,498
	Street and Yard Light Service		3,565
	Off-System Sales and Other		79,824,169
	CIP Rider Revenue		18,770,436
	Total Revenue By Class Of Business	\$	734,002,102

**New Jersey Natural Gas
SAVEGREEN 2020 Program**

Income Statement and Balance Sheet

Fiscal Year	<u>2021-2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>
<u>Investments</u>								
<u>A. Income Statement</u>								
Operating Revenue	\$ 15,385,356	\$ 20,391,213	\$ 27,127,502	\$ 23,935,576	\$ 23,165,905	\$ 21,291,002	\$ 19,200,385	\$ 17,383,187
Operating Expense								
Operations & Maintenance	\$ 9,798,605	\$ 7,710,224	\$ 5,879,406	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation & Amortization	2,365,637	5,654,396	9,890,413	12,008,014	12,582,408	12,728,553	12,728,553	12,728,553
Income Taxes	727,565	1,587,123	2,565,403	2,694,124	2,390,535	1,934,033	1,461,817	1,051,360
Interest Expense	348,916	733,250	1,185,847	1,247,321	1,140,902	989,204	825,915	664,582
Total Operating Expense	<u>13,240,722</u>	<u>15,684,994</u>	<u>19,521,069</u>	<u>15,949,458</u>	<u>16,113,845</u>	<u>15,651,790</u>	<u>15,016,285</u>	<u>14,444,494</u>
Net Income	\$ 2,144,634	\$ 4,706,220	\$ 7,606,433	\$ 7,986,118	\$ 7,052,061	\$ 5,639,213	\$ 4,184,100	\$ 2,938,693
<u>B. Balance Sheet</u>								
<u>Assets</u>								
Property, Plant & Equipment	\$ 36,267,156	\$ 74,875,262	\$ 115,975,818	\$ 123,560,757	\$ 127,056,910	\$ 127,285,528	\$ 127,285,528	\$ 127,285,528
Less: Accum Depreciation	\$ (2,365,637)	\$ (8,020,032)	\$ (17,910,445)	\$ (29,918,459)	\$ (42,500,868)	\$ (55,229,420)	\$ (67,957,973)	\$ (80,686,526)
Net Property, Plant & Equipment	<u>33,901,519</u>	<u>66,855,229</u>	<u>98,065,373</u>	<u>93,642,298</u>	<u>84,556,042</u>	<u>72,056,107</u>	<u>59,327,555</u>	<u>46,599,002</u>
Deferred Tax Asset	<u>\$ (5,616,732)</u>	<u>\$ (13,640,075)</u>	<u>\$ (22,767,324)</u>	<u>\$ (25,344,448)</u>	<u>\$ (23,422,156)</u>	<u>\$ (20,254,972)</u>	<u>\$ (16,676,976)</u>	<u>\$ (13,098,979)</u>
Total Assets	<u>28,284,787</u>	<u>53,215,154</u>	<u>75,298,049</u>	<u>68,297,849</u>	<u>61,133,886</u>	<u>51,801,136</u>	<u>42,650,579</u>	<u>33,500,022</u>
<u>Liabilities & Capitalization</u>								
<u>Liabilities:</u>								
Deferred Income Taxes	(5,616,732)	(13,640,075)	(22,767,324)	(25,344,448)	(23,422,156)	(20,254,972)	(16,676,976)	(13,098,979)
<u>Capitalization:</u>								
Debt	15,594,699	30,753,405	45,110,071	43,075,457	38,895,779	33,145,809	27,290,675	21,435,541
Common Equity	18,306,820	36,101,824	52,955,301	50,566,841	45,660,263	38,910,298	32,036,880	25,163,461
Total Capitalization	<u>33,901,519</u>	<u>66,855,229</u>	<u>98,065,373</u>	<u>93,642,298</u>	<u>84,556,042</u>	<u>72,056,107</u>	<u>59,327,555</u>	<u>46,599,002</u>
Total Liabilities & Capitalization	<u>28,284,787</u>	<u>53,215,154</u>	<u>75,298,049</u>	<u>68,297,849</u>	<u>61,133,886</u>	<u>51,801,136</u>	<u>42,650,579</u>	<u>33,500,022</u>

New Jersey Natural Gas
SAVEGREEN 2020 Program

Income Statement and Balance Sheet

	Fiscal Year	2030	2032	2033	2034	2035	2036
Investments							
<u>A. Income Statement</u>							
Operating Revenue	\$	15,934,159	\$ 11,641,044	\$ 7,561,579	\$ 2,967,811	\$ 749,482	\$ 148,813
Operating Expense							
Operations & Maintenance	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation & Amortization		12,728,553	10,493,863	7,074,157	2,838,140	720,539	146,144
Income Taxes		724,062	259,118	110,096	29,289	6,537	603
Interest Expense		503,249	194,414	83,964	23,079	5,254	500
Total Operating Expense		13,955,864	10,947,396	7,268,217	2,890,508	732,330	147,247
Net Income	\$	1,978,295	\$ 693,649	\$ 293,362	\$ 77,303	\$ 17,151	\$ 1,565
<u>B. Balance Sheet</u>							
<u>Assets</u>							
Property, Plant & Equipment	\$	127,285,528	\$ 127,285,528	\$ 127,285,528	\$ 127,285,528	\$ 127,285,528	\$ 127,285,528
Less: Accum Depreciation	\$	(93,415,079)	\$ (116,506,547)	\$ (123,580,705)	\$ (126,418,845)	\$ (127,139,384)	\$ (127,285,528)
Net Property, Plant & Equipment		33,870,449	10,778,980	3,704,823	866,683	146,144	-
Deferred Tax Asset	\$	(9,520,983)	\$ (3,029,971)	\$ (1,041,426)	\$ (243,625)	\$ (41,081)	\$ 0
Total Assets		24,349,466	7,749,009	2,663,397	623,059	105,063	0
<u>Liabilities & Capitalization</u>							
Liabilities:							
Deferred Income Taxes		(9,520,983)	(3,029,971)	(1,041,426)	(243,625)	(41,081)	0
Capitalization:							
Debt		15,580,407	4,958,331	1,704,219	398,674	67,226	-
Common Equity		18,290,043	5,820,649	2,000,605	468,009	78,918	-
Total Capitalization		33,870,449	10,778,980	3,704,823	866,683	146,144	-
Total Liabilities & Capitalization		24,349,466	7,749,009	2,663,397	623,059	105,063	0

**NEW JERSEY NATURAL GAS COMPANY
PAYMENTS AND ACCRUALS TO AFFILIATE COMPANIES**

THE ATTACHED WORKSHEETS INCLUDES THE PAYMENTS AND ACCRUALS
TO THE FOLLOWING AFFILIATE COMPANIES OF NEW JERSEY RESOURCES (NJR):

	FOR THE TWELVE MONTHS ENDED		
	<u>Jun-20</u>	<u>Dec-19</u>	<u>Dec-18</u>
NJR SERVICE COMPANY TO NJNG	\$ 34,201,481	\$ 35,139,230	\$ 36,754,337
NJR SERVICE COMPANY TO NJR ENERGY SERVICES, INCLUDING NJNG TO NJR ENERGY SERVICES	\$ 6,585,407	\$ 6,029,780	\$ 5,766,197
NJR SERVICE COMPANY TO NJR HOME SERVICES, INCLUDING NJNG TO NJR HOME SERVICES	\$ 4,098,500	\$ 4,181,673	\$ 4,586,982
NJR SERVICE COMPANY TO NJR CR&R INCLUDING NJNG TO COMMERCIAL REALITY & RESOURCES	\$ 383,949	\$ 260,164	\$ 318,215
NJR SERVICE COMPANY TO NJR CLEAN ENERGY VENTURES INCLUDING NJNG TO NJR CLEAN ENERGY VENTURES	\$ 4,300,851	\$ 3,676,707	\$ 3,606,664
NJR SERVICE COMPANY TO MIDSTREAM	<u>\$ 1,604,496</u>	<u>\$ 1,083,485</u>	<u>\$ 1,702,449</u>
Total	<u>\$ 51,174,684</u>	<u>\$ 50,371,038</u>	<u>\$ 52,734,844</u>

BPU RULEMAKING METHOD

Taxable Income/(Loss)
Regulated Company
New Jersey Natural Gas

*Confidential – see Electronic file in Confidential email 3 of 3

<<ADD DATE>>

To: County Clerks, Municipal Clerks and County Administrators

IN THE MATTER OF THE PETITION)	NOTICE OF
OF NEW JERSEY NATURAL GAS)	PETITION
COMPANY FOR APPROVAL OF)	
ENERGY EFFICIENCY PROGRAMS)	BPU DOCKET NO.
AND THE ASSOCIATED COST)	
RECOVERY MECHANISM)	
PURSUANT TO THE CLEAN ENERGY)	
ACT, N.J.S.A. 48:3-87.8 et seq. and 48:3-)	
98.1 et seq.)	

Pursuant to law, New Jersey Natural Gas Company (the “Company”) is providing you with notice of a filing made on September 25, 2020 with the New Jersey Board of Public Utilities for approval of energy-efficiency programs and the associated cost recovery mechanisms. You can download the filing from the Company’s website at <http://www.njng.com/regulatory/filings.asp>

Respectfully,

Andrew K. Dembia
Regulatory Affairs Counsel

SERVICE CLASSIFICATION - RS**RESIDENTIAL SERVICE****AVAILABILITY**

This service is available to any residential Customer in the territory served by the Company using gas for any domestic purpose. This rate is applicable to individually-metered apartments and to rooming and boarding houses where the number of rental bedrooms is not more than twice the number of bedrooms used by the Customer.

Gas delivered under this schedule may not be used for other than domestic purposes except when such use is incidental to domestic use.

CHARACTER OF SERVICE

Firm gas service where Customer may either purchase gas supply from the Company's Rider "A" for Basic Gas Supply Service ("BGSS") or from a Third Party Supplier.

MONTHLY RATES**Customer Charge:**

Customer Charge per meter per month	\$10.14
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Delivery Charge:**Residential Heating**

Delivery Charge per therm	\$0.69 <u>760.7186</u>
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Residential Non-Heating

Delivery Charge per therm	\$0.63 <u>380.6548</u>
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BGSS Charge:

BGSS Charge per therm for Sales Customers	See "Rate Summaries" at the end of this Tariff
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These rates are inclusive of all applicable taxes and riders and are subject to adjustment for all other applicable riders, taxes, assessments or similar charges lawfully imposed by the Company. See Rate Summaries at the end of this Tariff for a summary of components incorporated in these rates.

Date of Issue: ~~September 23, 2020~~
Issued by: Mark G. Kahrer, Vice President
~~2021~~2020
Wall, NJ 07719

Effective for service rendered on
and after ~~July~~October 1,

SERVICE CLASSIFICATION – DGR**DISTRIBUTED GENERATION SERVICE - RESIDENTIAL****AVAILABILITY**

This service is available to any residential customer using distributed generation technologies including, but not limited to, microturbines and fuel cells to generate electricity for domestic purposes.

CHARACTER OF SERVICE

Firm gas service where Customer may either purchase gas supply from the Company's Rider "A" for Basic Gas Supply Service ("BGSS") or from a Third Party Supplier.

MONTHLY RATES**Customer Charge:**

Customer Charge per meter per month \$10.14

Delivery Charge:

November - April ~~\$0.3468~~0.3678

May - October ~~\$0.2935~~0.3145

BGSS Charge:

BGSS Charge per therm for Sales Customers See "Rate Summaries" at the end of this Tariff

These rates are inclusive of all applicable taxes and riders and are subject to adjustment for all other applicable riders, taxes, assessments or similar charges lawfully imposed by the Company. See Rate Summaries at the end of this Tariff for a summary of components incorporated in these rates.

MINIMUM MONTHLY CHARGE

The minimum monthly charge shall be the Customer Charge. Where service is taken for less than one month, the minimum charge will be prorated.

BALANCING CHARGE ADJUSTMENTS

The Balancing Charge is included in the Delivery Charge and is subject to adjustment in the Company's annual BGSS proceeding. All revenues derived from this Charge will be credited to the BGSS. See Rider "A" for the current Balancing Charge.

Date of Issue: ~~September 23, 2020~~
Issued by: Mark G. Kahrer, Vice President
~~2021~~2020
Wall, NJ 07719

Effective for service rendered on and after ~~July~~October 1,

SERVICE CLASSIFICATION – GSS**GENERAL SERVICE - SMALL****AVAILABILITY**

This service is available to any Customer in the entire territory served by the Company who uses less than 5,000 therms annually and uses gas for all purposes other than residential service and interruptible service. Where the Customer uses the Cooling, Air Conditioning and Pool Heating service (“CAC”) under Special Provision I.2, the Company may, upon application by the Customer, meter the space heating and CAC use separately. Street Lighting Service also will be supplied under this schedule (Special Provision II.1).

CHARACTER OF SERVICE

Firm gas service where Customer may either purchase gas supply from the Company’s Rider “A” for Basic Gas Supply Service (“BGSS”) or from a Third Party Supplier.

MONTHLY RATES**Customer Charge:**

Customer Charge per meter per month \$34.85

Delivery Charge:

Delivery Charge per therm ~~\$0.64990~~.6709

BGSS Charge:

BGSS Charge per therm for Sales Customers See “Rate Summaries” at the end of this Tariff

These rates are inclusive of all applicable taxes and riders and are subject to adjustment for all other applicable riders, taxes, assessments or similar charges lawfully imposed by the Company. See Rate Summaries at the end of this Tariff for a summary of components incorporated in these rates.

MINIMUM MONTHLY CHARGE

The minimum monthly charge shall be the Customer Charge.

Where service is taken for less than one month, the minimum charge will be prorated.

BALANCING CHARGE ADJUSTMENTS

The Balancing Charge is included in the Delivery Charge and is subject to adjustment in the Company's annual BGSS proceeding. All revenues derived from this Charge will be credited to the BGSS. See Rider “A” for the current Balancing Charge.

Date of Issue: ~~September 23, 2020~~
Issued by: Mark G. Kahrer, Vice President
~~2021~~2020
Wall, NJ 07719

Effective for service rendered on
and after ~~July~~October 1,

SERVICE CLASSIFICATION - GSS**GENERAL SERVICE - SMALL (continued)****SPECIAL PROVISIONS****I. Applicable to All Customers Under This Service Classification****1. Annual Review**

The Company shall review, at least once a year, each GSS Customer's annual usage based on the most recent twelve (12) months of billing information to determine if the General Service – Large ("GSL") Service Classification is applicable to the Customer. If the Customer's normalized annual usage is greater than or equal to 5,500 therms, the customer will be switched to GSL.

2. Air Conditioning and Pool Heating

Upon separate application, GSS Customers who have installed and are using gas air conditioning and/or pool heating equipment will be billed on the above Monthly Rates and will be billed a credit of (~~\$0.3863~~0.3862) per therm for all monthly consumption of gas for services rendered between May 1 and September 30 of each year. This credit is the difference between the delivery charge for service rendered between May 1 and September 30 of each year under this Special Provision of ~~\$0.2636~~0.2847 per therm, which includes \$0.0900 per therm margin, all appropriate riders, taxes, assessments and surcharges, and the delivery charge for Service Classification GSS.

Commercial Air Conditioning and Pool Heating ("CAC") customers will be separately metered, except, at the Company's sole discretion, existing Customers may use the same meter for their cooling, air conditioning or pool heating load and their space heating load as long as there is minimal base load during the period air conditioning rates are in effect.

Where a CAC Customer uses gas under this service classification in a direct-fired chiller/heater and the heating load is metered through the same meter as the cooling, air conditioning or pool heating load, and further, where the gas used for heating is billed separately, the GSS Customer Charge shall be waived, provided the Customer pays the Customer Charge under its heating service in all twelve (12) months of the year.

3. Veterans' Organization Service

Pursuant to N.J.S.A 48:2-21.41, when natural gas service is delivered to a customer that is a Veterans' Organization, serving the needs of veterans of the armed forces, the customer may apply and be eligible for billing under this Special Provision.

a. Each customer shall be eligible for billing under this Special Provision upon submitting an Application for Veterans' Organization Service under this Service Classification and by qualifying as a "Veterans' Organization" as defined by N.J.S.A. 48:2-21.41 as "an organization dedicated to serving the needs of veterans of the armed forces that: is chartered under federal law, qualifies as a tax exempt organization under paragraph (19) of subsection (c) of section 501 of the federal Internal Revenue Code of 1986, 26 U.S.C. s.501 (c)(19), or that is organized as a corporation under the 'New Jersey Nonprofit Corporation Act,' N.J.S.15A:1-1 et seq." Under N.J.S.A. 48: 2-21.41, a qualified Veterans' Organization shall be charged the residential rate for service delivered to the property where the Veterans' Organization primarily operates, if the residential rate is lower than the commercial rate for service at that property.

Date of Issue: ~~September 23, 2020~~
Issued by: Mark G. Kahrer, Vice President
~~20212020~~
Wall, NJ 07719

Effective for service rendered on
and after ~~July~~October 1,

SERVICE CLASSIFICATION - GSS**GENERAL SERVICE - SMALL (continued)**

The Customer shall furnish satisfactory proof of eligibility of service under this Special Provision to the Company. Once proof of eligibility is determined by the Company, service under this Special Provision shall begin with the next billing cycle following receipt of the Application.

- b. The Customer will continue to be billed on this Service Classification. At least once annually, the Company shall review eligible customers' Customer Charges and Delivery Charges under this Special Provision for all relevant periods. If the comparable Customer Charges and Delivery Charges under Service Classification Residential Service (RS) are lower than the charges under their current Service Classification, a credit in the amount of the difference will be applied to the Customer's next bill.

II. *Applicable to All Customers Purchasing Gas Supply Under Rider "A" BGSS*

1. **Street Lighting Service**

Street Lighting Service is not subject to Rider "I" of this Tariff. The delivery charge per therm for Street Lighting Service is \$~~0.60990~~.6309 per therm.

III. *Applicable to All Customers Purchasing Gas Supply from a Third Party Supplier*

1. **Metering**

An Automated Meter Reading (AMR) device will not be required for this service.

2. **Additional Requirements**

Service is subject to the terms and conditions of the Third Party Supplier Requirements section of this Tariff (Service Classification – TPS) and Section 10 of the Company's Standard Terms and Conditions.

TERMS AND CONDITIONS

Service is subject to the Company's Standard Terms and Conditions of this Tariff.

Date of Issue: ~~September 23, 2020~~
 Issued by: Mark G. Kahrer, Vice President
~~20212020~~
 Wall, NJ 07719

Effective for service rendered on
 and after ~~July~~October 1,

SERVICE CLASSIFICATION - GSL**GENERAL SERVICE - LARGE****AVAILABILITY**

This service is available to any Customer in the entire territory served by the Company who uses greater than or equal to 5,000 therms annually and uses gas for all purposes other than residential service and interruptible service. Where the Customer uses the Cooling, Air Conditioning and Pool Heating service ("CAC") under Special Provision I.4, the Company may, upon application by the Customer, meter the space heating and CAC use separately.

CHARACTER OF SERVICE

Firm gas service where Customer may either purchase gas supply from the Company's Rider "A" for Basic Gas Supply Service ("BGSS") or from a Third Party Supplier.

MONTHLY RATES**Customer Charge:**

Customer Charge per meter per month \$80.79

Demand Charge:

Demand Charge per therm applied to HMAD \$2.63

Delivery Charge:

Delivery Charge per therm ~~\$0.48650.5075~~

BGSS Charge:

BGSS Charge per therm for Sales Customers See "Rate Summaries" at the end of this Tariff

These rates are inclusive of all applicable taxes and riders and are subject to adjustment for all other applicable riders, taxes, assessments or similar charges lawfully imposed by the Company. See Rate Summaries at the end of this Tariff for a summary of components incorporated in these rates.

MINIMUM MONTHLY CHARGE

The minimum monthly charge shall be the Customer Charge and the Demand Charge.

Where service is taken for less than one month, the minimum charge will be prorated.

Date of Issue: ~~September 23, 2020~~
Issued by: Mark G. Kahrer, Vice President
~~20212020~~

Wall, NJ 07719

Effective for service rendered on
and after ~~July~~ ~~October~~ 1,

NEW JERSEY NATURAL GAS COMPANY

BPU No. 10 - Gas

~~Second First Revised Sheet No. 59~~
Superseding ~~First Revised Original Sheet No. 59~~SERVICE CLASSIFICATION - GSLGENERAL SERVICE - LARGE (continued)BALANCING CHARGE ADJUSTMENTS

The Balancing Charge is included in the Delivery Charge and is subject to adjustment in the Company's annual BGSS proceeding. All revenues derived from this Charge will be credited to the BGSS. See Rider "A" for the current Balancing Charge.

SPECIAL PROVISIONSI. *Applicable to All Customers in this Service Classification*1. Determination of Demand

The highest monthly average daily usage (HMAD) that occurs in any billing period will be used to calculate the Demand Charge. The HMAD shall be determined based upon the Customer's highest normalized average daily usage for a month in the most recent twenty-four (24) month period. Estimated data may be used when actual data is not available. At least once a year, the Company shall review and modify, if necessary, each GSL customer's HMAD based upon the most recent twenty-four (24) months of billing information. The Company reserves the right to determine the HMAD for any Customer by actually metering daily usage.

2. Metering

An Automated Meter Reading (AMR) device with daily meter reads will not be required for this service. However, the Company reserves the right to install an AMR if it believes such a device will provide a more accurate HMAD than the Determination of Demand set forth above. Should the Company decide to install an AMR, the Customer shall furnish the necessary infrastructure to support the AMR, including, but not limited to, an electrical supply and phone line, or data plan, for the operation of the device, in an area acceptable to the Company.

3. Annual Review

The Company shall review, at least once a year, each GSL customer's annual usage based on the most recent twelve (12) months of billing information to determine if the General Service - Small ("GSS") Service Classification is applicable to the Customer. If the Customer's normalized annual usage is less than or equal to 4,500 therms, the Customer will be switched to GSS.

4. Air Conditioning and Pool Heating

Upon separate application, GSL Customers who have installed and are using gas air conditioning and/or pool heating equipment will be billed on the above Monthly Rates and will be billed a credit of (~~\$0.22290.2228~~) per therm for all monthly consumption of gas for services rendered between May 1 and September 30 of each year. This credit is the difference between the delivery charge for service rendered between May 1 and September 30 of each year under this Special Provision of ~~\$0.26360.2847~~ per therm which includes \$0.0900 per therm margin, all appropriate riders, taxes, assessments and surcharges, and the delivery charge for Service Classification GSL.

Commercial Air Conditioning and Pool Heating ("CAC") Customers will be separately metered, except, at the Company's sole discretion, existing Customers may use the same meter for their cooling, air conditioning or pool heating load and their space heating load as long as there is minimal base load during the period air conditioning rates are in effect.

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~~20212020~~

Wall, NJ 07719

Effective for service rendered on
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SERVICE CLASSIFICATION - FT**FIRM TRANSPORTATION SERVICE****AVAILABILITY**

This service is available to any customer who would otherwise qualify for service under Service Classifications GSS, GSL, IS, or NGV. The Company may require the Customer to provide to the Company's satisfaction, proof of a firm gas supply having marketable title of gas with firm transportation capacity to the Company's distribution systems.

MONTHLY RATES**Customer Charge:**

Customer Charge per meter per month	\$271.28
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Demand Charge:

Demand Charge per therm applied to MDQ	\$1.98
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Delivery Charge:

Delivery Charge per therm	\$0.14430.1653
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These rates are inclusive of all applicable taxes and riders and are subject to adjustment for all other applicable riders, taxes, assessments or similar charges lawfully imposed by the Company. See Rate Summaries at the end of this Tariff for a summary of components incorporated in these rates.

MINIMUM MONTHLY CHARGE

The minimum monthly charge shall be the Customer Charge and the Demand Charge.

Where service is taken for less than one month, the minimum charge will be prorated.

Date of Issue: ~~September 23, 2020~~
 Issued by: Mark G. Kahrer, Vice President
~~2021~~2020
 Wall, NJ 07719

Effective for service rendered on
 and after ~~July~~October 1,

SERVICE CLASSIFICATION - DGC**DISTRIBUTED GENERATION SERVICE - COMMERCIAL****AVAILABILITY**

This service is available to any commercial customer using distributed generation technologies including, but not limited to, microturbines and fuel cells.

CONDITIONS PRECEDENT

If the Customer is served by a Third Party Supplier, the Third Party Supplier assumes the responsibility for all delivery requirements. The Company may require the Customer to provide, to the Company's satisfaction, proof of a firm gas supply having marketable title of gas with firm transportation capacity to the Company's distribution systems. The Customer is responsible for payment of any costs if additional facilities, exclusive of metering facilities, are necessary to provide service. The Company reserves the right to limit new customers served under this service, if it determines that service expansion is detrimental to existing firm customers. The Customer must demonstrate that qualifying electric generation equipment has been installed at its location.

MONTHLY RATES

	<u>DGC-Balancing</u>	<u>DGC-FT</u>
<u>Customer Charge:</u>		
Customer Charge per meter per month	\$82.43	\$82.43
<u>Demand Charge:</u>		
Demand Charge per therm applied to PBQ	\$1.94	\$1.94
<u>Delivery Charge per therm:</u>		
November - April	\$0.23280 .2538	\$0.13020 .1512
May - October	\$0.20020 .2212	\$0.09760 .1186
<u>BGSS Charge:</u>		
BGSS Charge per therm for Sales Customers	See "Rate Summaries" at the end of this Tariff	N/A

The Delivery Charges for DGC-Balancing above include the Balancing Charge as reflected in Rider "A" of this Tariff for customers whose Third Party Supplier delivers gas on their behalf pursuant to paragraph (3) under Deliveries to Company's Designated Delivery Meters section of Service Classification TPS. For DGC-FT customers whose Third Party Supplier delivers gas on their behalf pursuant to paragraph (1) under Deliveries to Company's Designated Delivery Meters section of Service Classification TPS, the DGC-FT Delivery Charges above exclude the Balancing Charge reflected in Rider "A" of this Tariff.

These rates are inclusive of all applicable taxes and riders and are subject to adjustment for all other applicable riders, taxes, assessments or similar charges lawfully imposed by the Company. See Rate Summaries at the end of this Tariff for a summary of components incorporated in these rates.

Date of Issue: ~~September 23, 2020~~
Issued by: Mark G. Kahrer, Vice President
~~20212020~~
Wall, NJ 07719

**Effective for service rendered on
and after ~~July~~October 1,**

SERVICE CLASSIFICATION - EGS**ELECTRIC GENERATION SERVICE****AVAILABILITY**

This service is available to any existing or new customer who uses greater than or equal to 10,000 therms daily for the sole purpose of generating electricity.

MONTHLY RATES**Customer Charge:**

	<u>Without SUT</u>	<u>With SUT</u>
Customer Charge per month	\$877.26	\$935.38

Demand Charge:

	<u>Without SUT</u>	<u>With SUT</u>
Demand Charge per therm applied to MDQ	\$1.5132	\$1.6134

Delivery Charge:

	<u>Without SUT</u>	<u>With SUT</u>
Delivery Charge per therm	\$0.065 <u>0.0848</u>	\$0.0695 <u>0.0905</u>

These rates are inclusive of all applicable taxes and riders and are subject to adjustment for all other applicable riders, applicable taxes, assessments or similar charges lawfully imposed by the Company. Natural gas used to generate electricity that is sold for resale by customers served under this Service Classification is exempt from Riders B, C, E and H and shall not be billed for such charges. In order to qualify for this exemption, a customer who uses natural gas to generate electricity for resale must complete an Annual Certification form, provided by the Company, to certify the percentage of natural gas used at the customer's New Jersey generation facilities during the previous calendar year to generate electricity that was sold for resale. For a new customer or a customer with less than twelve months of usage history, estimates supported by engineering and operational plans may be used to determine the percentage of natural gas used to generate electricity sold for resale.

See Rate Summaries at the end of this Tariff for a summary of components incorporated in these rates.

MINIMUM MONTHLY CHARGE

The minimum monthly charge shall be the Customer Charge and the Demand Charge.

Date of Issue: ~~September 23, 2020~~
 Issued by: Mark G. Kahrer, Vice President
~~20212020~~
 Wall, NJ 07719

Effective for service rendered on
 and after ~~July~~October 1,

SERVICE CLASSIFICATION - NGV**NATURAL GAS VEHICLE SERVICE****AVAILABILITY**

This service is available to any residential or commercial customer for the purpose of fueling natural gas vehicles at Company owned and operated compressed natural gas ("CNG") re-fueling facilities ("Company facilities") and at separately metered Customer owned and operated CNG re-fueling facilities ("Customer owned facilities").

CONDITIONS PRECEDENT

The Customer must sign a service agreement which sets forth the vehicles to be served to be eligible for this service.

DEFINITION OF TERM USED HEREIN

"GGE" is the Gasoline Gallon Equivalent for converting a price per therm of natural gas to a price per gallon of gasoline. The GGE shall be determined in accordance with local standards.

CHARACTER OF SERVICE

Firm sales gas service where Customer who uses Company facilities purchases gas supply pursuant to the Company's Rider "A" for Basic Gas Supply Service ("BGSS"). Firm sales or transportation gas service where Customer who uses Customer owned facilities purchases gas supply pursuant to the Company's Rider "A" for BGSS or from a Third Party Supplier, respectively.

LICENSING, PERMITS AND LEGAL REQUIREMENTS

Customers installing CNG re-fueling facilities on their premises must meet all applicable licensing, permitting and other legal requirements associated with owning and operating CNG refueling facilities. The failure of the customer to comply with this provision may result in the Company suspending or terminating gas service to such facilities without further liability.

MONTHLY RATES

	Gas Available at Company Facilities	Customer Owned Facilities
<u>Customer Charge:</u>		
Residential Customer Charge per meter per month	N/A	\$10.14
Commercial Customer Charge per meter per month	N/A	\$82.85
<u>Delivery Charge:</u>		
Delivery Charge per therm	\$0.283 10.3041 (\$0.3540.380 per GGE)	\$0.283 10.3041 (\$0.3540.380 per GGE)

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~~2021~~~~2020~~
Wall, NJ 07719

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SERVICE CLASSIFICATION - IS**INTERRUPTIBLE SERVICE****AVAILABILITY**

This service is applicable to Commercial and Industrial Customers whose minimum connected load is not less than 150 therms per hour, provided that gas is used only at locations where the Company has 1) adequate distribution facilities and 2) an adequate supply of natural gas. Customers will be required to specify that they have alternate fuel facilities installed in operating condition with an adequate fuel supply, as discussed in Special Provision 1.

CHARACTER OF SERVICE

Interruptible gas sales and transportation service.

MONTHLY RATES**Customer Charge:**

Customer Charge per meter per month \$572.98

Delivery Charge:**Customers with Alternate Fuel**

Delivery Charge per therm ~~\$0.11720.1382~~

Customers without Alternate Fuel

Delivery Charge per therm ~~\$0.35800.3790~~

BGSS Charge:

BGSS Charge per therm for Sales Customers See "Rate Summaries" at the end of this Tariff

These rates are inclusive of all applicable taxes and riders and are subject to adjustment for all other applicable riders, taxes, assessments or similar charges lawfully imposed by the Company. See Rate Summaries at the end of this Tariff for a summary of components incorporated in these rates.

MINIMUM MONTHLY CHARGE

The minimum monthly charge applicable shall be the Customer Charge. Where service is taken for less than one month, the minimum charge will be prorated.

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SERVICE CLASSIFICATION - CNG**COMPRESSED NATURAL GAS****AVAILABILITY**

This service is available to any customer who would otherwise qualify for service under Service Classifications RS, GSS, GSL, FT, IS, or NGV and who will utilize natural gas for the purpose of fueling natural gas vehicles at Company owned compressed natural gas re-fueling facilities operated by the Customer on its property ("Host Customer").

Availability of this Service Classification is subject to the terms and conditions approved in BPU Docket No. GR11060361. This Service Classification is closed.

CONDITIONS PRECEDENT

The Host Customer must sign an Agreement with the Company. The Host Customer must provide assurance that it will use initially at least twenty (20) percent of the re-fueling facility's capacity. The Host Customer must agree to provide the general public with reasonable access to a re-fueling facility for purposes of fueling the general public's natural gas vehicles.

DEFINITION OF TERM USED HEREIN

"GGE" is the Gasoline Gallon Equivalent for converting a price per therm of natural gas to a price per gallon of gasoline. The GGE shall be determined in accordance with local standards.

CHARACTER OF SERVICE

Firm gas service where Host Customer may purchase gas supply pursuant to the Company's Rider "A" for Basic Gas Supply Service ("BGSS"), from the Company through a contract, or from a Third Party Supplier.

MONTHLY RATES**Customer Charge:**

Customer Charge per meter per month \$82.85

Delivery Charge:

Delivery Charge per therm ~~\$0.49630.5173~~
(\$0.6200.647 per GGE)

BGSS Charge:

Monthly BGSS Charge per therm for Sales Customers without a gas supply contract See "Rate Summaries" at the end of this Tariff

These rates are inclusive of all applicable taxes and riders and are subject to adjustment for all other applicable riders, taxes, assessments or similar charges lawfully imposed by the Company. See Rate Summaries at the end of this Tariff for a summary of components incorporated in these rates.

MINIMUM MONTHLY CHARGE

The minimum monthly charge shall be the Customer Charge.

Where service is taken for less than one month, the minimum charge will be prorated.

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~~20212020~~
Wall, NJ 07719

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RIDER "F"**ENERGY EFFICIENCY - EE****AVAILABILITY**

Applicable to the following service classifications:

RS	Residential Service	ED	Economic Development
DGR	Distributed Generation Residential	EGS	Electric Generation Service
GSS	General Service - Small	NGV	Natural Gas Vehicle
GSL	General Service - Large	IS	Interruptible Service
FT	Firm Transportation	IGS	Incremental Gas Service
DGC	Distributed Generation Commercial	CNG	Compressed Natural Gas

In accordance with P.L. 2011, c. 9, societal benefits charges pursuant to section 12 of P.L. 1999, c.23 (C.48:3-60), or any other charge designed to recover the costs for societal, energy efficiency, conservation, environmental or renewable energy programs, are not applicable to natural gas delivery service or commodity that is used to generate electricity that is sold for resale. Natural gas used to generate electricity that is sold for resale by customers served under the above Service Classifications is exempt from costs associated with the Energy Efficiency ("EE") Rider and shall not be billed for such charges. In order to qualify for this exemption, a customer who uses natural gas to generate electricity for resale must complete an Annual Certification form, provided by the Company, to certify the percentage of natural gas used at the customer's New Jersey generation facilities during the previous calendar year to generate electricity that was sold for resale. For a new customer or a customer with less than twelve months of usage history, estimates supported by engineering and operational plans may be used to determine the percentage of natural gas used to generate electricity sold for resale.

The EE rate is for recovering authorized expenditures related to the energy-efficiency programs as approved in BPU Docket Nos. ~~GO09010057~~, GO10030225, GR11070425, GO12070640, ~~and~~ GO14121412, and GO18030355, collectively referred to as "Energy Efficiency Programs Established 2010-2018", and GO2009 ("Energy Efficiency Programs Established 2021-Present").

DETERMINATION OF THE EE

The Company shall file an annual request with the Board for implementation of an EE charge, which shall be applicable to customers on all service classifications to which Rider "F" applies. The EE recovery year is intended to run from October 1st to September 30th of each year.

Date of Issue: ~~November 13, 2019~~
 Issued by: ~~Mark G. Kahrer, Vice President~~
~~2020~~November 15, 2019
 Wall, NJ 07719

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RIDER "F"ENERGY EFFICIENCY – EE (continued)**I. Determination of the Rate**

The EE rate shall have two components, an Energy Efficiency Programs 2010-2018 rate and an Energy Efficiency Programs Established 2021-Present rate, which shall be derived in the following manner:

1. An estimate shall be made of the total annual cost related to the programs. This rider will include only expenses for energy-efficiency programs approved by the Board for Energy Efficiency Programs 2010-2018 and Energy Efficiency Programs Established 2021-Present in BPU Docket Nos. GO09010057, GO10030225, GR11070425, GO12070640, GO14121412, and GO18030355 unless modified further by Board Order.
2. An estimate shall be made of the total annual volume of prospective jurisdictional sales of gas (in therms) to NJNG's sales and transportation customers.
3. The prospective costs for Energy Efficiency Programs 2010-2018 and Energy Efficiency Programs Established 2021-Present (per paragraph (1)) shall separately be adjusted upward or downward to the extent of the amount of any prior under-recovery or over-recovery to determine the total costs to be recovered and then shall be divided by the estimated total volume of prospective sales (per paragraph (2)), to determine the per unit cost recovery rates. The result shall be carried for four (4) decimal places.

II. Tracking the Operation of the EE

The Company shall calculate carrying costs on the average monthly balances of under-or over-recovery of deferred costs based upon the Company's monthly commercial paper rate. The carrying cost calculation shall be based on the net of tax beginning and end average monthly balance. The carrying costs shall accrue on a monthly basis and shall be rolled into the balance at the end of each EE recovery year.

In accordance with P.L., 1997 c. 162, the charges applicable under this Rider include provision for the New Jersey Sales and Use Tax ("SUT"), and when billed to customers exempt from this tax, as set forth in Rider "B", shall be reduced by the amount of such tax included therein.

The EE ~~ratefactor~~ shall be credited/collected on a per therm basis within the Delivery Charge for all service classifications to which Rider "F" applies. The EE ~~ratefactor~~ is as set forth below:

<u>Energy Efficiency Programs Established 2010-2018</u>	<u>\$0.0171</u>
<u>Energy Efficiency Programs Established 2021-Present</u>	<u>\$0.0210</u>
<u>EE</u>	<u>\$0.0381</u>
	<u>\$0.0171</u>

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 Wall, NJ 07719

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NEW JERSEY NATURAL GAS COMPANY

~~Second~~First Revised Sheet No. 252Superseding ~~First Revised~~Original Sheet No. 252

BPU No. 10 - Gas

SUMMARY OF RESIDENTIAL RATE COMPONENTSResidential Heating Customers

<u>Customer Charge</u>		<u>Bundled</u> <u>Sales</u>	<u>Transport</u>	<u>Reference</u>
Customer Charge per meter per month		10.14	10.14	
<u>Delivery Charge ("DEL") per therm</u>				
Pre-tax Base Rate		0.4690	0.4690	
SUT		<u>0.0311</u>	<u>0.0311</u>	Rider B
After-tax Base Rate		0.5001	0.5001	
CIP		0.0304	0.0304	Rider I
EE		0.0171 <u>0.0381</u>	0.0171 <u>0.0381</u>	Rider F
<i>Subtotal</i>	a	0.5476 <u>0.5686</u>	0.5476 <u>0.5686</u>	
<i>Balancing Charge</i>	b	0.1026	0.1026	Rider A
<i>Societal Benefits Charge ("SBC"):</i>				
NJ's Clean Energy		0.0213	0.0213	Rider E
RA		0.0145	0.0145	Rider C
USF		<u>0.0116</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	c	<u>0.0474</u>	<u>0.0474</u>	
Delivery Charge (DEL)	a+b+c=d	0.6976 <u>0.7186</u>	0.6976 <u>0.7186</u>	
<u>Basic Gas Supply Charge ("BGS")</u>				
BGS	e	<u>0.3320</u>	x	Rider A

With the exception of the Customer Charge, these rates are on a per-therm basis.

Customer Charge, DEL rate and BGS rate are presented on customer bills.

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NEW JERSEY NATURAL GAS COMPANY

BPU No. 10 - Gas

~~Second First Revised Sheet No. 253~~
Superseding ~~First Revised Original Sheet No. 253~~SUMMARY OF RESIDENTIAL RATE COMPONENTSResidential Non-Heating Customers

<u>Customer Charge</u>		<u>Bundled Sales</u>	<u>Transport</u>	<u>Reference</u>
Customer Charge per meter per month		10.14	10.14	
<u>Delivery Charge ("DEL") per therm</u>				
Pre-tax Base Rate		0.4690	0.4690	
SUT		<u>0.0311</u>	<u>0.0311</u>	Rider B
After-tax Base Rate		0.5001	0.5001	
CIP		(0.0334)	(0.0334)	Rider I
EE		0.0171 <u>0.0381</u>	0.0171 <u>0.0381</u>	Rider F
<i>Subtotal</i>	a	0.4838 <u>0.5048</u>	0.4838 <u>0.5048</u>	
<i>Balancing Charge</i>	b	0.1026	0.1026	Rider A
<i>Societal Benefits Charge ("SBC"):</i>				
NJ's Clean Energy		0.0213	0.0213	Rider E
RA		0.0145	0.0145	Rider C
USF		<u>0.0116</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	c	<u>0.0474</u>	<u>0.0474</u>	
Delivery Charge (DEL)	a+b+c=d	0.6338 <u>0.6548</u>	0.6338 <u>0.6548</u>	
<u>Basic Gas Supply Charge ("BGS")</u>				
BGS	e	<u>0.3320</u>	x	Rider A

With the exception of the Customer Charge, these rates are on a per-therm basis.

Customer Charge, DEL rate and BGS rate are presented on customer bills.

Date of Issue: ~~September 23, 2020~~
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~~2021~~2020
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Effective for service rendered on
 and after ~~July~~October 1,

NEW JERSEY NATURAL GAS COMPANY

~~Second~~First Revised Sheet No. 254Superseding ~~First Revised~~Original Sheet No. 254

BPU No. 10 - Gas

SUMMARY OF RESIDENTIAL RATE COMPONENTSResidential Distributed Generation Service

		<u>Nov - Apr</u>	<u>May - Oct</u>	<u>Reference</u>
<u>Customer Charge</u>				
Customer Charge per meter per month		10.14	10.14	
<u>Delivery Charge ("DEL") per therm</u>				
Pre-tax Base Rate		0.1685	0.1185	
SUT		<u>0.0112</u>	<u>0.0079</u>	Rider B
After-tax Base Rate		0.1797	0.1264	
EE		0.0171 0.0381	0.0171 0.0381	Rider F
<i>Subtotal</i>	a	0.1968 0.2178	0.1435 0.1645	
<i>Balancing Charge</i>	b	0.1026	0.1026	Rider A
<i>Societal Benefits Charge ("SBC"):</i>				
NJ's Clean Energy		0.0213	0.0213	Rider E
RA		0.0145	0.0145	Rider C
USF		<u>0.0116</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	c	<u>0.0474</u>	<u>0.0474</u>	
Delivery Charge (DEL)	a+b+c=d	0.3468 0.3678	0.2935 0.3145	
<u>Basic Gas Supply Charge ("BGS")</u>				
BGS	e	<u>0.3320</u>	<u>0.3320</u>	Rider A

With the exception of the Customer Charge, these rates are on a per-therm basis.

Customer Charge, DEL rate and BGS rate are presented on customer bills.

Date of Issue: ~~September 23, 2020~~
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~~2021~~2020
 Wall, NJ 07719

Effective for service rendered on
 and after ~~July~~October 1,

SUMMARY OF FIRM COMMERCIAL RATE COMPONENTS**General Service - Small (GSS)**

		<u>Bundled</u> <u>Sales</u>	<u>Transport</u>	<u>Reference</u>
<u>Customer Charge</u>				
Customer Charge per meter per month		34.85	34.85	
<u>Delivery Charge ("DEL") per therm</u>				
Pre-tax Base Rate		0.4153	0.4153	
SUT		<u>0.0275</u>	<u>0.0275</u>	Rider B
After-tax Base Rate		0.4428	0.4428	
CIP		0.0400	0.0400	Rider I
EE		0.0171 <u>0.0381</u>	0.0171 <u>0.0381</u>	Rider F
<i>Subtotal</i>	a	0.4999 <u>0.5209</u>	0.4999 <u>0.5209</u>	
<i>Balancing Charge</i>	b	0.1026	0.1026	Rider A
<i>Societal Benefits Charge ("SBC"):</i>				
NJ's Clean Energy		0.0213	0.0213	Rider E
RA		0.0145	0.0145	Rider C
USF		<u>0.0116</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	c	<u>0.0474</u>	<u>0.0474</u>	
Delivery Charge (DEL)	a+b+c=d	0.6499 <u>0.6709</u>	0.6499 <u>0.6709</u>	
<u>Basic Gas Supply Charge ("BGS")</u>				
BGS	e	<u>0.3320</u>	x	Rider A

With the exception of the Customer Charge, these rates are on a per-therm basis.

Customer Charge, DEL rate and BGS rate are presented on customer bills.

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~~2021~~2020
 Wall, NJ 07719

Effective for service rendered on
 and after ~~July~~October 1,

SUMMARY OF FIRM COMMERCIAL RATE COMPONENTSGeneral Service - Large (GSL)

		<u>Bundled Sales</u>	<u>Transport</u>	<u>Reference</u>
<u>Customer Charge</u>				
Customer Charge per meter per month		80.79	80.79	
<u>Demand Charge</u>				
Demand Charge per month applied to HMAD		2.63	2.63	
<u>Delivery Charge ("DEL") per therm</u>				
Pre-tax Base Rate		0.2711	0.2711	
SUT		<u>0.0180</u>	<u>0.0180</u>	Rider B
After-tax Base Rate		0.2891	0.2891	
CIP		0.0303	0.0303	Rider I
EE		0.0171 0.0381	0.0171 0.0381	Rider F
<i>Subtotal</i>	a	0.3365 0.3575	0.3365 0.3575	
<i>Balancing Charge</i>	b	0.1026	0.1026	Rider A
<i>Societal Benefits Charge ("SBC"):</i>				
NJ's Clean Energy		0.0213	0.0213	Rider E
RA		0.0145	0.0145	Rider C
USF		<u>0.0116</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	c	<u>0.0474</u>	<u>0.0474</u>	
Delivery Charge (DEL)	a+b+c=d	0.4865 0.5075	0.4865 0.5075	
<u>Basic Gas Supply Charge ("BGS")</u>				
BGS	e	<u>0.2943</u>	X	Rider A

With the exception of the Customer Charge and Demand charges, these rates are on a per-therm basis.

Customer, Demand, DEL, and BGS charges are presented on customer bills.

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~~2021~~2020
 Wall, NJ 07719

Effective for service rendered on
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SUMMARY OF FIRM COMMERCIAL RATE COMPONENTSFIRM TRANSPORTATION (FT)

		<u>Transport</u>	<u>Reference</u>
<u>Customer Charge</u>			
Customer Charge per meter per month		271.28	
<u>Demand Charge</u>			
Demand Charge per therm per month applied to MDQ		1.98	
<u>Delivery Charge ("DEL") per therm</u>			
Pre-tax Base Rate		0.0748	
SUT		<u>0.0050</u>	Rider B
After-tax Base Rate		0.0798	
EE		<u>0.0171</u>	Rider F
		<u>0.038</u>	
		<u>1</u>	
Subtotal	a	<u>0.0969</u>	
		<u>0.117</u>	
		<u>2</u>	
<u>Societal Benefits Charge ("SBC"):</u>			
NJ's Clean Energy		0.0213	Rider E
RA		0.0145	Rider C
USF		<u>0.0116</u>	Rider H
Total SBC	b	<u>0.0474</u>	
Delivery Charge (DEL)	a+b=c	<u>0.1443</u>	
		<u>0.165</u>	
		<u>3</u>	

With the exception of the Customer Charge and Demand charges, these rates are on a per-therm basis.

Customer, Demand, and DEL, charges are presented on customer bills.

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NEW JERSEY NATURAL GAS COMPANY

~~Twelfth~~ Revised Sheet No. 258Superseding ~~Eleventh~~ Revised Sheet No. 258

BPU No. 10 - Gas

SUMMARY OF FIRM COMMERCIAL RATE COMPONENTSCommercial Distributed Generation Service – DGC-Balancing

		<u>Nov - Apr</u>	<u>May - Oct</u>	<u>Reference</u>
<u>Customer Charge</u>				
Customer Charge per meter per month		82.43	82.43	
<u>Demand Charge</u>				
Demand Charge per therm per month applied to PBQ		1.94	1.94	
<u>Delivery Charge (“DEL”) per therm</u>				
Pre-tax Base Rate		0.0616	0.0310	
SUT		<u>0.0041</u>	<u>0.0021</u>	Rider B
After-tax Base Rate		0.0657	0.0331	
EE		0.0171 <u>0.0381</u>	0.0171 <u>0.0381</u>	Rider F
<i>Subtotal</i>	a	0.0828 <u>0.1038</u>	0.0502 <u>0.0712</u>	
<u>Societal Benefits Charge (“SBC”):</u>				
NJ’s Clean Energy		0.0213	0.0213	Rider E
RA		0.0145	0.0145	Rider C
USF		<u>0.0116</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	b	<u>0.0474</u>	<u>0.0474</u>	
Balancing Charge	c	<u>0.1026</u>	<u>0.1026</u>	
DGC-Balancing Delivery Charge (DEL)	a+b+c=d	0.2328 <u>0.2538</u>	0.2002 <u>0.2212</u>	
<u>Basic Gas Supply Charge (“BGS”)</u>				
BGS	e	<u>0.2943</u>	<u>0.2943</u>	Rider A

The Delivery Charges for DGC-Balancing above include the Balancing Charge as reflected in Rider “A” of this Tariff for customers whose Third Party Supplier delivers gas on their behalf pursuant to paragraph (3) under Deliveries to Company’s Designated Delivery Meters section of Service Classification TPS.

With the exception of the Customer Charge and Demand Charge, these rates are on a per-therm basis.

Customer Charge, Demand Charge, DEL, and BGS charges are presented on customer bills.

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~~2021~~2020
 Wall, NJ 07719

Effective for service rendered on
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SUMMARY OF FIRM COMMERCIAL RATE COMPONENTS**Commercial Distributed Generation Service – DGC-FT**

		<u>Nov - Apr</u>	<u>May - Oct</u>	<u>Reference</u>
<u>Customer Charge</u>				
Customer Charge per meter per month		82.43	82.43	
<u>Demand Charge</u>				
Demand Charge per therm per month applied to PBQ		1.94	1.94	
<u>Delivery Charge ("DEL") per therm</u>				
Pre-tax Base Rate		0.0616	0.0310	
SUT		<u>0.0041</u>	<u>0.0021</u>	Rider B
After-tax Base Rate		0.0657	0.0331	
EE		0.0171 <u>0.0381</u>	0.0171 <u>0.0381</u>	Rider F
<i>Subtotal</i>	a	0.0828 <u>0.1038</u>	0.0502 <u>0.0712</u>	
<u>Societal Benefits Charge ("SBC"):</u>				
NJ's Clean Energy		0.0213	0.0213	Rider E
RA		0.0145	0.0145	Rider C
USF		<u>0.0116</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	b	<u>0.0474</u>	<u>0.0474</u>	
DGC-FT Delivery Charge (DEL)	a+b=c	0.1302 <u>0.1512</u>	0.0976 <u>0.1186</u>	

For DGC-FT customers whose Third Party Supplier delivers gas on their behalf pursuant to paragraph (1) under Deliveries to Company's Designated Delivery Meters section of Service Classification TPS, the DGC-FT Delivery Charges above exclude the Balancing Charge reflected in Rider "A" of this Tariff.

With the exception of the Customer Charge and Demand Charge, these rates are on a per-therm basis.

Customer Charge, Demand Charge, and DEL rate are presented on customer bills

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~~20212020~~ Wall, NJ 07719

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SUMMARY OF FIRM COMMERCIAL RATE COMPONENTS**Electric Generation Service (EGS)**

		Without <u>SUT</u>	With <u>SUT</u>	<u>Reference</u>
<u>Customer Charge</u>				
Customer Charge per meter per month		877.26	935.38	
<u>Demand Charge</u>				
Demand Charge per therm per month applied to MDQ		1.5132	1.6134	
<u>Delivery Charge ("DEL") per therm</u>				
Pre-tax Base Rate		0.0047	0.0047	
SUT		<u>0.0000</u>	<u>0.0003</u>	Rider B
Delivery Charge excluding Riders C, E, F and H	a	0.0047	0.0050	
EE	b	0.01600.03 <u>57</u>	0.01710.0 <u>381</u>	Rider F
<i>Societal Benefits Charge ("SBC"):</i>				
NJ's Clean Energy		0.0200	0.0213	Rider E
RA		0.0136	0.0145	Rider C
USF		<u>0.0108</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	c	<u>0.0444</u>	<u>0.0474</u>	
Delivery Charge (DEL) including Riders C, E, F and H	a+b+c=d	0.06510.08 <u>48</u>	0.06950.0 <u>905</u>	

With the exception of the Customer Charge and Demand charges, these rates are on a per-therm basis.

Customer, Demand, and DEL charges are presented on customer bills.

Natural gas used to generate electricity that is sold for resale by customers served under this Service Classification is exempt from Riders B, C, E, F, and H and shall not be billed for such charges subject to the Customer's submission of an Annual Certification form.

Date of Issue: ~~September 23, 2020~~
Issued by: Mark G. Kahrer, Vice President
~~20212020~~ Wall, NJ 07719

Effective for service rendered on
and after ~~July~~ October 1,

BPU No. 10 - Gas

~~Twelfth~~~~Eleventh~~ Revised Sheet No. 261
Superseding ~~Eleventh~~~~Tenth~~ Revised Sheet No. 261**SUMMARY OF INTERRUPTIBLE RATE COMPONENTS****INTERRUPTIBLE SALES AND TRANSPORTATION****With Alternate Fuel**

		<u>Bundled</u>	<u>Transport</u>	<u>Reference</u>
		<u>Sales</u>		
<u>Customer Charge</u>				
Customer Charge per meter per month		572.98	572.98	
<u>Delivery Charge ("DEL") per therm</u>				
Pre-tax Base Rate		0.0494	0.0494	
SUT		<u>0.0033</u>	<u>0.0033</u>	Rider B
After-tax Base Rate		0.0527	0.0527	
EE		0.0171 <u>0.0381</u>	0.0171 <u>0.0381</u>	Rider F
<i>Subtotal</i>	a	0.0698 <u>0.0908</u>	0.0698 <u>0.0908</u>	
<u>Societal Benefits Charge ("SBC"):</u>				
NJ's Clean Energy		0.0213	0.0213	Rider E
RA		0.0145	0.0145	Rider C
USF		<u>0.0116</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	b	<u>0.0474</u>	<u>0.0474</u>	
Delivery Charge (DEL)	a+b=c	0.1172 <u>0.1382</u>	0.1172 <u>0.1382</u>	
<u>Basic Gas Supply Charge ("BGS")</u>				
Monthly BGSS	d	0.4031	X	Rider A
BGS	d	<u>0.4031</u>	X	

With the exception of the Customer Charge, these rates are on a per-therm basis.

Customer Charge, DEL rate and BGS rate are presented on customer bills.

Date of Issue: ~~September 23, 2020~~
 Issued by: ~~Mark G. Kahrer, Vice President~~
~~2021~~2020
 Wall, NJ 07719

Effective for service rendered on
 and after ~~July~~October 1,

BPU No. 10 - Gas

~~Twelfth Eleventh~~ Revised Sheet No. 262
Superseding ~~Eleventh Tenth~~ Revised Sheet No. 262**SUMMARY OF INTERRUPTIBLE RATE COMPONENTS****INTERRUPTIBLE SALES AND TRANSPORTATION****Without Alternate Fuel**

		<u>Bundled</u>		
		<u>Sales</u>	<u>Transport</u>	<u>Reference</u>
<u>Customer Charge</u>				
Customer Charge per meter per month		572.98	572.98	
<u>Delivery Charge ("DEL") per therm</u>				
Pre-tax Base Rate		0.2753	0.2753	
SUT		<u>0.0182</u>	<u>0.0182</u>	Rider B
After-tax Base Rate		0.2935	0.2935	
EE		0.0171 <u>0.0381</u>	0.0171 <u>0.0381</u>	Rider F
<i>Subtotal</i>	a	0.3106 <u>0.3316</u>	0.3106 <u>0.3316</u>	
<u>Societal Benefits Charge ("SBC"):</u>				
NJ's Clean Energy		0.0213	0.0213	Rider E
RA		0.0145	0.0145	Rider C
USF		<u>0.0116</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	b	<u>0.0474</u>	<u>0.0474</u>	
Delivery Charge (DEL)	a+b=c	0.3580 <u>0.3790</u>	0.3580 <u>0.3790</u>	
<u>Basic Gas Supply Charge ("BGS")</u>				
Monthly BGSS	d	0.4031	X	Rider A
BGS	d	<u>0.4031</u>	X	

With the exception of the Customer Charge, these rates are on a per-therm basis.

Customer Charge, DEL rate and BGS rate are presented on customer bills.

Date of Issue: ~~September 23, 2020~~
 Issued by: ~~Mark G. Kahrer, Vice President~~
~~2021~~2020
 Wall, NJ 07719

Effective for service rendered on
 and after ~~July~~October 1,

SUMMARY OF FIRM COMMERCIAL RATE COMPONENTSCompressed Natural Gas (CNG)

		<u>Bundled Sales</u>	<u>Transport</u>	<u>Reference</u>
<u>Customer Charge</u>				
Customer Charge per meter per month		82.85	82.85	
<u>Delivery Charge ("DEL") per therm</u>				
Pre-tax Base Rate		0.2050	0.2050	
CNG Charge		0.2000	0.2000	
SUT		<u>0.0268</u>	<u>0.0268</u>	Rider B
After-tax Base Rate		0.4318	0.4318	
EE		0.0171 <u>0.0381</u>	0.0171 <u>0.0381</u>	Rider F
<i>Subtotal</i>	a	0.4489 <u>0.4699</u>	0.4489 <u>0.4699</u>	
<u>Societal Benefits Charge ("SBC"):</u>				
NJ's Clean Energy		0.0213	0.0213	Rider E
RA		0.0145	0.0145	Rider C
USF		<u>0.0116</u>	<u>0.0116</u>	Rider H
<i>Total SBC</i>	b	<u>0.0474</u>	<u>0.0474</u>	
Delivery Charge (DEL)	a+b=c	0.4963 <u>0.5173</u>	0.4963 <u>0.5173</u>	
<u>Basic Gas Supply Charge ("BGS")</u>				
Monthly BGSS	d	0.4031	X	Rider A
BGS	d	<u>0.4031</u>	X	

With the exception of the Customer Charge, these rates are on a per-therm basis.

Customer, DEL, and BGSS charges are presented on customer bills.

Date of Issue: ~~September 23, 2020~~
 Issued by: ~~Mark G. Kahrer, Vice President~~
~~20212020~~
 Wall, NJ 07719

Effective for service rendered on
 and after ~~July~~October 1,

SUMMARY OF RESIDENTIAL AND FIRM COMMERCIAL RATE COMPONENTSNatural Gas Vehicles (NGV)Gas Available at Company Facilities

		\$ per therm	\$ per GGE	Reference
<u>Delivery Charge ("DEL")</u>				
Pre-tax Base Rate		0.2050		
SUT		<u>0.0136</u>		Rider B
After-tax Base Rate		0.2186		
EE		0.0171 <u>0.038</u>		Rider F
		<u>1</u>		
<i>Subtotal</i>	a	0.2357 <u>0.256</u>		
		<u>7</u>		
<i>Societal Benefits Charge ("SBC"):</i>				
NJ's Clean Energy		0.0213		Rider E
RA		0.0145		Rider C
USF		<u>0.0116</u>		Rider H
<i>Total SBC</i>	b	<u>0.0474</u>		
Delivery Charge (DEL)	a+b=c	0.2831 <u>0.304</u>	0.3540 <u>0.380</u>	
		<u>1</u>		
Compression Charge	d	0.4958	0.620	
Monthly Basic Gas Supply Charge ("BGS")	e	<u>0.4031</u>	<u>0.504</u>	Rider A
Total Variable Charge	c+d+e=f	1.1820 <u>1.203</u>	1.4781 <u>1.504</u>	
		<u>0</u>		
New Jersey Motor Vehicle Fuel Tax	g		0.000	
Federal Excise Fuel Tax *	h		0.185	
Federal Excise Fuel Tax Credit *	i		<u>(0.517)</u>	
Total Price	f+g+h+i =j		1.1461 <u>1.172</u>	

Date of Issue: ~~September 23, 2020~~
 Issued by: ~~Mark G. Kahrer, Vice President~~
~~2021~~2020
 Wall, NJ 07719

Effective for service rendered on
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SUMMARY OF RESIDENTIAL AND FIRM COMMERCIAL RATE COMPONENTS

Natural Gas Vehicles (NGV)

*Adjusted to reflect Internal Revenue Service GGE Conversion.

Date of Issue: ~~September 23, 2020~~
Issued by: Mark G. Kahrer, Vice President
~~2021~~2020
Wall, NJ 07719

Effective for service rendered on
and after ~~July~~^{October} 1,

SUMMARY OF RESIDENTIAL AND FIRM COMMERCIAL RATE COMPONENTS**Natural Gas Vehicles (NGV)****Customer Owned Facilities**Reference***Customer Charge***

Residential Customer Charge per month	10.14	
Commercial Customer Charge per meter per month	82.85	

Delivery Charge ("DEL")

\$ per therm

\$ per GGE

Pre-tax Base Rate	0.2050	
SUT	<u>0.0136</u>	Rider B

After-tax Base Rate	0.2186	
EE	0.0171 <u>0.0381</u>	Rider F

<i>Subtotal</i>	a	0.2357 <u>0.2567</u>	
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Societal Benefits Charge ("SBC"):

NJ's Clean Energy	0.0213		Rider E
RA	0.0145		Rider C
USF	<u>0.0116</u>		Rider H

<i>Total SBC</i>	b	<u>0.0474</u>	
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Delivery Charge (DEL)	a+b=c	0.2831 <u>0.3041</u>	0.3540 <u>0.3804</u>
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Monthly Basic Gas Supply Charge ("BGS")	d	<u>0.4031</u>	<u>0.504</u>	Rider A
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Total Variable Charge	c+d=e	0.6862 <u>0.7041</u>	0.8580 <u>0.8844</u>
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Customer, DEL, and BGS charges are presented on customer bills for Firm Sales Gas Service.

Customer and DEL charges are presented on customer bills for Firm Transport Gas Service

Date of Issue: ~~September 23, 2020~~
 Issued by: ~~Mark G. Kahrer, Vice President~~
~~2021~~2020
 Wall, NJ 07719

Effective for service rendered on
 and after ~~July~~October 1,

NOTICE TO NEW JERSEY NATURAL GAS CUSTOMERS
Petition for Approval of Existing and Energy-Efficiency Programs
and the Associated Cost Recovery Mechanism
Docket No.

NOTICE OF FILING AND PUBLIC HEARING

TO OUR CUSTOMERS:

PLEASE TAKE NOTICE that on September 25, 2020, New Jersey Natural Gas (“NJNG” or the “Company”) filed a petition with the New Jersey Board of Public Utilities (“Board” or “BPU”) pursuant to the Board’s Order, In The Matter Of The Implementation Of P.L. 2018, c. 17 Regarding The Establishment Of Energy Efficiency And Peak Demand Reduction Programs, et al; Order Directing The Utilities To Establish Energy Efficiency And Peak Demand Reduction Programs (“CEA Order”), BPU Docket Nos. QO19010040; QO19060748; and QO17091004. (June 10, 2020). seeking approval to extend and expand the energy-efficiency programs offered through NJNG’s The SAVEGREEN Project® (“SAVEGREEN”) to meet the requirement of the Clean Energy Act, and continuation of the associated cost recovery mechanism. The existing programs include discounted energy saving measures, grants, financing opportunities, technical assistance and other resources to encourage energy saving measures and investments in energy-efficiency improvements by NJNG’s residential, commercial and industrial customers, including low-income to moderate-income customers and multi-family properties. NJNG also requested that the Board allow the Company to continue the Board-approved Energy-Efficiency (“EE”) Rider, Rider F, that has been in effect since August 1, 2009 for collection of the costs associated with these programs. Those costs include funds for customer incentives and the associated incremental program investments and expenses. NJNG has requested that the carrying costs associated with these programs be allowed. The Company is requesting to offer these programs for a period of three years. If approved by the BPU, the SAVEGREEN Program will continue until June 30, 2024.

The total cost of the SAVEGREEN Program is \$249.1 million which is composed of \$127.3 million of direct investment, \$98.4 million of On-Bill Repayment Program and loans and \$23.4 million of operation and maintenance expenses over the proposed three year program. NJNG has requested that the Board allow the Company to recover the costs of the program, including a return on and return of the investments associated with the program. It is estimated that NJNG would recover a total of approximately \$221.5 million from ratepayers from 2021 through 2036. In this petition, NJNG has requested a contemporaneous change to the EE. The Company has requested that the Board approve the implementation of an increase to the after-tax rate of \$0.0210 per therm effective July 1, 2021. That change, from the current after-tax rate of \$0.0171 per therm results in an overall increase of \$21.00 or 1.8 percent on a 1000-therm annual residential bill. The annual rate impact of the program for a typical residential heating customer using 1,000 therms of natural gas per year is expected to average \$21.71 per year or 1.9 percent over the 2021-2036 period, and is expected to peak at \$40.10 in October 2023. The estimated rate impacts to customers for 2021 through 2025 are set forth in the following chart:

NEW JERSEY NATURAL GAS COMPANY

RATE IMPACT

	July 2021	Oct 2022	Oct 2023	Oct 2024	Oct 2025
<u>Typical Annual Bill Impacts</u>					
<i><u>Residential Non-Heat (200 annual therms)</u></i>					
Cumulative Increase from Current Bill	\$4.20	\$6.02	\$8.02	\$7.08	\$6.84
Cumulative % Increase from Current Bill	1.3%	1.9%	2.5%	2.2%	2.2%
<i><u>Residential Heat (1,000 annual therms)</u></i>					
Cumulative Increase from Current Bill	\$21.00	\$30.10	\$40.10	\$35.40	\$34.20
Cumulative % Increase from Current Bill	1.8%	2.6%	3.5%	3.1%	3.0%

General Service Small (1,200 annual therms)

Cumulative Increase from Current Bill	\$25.20	\$36.12	\$48.12	\$42.48	\$41.04
Cumulative % Increase from Current Bill	1.6%	2.3%	3.0%	2.7%	2.6%

General Service Large (15,000 annual therms)

Cumulative Increase from Current Bill	\$315.00	\$451.50	\$601.50	\$531.00	\$513.00
Cumulative % Increase from Current Bill	2.0%	2.9%	3.8%	3.4%	3.3%

Pursuant to Board Orders dated July 17, 2009 (BPU Docket Nos. EO09010056 and EO09010057), September 24, 2010 (BPU Docket No. GO10030225), January 18, 2012 (BPU Docket No. GR11070425), June 21, 2013 (BPU Docket No. GO12070640), July 23, 2015 (BPU Docket No. GO14121412), June 29, 2016 (BPU Docket No. GO14121412), and September 17, 2018 (BPU Docket No. GO18030355), NJNG is authorized to recover all costs associated with the SAVEGREEN Programs.

The EE recovery charge mechanism will operate and be applied in a manner consistent with existing components and processes of the EE Rider applicable to all jurisdictional throughput volumes. Individual customers participating in the SAVEGREEN programs are expected to achieve annual savings on their energy bills.

Pursuant to the EE Rider, NJNG shall submit annual filings for changes to the EE rate. Additionally, the Board has the statutory authority to establish the EE rate at a level it finds just and reasonable pursuant to *N.J.S.A.* 48:2-21. Therefore, the Board may establish the EE charge at a level other than that proposed by NJNG which would have an impact on a customer's bill.

PLEASE TAKE ADDITIONAL NOTICE that due to the COVID-19 state of emergency, a telephonic public hearing will be conducted on the following date and times so that members of the public may present their views on the Company's filing. Information provided at the public hearings will become part of the record of this case and will be considered by the Board in making its decision.

Date: November xx, 2020
Public Hearing 1: 4:30pm
Public Hearing 2: 5:30pm
Dial In: 1-888-619-1583
Access Code: 819208

Copies of NJNG's September 25, 2020 filing can be reviewed on the Company's website, www.njng.com/regulatory in the "Filings & Updates" subsection of the "Regulatory Info" section listed.

Representatives of the Board's Staff and Rate Counsel will participate in the telephonic public hearing. Members of the public are invited to participate by utilizing the Virtual Access Code information set forth above, and may express their views on this filing. Such comments will be made part of the final record of the proceeding to be considered by the Board. The Board is also accepting written and emailed comments. Although both will be given equal consideration, the preferred method of transmittal is via email to ensure timely receipt while the Board continues to work remotely due to the COVID-19 pandemic. Written comments may be submitted to the Board Secretary, Aida Camacho, at the Board of Public Utilities, 44 South Clinton Avenue, 9th Floor, P.O. Box 350, Trenton, NJ 08625-0350. Email comments should be submitted to: board.secretary@bpu.nj.gov. Please include the name of the petitioner and the docket number when submitting comments. Written and emailed comments will be provided the same weight as statements made at the hearings.

Hearings will continue, if necessary, on such additional dates and at such locations as the Board may designate, to ensure that all interested persons are heard.

New Jersey Natural Gas Company
Andrew K. Dembia, Esq.

NEW JERSEY NATURAL GAS COMPANY
ACCOUNTING ENTRIES

<u>Entry</u>	<u>Acct. Description</u>	<u>Debit</u>	<u>Credit</u>
<u>Accounting for NJNG SAVEGREEN Programs</u>			
EE1	To defer program expenditures and O&M		
	182 Program Investment Regulatory Asset	XXX	
	131 Cash		XXX
EE2	To amortize direct program expenditures over 10 years		
	908 Customer Assistance Expenses	XXX	
	182 Program Investment Regulatory Asset		XXX
EE3	Record the Regulatory asset recovery		
	131 Cash	XXX	
	400 Clause Revenues		XXX
	400 Clause Revenues	XXX	
	182 Regulatory Asset		XXX
EE4	To record any over/ under recovery		
	182 Regulatory Asset	XXX	
	407.3 Regulatory Debits	XXX	
	407.4 Regulatory Credits		XXX
	254 Regulatory Liability		XXX
EE5	Record cost of capital on unrecovered balance using NJNG's WACC		
	182 Regulatory Asset	XXX	
	419 Other Income	XXX	XXX
	254 Regulatory Liabilities		XXX
EE6	Record the Regulatory asset recovery On Bill Financing Repayment		
	908 Customer Assistance Expenses	XXX	
	131 Cash		XXX
	182 Regulatory Asset	XXX	
	908 Customer Assistance Expenses		XXX
EE7	Record Recovery of On Bill Financing Repayment		
	131 Cash	XXX	
	908 Customer Assistance Expenses		XXX
	908 Customer Assistance Expenses	XXX	
	182 Regulatory Asset		XXX

NJNG SAVEGREEN Program Budgets

PROGRAM YEAR 2022	Proposed Budget	Capital Costs	Utility Administration	Marketing	Outside Services	Incentives including Rebates and Financing	Inspections and Quality Control	Evaluation
Behavioral	\$ 1,846,158	\$ -	\$ 34,871	\$ 31,479	\$ 87,500	\$ 1,600,000	\$ -	\$ 92,308
EE Products	\$ 17,735,694	\$ 146,825	\$ 1,122,803	\$ 260,873	\$ 637,687	\$ 15,046,500	\$ 38,002	\$ 483,003
Existing Homes	\$ 13,413,446	\$ 440,475	\$ 1,957,330	\$ 425,916	\$ 528,778	\$ 9,521,384	\$ 74,191	\$ 465,372
Multi-family	\$ 7,399,156	\$ 111,111	\$ 1,011,828	\$ 116,390	\$ 100,597	\$ 5,835,937	\$ 3,251	\$ 220,042
Direct Install	\$ 15,197,998	\$ 146,825	\$ 385,243	\$ 216,390	\$ 268,921	\$ 13,626,704	\$ -	\$ 553,915
Energy Solutions for Business	\$ 21,597,622	\$ 369,048	\$ 682,242	\$ 216,390	\$ 243,267	\$ 19,571,792	\$ 2,825	\$ 512,058
Hybrid Heat	\$ 1,370,059	\$ 35,714	\$ 122,607	\$ 8,587	\$ 10,750	\$ 1,166,470	\$ 3,251	\$ 22,679
Portfolio	\$ 1,404,261	\$ 100,000	\$ 535,697	\$ 193,306	\$ 337,500	\$ -	\$ 37,500	\$ 200,258
Total	\$ 79,964,393	\$ 1,349,999	\$ 5,852,620	\$ 1,469,331	\$ 2,215,000	\$ 66,368,788	\$ 159,020	\$ 2,549,635
PROGRAM YEAR 2023	Proposed Budget	Capital Costs	Utility Administration	Marketing	Outside Services	Incentives including Rebates and Financing	Inspections and Quality Control	Evaluation
Behavioral	\$ 1,756,148	\$ -	\$ 35,917	\$ 32,423	\$ 87,500	\$ 1,512,500	\$ -	\$ 87,807
EE Products	\$ 19,144,201	\$ -	\$ 1,154,129	\$ 262,699	\$ 637,250	\$ 16,533,930	\$ 39,142	\$ 517,050
Existing Homes	\$ 13,989,705	\$ -	\$ 2,008,979	\$ 429,693	\$ 527,440	\$ 10,473,522	\$ 76,416	\$ 473,655
Multi-family	\$ 8,497,326	\$ -	\$ 1,022,683	\$ 116,881	\$ 106,383	\$ 7,001,314	\$ 3,349	\$ 246,716
Direct Install	\$ 16,463,881	\$ -	\$ 394,443	\$ 216,881	\$ 266,572	\$ 14,989,375	\$ -	\$ 596,610
Energy Solutions for Business	\$ 23,565,307	\$ -	\$ 700,352	\$ 216,881	\$ 241,605	\$ 21,865,843	\$ 2,910	\$ 537,716
Hybrid Heat	\$ 1,924,043	\$ -	\$ 123,928	\$ 8,845	\$ 10,750	\$ 1,749,705	\$ 3,349	\$ 27,467
Portfolio	\$ 1,022,704	\$ -	\$ 544,643	\$ 197,980	\$ 57,500	\$ -	\$ 37,500	\$ 185,082
Total	\$ 86,363,317	\$ -	\$ 5,985,074	\$ 1,482,284	\$ 1,935,000	\$ 74,126,189	\$ 162,666	\$ 2,672,103
PROGRAM YEAR 2024	Proposed Budget	Capital Costs	Utility Administration	Marketing	Outside Services	Incentives including Rebates and Financing	Inspections and Quality Control	Evaluation
Behavioral	\$ 1,672,780	\$ -	\$ 36,995	\$ 33,396	\$ 87,500	\$ 1,431,250	\$ -	\$ 83,639
EE Products	\$ 19,889,090	\$ -	\$ 1,186,396	\$ 264,580	\$ 633,994	\$ 17,229,517	\$ 40,316	\$ 534,287
Existing Homes	\$ 14,590,352	\$ -	\$ 2,062,177	\$ 433,584	\$ 526,287	\$ 10,997,199	\$ 78,709	\$ 492,396
Multi-family	\$ 9,646,477	\$ -	\$ 1,033,863	\$ 117,388	\$ 113,377	\$ 8,100,773	\$ 3,449	\$ 277,627
Direct Install	\$ 17,249,248	\$ -	\$ 403,919	\$ 217,388	\$ 264,548	\$ 15,738,843	\$ -	\$ 624,550
Energy Solutions for Business	\$ 25,536,459	\$ -	\$ 719,006	\$ 217,388	\$ 241,045	\$ 23,790,247	\$ 2,997	\$ 565,776
Hybrid Heat	\$ 2,279,749	\$ -	\$ 125,289	\$ 9,110	\$ 10,750	\$ 2,099,646	\$ 3,449	\$ 31,505
Portfolio	\$ 1,041,701	\$ -	\$ 553,857	\$ 202,795	\$ 57,500	\$ -	\$ 37,500	\$ 190,050
Total	\$ 91,905,856	\$ -	\$ 6,121,502	\$ 1,495,629	\$ 1,935,001	\$ 79,387,475	\$ 166,421	\$ 2,799,829

Note - All program costs must be committed by the end of the third program year, although some expenditures may extend into the future program years.

Overview of Utility Energy Efficiency Program Evaluation Plan

The utilities recognize the importance of incorporating Evaluation, Measurement and Verification (“EM&V”) into the energy-efficiency programs. EM&V can help assess whether program objectives are being achieved, document energy and non-energy benefits and inform future program development. This overview will address common definitions of the types of evaluations and primary evaluation objectives, the philosophy of monitoring and improving program performance, and EM&V budget considerations. The proposed budget for EM&V is reflected in Exhibit P-1 Schedule 12 and in the Program Description sections of Exhibit P-5.

Further, the utilities are not including a detailed Evaluation Plan for the Core Programs as part of this filing because of the clear intention of the June 10th Board Order for the evaluation plans to be developed in collaboration with the pending EM&V Working Group. All of the utilities are interested in being active participants in this EM&V Work Group to share both program experiences and understand the interests and concerns of the other stakeholders. The utilities anticipate that this new EM&V workgroup will provide significant input that will shape the slate of evaluation activities for this first triennial program cycle. Further, we expect that there will be a robust discussion of which types of evaluations make the most sense in the early stages of this transition. Accordingly, the utilities did not want to prejudge the outcome of the EM&V work group efforts with our own recommendations but we have included sufficient funding to support the anticipated evaluation work within our filing.

Common definitions and objectives

The State and Local Energy Efficiency Action Network (“SEE Action”) offers resources, discussion forums, and technical assistance to state and local policymakers as they seek to advance energy efficiency. Their Energy Efficiency Program Impact Evaluation Guide from December 2012 identified three primary objectives for evaluations.

- **Document the benefits** (i.e., impacts) of a program and determine whether the subject program (or portfolio of programs) met its goals
- **Identify ways to improve current and future programs** through determining why program-induced impacts occurred
- **Support energy demand forecasting and resource planning** by understanding the historical and future resource contributions of energy efficiency as compared to other energy resources.

That same guide provides the following standard categories of evaluations:

- **Impact evaluations:** assessments that determine and document the direct and indirect benefits of an energy efficiency program. Impact evaluation involves real-time and/or retrospective assessments of the performance and implementation of an efficiency program or portfolio of programs. Program benefits, or impacts, can include energy and demand savings and non-energy benefits (sometimes called co-benefits, with examples being avoided emissions, and water savings). Impact evaluations can also

- include cost-effectiveness analyses aimed at identifying relative program costs and benefits of energy-efficiency as compared to other energy resources, including both demand- and supply-side options.
- **Process evaluations:** formative, systematic assessments of an energy-efficiency program from both a customer and program administrator viewpoint. They document program operations and identify and recommend improvements that are likely to increase the program's efficiency or effectiveness for acquiring energy-efficiency resources, and improve the customer experience with the program.
 - **Market evaluations:** assessments of structure or functioning of a market, the behavior of market participants, and/or market changes that result from one or more program efforts. Market evaluation studies may include estimates of the current market role of energy-efficiency (market baselines), as well as the potential role of efficiency in a local, state, regional, or national market (potential studies). Market evaluation studies indicate how the overall supply chain and market for energy-efficiency products works and how they have been affected by a program(s). These evaluations can also include assessments of other societal, customer, or utility benefits of Energy Efficiency programs, such as the economic and job creation impacts of the programs, health benefits to society, or transmission and distribution benefits to utilities. And finally, these studies can also be used to inform changes to the portfolio of efficiency measures to be offered to customers, or the savings achieved by the measures.

Monitoring and Improving Program and Portfolio Performance

There is a feedback loop among program design and implementation, impact evaluation, and process evaluation. Program design and implementation, and evaluation are elements in a cyclical feedback process. Initial program design is informed by prior baseline and market potential studies. Ongoing impact evaluation quantifies whether a program is meeting its goals and may raise questions related to program processes and design. Process evaluation tells the story behind how the impact was achieved, and points the way toward improving program impacts by providing insight into program operations. Thus, the three elements work together to create a better, more effective program.

Budget Considerations for EM&V work

As noted, proposed budgets for EM&V are reflected in a Summary on Exhibit P-1 Schedule 12 and in the Program Descriptions of Exhibit P-5. These budgets were established with consideration of the industry standard of reserving 3% to 5% of budget for this type of work¹, excluding the cost of financing and any anticipated costs associated with a Statewide Evaluator.

¹ <https://www.aceee.org/toolkit/2020/02/evaluation-measurement-verification>

IN THE MATTER OF THE PETITION OF NEW JERSEY NATURAL GAS COMPANY FOR APPROVAL OF ENERGY EFFICIENCY PROGRAMS AND THE ASSOCIATED COST RECOVERY MECHANISM PURSUANT TO THE CLEAN ENERGY ACT, N.J.S.A. 48:3-87.8 et seq. and 48:3-98.1 et seq. BPU DOCKET NO.			
		I. General Filing Requirements - N.J.S.A. 48:3-98.1	Location in NJNG's EE filing
I	a	The utility shall provide with all filings, information and data pertaining to the specific program proposed, as set forth in applicable sections of N.J.A.C. 14:1-5.11 and N.J.A.C. 14:1-5.12.	Exhibit P-1, Petition Schedule NJNG-1 Comparative Balance Sheet - 2017, 2018, and 2019 Schedule NJNG-2 Comparative Income Statement - 2017, 2018, and 2019 Schedule NJNG-3 Balance Sheet (June 2020) Schedule NJNG-4 Statement of Revenue (June 2020) Schedule NJNG-5 Pro-Forma Income Statement Schedule NJNG-6 Payments to Affiliates Schedule NJNG-7 Consolidated Tax Adjustment Schedule NJNG-8 Notice of Filing to Counties and Municipalities Schedule NJNG-9 Proposed Tariff Sheets Schedule NJNG-10 Draft Public Notice Certification incorporated within Petition
I	b	All filings shall contain information and financial statements for the proposed program(s) in accordance with the applicable Uniform System of Accounts that is set forth in N.J.A.C. 14:1-5.12. The utility shall provide the accounts and account numbers that will be utilized in booking the revenues, costs, expenses, and assets pertaining to each proposed program so that they can be properly separated and allocated from other regulated and/or other programs.	Schedule NJNG-11 Accounting Entries Schedule JMC-1 SAVEGREEN Investments Schedule JMC-2 Cost of Capital Schedule JMC-3 Revenue Requirements Summary & Projected Bill Impacts Exhibit BJB-2 - NJNG Cost Effectiveness Results Exhibit BJB-3 - Cost Effectiveness Analysis Workpapers

I	c	The utility shall provide supporting explanations, assumptions, calculations, and work papers as necessary for each proposed program and cost recovery mechanism petition filed under N.J.S.A. 48:3-98. The utility shall provide electronic copies of such supporting information, with all inputs and formulae intact, where applicable.	Exhibit P-2, Direct Testimony of Anne-Marie Peracchio Exhibit P-3, Direct Testimony of James M. Corcoran and associated workpapers Schedule JMC-1 SAVEGREEN Investments Schedule JMC-2 Cost of Capital Schedule JMC-3 Revenue Requirements Summary & Projected Bill Impacts Exhibit BJB-2 - NJNG Cost Effectiveness Results Exhibit BJB-3 - Cost Effectiveness Analysis Workpapers
I	d	The filing shall include testimony supporting the petition, including all proposed programs.	Exhibit P-2, Direct Testimony of Anne-Marie Peracchio Exhibit P-3, Direct Testimony of James M. Corcoran Exhibit P-4, Direct Testimony of Brendon Baatz Exhibit P-5, Program Plan
I	e	For any proposed program, the utility shall be subject to the requirements in this and all subsequent Sections. If compliance with Section V of these requirements would not be feasible for a particular program or sub-program, the utility may request an exemption but must demonstrate why such exemption should be granted. Examples of historical situations that have qualified for exemption include programs that had an educational rather than equipment-based focus and programs that introduced novel ideas where documentation supporting estimated costs/benefits may not be easily produced.	Exhibit P-2, Direct Testimony of Anne-Marie Peracchio Exhibit P-4, Direct Testimony of Brendon Baatz Exhibit BJB-2 - NJNG Cost Effectiveness Results Exhibit BJB-3 - Cost Effectiveness Analysis Workpapers
I	f	If the utility is filing for an increase in rates, charges, etc. or for approval of a program that may increase rates/changes to ratepayers in the future, the utility shall include a draft public notice with the petition and proposed publication dates.	Schedule NJNG-10 Draft Public Notice
		II. Program Description	

II	a	<p>The utility shall provide a detailed description of each proposed program for which the utility seeks approval, including, if applicable:</p> <ol style="list-style-type: none"> i. Program description/design ii. Target market segment/efficiency - including eligible customers, properties, and measures/services - and eligibility requirements and processes iii. Existing incentives iv. Proposed incentives, including incentive payment processes and timeframes v. Program delivery method vi. Customer financing options vii. Customer access to current and historic energy usage data viii. Contractor requirements and role: The utility shall provide a description of the extent to which the utility intends to utilize employees, contractors, or both to deliver the program(s) and, to the extent applicable, a description of contractor requirements, training, and procurement, including for minority-, women-, and veteran-owned businesses. ix. Estimated program participants, by year x. Projected energy savings and associated calculations for each program year <ul style="list-style-type: none"> • Net annual energy savings • Net annual peak demand savings • Net lifetime energy savings • Net lifetime demand savings • Net lifetime energy savings derived from qualifying low-income customers 	<p>Exhibit P-2, Direct Testimony of Anne-Marie Peracchio (i., ii., iii., iv., v., vi., vii., viii., x., xi., xii., xiii., and xiv.) Schedule AMP-1 Summary of Existing and Proposed Incentives for NJNG Programs (iii. and iv.) Schedule AMP-2 Summary of Financing for NJNG Programs (vi.) Schedule AMP-4 Summary of Customer Access to Current and Historic Energy Usage (vii.) Schedule AMP-5 Summary of Market Barriers (xiv.) Schedule AMP-6 Savings Target Schedule (ii.) Exhibit P-4, Direct Testimony of Brendon Baatz Exhibit BJB-2 - NJNG Cost Effectiveness Results Exhibit BJB-3 - Cost Effectiveness Analysis Workpapers Exhibit BJB-7 - Summary of Quantitative Performance Indicators (x.) Exhibit BJB-8 - NJNG Energy Savings Target Development Schedule (ii.) Schedule NJNG-12 Proposed Budget in NJCEP Format (xi. and xii.) Schedule NJNG-16 Overview of Implementation Plan (xiii.) Exhibit P-5, Program Plan (ix.)</p>
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		<ul style="list-style-type: none"> • Net lifetime energy savings derived from qualifying small commercial customers <p>xi. Program budget, by year</p> <p>xii. Projected program costs, by year, broken down into the following categories, as applicable: capital cost; utility administration; marketing; outside services; incentives (including rebates and low- or no- interest loans); inspections and quality control; and evaluation. To the extent that the Board directs New Jersey's Clean Energy Program ("NJCEP") to report additional categories, the utility shall provide additional categories as applicable.</p> <p>xiii. Implementation plan for all proposed programs</p> <p>xiv. Marketing plan: The utility shall provide a description of where and how the proposed program(s)/project(s) will be marketed or promoted throughout the demographic segments of the utility's customer base and how it will be done in coordination with statewide marketing. This shall include an explanation of how the specific service, along with prices, incentives, and every bill savings for each proposed program/project, will be conveyed to customers, where available and applicable. The marketing plan shall also include a description of any known market barriers that may impact the program(s) and strategies to address known market barriers.</p>	
II	b	<p>The utility shall provide the following information about the proposed portfolio:</p> <p>i. Quality control standards and remediation policies: The utility shall provide a detailed description of the process(es) for ensuring the</p>	<p>Exhibit P-2, Direct Testimony of Anne-Marie Peracchio (i., ii., iv., v., vi, vii.)</p> <p>Schedule AMP-3 Complaint Resolution Process for NJNG Programs (i.)</p> <p>Schedule AMP-6 Savings Target Schedule (vi.)</p>

		<p>quality of the programs and resolving any customer complaints related to the program(s).</p> <p>ii. Workforce development and job training partnerships and pipelines for energy efficiency jobs, including for local, underrepresented, and disadvantaged workers</p> <p>iii. Total budget summary, including an annual budget summary</p> <p>iv. Benefit - cost analysis (as defined in Section V)</p> <p>v. EM&V strategies/plan (as defined in Section VI)</p> <p>vi. Assessment of how the programs comprising the portfolio are designed to achieve the targets established pursuant to the utility's quantitative performance indicators (as defined in Section VII)</p> <p>vii. Reporting plan (as defined in Section VIII)</p>	<p>Schedule NJNG-12 Proposed Budget in New Jersey's Clean Energy Program Format (iii.)</p> <p>Schedule NJNG-13 Evaluation, Measurement, and Verification ("EM&V") (v.)</p> <p>Schedule NJNG-17 Reporting Plan (vii.)</p> <p>Schedule NJNG-18 Overview of Workforce Development Provisions within the Filing (ii.)</p> <p>Exhibit P-4, Direct Testimony of Brendon Baatz</p> <p>Exhibit BJB-2 - NJNG Cost Effectiveness Results (iv.)</p> <p>Exhibit BJB-3 - Cost Effectiveness Analysis Workpapers (iv.)</p> <p>Exhibit BJB-5 - Summary of Economic Development and Job Creation (ii.)</p> <p>Exhibit BJB-8 - NJNG Energy Savings Target Development Schedule (vi.)</p> <p>Exhibit P-5, Program Plan</p>
II	c	<p>In areas where gas and electric service territories overlap, the utility shall also provide a description of the program structure for coordinated, consistent delivery of programs among utilities and allocation of costs and energy savings among the utilities.</p>	<p>Schedule NJNG-11 Accounting Entries</p> <p>Schedule NJNG-19 Overview of Statewide Coordination</p> <p>Exhibit P-2, Direct Testimony of Anne-Marie Peracchio</p> <p>Exhibit P-3, Direct Testimony of James M. Corcoran and associated workpapers</p> <p>Exhibit P-5, Program Plan</p>
		III. Additional Filing Information	
III	a	<p>The utility shall propose the method for treatment of Renewable Energy Certificates ("RECs"), including solar incentives, or any other renewable energy incentive developed by the Board of Public Utilities ("BPU" or "Board"), including Greenhouse Gas</p>	<p>N/A- no renewable energy programs proposed.</p>

		Emissions Portfolio and Energy Efficiency Portfolio Standards including ownership and use of the certificate revenue stream(s).	
III	b	The utility shall also propose the method for treatment of any air emission credits and offsets, including Regional Greenhouse Gas Initiative carbon dioxide allowances and offsets, including ownership and use of the certificate revenue stream(s). For programs that are anticipated to reduce electricity sales in its service territory, the utility shall quantify the expected associated annual savings in REC, solar incentive, and any other renewable energy incentive costs.	N/A
		IV. Cost Recovery Mechanism	
IV	a	The utility shall provide appropriate financial data for the proposed program(s), including estimated revenues, expenses, and capitalized investments for each of the first three years of operations and at the beginning and end of each year of the three-year period. The utility shall include pro forma income statements for the proposed program(s) for each of the first three years of operations and actual or estimated balance sheets at the beginning and end of each year of the three-year period.	Schedule NJNG-5 Pro-Forma Income Statement Exhibit P-3, Direct Testimony of James M. Corcoran and associated workpapers Schedule JMC-1 SAVEGREEN Investments Schedule JMC-2 Cost of Capital Schedule JMC-3 Revenue Requirements Summary & Projected Bill Impacts
IV	b	The utility shall provide detailed spreadsheets of the accounting treatment of the proposed cost recovery, including describing how costs will be amortized, which accounts will be debited or credited each month, and how the costs will flow through the proposed program cost recovery method.	Schedule NJNG-11 Accounting Entries
IV	c	The utility shall provide a detailed explanation, with all supporting documentation, of the recovery mechanism it proposes to utilize for cost recovery of	Exhibit P-3, Direct Testimony of James M. Corcoran

		the proposed program(s), including proposed recovery through the Societal Benefits Charge, a separate clause established for these programs, base rate revenue requirements, government funding reimbursement, retail margin, and/or other mechanisms.	
IV	d	The utility's petition for approval, including proposed tariff sheets and other required information, shall be verified as to its accuracy and shall be accompanied by a certification of service demonstrating that the petition was served on the New Jersey Division of Rate Counsel simultaneous to its submission to the Board.	Exhibit P-1, Petition Schedule NJNG-9 Proposed Tariff Sheets
IV	e	The utility shall provide a rate impact summary by year for the proposed program(s) and a cumulative rate impact summary by year for all approved and proposed programs showing the impact of individual programs, based upon a revenue requirement analysis that identifies all estimated program costs and revenues for each proposed program on an annual basis. Such rate impacts shall be calculated for each customer class. The utility shall also provide an annual bill impact summary by year for each program, and an annual cumulative bill impact summary by year for all approved and proposed programs showing bill impacts on a typical customer for each class.	Exhibit P-3, Direct Testimony of James M. Corcoran Schedule JMC-3 Revenue Requirements Summary & Projected Bill Impacts
IV	f	The utility shall provide, with supporting documentation, a detailed breakdown of the total costs for the proposed program(s), identified by cost segment (capitalized costs, operating expenses, administrative expenses, etc.). This shall also include a detailed analysis and breakdown and	Exhibit P-3, Direct Testimony of James M. Corcoran Schedule JMC-3 Revenue Requirements Summary & Projected Bill Impacts

		separation of the embedded and incremental costs that will be incurred to provide the services under the proposed program(s), with all supporting documentation. Embedded costs are costs that are provided for in the utility's base rates or through another rate mechanism. Incremental costs are costs associated with or created by the proposed program that are not provided for in base rates or another rate mechanism.	
IV	g	The utility shall provide a detailed revenue requirement analysis that clearly identifies all estimated annual program costs and revenues for the proposed program(s), including effects upon rate base and pro forma income calculations.	Exhibit P-3, Direct Testimony of James M. Corcoran Schedule JMC-3 Revenue Requirements Summary & Projected Bill Impacts
IV	h	The utility shall provide, with supporting documentation: (i) a calculation of its current capital structure, as well as its calculation of the capital structure approved by the Board in its most recent electric and/or gas base rate cases, and (ii) a statement as to its allowed overall rate of return approved by the Board in its most recent electric and/or gas base rate cases.	Exhibit P-3, Direct Testimony of James M. Corcoran Schedule JMC-2 Cost of Capital
IV	i	If the utility is seeking carrying costs for a proposed program, the filing shall include a description of the methodology, capital structure, and capital cost rates used by the utility.	Exhibit P-3, Direct Testimony of James M. Corcoran Schedule JMC-2 Cost of Capital
IV	j	A utility seeking incentives shall provide all supporting justifications and rationales for incentives, along with supporting documentation, assumptions, and calculations. Utilities that have approved rate mechanisms or incentive treatment from previous cases and are not seeking a	Consistent with the June 10 CEA order, NJNG is not seeking any incentives during this triennial.

		modification of such treatment through the current filing are not subject to this requirement.	
		V. Cost Benefit Analysis	
V	a	The utility shall conduct a benefit-cost analysis of the programs and portfolio using the New Jersey Cost Test, Participant Cost Test, Program Administrator Cost Test, Ratepayer Impact Measure Test, Total Resource Cost Test, and Societal Cost Test that assesses all program costs and benefits from a societal perspective i.e. that includes the combined financial costs and benefits realized by the utility and the customer. The utility may also provide any additional benefit- cost analysis that it believes appropriate with supporting rationales and documentation.	Exhibit P-4, Direct Testimony of Brendon Baatz Exhibit BJB-2 - NJNG Cost Effectiveness Results Exhibit BJB-3 - Cost Effectiveness Analysis Workpapers
V	b	The utility must demonstrate how the results of the test in Section V (a) support Board approval of the proposed program(s), including how the programs are designed to achieve a benefit-to-cost ratio greater than or equal to 1.0 at the portfolio level when using the New Jersey Cost Test.	Exhibit P-4, Direct Testimony of Brendon Baatz Exhibit BJB-2 - NJNG Cost Effectiveness Results Exhibit BJB-3 - Cost Effectiveness Analysis Workpapers
V	c	Renewable energy programs shall not be subject to a benefit-cost test, but the utility must quantify all direct and indirect benefits resulting from such a proposed program as well as provide the projected costs.	N/A
V	d	The level of energy and capacity savings utilized in these calculations shall be based upon the most recent Protocols to Measure Resource Savings approved by the Board to measure energy savings for NJCEP. To the extent that a protocol does not exist or an alternative protocol is proposed for a filed program, the utility must submit a	Exhibit P-4, Direct Testimony of Brendon Baatz Exhibit BJB-2 - NJNG Cost Effectiveness Results Exhibit BJB-3 - Cost Effectiveness Analysis Workpapers

		measurement methodology for the program or contemplated measure for approval by the Board.	
V	e	For cost effectiveness calculations, the utility shall also estimate and reflect in the energy and capacity savings any free rider and spillover effects, i.e., savings associated with participating customers who would have implemented energy efficiency or renewable energy measures without N.J.S.A. 48:3-98.1 benefits or incentives.	Exhibit P-4, Direct Testimony of Brendon Baatz Exhibit BJB-2 - NJNG Cost Effectiveness Results Exhibit BJB-3 - Cost Effectiveness Analysis Workpapers
		VI. Evaluation, Measurement, and Verification (“EM&V”)	
VI	a	The utility shall describe the methodology, process, and strategies for monitoring and improving program and portfolio performance related to the utility’s targets established pursuant to the quantitative performance indicators.	Schedule NJNG-13 Evaluation, Measurement, and Verification (“EM&V”) Exhibit P-2, Direct Testimony of Anne-Marie Peracchio Schedule AMP-6 Savings Target Schedule Exhibit BJB-8 - NJNG Energy Savings Target Development Schedule
		VII. Quantitative Performance Indicators: Targets	
VII	a	The utility shall file quantitative performance indicator (“QPI”) values based on the metrics applicable to each program year of the three-year program filing cycle.	Exhibit P-2, Direct Testimony of Anne-Marie Peracchio Exhibit P-4, Direct Testimony of Brendon Baatz Exhibit BJB-7 - Summary of Quantitative Performance Indicators
VII	b	The utility shall provide a description of how the proposed portfolio achieves the targets established for each utility pursuant to the following QPIs, as applicable for each program year: i. Net annual energy savings ii. Net annual peak demand savings iii. Net lifetime energy savings	Exhibit P-2, Direct Testimony of Anne-Marie Peracchio Schedule AMP-6 Savings Target Schedule Exhibit P-4, Direct Testimony of Brendon Baatz (i., ii., iii., iv., v., vi., vii.) Exhibit BJB-7 - Summary of Quantitative Performance Indicators

		<ul style="list-style-type: none"> iv. Net lifetime demand savings v. Net present value of net benefits as determined by the Utility Cost Test vi. Net lifetime energy savings derived from qualifying low-income customers vii. Net lifetime energy savings derived from qualifying small commercial customers 	Exhibit BJB-8 - NJNG Energy Savings Target Development Schedule
		VIII. Reporting Plan: The Utility Shall Provide a Plan to Comply with the Following Reporting Requirements:	
VIII	a	<p>Quarterly progress reports: No later than 60 days following the end of each quarter, the utility shall submit a user-friendly, public report, with accompanying spreadsheet(s), that includes an overview of program performance, a narrative about customer participation and incentives paid, and results on the following program-level parameters compared to program projections and goals:</p> <ul style="list-style-type: none"> i. Energy savings: gross and net savings ii. Number of program participants: total, low-income, moderate-income, and small commercial iii. Program expenditures 	Exhibit P-2, Direct Testimony of Anne-Marie Peracchio Schedule NJNG-17 Reporting Plan
VIII	b	<p>Annual progress reports: No later than 75 days following the end of each program year, the utility shall submit a user-friendly, public report, with accompanying spreadsheet(s), that includes the same program-level data and accompanying progress/performance narratives as those that are included in the quarterly reports. The annual report will show overall progress and performance of programs that are seasonal or cyclical in nature. In addition, the annual report shall include the utility program administrator's initial and final benefit-cost</p>	Exhibit P-2, Direct Testimony of Anne-Marie Peracchio Schedule NJNG-17 Reporting Plan

		test results for the programs and portfolio (as defined in Section V), assessment of the portfolio's compliance with the targets established pursuant to the QPIs (as defined in Section VII), and any proposed changes or additions for the next year or cycle.	
VIII	c	<p>Triennial reports:</p> <p>i. Progress reports: No later than 90 days following the end of the third program year, the utility shall submit a public report that takes the place of the annual report for that year. This report will be identical to the annual report but will also review the portfolio's data and assess the portfolio's success over the three-year program cycle.</p> <p>ii. Evaluation studies: No later than 365 days following the end of the third program year, the utility shall submit the process and impact evaluations pursuant to requirements issued by the Board.</p>	Exhibit P-2, Direct Testimony of Anne-Marie Peracchio Schedule NJNG-17 Reporting Plan

**STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES**

**IN THE MATTER OF THE PETITION OF
NEW JERSEY NATURAL GAS
COMPANY FOR APPROVAL OF
ENERGY-EFFICIENCY PROGRAMS
AND THE ASSOCIATED COST
RECOVERY MECHANISM PURSUANT
TO THE CLEAN ENERGY ACT, N.J.S.A.
48:3-87.8 et seq. and 48:3-98.1 et seq.**

**AGREEMENT OF NON-
DISCLOSURE OF INFORMATION
CLAIMED
TO BE CONFIDENTIAL**

BPU DOCKET NO.

It is hereby AGREED, as of the 16th day of September 2020, by and among New Jersey Natural Gas Company (“Petitioner”), the Staff of the New Jersey Board of Public Utilities (“Board Staff”) and Division of Rate Counsel (“Rate Counsel”) (collectively, the “Parties”), who have agreed to execute this Agreement of Non-Disclosure of Information Claimed to be Confidential (“Agreement”), and to be bound thereby that:

WHEREAS, in connection with the above-captioned proceeding before the Board of Public Utilities (the “Board”), Petitioner and/or another party (“Producing Party”) may be requested or required to provide petitions, prefiled testimony, other documents, analyses and/or other data or information regarding the subject matter of this proceeding that the Producing Party may claim constitutes or contains confidential, proprietary or trade secret information, or which otherwise may be claimed by the Producing Party to be of a market-sensitive, competitive, confidential or proprietary nature (hereinafter sometimes referred to as “Confidential Information” or “Information Claimed to be Confidential”); and

WHEREAS, the Parties wish to enter into this Agreement to facilitate the exchange of information while recognizing that under Board regulations at N.J.A.C. 14:1-12.1 et seq., a request for confidential treatment shall be submitted to the Custodian who is to rule on requests made pursuant to the Open Public Records Act (“OPRA”), N.J.S.A. 47:1A-1 et seq.,

unless such information is to be kept confidential pursuant to court or administrative order (including, but not limited to, an Order by an Administrative Law Judge sealing the record or a portion thereof pursuant to N.J.A.C. 1:1-14.1, and the parties acknowledge that an Order by an Administrative Law Judge to seal the record is subject to modification by the Board), and also recognizing that a request may be made to designate any such purportedly confidential information as public through the course of this administrative proceeding; and

WHEREAS, the Parties acknowledge that unfiled discovery materials are not subject to public access under OPRA; and

WHEREAS, the Parties acknowledge that, despite each Party's best efforts to conduct a thorough pre-production review of all documents and electronically stored information ("ESI"), some work product material and/or privileged material ("protected material") may be inadvertently disclosed to another Party during the course of this proceeding; and

WHEREAS, the undersigned Parties desire to establish a mechanism to avoid waiver of privilege or any other applicable protective evidentiary doctrine as a result of the inadvertent disclosure of protected material;

NOW, THEREFORE, the Parties hereto, intending to be legally bound thereby, DO HEREBY AGREE as follows:

1. The inadvertent disclosure of any document or ESI which is subject to a legitimate claim that the document or ESI should have been withheld from disclosure as protected material shall not waive any privilege or other applicable protective doctrine for that document or ESI or for the subject matter of the inadvertently disclosed document or ESI if the Producing Party, upon becoming aware of the disclosure, promptly requests its return and takes reasonable precautions to avoid such inadvertent disclosure.

2. Except in the event that the receiving party or parties disputes the claim, any documents or ESI which the Producing Party deems to contain inadvertently disclosed protected material shall be, upon written request, promptly returned to the Producing Party or destroyed at the Producing Party's option. This includes all copies, electronic or otherwise, of any such documents or ESI. In the event that the Producing Party requests destruction, the receiving party shall provide written confirmation of compliance within thirty (30) days of such written request. In the event that the receiving party disputes the Producing Party's claim as to the protected nature of the inadvertently disclosed material, a single set of copies may be sequestered and retained by and under the control of the receiving party until such time as the Producing Party has received final determination of the issue by the Board of Public Utilities or an Administrative Law Judge, provided that the Board has not modified or rejected an order by the Administrative Law Judge.

3. Any such protected material inadvertently disclosed by the Producing Party to the receiving party pursuant to this Agreement shall be and remain the property of the Producing Party.

4. Any Information Claimed to be Confidential that the Producing Party produces to any of the other Parties in connection with the above-captioned proceeding and pursuant to the terms of this Agreement shall be specifically identified and marked by the Producing Party as Confidential Information when provided hereunder. If only portions of a document are claimed to be confidential, the producing party shall specifically identify which portions of that document are claimed to be confidential. Additionally, any such Information Claimed to be Confidential shall be provided in the form and manner prescribed by the Board's regulations at N.J.A.C. 14:1-12.1 et seq., unless such information is to be kept confidential

pursuant to court or administrative order. However, nothing in this Agreement shall require the Producing Party to file a request with the Board's Custodian of Records for a confidentiality determination under N.J.A.C. 14:1-12.1 et seq. with respect to any Information Claimed to be Confidential that is provided in discovery and not filed with the Board.

5. With respect to documents identified and marked as Confidential Information, if the Producing Party's intention is that not all of the information contained therein should be given protected status, the Producing Party shall indicate which portions of such documents contain the Confidential Information in accordance with the Board's regulations at N.J.A.C. 14:1-12.2 and 12.3. Additionally, the Producing Party shall provide to all signatories of this Agreement full and complete copies of both the proposed public version and the proposed confidential version of any information for which confidential status is sought.

6. With respect to all Information Claimed to be Confidential, it is further agreed that:

(a) Access to the documents designated as Confidential Information, and to the information contained therein, shall be limited to the Party signatories to this Agreement and their identified attorneys, employees, and consultants whose examination of the Information Claimed to be Confidential is required for the conduct of this particular proceeding.

(b) Recipients of Confidential Information shall not disclose the contents of the documents produced pursuant to this Agreement to any person(s) other than their identified employees and any identified experts and consultants whom they may retain in connection with this proceeding, irrespective of whether any such expert is retained specially and is not expected to testify, or is called to testify in this proceeding. All consultants or experts of any Party to this Agreement who are to receive copies of documents produced pursuant to this

Agreement shall have previously executed a copy of the Acknowledgement of Agreement attached hereto as "Attachment 1", which executed Acknowledgement of Agreement shall be forthwith provided to counsel for the Producing Party, with copies to counsel for Board Staff and the Rate Counsel.

(c) No other disclosure of Information Claimed to be Confidential shall be made to any person or entity except with the express written consent of the Producing Party or their counsel, or upon further determination by the Custodian, or order of the Board, the Government Records Council or of any court of competent jurisdiction that may review these matters.

7. The undersigned Parties have executed this Agreement for the exchange of Information Claimed to be Confidential only to the extent that it does not contradict or in any way restrict any applicable Agency Custodian, the Government Records Council, an Administrative Law Judge of the State of New Jersey, the Board, or any court of competent jurisdiction from conducting appropriate analysis and making a determination as to the confidential nature of said information, where a request is made pursuant to OPRA, N.J.S.A. 47:1A-1 et seq. Absent a determination by any applicable Custodian, Government Records Council, an Administrative Law Judge, the Board, or any court of competent jurisdiction that a document(s) is to be made public, the treatment of the documents exchanged during the course of this proceeding and any subsequent appeals is to be governed by the terms of this Agreement.

8. In the absence of a decision by the Custodian, Government Records Council, an Administrative Law Judge, or any court of competent jurisdiction, the acceptance by the undersigned Parties of information which the Producing Party has identified and marked as Confidential Information shall not serve to create a presumption that the material is in fact

entitled to any special status in these or any other proceedings. Likewise, the affidavit(s) submitted pursuant to N.J.A.C. 14:1-12.8 shall not alone be presumed to constitute adequate proof that the Producing Party is entitled to a protective order for any of the information provided hereunder.

9. In the event that any Party seeks to use the Information Claimed to be Confidential in the course of any hearings or as part of the record of this proceeding, the Parties shall seek a determination by the trier of fact as to whether the portion of the record containing the Information Claimed to be Confidential should be placed under seal. Furthermore, if any Party wishes to challenge the Producing Party's designation of the material as Confidential Information, such Party shall provide reasonable notice to all other Parties of such challenge and the Producing Party may make a motion seeking a protective order. In the event of such challenge to the designation of material as Confidential Information, the Producing Party, as the provider of the Information Claimed to be Confidential, shall have the burden of proving that the material is entitled to protected status. However, all Parties shall continue to treat the material as Confidential Information in accordance with the terms of this Agreement, pending resolution of the dispute as to its status by the trier of fact.

10. Confidential Information that is placed on the record of this proceeding under seal pursuant to a protective order issued by the Board, an Administrative Law Judge, provided that the Board has not modified or rejected an order by the Administrative Law Judge, or any court of competent jurisdiction shall remain with the Board under seal after the conclusion of this proceeding. If such Confidential Information is provided to appellate courts for the purposes of an appeal(s) from this proceeding, such information shall be provided, and shall continue to remain, under seal.

11. This Agreement shall not:

(a) Operate as an admission for any purpose that any documents or information produced pursuant to this Agreement are admissible or inadmissible in any proceeding;

(b) Prejudice in any way the right of the Parties, at any time, on notice given in accordance with the rules of the Board, to seek appropriate relief in the exercise of discretion by the Board for violations of any provision of this Agreement.

12. Within forty five (45) days of the final Board Order resolving the above-referenced proceeding, all documents, materials and other information designated as “Confidential Information,” regardless of format, shall be destroyed or returned to counsel for the Producing Party. In the event that such Board Order is appealed, the documents and materials designated as “Confidential Information” shall be returned to counsel for the Producing Party or destroyed within forty-five (45) days of the conclusion of the appeal.

Notwithstanding the above return requirement, Board Staff and Rate Counsel may maintain in their files copies of all pleadings, briefs, transcripts, discovery and other documents, materials and information designated as “Confidential Information,” regardless of format, exchanged or otherwise produced during these proceedings, provided that all such information and/or materials that contain Information Claimed to be Confidential shall remain subject to the terms of this Agreement. The Producing Party may request consultants who received Confidential Information who have not returned such material to counsel for the Producing Party as required above to certify in writing to counsel for the Producing Party that the terms of this Agreement have been met upon resolution of the proceeding.

13. The execution of this Agreement shall not prejudice the rights of any Party to seek relief from discovery under any applicable law providing relief from discovery.

14. The Parties agree that one original of this Agreement shall be created for each of the signatory parties for the convenience of all. The signature pages of each original shall be executed by the recipient and transmitted to counsel of record for Petitioner, who shall send a copy of the fully executed document to all counsel of record. The multiple signature pages shall be regarded as, and given the same effect as, a single page executed by all Parties.

IN WITNESS THEREOF, the undersigned Parties do HEREBY AGREE to the form and execution of this Agreement.

NEW JERSEY NATURAL GAS COMPANY



By: _____
Andrew K. Dembia, Esq.
Regulatory Affairs Counsel

GURBIR S. GREWAL
ATTORNEY GENERAL OF
NEW JERSEY
Attorney for the Staff of the Board of Public
Utilities



By: _____
Terel Klein, Esq.
Deputy Attorney General

STEFANIE A. BRAND, ESQ.
DIRECTOR
DIVISION OF RATE COUNSEL

By: *Felicia Thomas-Friel*
Felicia Thomas-Friel, Esq.
Deputy Rate Counsel

DATE: September 16, 2020

ATTACHMENT 1

**STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES**

**IN THE MATTER OF THE PETITION OF
NEW JERSEY NATURAL GAS COMPANY
FOR APPROVAL OF ENERGY-
EFFICIENCY PROGRAMS AND THE
ASSOCIATED COST RECOVERY
MECHANISM PURSUANT TO THE CLEAN
ENERGY ACT, N.J.S.A. 48:3-87.8 et seq. and
48:3-98.1 et seq.**

**AGREEMENT OF NON-DISCLOSURE
OF INFORMATION CLAIMED
TO BE CONFIDENTIAL**

BPU DOCKET NO.

ACKNOWLEDGMENT OF AGREEMENT

The undersigned is an attorney, employee, consultant and/or expert witness for the Division of Rate Counsel or an intervenor who has received, or is expected to receive, Confidential Information provided by New Jersey Natural Gas Company or by another party (Producing Party) which has been identified and marked by the Producing Party as “Confidential Information.” The undersigned acknowledges receipt of the Agreement of Non-Disclosure of Information Claimed to be Confidential and agrees to be bound by the terms of the Agreement.

Dated:

By: _____

(Name, Title and Affiliation)

Overview of NJNG Implementation Plans (MFR II.a.xiii)

While program specific implementation information is captured within the Program Plan (Exhibit P-5), this overview is intended to capture a high-level perspective of what New Jersey Natural Gas (NJNG) considered in the development of our portfolio of programs.

- During the transition, highest priority will be given to programs that are currently serving the needs of our customers and have strong trade ally engagement. While it is inevitable that there will be some unforeseen challenges during a transition of this magnitude, we intend to be ready to serve the market for nearly all of these program elements by July of 2021. Minor exceptions could be related to program elements that require longer lead time to launch.
- Programs that are new to the New Jersey market (e.g. Energy Management and Hybrid Heat) are expected to launch later in 2021. This later launch will not cause any disruption to customers or trade allies and will allow our team to focus the addressing the smooth transition of the existing programs.
- NJNG intends to maintain roles for all existing SAVEGREEN staff. NJNG is fortunate that our existing team of employees is very familiar with the existing New Jersey's Clean Energy Programs ("NJCEPs") that are being converted to Core Programs, including WARMAdvantage, Home Performance with ENERGY STAR ("HPwES") and Direct Install. Additionally, we have nearly a decade of experience running a Behavioral program and ("OBRPs") and nearly two years of experience with an Online Marketplace and the Engineered Solutions Program.
- In order to properly run our expanded portfolio programs, ensure we are meeting the new Quantitative Performance Indicators ("QPIs"), address coordination with other utilities, and properly serve our customers and trade allies, NJNG must also increase the size of our staff. We plan to secure the services of Program Implementers for some of the new programs and for some of the newer functions we will have for our existing programs (e.g. Quality Control).
- For many of the services that NJNG expects to outsource, we must begin the procurement process in Fall 2020 and Winter of 2021. It is certainly more challenging to begin the procurement process prior to having regulatory approval of our Program Plan but it is critical to ensure we can have the essential services in place to allow for a July 2021 launch of most programs. We will build flexibility and regulatory caveats into our process to allow us to make refinements to the services after BPU approval. NJNG is currently reaching out to other utilities and leveraging research organizations like Esource to review other Request for Proposals that may have similar scopes of work. The procurement of the Statewide Coordinator is likely to be the most challenging because of the need to reach consensus among all the utilities and the fact that the solution may need to be customized. More information on the Statewide Coordinator function can be found in Exhibit P-1 Schedule NJNG-19.
- The procurement effort will also include the selection of a company to serve as our overall Evaluator to help develop our more detailed Evaluation plan and support our engagement in the Evaluation, Measurement and Verification Working Group.

- NJNG and the other utilities will also continue to work closely on the development of other elements that are required to be coordinated (e.g. common forms, contractor requirements) but were not on a critical path for the submission of the filing. The utilities intend to prioritize the refinement of these elements and will initiate work on a parallel path with the discovery and settlement phases of this proceeding.
- NJNG and the utilities will continue discussions with Board Staff and NJCEP program administrator regarding other considerations to support the transition of the programs.
- NJNG intends to begin outreach to trade allies within weeks of BPU approval of the Program Plan to ensure they understand the changes and new opportunities that will begin in Fiscal Year 2022.
- We expect to be an active participant in the Marketing Working Group (“MWG”). The SAVEGREEN team will be working closely with our Corporate Communications team to address recommendations made by the (“MWG”) and establish a detailed marketing plan after BPU approval of the program plan. We would expect to begin proactive communications to customers in late June 2021.
- NJNG expects to be active participant in the Equity Working Group (“EWG”). We look forward to sharing more information about the elements of our proposal that will help more low-to-moderate income customers and underserved communities and consider how we may be able to address their recommendations when available.
- We expect to be an active participant in the Workforce Development Working Group (“WDWG”). As noted in the Overview of Workforce Development (Exhibit P-1 Schedule NJNG-18), we look forward to learning more about the State’s planned efforts to support workforce development and identifying how we can support such efforts and what gaps the utilities are able to fill.

Reporting Plan Assumptions within the Filing

NJNG recognize the importance of timely and transparent reporting to support the BPU's oversight of the management of our energy efficiency programs. Further, we appreciate the BPU's commitment to securing expert input through the formation of an Evaluation, Measurement and Verification ("EM&V") Working Group. That working group is expected to include representatives from BPU Staff, Rate Counsel, Utilities, and a Statewide Evaluation Manager with technical evaluation contractors assisting both utilities and the Board, program implementation contractors and representatives from other working groups. While this Working Group has not yet been formed, they are expected to provide guidance and input on a broad range of EM&V issues including information to be tracked and reported. NJNG intends to be an active participant in this EM&V Working Group effort as they develop their recommendations regarding reporting.

NJNG will work closely with our vendors and internal team members, including staff from our Energy Efficiency, Accounting, Information Technology, and Regulatory Affairs departments, to ensure all requirements are met on a timely basis. We recognize that the Minimum Filing Requirements call for the following reporting elements but respectfully suggest some of the requested information may benefit from further input from the EM&V working group. We also recognize that standardized formats may facilitate review for BPU staff, Rate Counsel and other stakeholders.

We also expect further discussion regarding formats and standardization to occur as part of our on-going Utility Work Group discussions with BPU Staff and Rate Counsel. With that in mind, here are some thoughts regarding what should be discussed in those conversations.

Name: Quarterly Progress Report

Timing: Within 60 days of the end of each quarter

Required Elements:

- Overview of program performance
- Narrative about customer participation and incentives paid
- Results on program level parameters compared to program projections and goals, including:
 - Energy savings: gross and net savings
 - Number of program participants: total, low-income, moderate income, and small commercial
 - Program expenditures

Areas for further consideration:

- We appreciate the Board's decision to establish a net to gross ratio of 1.0 until such time as New Jersey specific studies can be completed. We assume that after New Jersey based net to gross ratios have been identified that the energy savings reporting requirement for net savings will be based on the most recently approved evaluation study for each program.

- While it is easy to identify some of the program participant data requested based on participation in particular programs (e.g. all Moderate Income Weatherization participants are Moderate Income), that will not provide a comprehensive picture of their participation since some customers will participate in other programs where their demographic characteristics are not as easily tracked (e.g. purchase of discounted retail products). Either all stakeholders will need to understand that those participation metrics by customer segment are understated or we will need further guidance from the EM&V Working Group to develop an acceptable approach that can be consistently applied across all implementers.
- The strongest program for low-income customer participation is still expected to be the Comfort Partners program which is not part of this filing, not considered a RGGI filing and is funded through the NJCEP portion of the Societal Benefits Clause rather than our Energy Efficiency Rider. Because of these distinctions, Comfort Partners reporting has not typically been adjusted within reporting obligations for RGGI programs. It should be considered how Comfort Partners is to be treated for future reporting purposes.

Name: Annual Progress Report

Timing: No later than 75 days following the end of each program year

Required Elements:

- Same program-level data and narratives as referenced in the Quarterly Progress Reports
- Initial and final benefit-costs test results for the programs and portfolio
- Assessment of compliance with the Quantitative Performance Indicator targets
- Proposed changes or additions for the next year or cycle

Areas for further consideration:

- Same points noted in the Quarterly Progress Report Section
- The timing for proposed changes or additions for the next year or cycle should be explored further. It is unclear if the intention for this report is to recommend changes to be implemented within the program year that would already be underway at the time the report is filed or for implementation at the start of the next program year. NJNG would encourage a pathway that would allow for potential changes to be implemented as soon as possible to ensure we are meeting the needs of customers and leveraging new program designs that may lead to greater energy savings or lower costs to ratepayers.

Triennial Requirements

Name: Triennial Progress Reports

Timing: No later than 90 days following the end of the third program year

Required Elements:

- A Progress Report identical to the Annual Progress Report that also reviews portfolio data and assessment of program success over the full three-year cycle

Name: Evaluation Studies

Timing: No later than 365 days following the end of the third program year

Required Elements: Submission of all Process and Impact Evaluations

Areas for further consideration:

NJNG anticipates significant further discussion on these important reports as the utilities build experience running the programs, begin reporting on their performance and the role of the EM&V Working Group becomes better defined.

Overview of Workforce Development Provisions within the Filing

The utilities recognize the importance of developing and supporting strong Workforce Development Programs. There needs to be a strong pool of qualified candidates ready for companies to hire to meet the increased demand for the energy efficiency programs and projects as the utilities implement programs to strive to meet the new energy savings targets required by the Clean Energy Act. This overview will address thoughts on training needs and career paths, trade ally needs, and contracting provisions. However, the utilities are not including a detailed Workforce Development Plan for the Core Programs as part of this filing because of the clear direction in the June 10th Board Order for the workforce development and job training partnerships and pipelines to be developed in collaboration with the State and the Workforce Development Working Group and Equity Working Group.

NJNG is interested in being an active participant in the Workforce Development Working Group to share anticipated program hiring needs and understand the interests, feedback and concerns of the other stakeholders. The utilities anticipate that this new work group will provide significant input that will shape the recommended slate of programs and policies to develop a robust pipeline of workers able to meet the needs of a growing energy efficiency industry in New Jersey and to ensure that local, underrepresented, and disadvantaged workers are included in those opportunities.

Additionally, NJNG will hire a new staff member to serve as an Equity and Workforce Development Specialist to ensure NJNG is actively advancing the recommendations from the Equity and Workforce Development Working Groups, including building relationships with local community organizations and educational institutions.

Training Needs and Career Paths

In order for the utilities to reach the aggressive energy efficiency goals established by the Clean Energy Act, New Jersey will need to significantly increase the number of trained professionals and skilled trade persons who are proficient in meeting the needs of residential, commercial and multi-family projects, such as:

- Auditors
- HVAC technicians
- Plumbers
- Electricians
- Seal-up and insulation contractors
- Engineers
- Analysts (energy modeling and evaluation, customer service, financial tracking, cost benefit analysis, demographic analysis)
- Program staff with a strong understanding of the approved energy efficiency programs and supporting administrative staff
- Outreach Specialists
- Facility Managers

We recognize that these positions require a broad range of technical training and educational experience and that it is in our interest to partner with New Jersey based vocational institutions, community colleges, universities, community-based organizations, and non-profits. We anticipate that most of these entities will have some level of representation with either the Workforce Development Working Group or the Equity Working Group and look forward to hearing their input. We expect the discussion within those working groups will include insights from successful models in other states and other industries as well as efforts already underway in New Jersey. Taking into account recommendations from those groups and funding from either the State or what the utilities are reserving within these filings, we hope to start to launch programs in Spring of 2021.

Trade Ally Needs

While ensuring there is trained staff available is a critical path, the utilities also recognize there must be a pool of employers interested in hiring these individuals. While the utilities will be hiring some individuals directly and will see strong interest from implementers and trade allies under direct contracts with the utilities, we recognize that we must also engage the open market to understand the needs of contractors and other firms. Organizations like the New Jersey Air Conditioning Contractors Association (NJACCA), the New Jersey Association of Plumbing, Heating, and Cooling Contractors (NJPHCC) and the New Jersey Association of Energy Engineers (NJAEI) provide industry leadership and guidance to energy businesses, and should be included in the Working Group to guide policies and program designs that will meet the needs of existing and new contractors.

We expect the Working Groups to also explore paths that can help Women and Minority Owned Businesses grow and thrive in the Clean Energy Economy. The potential for coaching or incubator programs could ensure that underrepresented individuals have a greater chance to share in management and ownership opportunities.

Contracting Provisions

The utilities will be following internal procurement protocols for the services that will be secured to implement our programs. We are all willing to include the amount of business placed with minority, women, veteran and service disabled veteran owned businesses (“MWVBEs”) as part of our rating criteria when evaluating contract proposals.

Budget Considerations for Workforce Development Programs

NJNG included a \$200,000 annual proposed budget for our Workforce Development Programs and those costs have been reflected within our Cost Benefit Analysis. This budget is established to ensure that there is adequate funding to launch and maintain programs during this initial triennial period. In the event that the State identifies adequate funding from other sources to support these types of programs, the utilities may be able to reduce their planned expenditures.

New Jersey Natural Gas Company

NJ Statewide Coordinator Role and Responsibilities for Plan Development Teams

In response to the New Jersey Board of Public Utilities' Order (see BPU DOCKET NOS. QO1901040, QO19060748 & QO17091004 dated June 10, 2020), directing each electric public utility and gas public utility in the State of New Jersey to establish energy efficiency ("EE") and peak demand reduction ("PDR") programs pursuant to the Clean Energy Act of 2018, the New Jersey investor-owned electric and gas utilities are collaborating in order to implement programs in a consistent manner and develop supportive processes, procedures, requirements, and forms.

Coordinated Program Offerings

To support the coordinated delivery of Core and certain additional program offerings in situations that involve gas and electric savings opportunities in overlapping utility territories, the Utilities have established a framework that will align key program elements through use of Interconnected Tracking Systems supported by use of a Statewide Coordinator System, aligned Utility Responsibilities, and Coordinated Program Elements as further described below. This structure will support the coordinated delivery of appropriate energy efficiency measures in the following Program or Sub-program offerings:

Core Offerings

- Energy Efficient Products
- Home Performance with ENERGY STAR
- Multi-Family
- Direct Install
- Prescriptive and Custom Measures

Additional Utility-Led Offerings

- Moderate-Income Weatherization
- Quick Home Energy Check-Up
- Engineered Solutions
- Energy Management

Interconnected Tracking Systems

To support consistency across the state and to align the above coordinated program offerings, the utilities will contract with a single third-party entity to serve as a Statewide Coordinator ("SWC") for measures and costs that impact more than one utility in situations where gas and electric service territories overlap. This entity, to be selected through a competitive procurement process, will provide a software platform to cross-reference eligible customers, identify the local gas and electric company serving the customer, identify completed and in-progress efficiency projects, and perform independent allocations of energy savings and costs for coordinated program offerings.

These costs and savings will be allocated between the Utility that provides the program services (i.e. “Lead Utility”) and the Utility with whom the services were coordinated (i.e. “Partner Utility”).

In areas where gas and electric service territories overlap, the utilities will design program elements that support consistent delivery of the above coordinated program offerings among all of the utilities to enable the SWC to allocate shared costs and energy savings appropriately based on the fuel types impacted by EE measures.

Statewide Coordinator System Responsibilities

- Serve as a central platform to ensure data minimums required for coordinated data elements, exchange protocols, and serve as a repository for shared measure costs and shared savings for applicable programs.
- Track participation specific to utility programs that require coordination (e.g. screen prior participation in coordinated program offerings)
- Serve as a clearing house for pre-determined data formats and exchanges
- Perform allocation of dual-fuel or partner-fuel savings and cost for customers with separate gas and electric utilities, sharing of costs, investments, and applicable to customer financing
- Determine and provide supporting reports respective to utility invoice balances for allocation of shared measure costs (e.g. costs of respective measures and share of costs)
- Provide monthly reports of coordinated program activity so that customer participation and program results may be tracked

Utility Responsibilities

The Utilities will implement certain program operations through either internal resources, or under contract with third-party implementation contractor(s) (“TPIC”), outside of the Statewide Coordinator system. By retaining these functions, the Utilities can maintain a strong line of sight to program operations and still work collaboratively with the other Utilities in offering coordinated programs to New Jersey customers. These functions include, where appropriate:

- Customer enrollment
- Developing consistent enrollment forms to collect agreed-upon customer information to share between the utilities
- Screening and qualifying contractors for Utility programs
- Customer care functions
- Marketing of programs
- Providing in-home/business auditing or direct-install of efficiency measures
- Communicating availability of customer financing options
- Integrating with other Utility or Co-managed programs
- Sponsoring EE program applications including paying initial incentives to customers and contractors
- Invoicing peer Utility partners for coordinated program costs

Coordinated Program Elements

As envisioned by the Board's direction on coordinated program offerings, the Utilities' programs are designed in a way to minimize customer confusion and present consistent opportunities for customer participation with access to both electric and gas measures simultaneously, where appropriate. The utilities recognize that programs will evolve after initial launch and commit to ongoing collaborative efforts among the Utilities to continue program alignment. Central to both initial launch and ongoing efforts will be a focus by the Utilities to standardize the following wherever possible:

- Common forms for contractors and customers with uniform field requirements
- Contractor minimum requirements and credentials for applicable programs
- Eligible customers and property requirements
- Eligible measures
- Incentive structures through use of an agreed-upon standard range
- Software platforms or interfaces to be used by market contractors
- Targeted bonus approaches for customers that meet specific policy priorities (e.g. income qualified, targeted geographic locations,)

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NEW JERSEY NATURAL GAS COMPANY

**DIRECT TESTIMONY OF ANNE-MARIE PERACCHIO
DIRECTOR – CONSERVATION AND CLEAN ENERGY**

7

I. INTRODUCTION AND BACKGROUND

8 **Q. PLEASE STATE YOUR NAME, AFFILIATION AND BUSINESS ADDRESS.**

9 A. My name is Anne-Marie Peracchio and I am the Director, Conservation and Clean
10 Energy for New Jersey Natural Gas Company (the “Company” or “NJNG”). My
11 business address is 1415 Wyckoff Road, Wall, New Jersey 07719.

12 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL
13 BACKGROUND.**

14 **A.** In 1990, I received a Bachelor of Science degree in Accounting with a double major in
15 Philosophy from the University of Scranton, and in 1997 a Master’s of Business
16 Administration from Monmouth University. I previously worked as a Certified Public
17 Accountant in the State of New York. From September 1990 to June 1993, I was
18 employed by KPMG Peat Marwick in various positions within the Audit Department.

19 In June 1993, I accepted a position with New Jersey Resources Corporation, the
20 parent of NJNG, in the Internal Audit Department and held that position until February
21 1995 when I accepted a position as a Senior Rate Analyst in the Regulatory Affairs
22 Department of the Company. In July 1997, I was promoted to Manager, Regulatory
23 Affairs and in January 1999, I was promoted to Director, Regulatory Affairs. In
24 December 2006, I was appointed as the Director, Conservation and Affordability until
25 December 2009, when my responsibilities shifted to serve as the Director, Conservation
26 and Clean Energy Policy. In November 2015, my responsibilities were broadened to
27 include both policy and operations for energy-efficiency programs as the Director,
28 Conservation and Clean Energy.

1 **Q. WHAT IS YOUR INVOLVEMENT WITH NJNG'S EXISTING ENERGY-**
2 **EFFICIENCY PROGRAMS?**

3 A. I report directly to the Vice President, Regulatory Affairs. I am responsible for the
4 development and implementation of the Company's customer conservation programs,
5 pursuant to the Board's approval of the Conservation Incentive Program ("CIP"), and
6 I manage the efforts of the team who implements the NJNG energy-efficiency program
7 - The SAVEGREEN Project® ("SAVEGREEN"). I also identify opportunities to help
8 drive cultural changes within the organization to support the Company's concerted
9 focus on energy conservation. Most of those programs fall under the Company's
10 Conserve to Preserve® ("CTP") initiative that will be discussed in more detail below.
11 Additionally, I have been and continue to be involved in the development of NJNG's
12 policy positions on a number of energy-related issues, including the State and Local
13 Energy Efficiency Action Network. I have served as a Company representative on a
14 number of committees and task forces for New Jersey's Clean Energy Program™
15 ("NJCEP"), Sustainable Jersey™, the Consortium for Energy Efficiency ("CEE") and
16 the American Gas Association ("AGA"). I also serve as Chair of the Board of Trustees
17 for Sustainable Jersey and as a Board Member for Lead New Jersey. I have also played
18 a significant role in the joint utility efforts to coordinate programs.

19

20 **Q. HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY**
21 **PROCEEDINGS?**

22 A. Yes. I have testified on behalf of NJNG in numerous Levelized Gas Adjustment
23 proceedings, the precursor to Basic Gas Supply Service ("BGSS"), BGSS cases and
24 other rate related filings before the New Jersey Board of Public Utilities (the "BPU" or
25 "Board"). I also actively participated through the stakeholder process meetings that the
26 Office of Clean Energy conducted over the last year.

1 Q. **PLEASE SUMMARIZE THE BOARD APPROVALS THAT NJNG IS**
2 **SEEKING THROUGH THIS FILING?**

3 A. NJNG is seeking Board authority to expand its energy-efficiency programs for a period
4 of three-years with related implementation costs allowed as of the effective date of the
5 Board Order approving this filing, along with costs incurred prior to the Order's
6 effective date. The programs will continue to be delivered through SAVEGREEN and
7 include a significant expansion of these clean energy programs to ensure a broad range
8 of opportunities so that all segments of the market can participate and advance New
9 Jersey's clean energy goals. The portfolio is designed to comply with the requirements
10 of the Clean Energy Act ("CEA") set forth in the June 10, 2020 BPU Order ("CEA
11 Order").

12 Consistent with the terms of the CEA Order, NJNG has requested that the Board
13 allow the Company to recover the costs of the program, including a return on and return
14 of the investments associated with the program. A detailed review of the costs and
15 benefits is set forth in the Testimonies of James M. Corcoran, Exhibit P-3 and Brendon
16 Baatz, Exhibit P-4.

17 Q. **WHAT IS THE PURPOSE OF YOUR TESTIMONY AND THAT OF OTHER**
18 **WITNESSES WHO SUPPORT THE COMPANY'S PETITION?**

19 A. In this testimony, I describe how the SAVEGREEN programs will serve the needs of
20 our customers, support trade allies and meet the requirements of the CEA Order. This
21 includes addressing collaborative utility efforts to develop the Core Programs and how
22 the anticipated recommendations from planned Working Groups referenced in the CEA
23 Order have influenced the preparation of this filing.

24 NJNG is also submitting the pre-filed direct testimony of James M. Corcoran,
25 Director of Revenue Requirement for NJNG (Exhibit P-3) (the "Corcoran Testimony")
26 and Brendon J. Baatz, Gabel Associates (Exhibit P-4) (the "Baatz Testimony). Mr.
27 Corcoran explains the ratemaking aspects of the Company's petition, including
28 projected revenue requirements and customer bill impacts based on the proposed
29 recovery of the program investments and related costs. Mr. Baatz explains the approach

1 to the Cost Benefit Analysis (“CBAs”), the Quantitative Performance Indicators
2 (“QPIs”) for the proposed portfolio of programs, estimated economic impacts from the
3 program, and related supporting information. NJNG’s filing also includes the
4 Minimum Filing Requirements (“MFRs”) established in the CEA Order. To facilitate
5 the review of each program, NJNG is including a Program Plan (Exhibit P-5) that
6 addresses many of the required MFRs in a consistent format. Attached to and made a
7 part of this filing is Exhibit P-1 Schedule NJNG-14 that lists the MFRs and the location
8 of the requested information within this filing.

9
10 **II. SAVEGREEN HISTORY**

11 **Q. PLEASE PROVIDE SOME BACKGROUND ON SAVEGREEN’S HISTORY.**

12 A. NJNG has offered energy-efficiency programs to its customers since September 2009.
13 While there have been numerous refinements to SAVEGREEN since that initial BPU
14 approval, most of the programs were originally designed to complement programs
15 offered through NJCEP and leverage utility resources. Our most recent case expanded
16 our portfolio to include additional programs that NJNG implemented completely
17 independent of NJCEP. The July 2009 Order and all subsequent orders have also
18 addressed the recovery of the costs necessary to deliver SAVEGREEN programs to
19 customers, including grants, incentives, incremental operation and maintenance
20 (“O&M”) expenses and investment-related carrying costs and income taxes.
21 Specifically, the Company was authorized to implement the Energy-Efficiency (“EE”)
22 Rider to its Tariff, designated as Rider F, which enables the recovery of SAVEGREEN
23 program offerings.

24
25 **Q. WHAT ARE THE GOALS THAT GUIDE THE DEVELOPMENT OF NJNG’S**
26 **ENERGY EFFICIENCY PROGRAM?**

27 A. The energy-efficiency programs offered by NJNG were historically structured with
28 three primary goals in mind. The first goal is to offer cost-effective programs that are

1 consistent with New Jersey energy policy. The second goal is to encourage customers
2 to take into consideration energy efficiency whenever equipment is purchased, both
3 when customers proactively plan on improving the energy efficiency of their home or
4 building and when unplanned equipment replacements are needed. The third goal is to
5 provide customers with options that address various impediments to the adoption of
6 energy-efficient equipment and encourage customers to take the next step(s) towards
7 achieving higher efficiency overall. With this filing, NJNG maintained a focus on those
8 goals but also had to balance new requirements from the CEA and related CEA Order.
9 The new considerations include:

- 10 • the ability to meet or exceed the goals of the CEA
 - 11 • collaboration and coordination with the other Investor Owned Energy
12 Utilities in New Jersey
 - 13 • a focus on expanding access to underserved customers and communities
- 14

15 **Q. PLEASE SUMMARIZE THE APPROVALS SOUGHT BY NJNG THROUGH**
16 **THIS FILING.**

17 A. The Company is requesting that the BPU approve the continuation and expansion of
18 the SAVEGREEN programs and related terms for a three-year period beginning on
19 July 1, 2021, with recognition of preparatory work necessary to be ready to serve
20 customers on that date. The programs are discussed in significant detail in the Program
21 Plan (Exhibit P-5). The Program Plan provides an overview of each of the proposed
22 programs and related subprograms and addresses the applicable MFRs. It is grouped
23 into two distinct sections- Core Utility Programs and Additional Utility Led Programs.
24 The remaining, broader MFRs are addressed within supporting testimony and
25 schedules. An overview document indicating where supporting information for each
26 MFR is presented is included as Exhibit P-1 Schedule NJNG-14.

1 Q. **IS THE COMPANY SEEKING ANY EXEMPTIONS FROM THE MFRs?**

2 A. NJNG is not seeking any specific exemptions from the MFRs. However, the filing
3 reflects the current status of Working Groups focusing on matters addressed by the
4 MFRs. NJNG intends to refine our strategies to address recommendations from the
5 Working Groups wherever possible. There is more discussion of that in Section V of
6 this testimony.

7 **III. SAVEGREEN'S ALIGNMENT WITH THE CLEAN ENERGY ORDER**

8

9 Q. **PLEASE DESCRIBE THE UTILITY COORDINATION EFFORTS IN THE**
10 **DEVELOPMENT OF THE CORE PROGRAMS.**

11 A. The CEA Order expresses a clear directive for the utilities to work together on the
12 design of the Core Programs. It calls for the following program elements to be
13 coordinated:

- 14 • Common forms for use by customer and contractors;
- 15 • Contractor requirements;
- 16 • Customer and property eligibility requirements and processes;
- 17 • Eligible measures;
- 18 • Incentive ranges;
- 19 • Incentive payment processes and timeframes;
- 20 • Customer and contractor engagement platforms;
- 21 • Data platforms and database sharing among program administrators where
22 appropriate and
- 23 • Quality Control Standards and remediation policies.

24

25 While the utilities had been working collaboratively for more than a year throughout
26 CEA proceeding, our discussions regarding coordination intensified in the Spring of
27 2020. We organized into subcommittees by sector and by topic to delve into detailed
28 discussions regarding measures, incentives and overall program structure. We all
29 currently run energy efficiency programs. Some utilities were able to contribute

1 significant insights regarding their experiences running programs in New Jersey and
2 strong understanding of NJCEP’s current suite of programs and others brought a fresh
3 perspective from their experiences in other states.
4

5 **Q. HAVE THE UTILITIES REACHED AGREEMENT ON ALL OF THE**
6 **COORDINATED ELEMENTS NOTED ABOVE?**

7 A. No. Given the incredibly tight time frame between the issuance of the CEA Order and
8 the filing due date, we had to prioritize which elements to focus on first. It was quickly
9 clear that we had to focus on the elements that are critical to the preparation of the
10 filing, especially those that affect the modeling and program plan design. As an
11 example, we didn’t need to agree on what common forms were needed to support the
12 programs, but we did need to agree on eligible measures and incentive ranges. All the
13 utilities are committed to working parallel paths over the next year to advance the
14 regulatory process for the filings, participate in public working groups, and continue
15 detailed utility discussions on the coordinated elements to support the launch of
16 programs after BPU approval.
17

18 **Q. HOW DO THE UTILITIES PLAN TO SUPPORT COMPREHENSIVE**
19 **PROJECTS AND MEASURES THAT SAVE ENERGY ON BOTH FUELS?**

20 A. The utilities took into consideration that customers and contractors would prefer to deal
21 with a single utility for comprehensive projects for the entire process, from the time the
22 application is filed to the final payment of incentives. With that customer and
23 contractor experience in mind, we agreed to establish a Statewide Coordinator
24 (“SWC”). The SWC will be a single third-party entity to serve as a clearinghouse for
25 measures and costs that impact more than one utility in situations where gas and electric
26 service territories overlap.¹ NJNG’s service territory overlaps with Jersey Central
27 Power and Light’s (“JCP&L”) and Atlantic City Electric’s (“ACE”) service territories.

¹ NJNG’s service territory overlaps with Jersey Central Power and Light’s (“JCP&L”) and Atlantic City Electric’s (“ACE”) service territories.

1 This entity, to be selected through a competitive procurement process, will provide a
2 software platform to cross-reference eligible customers, identify the local gas and
3 electric company serving the customer, identify completed and in-progress efficiency
4 projects, and perform independent allocations of energy savings and costs for
5 coordinated program offerings. These costs and savings will be allocated between the
6 Utility that provides the program services (i.e. “Lead Utility”) and the Utility with
7 whom the services were coordinated (i.e. “Partner Utility”). More information on the
8 SWC is presented as Exhibit P-1 Schedule NJNG-19.

9

10 **Q. CAN YOU EXPLAIN MORE ABOUT THE LEAD UTILITY AND PARTNER**
11 **UTILITY ROLES?**

12 A. The Lead Utility will be the primary contact for any customer or contractor interactions
13 on that project. They will also issue the incentive payment and transmit all necessary
14 information to the SWC to facilitate the allocation of costs and energy savings. The
15 Partner Utility is not intended to be a passive entity. They may be called upon to
16 provide supporting energy usage information to support the project and will need to
17 record the customer’s participation in their own system of record, reserve funding to
18 pay the incentive, and refresh marketing profiles to ensure they aren’t sending target
19 marketing to that customer for a program they have already participated in.

20 **Q. PLEASE DESCRIBE THE QPIs IN THE CEA ORDER.**

21 A. The CEA Order established seven QPIs:
22 1. Net annual energy savings
23 2. Net annual peak demand savings
24 3. Net lifetime energy savings
25 4. Net lifetime demand savings
26 5. Net present value of net benefits as determined by the Utility Cost Test
27 6. Net lifetime energy savings derived from qualifying-low income customers
28 7. Net lifetime energy savings derived from qualifying small commercial
29 customers.

1 **Q. HOW HAVE THOSE QPIS BEEN ADDRESSED WITHIN THIS FILING?**

2 A. Mr. Baatz addresses the QPIS. Please refer to the testimony of Brendon Baatz (Exhibit
3 P-4) and Schedule BJB-7 for more information.
4

5 **Q. DOES NJNG EXPECT TO ACHIEVE AND POSSIBLY EXCEED THE**
6 **UTILITY ENERGY TARGETS ESTABLISHED BY THE CEA ORDER**
7 **DURING THIS FIRST TRIENNIAL?**

8 A. Yes. NJNG expects to achieve and possibly exceed the CEA Order target goal for all
9 three years of the triennial. Please refer to Schedule AMP-6 for a comparison to
10 targets.
11

12 **Q. WHY IS NJNG PROPOSING A PORTOFLIO THAT MAY EXCEED THE**
13 **ENERGY TARGETS?**

14 A. NJNG believes that targeting this level of energy savings is critical for the following
15 reasons:

- 16 • To support a consistent level of activity in our service territory for the NJCEP
17 programs where we are taking full ownership. Considering the state's interest in
18 achieving all cost-effective energy efficiency and advancing the clean energy
19 economy, our portfolio must continue to serve the existing markets at a comparable
20 level.
- 21 • It will help us serve new markets that have been identified as policy priorities within
22 the CEA Order and through the CEA proceeding. Examples include the launches
23 of the Moderate-Income Weatherization Program, the new Core Multi-Family
24 program and the Quick Home Energy Check-up ("QHEC") which includes
25 elements designed to help renters.
- 26 • It will allow NJNG to learn about new program approaches that will be critical to
27 position us to achieve the increasing savings targets in the later years which grow
28 at a dramatic rate.

1 **Q. HOW WILL THE PROPOSED PROGRAMS HELP LOWER ENERGY BILLS**
2 **AND REDUCE LONG-TERM ENVIRONMENTAL IMPACTS OF ENERGY**
3 **USAGE?**

4 A. The supporting analysis shows that this SAVEGREEN filing is a cost-effective
5 portfolio of programs. The benefits of the program outweigh the costs. (See Exhibit P-
6 4 Baatz Testimony). While it is difficult to predict energy savings, the estimated
7 aggregate lifetime savings is more than 128 million therms.

8 **Q. HOW WILL THE PROPOSED PROGRAMS HELP MAXIMIZE PEAK**
9 **DEMAND SAVINGS?**

10 A. Since many of the SAVEGREEN programs support whole-house/whole-building
11 approaches, there has always been an added benefit of reduced demand created by the
12 energy-efficiency investments. For example, seal-up and insulation work results in
13 energy savings for heating and air conditioning load since the system does not have to
14 compensate for warm/cool air that previously would have escaped. Some of the
15 proposed programs include incentives to encourage customers to invest in Smart
16 thermostats, which on a larger scale will provide opportunities for customers to
17 participate in demand response programs. The peak day demand reduction is estimated
18 to be 598 decatherms by 2027.

19 **Q. HOW WILL THE PROPOSED PROGRAMS PROVIDE EQUITABLE ACCESS**
20 **TO ENERGY EFFICIENCY PROGRAMS?**

21 A. Our SAVEGREEN proposal focuses on a number of approaches that can help low to
22 moderate income customers reduce their energy bills. This includes special incentives
23 for the HVAC programs to make the energy efficiency upgrades more accessible; an
24 efficient products program to offer lower cost energy efficiency products that can
25 provide immediate savings and appeal to renters as well as homeowners; waivers for
26 the home energy assessment fee; distribution of free energy conservation kits in
27 partnership with local foodbanks and community organizations; and a new moderate
28 income weatherization program along with a program that serves the needs of a broad

1 range of multi-family properties by offering multiple program options that should
2 increase their likelihood of participating. NJNG is also streamlining the process to
3 allow automatic qualification for these special incentives based upon either designated
4 geographic location (e.g. Urban Enterprise Zones) or participation in another qualifying
5 program.
6

7 **Q. HOW WILL THE PROPOSED PROGRAMS HELP MINIMIZE LOST**
8 **OPPORTUNITIES?**

9 A. The proposed programs help to support and influence the customers' decision-making
10 processes before or at the time they evaluate equipment options to reinforce the
11 importance of investing in energy-efficient units. Since those decisions are only made
12 on average every 15 to 20 years, it is crucial to influence purchase decisions for as
13 many customers as possible. If a customer is not able to afford the necessary
14 incremental investment in high-efficiency equipment at or before the time of purchase,
15 that opportunity is lost for a significant time period.

16 Through SAVEGREEN, residential customers can participate in energy-
17 efficiency programs that provide the means of reducing their individual energy costs
18 through the installation of high-efficiency HVAC. By focusing on the whole-house,
19 participants receive the greatest benefit from higher-efficiency equipment and secure
20 more energy savings at the time they are focused on making investment decisions.
21 Finally, the NJNG repayment programs provide funds to homeowners who might not
22 otherwise be able to make the necessary energy-efficiency investments.

23 For public service entities (e.g. municipalities, universities and colleges,
24 schools, hospitals, non-profit entities) as well as multi-family properties, NJNG would
25 be offering programs that provide a whole building or facility audit along with proposed
26 cost-effective energy efficiency measures to ensure that there are no lost opportunities
27 for these facilities.

28 Commercial and Industrial customers would have expanded access to financing
29 under our proposal and a new Energy Management program to help find cost effective

1 savings in existing facilities, including some strategies that would not require
2 substantial capital investment.

3 **Q. HOW WILL THE PROPOSED PROGRAMS HELP TO ADVANCE A CLEAN**
4 **ENERGY ECONOMY?**

5 A. The SAVEGREEN programs help advance the clean energy economy by generating
6 significant customer demand for investing in energy efficiency equipment, addressing
7 barriers that limit customer participation (e.g. availability of OBRP programs tied to
8 utility credit payment history), expanding the offerings in both the residential and
9 commercial markets and launching a multi-family program.

10 NJNG's proposed energy efficiency programs will stimulate the clean energy
11 economy through the creation of an estimated 5,605 full time equivalent (FTE) total
12 job-years within New Jersey. This includes 2,855 direct FTE job-years and 2,749
13 indirect and induced FTE job-years. Please refer to Baatz Testimony (P-4) and Exhibit
14 BJB-5 for the basis of the estimated jobs described above.

15 NJNG is also committed to be an active participant in the Workforce
16 Development (“WFD”) Working Group and has proposed a modest budget to help
17 support and complement statewide efforts. Please refer to Exhibit P-1 Schedule NJNG-
18 18 for more information.

19 **IV. PROPOSED PROGRAMS (MFR IIa)**

20 **Q. HOW IS THIS SECTION OF YOUR TESTIMONY ADDRESSING**
21 **SAVEGREEN PROGRAMS ORGANIZED?**

22 A. The focus of this section of my testimony is a high-level overview of NJNG’s proposed
23 programs in three general categories for Core Programs: 1) Residential 2) Multi-family,
24 3) Commercial and Industrial, and three general categories for Additional Utility Lead
25 Programs: 1) Residential, 2) Commercial and Industrial, and 3) Hybrid Heat. I will
26 provide some context for each of the program categories and then briefly address each
27 respective program or subprogram. Significantly more detail is provided in the
28 supporting Program Plan, Exhibit P-5.

1 **Q. CAN YOU ADDRESS THE DISTINCTION BETWEEN WHAT IS A CORE**
2 **PROGRAM AND WHAT IS A UTILITY LED INITIATIVE PROGRAM?**

3 A. Yes. In general, the Core Program and subprograms are designed to replicate the
4 coverage of measures and similar approaches for particular markets to what is currently
5 being served by NJCEP today, the Utility Led Initiatives represent approaches that have
6 not been covered by NJCEP or have not been broadly offered throughout the state. The
7 one exception would be the fact that the Multi-family program is a Core Program
8 offering and it does not match directly to a current NJCEP offering but does follow
9 some of the key elements of the program that NJCEP intended to launch last fiscal year.

10 As programs that are mapping to existing offerings, Core Program and subprograms
11 will have a greater level of consistency across the state. The utilities are continuing to
12 coordinate on the key program elements that the CEA Order identified. Additional
13 Utility Led Initiatives will offer a greater level of flexibility for implementation. This
14 should not be viewed as a negative because slight variations in approaches provide the
15 opportunity to test and learn about the success of different approaches. Even though
16 there is flexibility, the utilities are making every effort to align on some elements,
17 especially for the utilities that overlap. This is evidenced by the fact that many of these
18 programs will flow through the Statewide Coordinator.

19 **Q. PLEASE DESCRIBE THE CORE RESIDENTIAL OFFERINGS.**

20 A. The Core Residential Program is based on the foundation of several existing NJCEP
21 Programs - Energy Efficient Products, WARM/COOLAdvantage Program, Appliance
22 Recycling, and Home Performance with ENERGY STAR (“HPwES”). After extensive
23 joint utility discussions, there was a consensus decision to condense these programs for
24 administrative efficiency. As a result, the Core Residential Program is comprised of
25 the Efficient Products program and the Existing Homes - HPwES subprogram.

26

27 • Efficient Products program will provide incentive for efficient products,
28 including retail products, appliances, HVAC equipment, and appliance

1 recycling.² The program will leverage a variety of channels, including an online
2 marketplace, downstream rebates to customers, up-front rebates, reduced point
3 of sale costs, a midstream or upstream component and a network of trade allies
4 and a collaboration with local foodbanks and non-profit organizations serving
5 customers in need. The program will provide incentives for energy efficient
6 lighting, appliances, electronics, and heating and cooling equipment, as well as
7 other energy efficiency products (e.g. smart thermostats, water saving
8 measures, weatherization items, and prepackaged kits). Measures range in type
9 and price but include both electric and natural gas technologies that improve
10 energy efficiency in the home. The program may include customer
11 opportunities at no up-front cost to engage and introduce customers to energy
12 savings opportunities and achieve energy savings. Up-front rebates will also
13 be offered to reduce initial costs on some purchases, and OBRP or access to
14 financing with similar terms will be available to further reduce first cost barriers
15 for select products. This program is designed to provide easy and cost-effective
16 access to energy efficient measures through customers' preferred channels and
17 provide a means to encourage customers to take the first steps toward energy
18 efficiency.

- 19 • The Existing Homes - HPwES subprogram will provide a holistic approach for
20 customers to explore and invest in the efficiency and comfort of their homes.
21 All participants in this subprogram must have an initial energy audit performed
22 directly by a qualified HPwES contractor or auditor. That audit will develop
23 an energy efficiency action-plan that includes recommendations for upgrades
24 and available incentives. To ensure the upgrades are accessible to customers,
25 there will be financing available through either an OBRP or access to financing
26 with similar terms, as well as special treatment for low- to moderate-income
27 customers

² Appliance recycling is part of the core program but will be limited to the EDCs.

1 **Q. PLEASE DESCRIBE THE CORE MULTI-FAMILY PROGRAM.**

2 **A.** The Core Multi-Family Program will provide, in conjunction with the customer, a
3 structured screening review to identify and develop the project plan for the customer.
4 Potential program services include customer engagement with energy efficiency
5 education through energy assessments, installation of standard energy savings
6 measures, comprehensive energy savings opportunities including prescriptive
7 equipment replacement, custom retrofit projects and engineered solutions and
8 emergency equipment replacement. In addition, this program will provide OBRP or
9 access to financing with similar terms and enhanced incentives for low
10 income/affordable housing properties.

11 **Q. PLEASE DESCRIBE THE CORE COMMERCIAL AND INDUSTRIAL**
12 **PROGRAM.**

13 **A.** The Core Commercial and Industrial Program is based on the foundation of several
14 existing NJCEP Programs- Direct Install and Smart Start Buildings. Core Commercial
15 and Industrial is comprised of the Direct Install program and Energy Solutions for
16 Business- Prescriptive and Custom Measures subprogram.

17

18 • Direct Install (“DI”) is focused on installation of efficiency measures for small
19 businesses, non-profit organizations, municipalities, schools and faith-based
20 organizations (“eligible customers”) that typically lack the time, knowledge, or
21 financial resources necessary to investigate and pursue energy efficiency. The
22 program is designed to provide eligible customers with easy investment
23 decisions for the direct installation of energy efficiency projects. The program
24 will pay a percentage of the up-front cost to install the recommended energy
25 efficiency measures, with the participating customer contributing the balance
26 of the project not covered by the incentive. The program will also provide a
27 repayment option to the customer for their required contribution.

- 1 • Energy Solutions for Business – The Prescriptive and Custom Measure
2 subprogram will promote the installation of high-efficiency electric and/or
3 natural gas equipment to NJNG customers, either via the installation of
4 prescriptive or custom measures or projects. This subprogram provides
5 prescriptive based incentives to commercial and industrial customers to
6 purchase and install energy efficient products. The subprogram will continue
7 to support and/or provide downstream approaches for certain measures to ensure
8 the market is properly supported. The subprogram may also provide midstream
9 or upstream incentives or buydowns and support to manufacturers, distributors,
10 contractors and retailers that sell select energy efficient products. These
11 measures will incent energy efficient lighting, appliances, heating and cooling
12 equipment, and food service equipment, among other efficiency measures. The
13 type and value of the incentive provided will range and will include electric
14 and/or natural gas technologies that improve energy efficiency. Up-front
15 rebates will be offered to reduce initial costs and some purchases may qualify
16 for low to no-interest financing to further reduce first cost barriers. Prescriptive
17 measures are designed to provide easy and cost-effective access to energy
18 efficient measures through customers' preferred channels.

19 **Q. PLEASE DESCRIBE THE ADDITIONAL UTILITY LED RESIDENTIAL**
20 **INITIATIVES.**

- 21 A. The Additional Utility Led Residential Initiatives are comprised of the following- i)
22 Behavioral program, ii) Existing Homes - Quick Home Energy Check Up (“QHEC”
23 and “QHEC+”) subprogram, and iii) Existing Homes- Moderate Income
24 Weatherization subprogram.

- 25
26 • The Behavioral program educates and provides customers with granular and
27 easy-to-understand information about their energy use, the usage of their peers,
28 and suggested actionable steps to generate awareness and motivate customers
29 to produce energy savings through behavioral changes and engagement with

1 other energy-efficiency programs. Direct mailed and/or electronic home energy
2 reports (“HERs” and “eHERs” respectively; collectively referred to as HERs)
3 will be the cornerstone of the program and will provide participants with
4 customized, easy to implement action steps and recommendations to reduce
5 energy consumption and support behavior modification for improved energy
6 efficiency. The HERs will present participants with a view of their historical
7 energy consumption compared to peer group customers. NJNG will also
8 continue to issue high usage alerts by email to customers when weather patterns
9 and other data indicate their next bill is trending higher and provide the
10 customer with tips to manage their usage. This program will also offer an
11 internet-based home energy self-audit and an online portal will be used to
12 provide customers with usage information, recommendations, tips and links to
13 energy-efficiency programs provided by NJNG.

- 14 • The Existing Homes - QHEC subprogram is intended to provide residential
15 customers with an understanding of opportunities to save energy and help them
16 start saving energy immediately by providing some standard energy saving
17 measures at no additional cost to participants. Interested customers will sign
18 up for a QHEC to be performed by an NJNG energy auditor, who all hold
19 Building Performance Institute Certifications. The auditor will perform a walk-
20 through of the customer’s home with the customer to provide education about
21 the opportunities to save energy. The auditor may also identify larger
22 opportunities for energy savings, including making referrals to other energy
23 efficiency programs and program opportunities based on the needs for that
24 premise and the customer’s interest in pursuing additional upgrades.

25
26 NJNG also intends to offer a QHEC+ option for customers which will include
27 the performance of a blower door test and the provision of U.S. Department of
28 Energy Home Energy Score for a fee and an option to have the NJNG auditor
29 install a smart thermostat during the visit. This QHEC+ option would be
30 comparable to our current Home Energy Assessment program and would

1 provide an independent option for customers that wanted a comprehensive
2 assessment of their building shell and mechanical systems. The QHEC+ option
3 will also provide an overview of the opportunities to save by upgrading to high-
4 efficiency equipment and or installing insulation and seal-up measures.
5

- 6 • The Existing Homes - Moderate-Income Weatherization subprogram provides
7 an opportunity for low to moderate income customers to receive energy
8 efficiency measures and upgrades at no additional cost. Income eligible
9 customers will undergo an audit and then receive direct install measures (such
10 as showerheads, faucet aerators, and LED bulbs) and weatherization measures
11 (insulation, air sealing, and duct sealing). Homeowners with nonfunctional
12 heating and/or cooling systems may also be eligible to receive repairs or
13 replacement at no additional cost. The subprogram will include a cap on each
14 project with additional funding for health and safety expenses.
15

16 During the audit, customers will benefit from the installation of low-cost
17 measures such as LED lighting, energy-saving aerators, showerheads, smart
18 thermostats and smart power strips at no additional cost, in addition to
19 behavioral suggestions to improve efficiency of the home and a review of
20 thermostat and water heating setpoints. Based on the in-home audit
21 recommendations, the participant may also be given the opportunity for
22 additional building envelope measures to be installed at no additional cost.
23 These measures include air sealing and building insulation. Also, customers
24 with nonfunctional heating and cooling equipment may receive repairs or
25 new equipment.

1 **Q. PLEASE DESCRIBE THE ADDITIONAL UTILITY LED COMMERCIAL**
2 **PROGRAMS.**

3 A. The Additional Utility Led Commercial Initiatives are comprised of the following- i)
4 Energy Solutions for Business - Energy Management subprogram and ii) Energy
5 Solutions for Business – Engineered Solutions subprogram. Energy Management is a
6 new offering that has not been part of either NJNG or NJCEP’s suite of customer
7 solutions to date. Engineered Solutions is a continuation of the program that NJNG is
8 currently running today.

9 • The Energy Management subprogram targets energy savings for existing
10 commercial and industrial facilities by providing a holistic approach to
11 improving building energy performance through maintenance, tune-up and
12 retro-commissioning services for existing buildings and through the
13 implementation of energy savings strategies that improve the overall operation
14 and energy performance of buildings and building systems. This subprogram
15 compliments the Prescriptive/Custom and Engineered Solutions subprograms
16 which focus on capital equipment replacement or process improvement
17 investments by improving the energy performance of a building by maintaining,
18 adjusting and optimizing the systems within the building and the
19 implementation of complimentary energy savings measures. The program also
20 provides paths to track the ongoing building energy performance by using retro-
21 commissioning and strategic energy management strategies, which ensures
22 continued energy performance. By implementing these measures, customers
23 also receive ancillary benefits including improved occupant comfort, lower
24 maintenance costs, and extended equipment life.

25 • The Energy Solutions for Business - Engineered Solutions subprogram will
26 provide tailored energy-efficiency assistance to public service entities, such as
27 municipalities, universities, schools, hospitals and healthcare facilities
28 (“MUSH”), and non-profit entities. The subprogram will provide guided

1 consultative service throughout delivery to assist customers in identifying and
2 undertaking large energy-efficiency projects, while requiring no up-front
3 funding from the customer. This subprogram will provide customers with an
4 in-depth audit of their facilities as well as a detailed assessment and
5 recommendation of energy-efficiency measures that could be economically
6 installed. Customer incentives are determined on a project-by-project basis. In
7 addition to the calculated project-by-project incentive, participants will have
8 the option to pay back the non-incentive portion of the project costs through
9 OBRPs or access to financing with similar terms.

10 **Q. PLEASE DESCRIBE THE ADDITIONAL UTILITY LED HYBRID HEAT**
11 **PROGRAM.**

12 **A.** The Hybrid Heat Program (“HH Program”) is a pilot to promote and provide incentives
13 for the installation of hybrid heat systems. It will include a strong EM&V component
14 to consider whether larger scale deployment of these types of systems can help the State
15 cost-effectively meet long-term electrification strategies without compromising
16 customer comfort and reliability- at the customer and system level. In addition to direct
17 incentives and financing for high-efficiency gas furnaces when coupled with the
18 installation of high efficiency heat pumps, the Pilot will include direct outreach to
19 customers, trade ally outreach and training.

20 **Q. GIVEN THE CHALLENGES NJNG FACES WITH THE TRANSITION OF**
21 **THE EXISTING NJCEP PROGRAMS, WHY IS NJNG PROPOSING TO**
22 **LAUNCH A PILOT NOW?**

23 **A.** It is critical to run the HH Program during this triennial because the 2019 Energy
24 Master Plan indicates that the State is expected to consider broader electrification
25 strategies within the next few years. The existing NJCEP protocols do not recognize
26 the range of how heat pumps may be used by customers. It is important to assess how
27 using them as part of a hybrid heat approach may be able to dramatically lower natural
28 gas heating usage and properly account for those energy savings and to have that

1 analysis data grounded in New Jersey specific data. Additionally, the program is
2 proposed to run for the full first triennial but will begin to report preliminary findings
3 after the conclusion of the second full program year to help inform planning for the
4 second triennial period.

5 **Q. HAVE OTHER ORGANIZATIONS IDENTIFIED THE NEED TO CONSIDER**
6 **HYBRID HEAT STRATEGIES?**

7 **A.** Yes. Earlier this year, the National Rural Electric Cooperative Association and the
8 Beneficial Electric League co-authored a research paper³ that concluded –
9 “Electrification of space heating does not need to be an ‘all-or-nothing’ approach. Dual
10 fuel heat pumps are a practical heating solution that can immediately advance co-op
11 sponsored beneficial electrification initiatives in cold climates.”

12 **Q. WHAT TYPE OF EM&V ARE YOU PROPOSING FOR THE HYBRID HEAT**
13 **PROGRAM?**

14 **A.** To develop a strong understanding of the performance of the HH program an EM&V
15 consultant would be retained to perform several key studies, including:

- 16 • Impact Evaluation Plan designed to address questions regarding electric and natural
17 gas consumption (expected and actual with seasonal considerations), comparisons
18 to likely alternative installations from a usage, cost and emissions perspective,
19 variations between, impacts of equipment sizing, and accuracy of NJCEP protocols.
- 20 • Customer and Trade Ally Study designed to evaluate the operation and
21 effectiveness of the Pilot Program and to provide valuable feedback regarding the
22 potential expansion of the Pilot Program into a full program. This will include
23 customer and trade ally surveys to identify obstacles to participation, customer and
24 trade ally satisfaction with the program and the technology, value of training,
25 adequacy of incentives, motivation factors for participation, and customer comfort.

³ [Advancing Beneficial Electrification: The Role of Dual Fuel Home Heating Systems in Cold Climates](#), By Justin Margolies, Slipstream, and Art Thayer, Michigan Electric Cooperative Association, March 2020.

- 1 • Market Potential Study designed to analyze the market potential for hybrid heat
2 systems in NJNG' service territory. Among other factors, the market potential
3 study should consider projected costs of hybrid heat systems versus alternative
4 systems, the changing demographics of NJNG's service territory and any actual or
5 expected federal regulations regarding equipment efficiency.

6
7 **Q. CAN YOU SHARE MORE INFORMATION ABOUT YOUR**
8 **IMPLEMENTATION PLANS?**

- 9 **A.** Yes. NJNG is fortunate that our existing team of employees is very familiar with the
10 existing NJCEP programs that are being converted to Core Programs, including
11 WARMAdvantage, HPwES and DI. We also have nearly a decade of experience
12 running a Behavioral program and OBRPs and nearly two years of experience with an
13 Online Marketplace and the Engineered Solutions Program. We are confident that we
14 will be able to ensure a smooth transition for these programs.

15 We will need to increase the size of our staff to properly run our expanded
16 portfolio programs. Additionally, we plan to secure the services of Program
17 Implementers for some of the new programs and for some of the newer functions we
18 will have for our existing programs (e.g. Quality Control). More information is
19 available in our Program Implementation Plan Overview (Exhibit P-1 Schedule NJNG-
20 16) and in the respective program descriptions in the Program Plan (Exhibit P-5).

21
22 **V. PROCEDURAL ELEMENTS (MFR II.B.ii, VI. AND VIII.)**

23
24 **Q. PLEASE SUMMARIZE THE NEW WORKING GROUPS REFERENCED IN**
25 **THE CEA ORDER.**

- 26 **A.** In the CEA Order, the Board established a clear intention to solicit subject matter
27 expertise on critical topics that can help advance energy efficiency and ensure a
28 stronger path toward meeting key policy objectives. The planned working groups
29 include:

- 1 • Workforce Development Working Group
- 2 • Equity Working Group with separate subcommittees for Comfort Partners
- 3 and Multi-family
- 4 • Evaluation, Measurement and Verification (“EM&V”) Working Group
- 5 with an Energy Codes and Standards Subcommittee
- 6 • Marketing Working Group
- 7

8 **Q. PLEASE ADDRESS HOW THE FORMATION OF THOSE PLANNED**
9 **WORKING GROUPS RELATES TO PARTICULAR ELEMENTS OF YOUR**
10 **FILING?**

11 A. NJNG will be an active participant in all the Working Groups noted above. We would
12 like to share our own program experiences and understand the interests and concerns
13 of the other stakeholders on these important topics. We expect these groups to provide
14 recommendations that can shape the strategies and activities for this first triennial
15 program cycle. NJNG would like to incorporate their input into some of the
16 requirements of the MFRs. However, we are not able to do so since these working
17 groups have not been launched at the time of the filing. Any effort to submit a detailed
18 plan at this time could not reflect the input of these working groups. With that in mind,
19 there are three specific areas where we have shared our perspective on the required
20 MFR and included funding to conduct the activities but are unable to submit a detailed
21 plan at this time. These areas include Workforce Development, EM&V and Reporting.

22
23 **Q. DOES THE FILING ADDRESS YOUR PLANNED APPROACH TO**
24 **EVALUATION, MEASUREMENT AND VERIFICATION?**

25 A. Yes. NJNG recognizes the importance of EM&V to ensure that ratepayer funded
26 programs are effective, to look for opportunities to improve performance and to ensure
27 New Jersey is collectively on track to meet policy goals. While we are unable to file a
28 detailed plan at this time in order to be able to incorporate recommendations from the

1 EM&V Working Group, please refer to Exhibit P-1 Schedule NJNG-13 for a
2 description of our consideration of EM&V.

3 **Q. DOES THE FILING ADDRESS YOUR PLANNED APPROACH TO**
4 **REPORTING?**

5 **A.** Yes. NJNG recognizes the importance of timely and transparent reporting to support
6 the BPU's oversight of the management of our energy efficiency programs. While we
7 are unable to file a detailed plan at this time in order to be able to incorporate
8 recommendations from the EM&V Working Group, as well as ongoing discussions
9 with the Utility Working Group, please refer to Exhibit P-1 Schedule NJNG-17 for a
10 description of our consideration of reporting.

11 **Q. DOES THE FILING ADDRESS YOUR PLANNED APPROACH TO**
12 **WORKFORCE DEVELOPMENT?**

13 **A.** Yes. NJNG recognizes the importance of timely and transparent reporting to support
14 the BPU's oversight of the management of our energy efficiency programs. While we
15 are unable to file a detailed plan at this time in order to be able to incorporate
16 recommendations from the Workforce Development and Equity working groups,
17 please refer to Exhibit P-1 Schedule NJNG-18 for a description of our consideration of
18 Workforce Development.

19

20

VI. MARKET BARRIERS (MFR II.a.xiv.)

21 **Q. HOW DO THE SAVEGREEN PROGRAMS ADDRESS MARKET BARRIERS**
22 **TO PROMOTING ENERGY EFFICIENCY?**

23 **A.** Through the SAVEGREEN programs, NJNG is able to address the primary market
24 barriers of program awareness and financing options. It continues to be crucial that
25 New Jersey residents are made aware of opportunities for saving energy and that we
26 continue to get more HVAC contractors engaged in promoting and properly installing
27 high-efficiency equipment and other whole house measures. Through the marketing
28 efforts incorporated within this filing and ongoing in the SAVEGREEN programs, the

1 Company provides an active channel for promoting not only the benefits of energy
2 efficiency, but also the sources through which various programs can be obtained. This
3 work serves to broaden customers' awareness of viable approaches toward saving
4 energy and, as a result, potentially saving on energy costs. And, by working closely
5 with contractors, NJNG further encourages those entities to also promote and make
6 available energy-efficient solutions to all customers.

7 It is also important to overcome the financial barriers that customers face when
8 making decisions about the installation of high-efficiency HVAC equipment. Through
9 the OBRP, NJNG ensures that customers who pay their utility bills on a timely basis
10 have access to financing regardless of their credit scores or traditional screening ratios.
11 The availability of additional incentives and the OBRP help overcome the financial
12 barriers that deter many customers from taking that extra step of purchasing and
13 installing high-efficiency equipment. Within this filing, NJNG is proposing extra
14 features to make participation even more accessible for low to moderate income
15 customers.

16 Several of NJNG's residential subprograms also help provide customers who
17 are not ready for HVAC upgrades with lower cost options that can provide immediate
18 energy savings and help keep them interested in efforts to reduce their energy bills.

19 Program specific market barriers are identified as part of the Program Plan
20 presented in Exhibit P-5. An additional grid summarizing market barriers and planned
21 strategies to address them is included in Schedule AMP-5.

22 **VII. QUALITY CONTROL STANDARDS, REMEDIATION, AND RESOLUTION OF**
23 **CUSTOMER COMPLAINTS (MFR II.b.i.)**

24
25 **Q. PLEASE DESCRIBE THE PROCESS FOR QUALITY CONTROL**
26 **STANDARDS AND REMEDIATION.**

27 **A.** NJNG currently has strong quality control standards in place through the combination
28 of the fact that NJNG auditors, who are all Building Performance Institute certified,

1 inspect all of the installations for our residential HVAC program and NJCEP took the
2 lead for quality control procedures for HPwES and DI projects since we collectively
3 served the needs of the customer. Contractor remediation is currently handled by
4 NJCEP. The Engineered Solutions projects all have detailed oversight during the
5 design and installation phase from the Engineering teams and the final Commissioning
6 Phase ensures that all equipment installed is operating as designed.

7 NJNG intends to secure a third-party implementer, through a competitive procurement
8 process, to lead quality control functions for all our residential and small commercial
9 programs. NJNG will require this entity to meet industry standards for inspections.
10 Further we expect to have continued discussions with the other utilities on a consistent
11 approach to quality control and remediation for all Core Programs and explore how we
12 can share information regarding contractors that are not meeting quality standards to
13 ensure remediation and coaching efforts may improve their performance.

14 **Q. PLEASE DESCRIBE THE PROCESS NJNG INTENDS TO EMPLOY TO**
15 **RESOLVE ANY POTENTIAL CUSTOMER COMPLAINTS.**

16 **A.** NJNG will continue to utilize the dispute resolution process agreed to by Board Staff
17 and Rate Counsel in the prior SAVEGREEN Stipulation of Settlement that was
18 approved by the BPU Staff in the July 2015 Order. NJNG will promptly address any
19 customer complaints related to the programs through existing customer relations
20 procedures within the Company. Most customer calls will come directly into the
21 SAVEGREEN Department since that phone number is on all correspondence and
22 promotional materials. Additionally, any calls about the programs that come into the
23 NJNG Call Center will be transferred to SAVEGREEN employees for initial
24 resolution. In all instances, NJNG will make every effort to resolve a complaint
25 informally at the outset. For concerns that cannot be resolved within the Department,
26 the matter will be moved to the NJNG Consumer Advocate for further investigation
27 and resolution. If those efforts fail, the complaint would be referred to the BPU
28 Division of Customer Assistance. Attached as Schedule AMP-3 is a flow-chart

1 depicting the process that was approved by the BPU in its prior SAVEGREEN
2 settlement with Staff and Rate Counsel.

3 For disputes between NJNG and a contractor or supplier, resolution will be in
4 accordance with the relevant contract provisions in place at that time.

5 **VIII. COORDINATION WITH OTHER FUNDING SOURCES**

6 **Q. HOW WILL THE FUNDING FOR SAVEGREEN INTERFACE WITH ANY**
7 **POTENTIAL FEDERAL FUNDS MADE AVAILABLE FOR ENERGY-**
8 **EFFICIENCY PROGRAMS?**

9 **A.** Subject to restrictions set forth in any applicable law, NJNG will utilize any funds or
10 credits received from governmental sources that are directly related to SAVEGREEN
11 to offset the respective program costs, thus reducing the impact on customers. If
12 funding or credits from any state or federal action becomes available to NJNG through
13 the State of New Jersey, a County or Municipality for project reimbursement, those
14 funds or credits directly applicable to work related to a SAVEGREEN program will be
15 used to benefit customers by offsetting the costs for which recovery is sought, to the
16 extent permitted by law.

17 **Q. HAS NJNG CONSIDERED HOW TO DEAL WITH CUSTOMERS THAT ARE**
18 **SERVED BY A MUNICIPAL UTILITY IN THE DELIVERY OF THE**
19 **COMPREHENSIVE PROGRAMS?**

20 **A.** NJNG recognizes that NJCEP has historically served the needs of these customers
21 using Federal funding from the State Energy Programs. NJNG needs a clear
22 understanding of whether NJCEP intends to continue that treatment and believes this
23 question should be addressed as part of the Utility Working Group meetings.

24 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

25 **A.** Yes, it does. I reserve the right to supplement my testimony should the need arise.

Residential Sector Incentives (not including financing which is captured on Schedule AMP-2)				
Program	Measure ¹	Rebate Up To Value (\$) GDC Consensus Rebate Strategy ²	Unit Basis	Total Current Incentives in NJNG Territory ⁵
Efficient Products	Clothes Dryer - Tier 2	\$ 300	Per dryer	\$ 300
	EnergyStar Clothes Washer - Tier 1	\$ 50	Per unit	\$ 50
	Energy Star Clothes Washer - Tier 2	\$ 100	Per unit	\$ 100
	Energy Star Dryer	\$ 100	Per dryer	\$ 100
	Smart Thermostat	\$ 125	Per thermostat ³	\$ 150
	Boiler Outdoor Reset Controls	\$ 200	Per boiler	\$ 200
	Gas Boiler 90% - 95% (\$200 supplemental incentive for LMI customers)	\$ 1,000	Per boiler	\$ 800
	Gas Boiler ≥95% (\$200 supplemental incentive for LMI customers)	\$ 1,200	Per boiler	\$ 800
	Gas Furnace - Tier 1 (≥ 95%) (\$200 supplemental incentive for LMI customers)	\$ 1,000	Per furnace	\$ 750
	Gas Furnace - Tier 2 (≥ 97%) (\$200 supplemental incentive for LMI customers)	\$ 1,500	Per furnace	\$ 1,000
	Gas Combi Heat ≥ 95 AFUE (\$200 supplemental incentive for LMI customers)	\$ 1,300	Per unit	\$ 1,300
	Gas Combi Heat ≥ 97 AFUE (\$200 supplemental incentive for LMI customers)	\$ 1,750	Per unit	\$ 1,550
	Qualifying Gas Heat with Qualifying Gas Water Heat (\$200 supplemental incentive for LMI customers)	\$ 1,300	Per unit	\$ 1,300
	HVAC Quality Install	\$ 450	Per unit	New
	Gas Storage Tank Water Heater - Power Vented < 55 gallons ≥ .64UEF	\$ 500	Per unit	\$ 400
	Gas Storage Tank Water Heater - Power Vented WH, ≥ 55 gallons, UEF > .85	\$ 750	Per water heater	\$ 400
	Gas Storage Tank Water Heater - Power Vented Instant WH, UEF ≥ .87	\$ 750	Per water heater	\$ 400
	Indirect-fired Storage Tank Water Heater	\$ 250	Per water heater	\$ 500
	Properly Maintained Boiler (Tune-up Boiler)	\$ 250	Per boiler	New
	Properly Maintained Furnace (Tune-up Furnace)	\$ 250	Per furnace	New
Marketplace Products Other Than Thermostat Kits	50% Discount	Per customer	50% Discount	
	\$ 60	Per customer	50% Discount Free for LMI	
Comprehensive Residential Programs				
Program	Subprogram	Description	Total Current Incentives in NJNG territory	
Existing Homes	Home Performance with Energy Star (HPwES) ⁴ (all rebates not to exceed 50% of costs)	Customer will receive a BPI-certified audit. The following incentive structure will be used: Customer must have a minimum savings percentage of 5% based on modeled reduction of consumption; Rebate is \$2,000 + \$200 for each percentage point of savings above 5%; Rebate Cap = \$6,000. Retain Contractor Production incentive of up to \$500.	Tiered incentive cash rebate of 50% of the cost of the measures used to calculate Total Energy Savings, up to \$4,000 - \$5,000 Contractor production incentive.	
	Quick Home Energy Checkup	No up front cost to customer for walk through audit with no cost or low cost measures installed at time of audit.	New	
	Moderate Income Weatherization	No up front cost to customer for BPI-certified audit with up to \$6,000 of direct install and weatherization measures and up to \$1,500 on healthy and safety expenses.	New	
Hybrid Heat	N/A	Up to \$2,500 in rebate.	New	
Note				
1 - The utilities reserve the right to include additional measures that are supported by established protocols or evaluation results in the industry to ensure we include a broad range of energy savings measures to maximize energy savings for customers and avoid market disruption (e.g. new NJCEP measures added in FY21).				
2 - All rebates will be offered equal to or less than the "Up To" value.				
3 - The total rebate value for a smart thermostat will be up to \$125 total between both fuel utilities.				
4 - Multi-family HPwES is shown on the Multi-family Schedule.				
5 - Totals shown here represent the total value of rebates currently available to customers in NJNG's territory through New Jersey's Clean Energy Program and NJNG's SAVEGREEN Program.				
* - When paired with a qualifying boiler.				

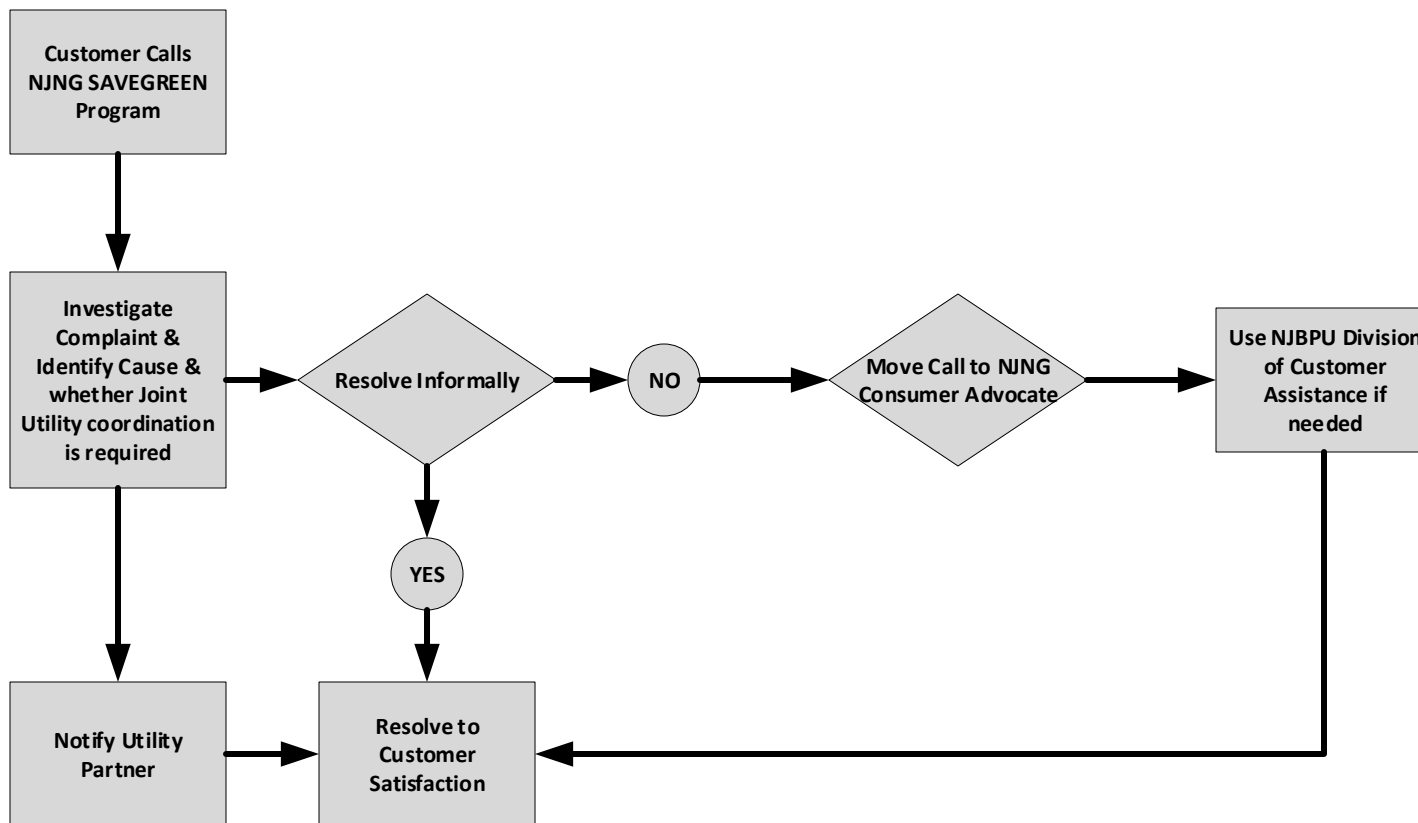
Commercial Sector Incentives (not including financing which is captured on Schedule AMP-2)				
Program	Prescriptive Measure ¹	Rebate Up To Value (\$) GDC Consensus Rebate Strategy ²	Unit Basis	Total (NJCEP & NJNG) ⁴
Energy Solutions for Businesses- Prescriptive Measures	95 AFUE Make-up Air Unit	\$ 8	Per kBtu/h	New
	Gas Furnace > 95% AFUE	\$ 1,000	Per unit	\$ 900
	Gas Furnace > 97% AFUE	\$ 1,500	Per unit	\$ 900
	Boiler Economizer Controls	\$ 2,700	Per unit	\$ 2,700
	Boiler Economizer Controls, < 800,000 Btu	\$ 1,200	Per unit	\$ 1,200
	Boiler Economizer Controls, > 4 MMBtu	\$ 2,700	Per unit	\$ 2,700
	Boiler Economizer Controls, 0.8 to 1.6 MMBtu	\$ 1,500	Per unit	\$ 1,500
	Boiler Economizer Controls, 1.6 to 3 MMBtu	\$ 1,800	Per unit	\$ 1,800
	Boiler Economizer Controls, 3 to 3.5 MMBtu	\$ 2,100	Per unit	\$ 2,100
	Boiler Economizer Controls, 3.5 to 4 MMBtu	\$ 2,400	Per unit	\$ 2,400
	Boiler HW Non-condensing, < 300 MBh	\$ 2	Per MBh	\$ 900
	Boiler HW Non-condensing, 300 to 2,500 MBh	\$ 2	Per MBh	\$ 1.75 to 1,500 MBh \$1.50 to 2,500 MBh
	Boiler HW Non-condensing, > 2,500 MBh	\$ 2	Per MBh	\$ 1.30
	Boiler Tune-up	\$ 1	Per kBtu/h	New
	Boiler Reset Controls	\$ 1	Per kBtu/h	New
	Boiler, HW Condensing - Tier 1, < 300 MBh	\$ 1,000	Per Boiler	\$ 1,000
	Boiler, HW Condensing - Tier 1, 300 to 2,500 MBh	\$ 3.50	Per MBh	\$ 1.85
	Boiler, HW Condensing - Tier 1, > 2,500 MBh	\$ 3.50	Per MBh	\$ 1.55
	Boiler, HW Condensing - Tier 2, < 300 MBh	\$ 1,200	Per Boiler	\$ 1,000
	Boiler, HW Condensing - Tier 2, 300 to 2,500 MBh	\$ 4	Per MBh	\$ 2.20
	Boiler, HW Condensing - Tier 2, > 2,500 MBh	\$ 4	Per MBh	\$ 2
	Boiler, Steam < 300 MBh Input	\$ 2	Per MBh	\$ 1.40
	Boiler, Steam All Except Natural Draft, 300 to 2,500 MBh	\$ 2	Per MBh	\$ 1.20
	Boiler, Steam All Except Natural Draft, > 2,500 MBh	\$ 2	Per MBh	\$ 1
	Boiler, Steam Natural Draft, < 300 to 2,500 MBh	\$ 1	Per MBh	\$ 1
	Boiler, Steam Natural Draft, > 2,500 MBh	\$ 1	Per MBh	\$ 0.70
	Commercial Combination Oven/Steamer	\$ 2,000	Per oven/steamer	\$ 2,000
	Commercial Conveyor Oven	\$ 1,500	Per oven deck	\$ 500
	Commercial Dishwashers, Door Type High Temp	\$ 750	Per unit	\$ 700
	Commercial Dishwashers, Door Type Low Temp	\$ 700	Per unit	\$ 700
	Commercial Dishwashers, Under Counter High Temp	\$ 400	Per unit	\$ 400
	Commercial Dishwashers, Under Counter Low Temp	\$ 400	Per unit	\$ 400
	Commercial Dishwashers, Multiple Tank Conveyor, High Temp	\$ 1,500	Per unit	\$ 1,500
	Commercial Dishwashers, Multiple Tank Conveyor, Low Temp	\$ 1,500	Per unit	\$ 1,500
	Commercial Dishwashers, Single Tank Conveyor, High Temp	\$ 1,500	Per unit	\$ 1,000
	Commercial Dishwashers, Single Tank Conveyor, Low Temp	\$ 1,000	Per unit	\$ 1,000
	Commercial Fryer	\$ 750	Per vat	\$ 749
	Commercial Griddle	\$ 500	Per griddle	\$ 125
	Commercial Rack Oven	\$ 1,000	Per oven	\$ 1,000
	Commercial Steam Cooker	\$ 2,000	Per compartment	\$ 2,000
	Condensing Integrated Boiler and Water Heater	\$ 2,500	Per unit	\$ 1,300
	Condensing Unit Heater, 90% AFUE	\$ 750	Per unit	New
	DHW Pipe Wrap Insulation, < 0.5" dia	\$ 1	Per linear foot pipe	\$ 1
	DHW Pipe Wrap Insulation, > 0.5" dia	\$ 2	Per linear foot pipe	\$ 2
	DHW Storage, Gas-Fired, < 75,000 Btuh, (75 MBH) > 0.67 EF or 0.64 UEF	\$ 350	Per unit	\$ 100
	DHW Storage, Gas-Fired, < 75,000 Btuh, (75 MBH) > 0.87 EF or 0.81 UEF	\$ 500	Per unit	\$ 100
	DHW Storage, Gas-Fired, > 105,000 Btuh (105 MBH), > 82% Et	\$ 500	Per unit	\$ 1.75 per MBH
	DHW Storage, Gas-Fired, > 105,000 Btuh (105 MBH), > 92% Et	\$ 750	Per unit	\$ 3.50 per MBH
	DHW Storage, Gas-Fired, 75,000 to 105,000 Btuh, > 82% Et or .64 UEF	\$ 750	Per unit	\$ 3.50 per MBH
	DHW Storage, Gas-Fired, 75,000 to 105,000 Btuh, > 90% Et or .85 UEF	\$ 500	Per unit	\$ 1.75 per MBH
	DHW, Instant, Gas-Fired, < 200,000 Btuh, > 90% Et or .82 EF or > 0.81 UEF	\$ 750	Per unit	\$ 400
	DHW, Instant, Gas-Fired, > 200,000 Btuh, > 90% Et or .85 UEF	\$ 1,000	Per unit	\$ 400
	Clothes Dryer - High Efficiency	\$ 200	Per dryer	\$ 200
	HE Commercial Cloths Washer	\$ 150	Per washer	New
	ENERGY STAR Gas Convection Oven	\$ 500	Per cavity	\$ 500
	Gas Absorption Chillers, < 100 tons	\$ 450	Per ton	\$ 450
	Gas Absorption Chillers, 100 to 400 tons	\$ 230	Per ton	\$ 230
	Gas Absorption Chillers, > 400 tons	\$ 185	Per ton	\$ 185
	Gas Engine Driven Chillers	\$ 350	Per ton	\$ 350
	Gas-Fired Low-Intensity Infrared Heating Unit < 100MBH	\$ 750	Per unit	\$ 500
Gas-Fired Low-Intensity Infrared Heating Unit > 100MBH	\$ 500	Per unit	\$ 300	
High Performance Hood (Demand Control Ventilation)	\$ 2,500	Per hood	New	
Medium Pressure Steam Trap, 15 PSIG to 75 PSIG, Tested	\$ 200	Per trap	New	
High Pressure Steam Trap, > 75 PSIG, Tested	\$ 300	Per trap	New	
Hotel Guest Room Occupancy Sensor	\$ 75	Per unit	New	
HVAC with CO2 - Based Control	\$ 250	Per unit	New	
Indirect WH 85% CAE	\$ 250	Per unit	New	
Low Flow Aerators - Tier 1	\$ 2	Per unit	New	
Low Flow Aerators - Tier 2	\$ 2	Per unit	New	
Low Flow Showerheads - Tier 1	\$ 2	Per unit	New	
Low Flow Showerheads - Tier 2	\$ 2	Per unit	New	
Market Avg Eff Spray Valve (1.16 GPM)	\$ 25	Per spray valve	New	
Ozone Laundry Washing Machine	\$ 250	Per lb. of laundry capacity	New	
Pool with Cover	\$ 1,500	Per cover	New	
ROB DX Packaged System, EER = 10.8, 30 tons, AFUE 95%	\$ 3,000	Per ton	\$ 3,000	
Smart Thermostat	\$ 125	Per thermostat ³	\$ 150	
Energy Solutions for Businesses	Custom Measure ¹	Rebate Up To Value (%) GDC Consensus Rebate Strategy ²	Unit Basis	Total (NJCEP & NJNG) ⁴
	Custom Measure	50%	Per Measure	50% of rebate value or \$1.60 per therm whichever is less
Note				
1 - The utilities reserve the right to include additional measures that are supported by established protocols or evaluation results in the industry to ensure we include a broad range of energy savings measures to maximize energy savings for customers and avoid market disruption (e.g. new NJCEP measures added in FY21).				
2 - All rebates will be offered equal to or less than the "Up To" value.				
3 - The total rebate value for a smart thermostat will be up to \$125 total between both fuel utilities.				
4 - Totals shown here represent the total value of rebates currently available to customers in NJNG's territory through New Jersey's Clean Energy Program and NJNG's SAVEGREEN Program.				

Comprehensive Commercial Programs (not including financing which is captured on Schedule AMP-2)			
Program	Category	Description of Approach to Incentives ^{1 & 2}	Existing Incentives ^{3 & 4}
Direct Install	Tier 1	For Tier 1 customers, standard basic energy savings measures may be installed at no cost during the time of the energy assessment. The program will offer to pay up to 80% of the project cost to install the recommended energy efficiency measures with the participating customer (and/or landlord) repaying the balance not covered through the incentive either in a lump sum or through an available repayment option. Customers located in an Urban Enterprise Zone, Opportunity Zone, owned or operated by a local government, or K-12 public schools, may also qualify for Tier 1 status, up to an average individual facility peak electrical demand of 200 kW .	NJCEP pays up to 80% of retrofit costs to facilities within an Urban Enterprise Zone, Opportunity Zone, owned or operated by a local government, K-12 public school, or designated as affordable housing. Other types of facilities receive an incentive up to 70% of retrofit costs.
	Tier 2	Tier 2 will serve the larger segment of eligible customers, with an average individual facility peak electrical demand of 101 - 200 kW over the past 12 months. Incentives up to 70% of the total project cost will be offered.	
Energy Management	Retro-commissioning	Incentives to cover up to 50% of the initial cost to perform the required ASHRAE level audit, and the remaining cost upon the customer commitment to implementation of energy efficiency measures defined by the audit. The customer will also be paid a custom incentive for the implementation of the energy efficiency measures determined through the audit. The total audit and project incentive will be capped at up to 70% of the project cost.	N/A - new program
	HVAC Tune Up	Fixed incentives for the implementation of the tune-up measures based on the size of the HVAC units up to \$250 value.	N/A - new program
	Building Tune Up	Incentives that cover up to 70% of the project cost with a project cap of \$75,000 and up to 70% of the cost to attend qualified BOC training up to \$1,000 per person.	N/A - new program
	Strategic Energy Management	Customers who utilize a consultant will receive an incentive to cover up to 50% of the initial cost of the engineering assessment, with the remaining cost upon the customer commitment to implementation of energy efficiency measures defined by the SEMP process. A tiered incentive structure for Customer engineering assessment will be utilized based upon square footage of Customer's facility. The SEMP will identify short, medium, and long-term goals for the customer and will set identifiable metrics for mapping to the plan. For the implementation of the energy efficiency measures determined by the SEMP, the customer will be paid an incentive that is commensurate with the applicable Commercial & Industrial Program offering that the measures are attributed.	N/A - new program
Engineered Solutions	N/A	The subprogram will provide a 100% incentive for an up-front ASHRAE audit, the specific audit level will be determined on a project by project basis based on the complexity of the facility and the potential energy efficiency measures. In addition, NJNG will buy-down the simple payback of the recommended energy-efficiency project cost for approved measures by up to six years, with the resulting payback not less than three years. After the project incentive buy-down, the remaining project costs may be funded by the subprogram with participants repaying the balance of the project costs through OBRP or access to financing with similar terms.	Same
Note			
1 - The utilities reserve the right to include additional measures that are supported by established protocols or evaluation results in the industry to ensure we include a broad range of energy savings measures to maximize energy savings for customers and avoid market disruption (e.g. new NJCEP measures added in FY21).			
2 - All rebates will be offered equal to or less than the "Up To" value.			
3 - Represents current incentives and does not including financing incentives. See Schedule AMP-2.			
4 - Totals shown here represent the total value of rebates currently available to customers in NJNG's territory through New Jersey's Clean Energy Program and NJNG's SAVEGREEN Program.			

Multifamily (not including financing which is captured on Schedule AMP-2)				
Program	Subprogram	Measure ¹	Rebate Strategy ²	NJCEP Existing Rebate Strategy ³
Multifamily	N/A	Energy Assessment with installation of standard energy savings measures	Energy Assessment with the equipment and installation costs for the standard energy savings measures will be provided to eligible properties with "Up to 100%" of the cost provided by the program.	N/A
		Prescriptive Equipment replacement and custom retrofit projects	- Same value as incentives offered through the Residential and Commercial & Industrial programs applicable for the prescriptive equipment replacement and custom retrofits. - Includes enhanced incentives offered for properties that are located in qualifying target areas or for LMI qualified customers.	Same value as incentives offered through the Residential and Commercial & Industrial programs applicable for the prescriptive equipment replacement and custom retrofits.
		MF Home Performance with ENERGYSSTAR	- Tiered incentive cash rebate not to exceed 50% of the cost of the measures used to calculate Total Energy Savings, up to \$1,500 per unit. - Maintain contractor production incentive.	- Tiered incentive cash rebate not to exceed 50% of the costs of the measures used to calculate Total Energy Savings, up to \$1,500 per unit. - Contractor production incentive of up to \$50 per unit.
		MF - Engineered Solutions	- No cost ASHRAE Level I, II, or III audit. - Program will buy-down the simple payback of the recommended energy-efficiency project cost for approved measures by up to six years, with the resulting payback not less than three years.	- No cost ASHRAE Level I, II, or III audit. - Program will buy-down the simple payback of the recommended energy-efficiency project cost for approved measures by up to six years, with the resulting payback not less than three years.
Note				
1 - The utilities reserve the right to include additional measures that are supported by established protocols or evaluation results in the industry to ensure we include a broad range of energy savings measures to maximize energy savings for customers and avoid market disruption (e.g. new NJCEP measures added in FY21).				
2 - All rebates will be offered equal to or less than the "Up to" value.				
3 - Totals shown here represent the total value of rebates currently available to customers in NJNG's territory through New Jersey's Clean Energy Program and NJNG's SAVEGREEN Program.				

NJNG Summary of Financing Terms				
Sector	Program	Subprogram/ Approach	Measure /Project	Available Financing Terms
Residential	Efficient Products		Furnace	Up to \$6,000 for 7 year term On-Bill Repayment Program ("OBRP") at 0% APR
			Boiler	Up to \$6,000 for 7 year term OBRP at 0% APR
			WH Tank	Up to \$2,500 for 7 year term OBRP at 0% APR
			WH Tankless	Up to \$3,500 for 7 year term at OBRP 0% APR
			A/C	Up to \$5,000 for 7 year term OBRP at 0% APR (only when paired with a qualifying piece of natural gas equipment)
			Combined Maximum Financing	Up to \$15,000 for 7 year term OBRP at 0% APR
			Special Features to Support Inclusion:	Low-to-Moderate Income Customers will be offered an extended OBRP for 10 year and customers that don't pass NJNG credit screening will have the opportunity to apply for a loan through a network of local lenders and NJNG will buy down the cost of the loan to similar terms as the OBRP.
	Existing Homes	Home Performance with Energy Star (HPwES)	Single Family Homes	Up to \$15,000 at 0% APR. Terms will vary based on value of financing- 7 year term for loans up to \$10,000 and 10 year term for loans great than or equal to \$10,000.
			Special Features to Support Inclusion:	Customers that don't pass NJNG credit screening will have the opportunity to apply for a loan through a network of local lenders and NJNG will buy down the cost of the loan to similar terms as the OBR
		Behavioral	NA	No financing component needed due to nature of the program
		Quick Home Energy Checkup	NA	No financing component needed due to nature of the program
Moderate Income Weatherization		NA	No financing component needed due to nature of the program	
Hybrid Heat	Hybrid Heat	Heat pump paired with high efficiency furnace	Up to \$15,000 for 7 year term at 0% APR	
C&I	Direct Install		Project	Balance of the project cost after rebate at 0% APR for a 5 year term
	Energy Solutions for Business	Prescriptive and Custom	Project	Balance of the project cost after rebate at 0% APR for a 5 year term. Cap of \$150K on Prescriptive and \$250K on Custom
		Energy Management	Project	Balance of the project cost after rebate at 0% APR for a 5 year term
		Engineered Solutions	Project	Balance of the project cost after rebate at 0% APR for a 5 year term
Multifamily	Multifamily	Multi-family Prescriptive and Custom	Project	Balance of the project cost after rebate at 0% APR for a 5 year term. Cap of \$150K on Prescriptive and \$250K on Custom
		Multi-family HPwES	Project	Up to \$2,000 per unit for 7 year term at 0% APR with an overall max of \$250K per project
			Project	Balance of the project cost after rebate at 0% APR for a 5 year term
		Engineered Solutions	Special Features to Support Inclusion:	Properties supporting LMI customers are eligible for a 10 year repayment term

Complaint Resolution Diagram



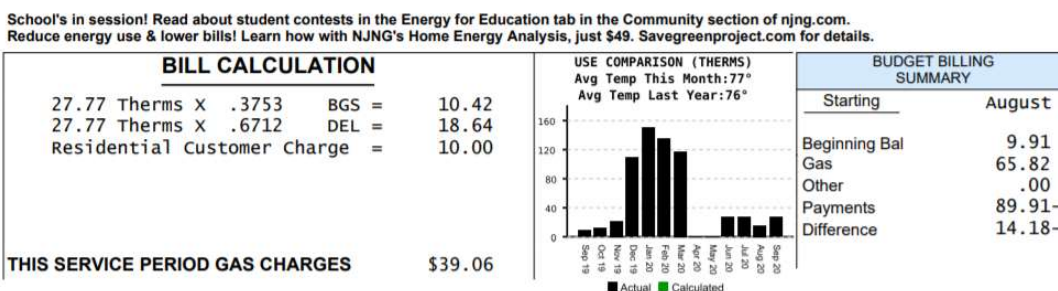
Overview of Customer Access to Current and Historic Energy Usage Data (MFR II.a.vii)

New Jersey Natural Gas (NJNG) recognizes the importance of easy customer access to both their current and historical energy usage. We know it's a critical piece of information for budgeting household or business expenses and understanding the potential energy savings by following particular energy conservation tips. It's also important when customers consider investing in energy-saving appliances, equipment and projects. With that in mind, NJNG would like to address both current availability of such data and planned enhancements that should be available in late 2021.

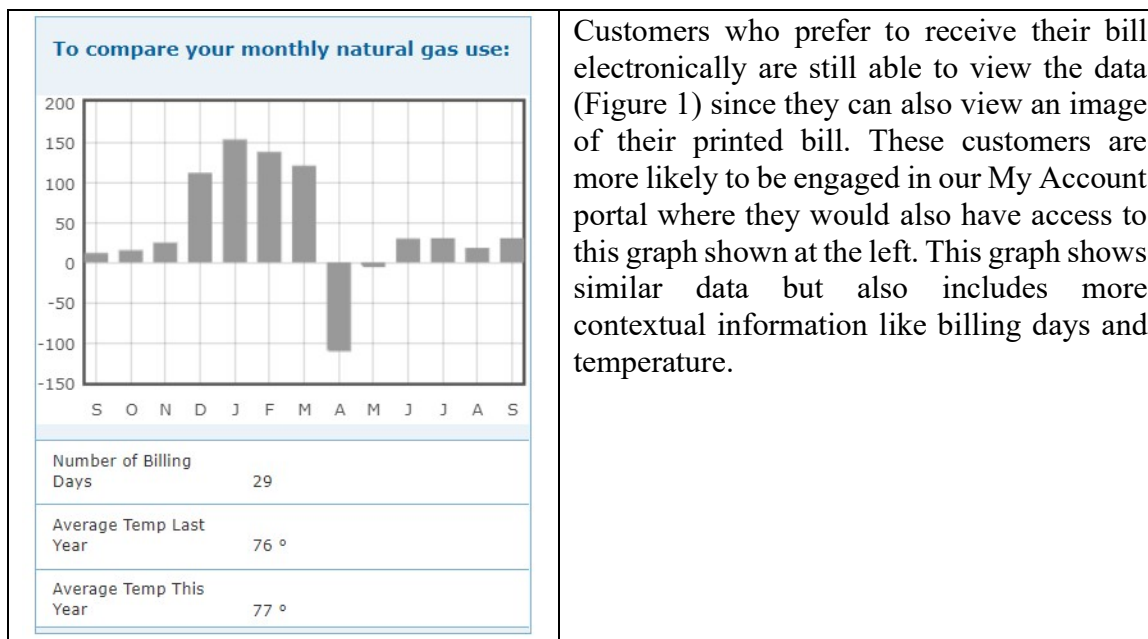
Current Availability

All customers currently have some insight into their current and historical energy usage through a graphic depiction shown on their printed bill.

Printed Bill Usage -Figure 1

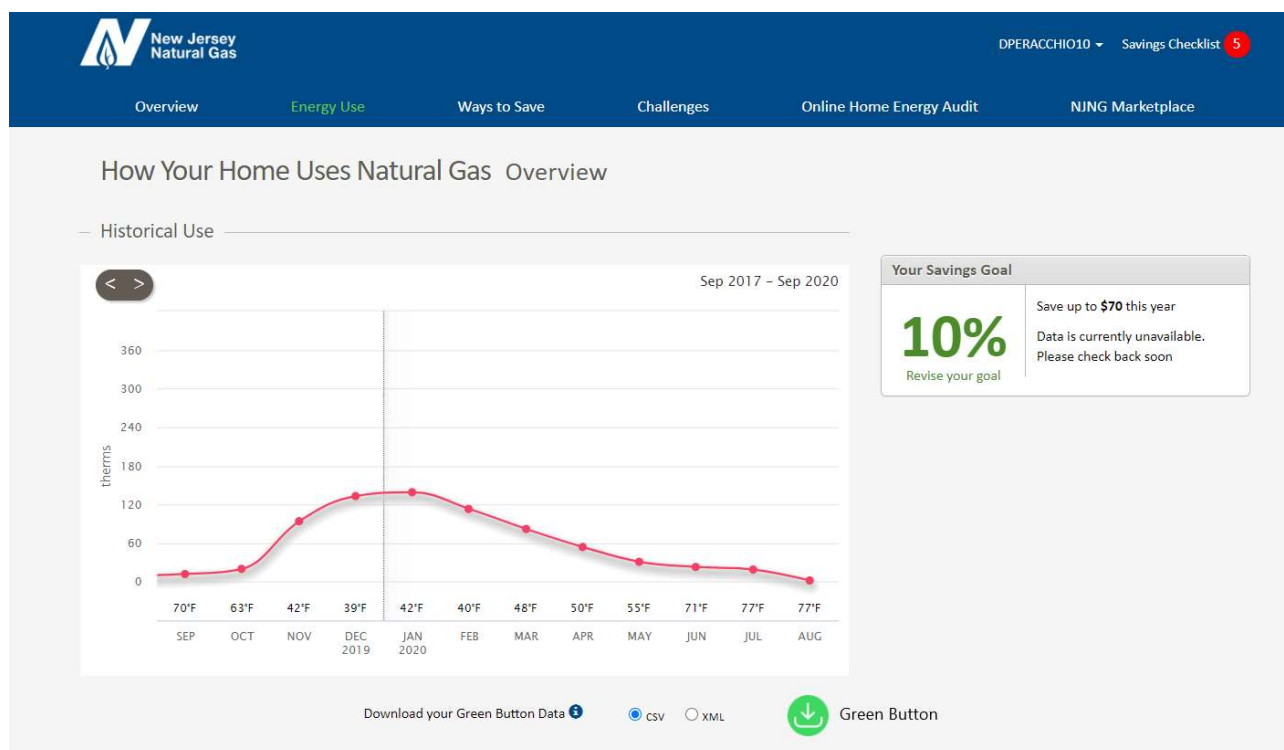


My Account Usage- Figure 2



Behavioral Program Usage - Figure 3

All residential customers, including those who are not recipients of Home Energy Reports, are able to access their usage through the Behavioral Program. Customers can use the Green Button (seen below) to download their information into either a CSV format for spreadsheet analysis or an XML version to upload for usage within another software or application. The Green Button initiative is an industry-led effort to provide utility customers with easy and secure access to their energy usage information in a consumer-friendly and computer-friendly format. Customers are able to securely download their own detailed energy usage with a simple click of a literal "Green Button" on a utility website.



Planned Enhancements to Enable Additional Customer Functionality

Over the past 24 months, NJNG has devoted significant time and resources to improve our customer facing systems. As part of that effort, NJNG took a broad look at our existing tools, systems and processes, and identified areas for improvement based upon customer needs and new technologies. As part of our Customer Experience approach, customers will have more robust tools to easily view, analyze and share their energy usage. We expect to launch in late 2021.

Budget Consideration for Access to Energy Usage Data

NJNG is not including any incremental costs for these data access tools as part of this filing. The current Green Button functionality was included within the cost of the current Behavioral Program. Costs for the implementation of new systems will be addressed within a future base rate case proceeding since they address customer needs that are broader than just the energy efficiency programs.

Energy Efficiency Program Market Barriers and Mitigation Strategies			
SECTOR	MARKET BARRIER	APPLICABLE PROGRAM(S)	POSSIBLE MITIGATION STRATEGIES¹
Residential	Customer Awareness & Engagement	<u>CORE:</u> <ul style="list-style-type: none"> • Energy Efficient Products • Home Performance with Energy Star (“HPwES”) <u>UTILITY-LED:</u> <ul style="list-style-type: none"> • Quick Home Energy Check-Up (“QHEC”) • Existing Homes • Moderate Income Weatherization • Hybrid Heat 	<ul style="list-style-type: none"> • Targeted outreach on the benefits of energy efficient equipment, including educational campaigns on the “whole-house” approach to energy efficiency, and case studies from prior participants in energy efficiency programs. • Collaborative marketing involving retailers, wholesalers, and trade allies. • Mixed-marketing campaigns to increase reach to customers and trade allies, including traditional marketing avenues, hard-copy materials, and cross promotion between efficiency programs. • Robust digital marketing plan designed to reach a diverse demographic, including young people. • Outreach materials available in Spanish; active participation in Equity and Marketing Working Groups to consider need for translation in other languages. • Partnerships with community organizations to raise awareness of programs. • Integration with outreach on energy assistance programs.
Residential	Customer Skepticism	<u>UTILITY-LED:</u> <ul style="list-style-type: none"> • QHEC • Moderate Income Weatherization 	<ul style="list-style-type: none"> • Processes to mitigate skepticism of contractor proposals. For example, QHEC ensures that the contractor who performs the home audit will be separate from the contractor who installs recommended future efficiency upgrades. • Engagement with trusted market influencers, community groups, and local leaders to disseminate program information.
Residential	Availability of Efficient Products	<u>CORE:</u> <ul style="list-style-type: none"> • Energy Efficient Products 	<ul style="list-style-type: none"> • Availability of products on the online marketplace. • Midstream programs that incentivize retailers, distributors, and other midstream actors to mark down the cost of certain efficient equipment at the point of sale.

¹ The mitigation strategies included in this document cover many of the strategies currently planned to address a given market barrier. Within each individual program, the strategy for addressing the barrier may differ slightly depending on the nature of the program. NJNG also anticipates exploring and implementing new strategies based upon recommendations from the Equity and Workforce Development Working Groups.

Residential	Initial Project Costs & Access to Financing	<u>CORE:</u> <ul style="list-style-type: none"> • Energy Efficient Products • HPwES <u>UTILITY-LED:</u> <ul style="list-style-type: none"> • QHEC • Moderate Income Weatherization • Hybrid Heat 	<ul style="list-style-type: none"> • Incentive programs to reduce initial equipment costs. • On-Bill Repayment Program or access to financing with similar terms with longer repayment terms for Low to Moderate Income (“LMI”) customers for some programs. • Options for customers to apply for financing using utility payment history and bankruptcy check rather than traditional credit screening. • No cost energy efficiency measures and upgrades for LMI customers as part of the Moderate-Income Weatherization program. • Free home energy assessments to eligible customers as part of the QHEC program.
Residential	Complex Buying Process	<u>UTILITY-LED:</u> <ul style="list-style-type: none"> • Moderate Income Weatherization • Hybrid Heat 	<ul style="list-style-type: none"> • Direct engagement with customers to facilitate program applications. • Technical support to identify and administer efficiency upgrades. • Free installation of direct install and weatherization measures for eligible LMI customers through the Moderate-Income Weatherization program. • Customer audits can be posted on NJNG’s contractor bidding portal allowing up to three contractors to view and provide estimates on recommended upgrades, providing easy access to interested contractors and competitive bids.
Residential	Trade Ally Awareness and Training	<u>CORE:</u> <ul style="list-style-type: none"> • EE Products • HPwES <u>UTILITY-LED:</u> <ul style="list-style-type: none"> • Moderate Income Weatherization • Hybrid Heat 	<ul style="list-style-type: none"> • Expanded contractor recruitment, including new initiatives to include more local, underrepresented, and disadvantaged workers in accordance with the Workforce Development Working Group strategies. • Continued outreach to contractors through our Monthly Contractor E-blasts. • Continue to host and promote contractor training and support professional development organizations and industry associations. • Educate property managers on the benefits of energy efficient equipment and importance of weatherization. • Engage and educate distributors stimulating demand and avoid the use of non-high efficiency equipment.
Residential	Split incentives	<u>CORE:</u> <ul style="list-style-type: none"> • Energy Efficient Products 	<ul style="list-style-type: none"> • Marketing campaigns directed at both landlords and tenants.

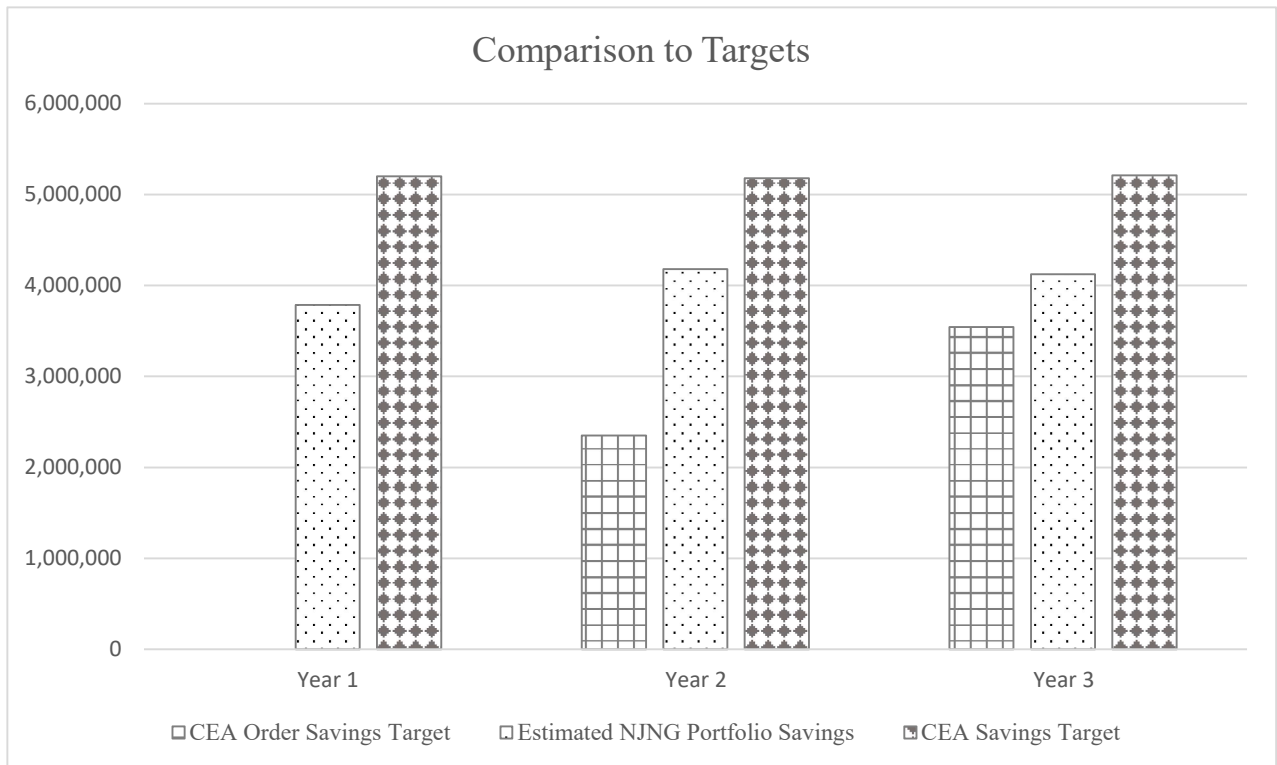
		<ul style="list-style-type: none"> • Multifamily Program <u>UTILITY-LED:</u> <ul style="list-style-type: none"> • QHEC 	<ul style="list-style-type: none"> • Targeted campaigns to renters focused on measures that have immediate savings and don't require landlord approval. • Low- and no-cost measures for tenants and landlords in multifamily housing. • Comprehensive support for multifamily landlords and tenants, including application, technical and engineering support to design cost effective projects with benefits for owners and renters. • Technical assistance for property owners and managers to develop and market green properties.
Residential	<p>Decision Making Barriers:</p> <ul style="list-style-type: none"> • Lack of Understanding • Lack of Customer effort • Insufficient Data • Lack of Motivation 	<u>UTILITY-LED:</u> <ul style="list-style-type: none"> • Residential Behavioral Program • QHEC 	<ul style="list-style-type: none"> • Home Energy Reports (HERs) educating customers on their own energy use, with guidance on how to interpret energy use and evaluate efficiency opportunities. • Opt-out model for HERs, where customers automatically receives reports unless they specify otherwise. • Behavioral change messaging incorporated into HERs to motivate customers to adopt efficiency measures. • Customized messaging addressing additional energy upgrades that can be made based on previous program activity. • Customized reports from QHEC that identify potential upgrades and provide recommendations for participation in other programs. QHEC+ participants also benefit from getting a U.S. Department of Energy Home Energy Score.
Multifamily	Customer Awareness & Engagement	<u>CORE:</u> <ul style="list-style-type: none"> • Multifamily Program 	<ul style="list-style-type: none"> • Targeted outreach on the benefits of energy efficient equipment, including educational campaigns on the "whole-building" approach to energy efficiency, and case studies from prior participants in energy efficiency programs. • Outreach materials available in Spanish; active participation in Equity and Marketing Working Groups to consider need for translation in other languages. • Partnerships with community organizations to raise awareness of programs.

Multifamily	Initial Project Costs & Access to Financing	<u>CORE:</u> <ul style="list-style-type: none"> • Multifamily Program 	<ul style="list-style-type: none"> • Incentive programs to reduce initial project costs. • On-Bill Repayment Program or access to financing with similar terms with longer repayment terms for properties serving Low to Moderate Income (“LMI”) customers. • Financing using utility payment history and bankruptcy check rather than traditional credit screening. • Educational campaigns on the non-energy benefits of efficiency projects. • Potential for installation of energy savings measures to individual units at no cost to participants.
Multifamily	Business/Operational Constraints	<u>CORE:</u> <ul style="list-style-type: none"> • Multifamily Program 	<ul style="list-style-type: none"> • Enhanced program participation and technical support for multifamily properties, which face unique operational and time constraints. • Timely incentive processing and financing support.
C&I	Customer Awareness & Engagement	<u>CORE:</u> <ul style="list-style-type: none"> • Direct Install • Prescriptive & Custom <u>UTILITY-LED:</u> <ul style="list-style-type: none"> • Engineered Solutions • Energy Management 	<ul style="list-style-type: none"> • Targeted outreach to educate C&I customers on energy efficiency opportunities, including case studies from past participants. • Turnkey, direct installation of efficiency measures to eligible organizations, plus on-site identification of additional efficiency opportunities. • Personalized approaches to energy audit and efficiency implementation that builds trust and increases referral rates. • Educational campaigns on benefits of building tune-ups, retro-commissioning and strategic energy management. • Collaborative marketing that engages retailers, wholesale entities, and business groups designed to support small business and other underrepresented business groups (e.g. The Chamber of Commerce). • Outreach efforts focused specifically on engaging businesses with particularly high barriers to participation, including minority- and women-owned businesses, small businesses, and start-ups. • Outreach materials available in Spanish to reach Spanish-speaking customers.
C&I	Availability of Efficient Products	<u>CORE:</u> <ul style="list-style-type: none"> • Prescriptive & Custom 	<ul style="list-style-type: none"> • Intention to explore Midstream incentive approaches for distributors or retailers to stock and promote, and/or directly mark down the cost of specific energy efficient equipment.

C&I	Initial Costs & Access to Financing	<u>CORE:</u> <ul style="list-style-type: none"> • Direct Install • Prescriptive & Custom <u>UTILITY-LED:</u> <ul style="list-style-type: none"> • Energy Management 	<ul style="list-style-type: none"> • Midstream and downstream incentive programs to reduce initial equipment costs. • Direct installation of efficiency measures to eligible customers. • Incentives & access to financing, including on-bill repayment and higher incentive levels in LMI areas. • Communication of non-energy benefits to factor into benefit/cost analyses.
C&I	Business/Operational Constraints	<u>CORE:</u> <ul style="list-style-type: none"> • Direct Install • Prescriptive & Custom <u>UTILITY-LED:</u> <ul style="list-style-type: none"> • Energy Management • Engineered Solutions 	<ul style="list-style-type: none"> • Efforts to ensure that programs operate cooperatively with clients and accommodate client schedules, including operational and capital investment cycles. • Technical assistance from specialized professionals who understand the facility's core functions, including training for facility managers. • Maintenance services and timely incentive and financing support.
C&I	Split Incentives	<u>CORE:</u> <ul style="list-style-type: none"> • Direct Install 	<ul style="list-style-type: none"> • Marketing campaigns directed at both landlords and tenants focusing on the long-term benefits of participating. • Possible technical assistance for commercial property owners to develop and market green properties to attract tenants.
C&I	Risk, uncertainty, and hidden costs	<u>UTILITY-LED:</u> <ul style="list-style-type: none"> • Engineered Solutions 	<ul style="list-style-type: none"> • Publicly communicated cycles of energy efficiency funding to serve as an investment signal for customers and trade allies. • Firm funding commitments provided after the audit stage of the project.
C&I	Complex Buying Process	<u>CORE:</u> <ul style="list-style-type: none"> • Direct Install <u>UTILITY-LED:</u> <ul style="list-style-type: none"> • Engineered Solutions 	<ul style="list-style-type: none"> • Direct engagement with C&I entities to facilitate a holistic building approach and to encourage participation. Support regarding the completion of applications and serving as a direct resource to these customers, providing technical support and helping to assist customers in identifying efficiency opportunities.
General	Insufficient Data	<ul style="list-style-type: none"> • All Programs 	<ul style="list-style-type: none"> • Data-driven marketing campaigns focused on segmenting customer groups to ensure that they receive information and recommendations most relevant to their homes, businesses, and industries. • Energy reporting that is easily accessible through HERs and online portals, to empower customers to monitor energy use and evaluate efficiency opportunities.

Overview of Energy Savings Targets

Program Year		Year 1	Year 2	Year 3
Dates	ref	7/1/21-6/30/22	7/1/22-6/30/23	7/1/23-6/30/24
Average Retail Sales ¹	a	693,530,766	690,735,741	694,914,113
Reduction required by CEA Order	b	0.00%	0.34%	0.51%
CEA Order Savings Target	a*b=c	0	2,348,502	3,544,062
CEA Legislative Target	d	0.75%	0.75%	0.75%
CEA Savings Target	a*d=e	5,201,481	5,180,518	5,211,856
Estimated NJNG Portfolio Savings	f	3,785,807	4,181,061	4,122,859
Estimated % of Savings	f/a	0.55%	0.61%	0.59%



¹Average of the three calendar years prior to the start of the program year.

1 **Q. HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY PROCEEDINGS?**

2 **A.** Yes. I have submitted Direct Testimony before the Board in NJNG’s base rate cases
3 (BPU Docket No. GR19030420 and BPU Docket No. GR15111304); the Company’s
4 Infrastructure Investment Program (BPU Docket No. GR19020278) and NJ
5 Reinvestment in System Enhancement cost recovery petition (BPU Docket No.
6 GR15050638). In addition, I have provided testimony on behalf of PSEG Power, LLC
7 in a rate matter proceeding before the Connecticut Public Utilities Regulatory Authority
8 in PURA Docket No. 12-07-17.

9
10 **Q. What is the purpose of your testimony in this proceeding?**

11 **A.** My testimony describes the rate and revenue requirement aspects of NJNG’s request
12 to continue offering, with modifications, energy-efficiency programs previously
13 approved by the BPU and offer additional programs provided through NJNG’s The
14 SAVEGREEN®™ Project (“SAVEGREEN”).¹ Ms. Anne-Marie Peracchio describes
15 NJNG’s proposal to offer programs for a three-year period beginning July 2021 in her
16 pre-filed testimony, Exhibit P-2. In my pre-filed testimony, I provide estimates of the
17 annual revenue requirements associated with the energy-efficiency investments and on-
18 bill repayment plan (“OBRP”) incentives described by Ms. Peracchio. Lastly, I provide
19 an assessment of the estimated bill impacts associated with NJNG’s proposals.

20 My testimony supports a number of the current Minimum Filing Requirements
21 (“MFRs”) established by the BPU in an Order dated June 10, 2020 in Docket No.

¹ The BPU approved NJNG’s energy-efficiency programs in Docket Nos. EO09010056, GO09010057 (July 2009), GO10030225 (September 2010), GR11070425 (January 2012), GR12070640 (June 2013) and GO14121412 (July 2015 and June 2016).

1 QO19010040, QO19060748 and QO17091004² and required for energy-efficiency and
2 conservation program proposals.

3 **Q. Are you supporting any schedules that accompany your testimony?**

4 A. Yes. I am sponsoring the following schedules, which will be explained later in my
5 testimony:

6	Schedule JMC-1	SAVEGREEN Investments
7	Schedule JMC-2	Cost of Capital
8	Schedule JMC-3	Revenue Requirements Summary and Projected Bill
9		Impact
10	Workpapers	

11
12 **Q. What are the components included in the revenue requirements that are**
13 **associated with the SAVEGREEN programs proposed by the Company?**

14 A. The proposed energy-efficiency programs as described in Ms. Peracchio's testimony
15 incorporate investments and OBRP incentives. The SAVEGREEN revenue
16 requirement components vary with the type of incentive provided to customers. The
17 direct investments result in rate base related revenue requirements including return on
18 net investment, income taxes and amortization expense. The applicable rate base
19 incorporates reductions for accumulated deferred income taxes attributable to timing
20 differences between the tax and book amortization expense. The provision of energy-

² In The Matter Of The Implementation Of P.L. 2018, c. 17 Regarding The Establishment Of Energy Efficiency And Peak Demand Reduction Programs, et al; Order Directing The Utilities To Establish Energy Efficiency And Peak Demand Reduction Programs ("CEA Order"), BPU Docket Nos. QO19010040; QO19060748; and QO17091004. (June 10, 2020).

1 efficiency OBRPs results in revenue requirements including return on net investment
2 and income tax expense, but not amortization expense given that over time customers
3 repay the financing received from the Company. Additionally, the Company includes
4 operations and maintenance (“O&M”) expense associated with the energy-efficiency
5 programs in SAVEGREEN revenue requirements. The determination of
6 SAVEGREEN revenue requirements in this filing is consistent with previous BPU
7 approvals of NJNG SAVEGREEN programs.

8 **Q. Please describe how the Company is treating the revenue requirements associated**
9 **with overlapping territory rebates and OBRPs?**

10 A. The Lead Utility will determine the appropriate investment that will be allocated to the
11 gas distribution company (NJNG) and the electric distribution company (Jersey Central
12 Power & Light or Atlantic City Electric). When NJNG is the Lead Utility, the
13 Company will reflect a reduction in investment when the respective electric distribution
14 company remits its appropriate portion to the Company. When NJNG is the Partner
15 Utility, the Company will reflect an increase in investment when NJNG remits their
16 portion to the respective electric distribution company.

17 Regarding OBRPs, the utilities have agreed to the structure as illustrated in the matrix
18 below.

1
2
3
4
5
6

Overview of Financing in Overlapping Territories

		Lead Utility		
		On-Bill	Off-Bill	Third-Party
Partner Utility	On-Bill	Share Financing Investment	Share Financing Investment	Share Interest Buy-Down Costs
	Off-Bill	Share Financing Investment	Share Financing Investment	Share Interest Buy-Down Costs
	Third-Party	Lead Keeps Financing Investment	Lead Keeps Financing Investment	Share Interest Buy-Down Costs

7

8 **Q. Please describe the factors that most strongly influence the level of revenue**
9 **requirements associated with the SAVEGREEN programs.**

10 A. The unit investment costs of the individual program measures and the number of
11 participants are the two factors that most significantly affect the level of SAVEGREEN
12 revenue requirements associated with these programs. In addition, the length of time
13 over which the investments are amortized and the incremental O&M costs necessary
14 to implement the energy-efficiency programs influence total revenue requirements.

15 **Q. What are the participant levels associated with each of the Company’s proposed**
16 **programs?**

17 A. The participant levels for each of the residential and commercial programs are
18 presented in Schedule BJB-2 accompanying the pre-filed Direct Testimony of Brendon
19 J. Baatz, Exhibit P-4.

1 **Q. Please describe the time period for amortization of the investments in energy-**
2 **efficiency rate base.**

3 A. Consistent with the BPU's CEA Order, the Company will amortize direct investments
4 provided to customers over ten (10) years for each respective program beginning with
5 the month that the investment is recorded. For tax purposes, the investments will be
6 recognized as an expense. The timing difference between book and tax amortization
7 periods is properly recognized in the calculated revenue requirements through deferred
8 tax reductions to the rate base associated with the programs.

9 **Q. What is the projected rate base associated with the proposed SAVEGREEN 2020**
10 **Program?**

11 A. The rate base relied upon for revenue requirement purposes reflects the net investment
12 in energy-efficiency and the net balance associated with OBRPs. The rate base by
13 program by year is provided in Schedule JMC-1 through 2036, which is when the
14 program investments have been fully amortized.

15 **Q. How are return on investment and income taxes calculated?**

16 A. Consistent with cost recovery for current BPU-approved SAVEGREEN programs, the
17 Company is proposing to include a regulated rate of return on the energy-efficiency
18 rate base as part of the proposed revenue requirements. The capital structure and rate
19 of return are provided in Schedule JMC-2 and reflect the rates authorized by the BPU
20 in the Company's most recent base rate case, Docket No. GR19030420. The associated
21 income tax rates reflect current federal and New Jersey income tax rates.

1 **Q. What are the estimated O&M costs associated with the 2020 SAVGREEN**
2 **programs?**

3 A. NJNG prepared estimates of the anticipated costs associated with administering the
4 SAVEGREEN programs, consistent with prior BPU-approved cost recovery. The
5 projections reflect the Company's experience administering the existing programs in
6 previous years, including the incremental employees performing the required work.
7 O&M costs associated with the proposed programs are only incurred during years that
8 incentives are provided to customers and are expected to average approximately \$7.8
9 million per year over the program term.

10 **Q. Have you prepared a summary of net revenue requirements associated with the**
11 **SAVEGREEN Investments?**

12 A. Yes. Schedule JMC-3 presents a summary of the projected revenue requirements for
13 the SAVEGREEN 2020 program by year. The actual revenue requirements will
14 depend on the level of participation by customers in each year. However, Schedule
15 JMC-3 is presented on the basis of the maximum revenue requirement impact to
16 customers for the term of the program, including the close-out period. Schedule JMC-
17 3 also presents annual bill impacts, assuming full participation at the proposed levels,
18 for each year based on the projected net revenue requirements presented in Schedule
19 JMC-3. The bill impacts are provided separately for various NJNG customer classes.
20 For residential heating customers, the bill impacts average \$21.71 annually over the
21 recovery period from 2021 through 2036. Within this filing, the electronic JMC-
22 Workpapers provide specific revenue requirement calculations.

1 **Q. Is NJNG proposing to establish an energy efficiency recovery rate for the new**
2 **program at the present time?**

3 A. Yes. NJNG is proposing to establish an energy efficiency recovery rate for this specific
4 program, which will become part of Rider F, coincident with the effective date of the
5 program of July 1, 2021 based on the Company's projections. The rate will be trued-
6 up in annual cost recovery filings. The impact of the proposed July 1, 2021 rate is an
7 increase of \$21.00, or 1.8 percent, to a residential heat customer using 1,000 therms
8 annually.

9 **Q. Does this conclude your testimony?**

10 A. Yes, it does. I reserve the right to supplement my testimony should the need arise.

New Jersey Natural Gas
SAVEGREEN 2020 Program

SAVEGREEN Investments

Fiscal Year	2021-2022	2023	2024	2025	2026	2027	2028	2029
Investments								
Gross Investment	\$ 36,267,156	\$ 74,875,262	\$ 115,975,818	\$ 123,560,757	\$ 127,056,910	\$ 127,285,528	\$ 127,285,528	\$ 127,285,528
Accumulated Amortization	\$ (2,365,637)	\$ (8,020,032)	\$ (17,910,445)	\$ (29,918,459)	\$ (42,500,868)	\$ (55,229,420)	\$ (67,957,973)	\$ (80,686,526)
Deferred Taxes	\$ (5,616,732)	\$ (13,640,075)	\$ (22,767,324)	\$ (25,344,448)	\$ (23,422,156)	\$ (20,254,972)	\$ (16,676,976)	\$ (13,098,979)
Total	\$ 28,284,787	\$ 53,215,154	\$ 75,298,049	\$ 68,297,849	\$ 61,133,886	\$ 51,801,136	\$ 42,650,579	\$ 33,500,022
OBRP								
OBRP Loans	\$ 26,673,263	\$ 55,986,395	\$ 86,188,157	\$ 94,498,616	\$ 98,247,095	\$ 98,446,393	\$ 98,446,393	\$ 98,446,393
Customer Repayments	\$ (2,627,830)	\$ (9,163,005)	\$ (20,800,251)	\$ (35,276,194)	\$ (50,913,126)	\$ (65,886,039)	\$ (78,937,901)	\$ (88,084,842)
Total	\$ 24,045,432	\$ 46,823,390	\$ 65,387,906	\$ 59,222,422	\$ 47,333,969	\$ 32,560,353	\$ 19,508,492	\$ 10,361,550
TOTAL NET INVESTMENT	\$ 52,330,220	\$ 100,038,544	\$ 140,685,955	\$ 127,520,271	\$ 108,467,855	\$ 84,361,489	\$ 62,159,071	\$ 43,861,573

New Jersey Natural Gas
SAVEGREEN 2020 Program

SAVEGREEN Investments

Fiscal Year	2030	2031	2032	2033	2034	2035	2036
Investments							
Gross Investment	\$ 127,285,528	\$ 127,285,528	\$ 127,285,528	\$ 127,285,528	\$ 127,285,528	\$ 127,285,528	\$ 127,285,528
Accumulated Amortization	\$ (93,415,079)	\$ (106,012,684)	\$ (116,506,547)	\$ (123,580,705)	\$ (126,418,845)	\$ (127,139,384)	\$ (127,285,528)
Deferred Taxes	\$ (9,520,983)	\$ (5,979,796)	\$ (3,029,971)	\$ (1,041,426)	\$ (243,625)	\$ (41,081)	\$ 0
Total	\$ 24,349,466	\$ 15,293,047	\$ 7,749,009	\$ 2,663,397	\$ 623,059	\$ 105,063	\$ 0
OBRP							
OBRP Loans	\$ 98,446,393	\$ 98,446,393	\$ 98,446,393	\$ 98,446,393	\$ 98,446,393	\$ 98,446,393	\$ 98,446,393
Customer Repayments	\$ (93,458,227)	\$ (95,919,518)	\$ (97,272,554)	\$ (98,118,905)	\$ (98,390,277)	\$ (98,439,285)	\$ (98,446,393)
Total	\$ 4,988,166	\$ 2,526,875	\$ 1,173,839	\$ 327,488	\$ 56,115	\$ 7,108	\$ -
TOTAL NET INVESTMENT	\$ 29,337,632	\$ 17,819,922	\$ 8,922,848	\$ 2,990,885	\$ 679,174	\$ 112,171	\$ 0

**New Jersey Natural Gas
SAVEGREEN 2020 Program**

Weighted Average Cost of Capital

	Percent	Embedded Cost	Weighted Cost	Pre-Tax Cost
Long-Term Debt	46.00%	3.83%	1.76%	1.76%
Common Equity	<u>54.00%</u>	<u>9.60%</u>	<u>5.18%</u>	<u>7.21%</u>
Total	100.00%		<u><u>6.95%</u></u>	<u><u>8.97%</u></u>

New Jersey Natural Gas
SAVEGREEN 2020 Program

Summary of Revenue Requirements and Projected Bill Impacts

Fiscal Year	2021-2022	2023	2024	2025	2026	2027	2028	2029
Rebate Revenue Requirements								
Amortization	2,365,637	5,654,396	9,890,413	12,008,014	12,582,408	12,728,553	12,728,553	12,728,553
Income Taxes	401,145	843,012	1,363,359	1,434,034	1,311,685	1,137,280	949,548	764,064
Return	1,374,826	2,889,214	4,672,573	4,914,796	4,495,474	3,897,743	3,254,338	2,618,640
Total	\$ 4,141,608	\$ 9,386,622	\$ 15,926,345	\$ 18,356,844	\$ 18,389,568	\$ 17,763,575	\$ 16,932,439	\$ 16,111,257
On Bill Repayment Programs Revenue Requirement								
Income Taxes	326,420	744,111	1,202,044	1,260,089	1,078,849	796,753	512,270	287,296
Return	1,118,724	2,550,256	4,119,707	4,318,643	3,697,488	2,730,674	1,755,677	984,634
Total	\$ 1,445,144	\$ 3,294,367	\$ 5,321,751	\$ 5,578,732	\$ 4,776,337	\$ 3,527,427	\$ 2,267,947	\$ 1,271,930
Operation & Maintenance Expense	9,798,605	7,710,224	5,879,406	-	-	-	-	\$ -
TOTAL REVENUE REQUIREMENTS	\$ 15,385,356	\$ 20,391,213	\$ 27,127,502	\$ 23,935,576	\$ 23,165,905	\$ 21,291,002	\$ 19,200,385	\$ 17,383,187
Throughput (Therms)	780,588,999	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254
Rate per Therm	\$ 0.0197	\$ 0.0282	\$ 0.0376	\$ 0.0332	\$ 0.0321	\$ 0.0295	\$ 0.0266	\$ 0.0241
SUT	0.0013	0.0019	0.0025	0.0022	0.0021	0.0020	0.0018	0.0016
Total	\$ 0.0210	\$ 0.0301	\$ 0.0401	\$ 0.0354	\$ 0.0342	\$ 0.0315	\$ 0.0284	\$ 0.0257
Typical Annual Bill Impacts								
Residential Non-Heat	200 Annual Therms							
Typical Annual Bill Impact	\$ 4.20	\$ 6.02	\$ 8.02	\$ 7.08	\$ 6.84	\$ 6.30	\$ 5.68	\$ 5.14
	1.3%	1.9%	2.5%	2.2%	2.2%	2.0%	1.8%	1.6%
Residential Heat	1,000 Annual Therms							
Typical Annual Bill Impact	\$ 21.00	\$ 30.10	\$ 40.10	\$ 35.40	\$ 34.20	\$ 31.50	\$ 28.40	\$ 25.70
	1.8%	2.6%	3.5%	3.1%	3.0%	2.7%	2.5%	2.2%
General Service Small	1,200 Annual Therms							
Typical Annual Bill Impact	\$ 25.20	\$ 36.12	\$ 48.12	\$ 42.48	\$ 41.04	\$ 37.80	\$ 34.08	\$ 30.84
	1.6%	2.3%	3.0%	2.7%	2.6%	2.4%	2.1%	1.9%
General Service Large	15,000 Annual Therms							
Typical Annual Bill Impact	\$ 315.00	\$ 451.50	\$ 601.50	\$ 531.00	\$ 513.00	\$ 472.50	\$ 426.00	\$ 385.50
	2.0%	2.9%	3.8%	3.4%	3.3%	3.0%	2.7%	2.5%

New Jersey Natural Gas
SAVEGREEN 2020 Program

Summary of Revenue Requirements and Projected Bill Impacts

Fiscal Year	2030	2031	2032	2033	2034	2035	2036
Rebate Revenue Requirements							
Amortization	12,728,553	12,597,605	10,493,863	7,074,157	2,838,140	720,539	146,144
Income Taxes	578,581	393,388	223,517	96,533	26,534	6,040	575
Return	1,982,942	1,348,241	766,048	330,842	90,937	20,702	1,971
Total	\$ 15,290,076	\$ 14,339,234	\$ 11,483,427	\$ 7,501,532	\$ 2,955,611	\$ 747,281	\$ 148,690
On Bill Repayment Programs Revenue Requirement							
Income Taxes	145,481	70,243	35,602	13,563	2,756	497	28
Return	498,601	240,740	122,015	46,484	9,445	1,704	95
Total	\$ 644,083	\$ 310,983	\$ 157,617	\$ 60,047	\$ 12,200	\$ 2,201	\$ 122
Operation & Maintenance Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL REVENUE REQUIREMENTS	\$ 15,934,159	\$ 14,650,217	\$ 11,641,044	\$ 7,561,579	\$ 2,967,811	\$ 749,482	\$ 148,813
Throughput (Therms)	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254
Rate per Therm	\$ 0.0221	\$ 0.0203	\$ 0.0161	\$ 0.0105	\$ 0.0041	\$ 0.0010	\$ 0.0002
SUT	0.0015	0.0013	0.0011	0.0007	0.0003	0.0001	-
	\$ 0.0236	\$ 0.0216	\$ 0.0172	\$ 0.0112	\$ 0.0044	\$ 0.0011	\$ 0.0002
Typical Annual Bill Impacts							
Residential Non-Heat Typical Annual Bill Impact	\$ 4.72 1.5%	\$ 4.32 1.4%	\$ 3.44 1.1%	\$ 2.24 0.7%	\$ 0.88 0.3%	\$ 0.22 0.1%	\$ 0.04 0.0%
Residential Heat Typical Annual Bill Impact	\$ 23.60 2.0%	\$ 21.60 1.9%	\$ 17.20 1.5%	\$ 11.20 1.0%	\$ 4.40 0.4%	\$ 1.10 0.1%	\$ 0.20 0.0%
General Service Small Typical Annual Bill Impact	\$ 28.32 1.8%	\$ 25.92 1.6%	\$ 20.64 1.3%	\$ 13.44 0.8%	\$ 5.28 0.3%	\$ 1.32 0.1%	\$ 0.24 0.0%
General Service Large Typical Annual Bill Impact	\$ 354.00 2.3%	\$ 324.00 2.1%	\$ 258.00 1.6%	\$ 168.00 1.1%	\$ 66.00 0.4%	\$ 16.50 0.1%	\$ 3.00 0.0%

**IN THE MATTER OF THE PETITION OF NEW JERSEY NATURAL
GAS COMPANY FOR APPROVAL OF ENERGY EFFICIENCY
PROGRAMS AND THE ASSOCIATED COST RECOVERY
MECHANISM PURSUANT TO THE CLEAN ENERGY ACT, N.J.S.A.
48:3-87.8 et seq. and 48:3-98.1 et seq.**

BPU DOCKET NO.

DIRECT TESTIMONY

OF

BRENDON J. BAATZ

Gabel Associates, Inc.

**On Behalf Of
New Jersey Natural Gas**

September 25, 2020

**NEW JERSEY NATURAL GAS
DIRECT TESTIMONY OF
BRENDON J. BAATZ**

1 **I. INTRODUCTION**

2 **Q. Please state your name, business address, and position.**

3 A. My name is Brendon J. Baatz and my business address is 417 Denison Street, Highland
4 Park, New Jersey, 08904. I am presently employed as a Vice President at Gabel Associates,
5 Inc., an energy, environmental, and public utility consulting firm.

6 **Q. Please summarize your professional experience and educational background.**

7 A. I have been employed with Gabel Associates since March of 2018. While at Gabel
8 Associates, I have worked for a range of public and private clients on various issues in the
9 utility industry. The issues include retail and wholesale electric rate design, renewable
10 energy project cost benefit analysis, and electric vehicle utility policy. I have also worked
11 extensively on energy efficiency program design, policy, and cost benefit analysis for
12 several clients, including gas and electric utilities.

13 Prior to my employment with Gabel Associates, I managed the utility program at
14 the American Council for an Energy Efficient Economy (“ACEEE”). There I focused on
15 various issues related to utility-sector energy efficiency programs, including efficiency
16 program design, state policies, and regulatory issues affecting energy efficiency, including
17 electric and gas rate design. While at ACEEE I published numerous reports on energy
18 efficiency programs and policy, and also regularly spoke at conferences on related issues.
19 I also testified in various proceedings on these issues during that time.

20 Prior to my employment with ACEEE, I was employed with the Federal Energy
21 Regulatory Commission (“FERC”). During my employment with FERC my primary
22 responsibilities were the review and analyses of electric utility cost of service studies in
23 wholesale transmission and electric power rate cases. I also worked on other litigated issues
24 while at FERC including but not limited to transmission capacity reservation rights,

1 municipal power contracts, and formula rate structure and protocols. Prior to my
2 employment with FERC, I held positions with the Maryland Public Service Commission
3 (“PSC”) as an energy analyst and the Indiana Office of Utility Consumer Counselor
4 (“OUCC”) as a utility analyst. While at the Maryland PSC, I worked on the EmPOWER
5 Maryland programs focusing on program design, avoided cost development, and other
6 policy issues. While working at the OUCC, I testified on a variety of utility issues including
7 but not limited to rate design, renewable energy credit compensation, and utility petitions
8 for construction. I also represented the agency in several oversight boards for utility energy
9 efficiency programs.

10 I hold a Master of Public affairs degree from Indiana University Bloomington and
11 a Bachelor of Science in political science from Arizona State University. I have continued
12 my education through attendance of various seminars and conferences. I have also
13 completed formal training in rate design, cost of service, depreciation, and other utility
14 regulatory matters.

15 My resume is attached as Exhibit BJB-1.

16 **Q. Have you previously testified before the New Jersey Board of Public Utilities?**

17 A. Yes. I previously testified in Docket Nos. GR18080860 and GR20070503.

18 **Q. What is the purpose of your direct testimony in this case?**

19 A. The purpose of my testimony is to present the cost effectiveness analysis conducted on the
20 New Jersey Natural Gas (“NJNG”) proposed three-year energy efficiency portfolio.

21 **Q. Are you sponsoring any schedules in connection with your direct testimony?**

22 A. Yes. I am presenting the following schedules, which have been prepared under my
23 direction and supervision and are accurate and complete to the best of my knowledge and

1 belief. These schedules contain information responsive to the Minimum Filing
2 Requirements (“MFRs”) as referenced in the MFR Index attached to the Petition as Exhibit
3 P-1 Schedule NJNG-14 and as approved by the New Jersey Board of Public Utilities
4 (“BPU” or “Board”) in its June 10, 2020 Clean Energy Act Order in Docket Nos.
5 QO19010040, QO19060748, and QO10791004 (“CEA Order”). The schedules attached
6 include:

- 7 (a) Exhibit BJB-1 – Baatz Resume
- 8 (b) Exhibit BJB-2 – NJNG Cost Effectiveness Results
- 9 (c) Exhibit BJB-3 – Cost Effectiveness Analysis Workpapers (Confidential)
- 10 (d) Exhibit BJB-4 – Summary of Avoided Emissions Results
- 11 (e) Exhibit BJB-5 – Summary of Economic Development and Job Creation
- 12 (f) Exhibit BJB-6 – Cost to Achieve Results
- 13 (g) Exhibit BJB-7 – Summary of Quantitative Performance Indicators
- 14 (h) Exhibit BJB-8 – NJNG Energy Savings Target Development Schedule

15 **II. COST EFFECTIVENESS ANALYSIS OF NJNG EE PLAN**

16 **Q. Did you conduct cost effectiveness analysis of the program portfolio in the NJNG**
17 **Plan?**

18 A. Yes. I prepared the cost-benefit analysis (“CBA”) which calculates and details the results
19 of the six tests prescribed in the MFRs as required by the Board in the CEA Order. This
20 required developing a model which analyzed measure-specific details and computed the
21 estimated costs and savings of each program for use in the New Jersey Cost Test (“NJCT”),
22 the Total Resource Cost (“TRC”) test, the Participant Cost test (“PCT”), the Program
23 Administrator Cost (“PAC”) test, the Ratepayer Impact Measure (“RIM”) test, and the

1 Societal Cost test (“SCT”). This testimony presents the methodology and results of the six
2 CBA tests required by the Board’s MFRs for the Company’s energy efficiency program
3 results for the plan period of July 1, 2021 through June 30, 2023. These results allow the
4 BPU to evaluate the projected performance of the program offerings during this time
5 period.

6 **Q. Please describe the CBA tests required by the Board’s MFRs.**

7 A. In the CEA Order, the Board updated the energy efficiency MFRs. Section V.a. in the
8 updated MFRs, states:

9 The utility shall conduct a benefit-cost analysis of the programs and
10 portfolio using the New Jersey Cost Test, Participant Cost Test, Program
11 Administrator Cost Test, Ratepayer Impact Measure Test, Total Resource
12 Cost Test, and Societal Cost Test that assesses all program costs and
13 benefits from a societal perspective i.e., that includes the combined
14 financial costs and benefits realized by the utility and the customer. The
15 utility may also provide any additional benefit-cost analysis that it believes
16 appropriate with supporting rationales and documentation.

17 Each test listed above is designed to provide a different perspective on the cost-
18 effectiveness of the proposed programs. The six cost effectiveness tests prescribed by the
19 Board provide the following perspectives for decision makers:

- 20 • New Jersey Cost Test – The New Jersey Cost Test is the primary cost effectiveness
21 test for energy efficiency programs in New Jersey. The test measures net costs of
22 the program as a resource option based on incremental measure and program related
23 costs, similar to the total resource cost test, but also includes additional benefits to
24 address specific state policy considerations in New Jersey, like the social cost of
25 avoiding carbon dioxide emissions and serving the needs of low income customers.
- 26 • Societal Cost Test – The Societal Cost Test measures the net costs of a program as
27 a resource option based on the incremental measure and program related costs,

1 including both the participants' and the utility's costs. The Societal Test differs from
2 the TRC test in that it includes the effects of societal impacts such as environmental
3 impacts to the economy, excludes tax credit benefits, and uses a different (societal)
4 discount rate.

- 5 • Total Resource Cost Test – The Total Resource Cost Test measures the net costs of
6 a program as a resource option based on the incremental measure costs, as well as
7 the participant and utility costs of the program.
- 8 • Participant Cost Test – The Participant Cost Test is the measure of the quantifiable
9 benefits and costs from the perspective of program participants. Since many
10 customers do not base their decision to participate in a program entirely on
11 quantifiable variables, this test is not a complete measure of the benefits and costs
12 of a program to a customer.
- 13 • Program Administrator Cost Test – The Program Administrator Cost Test measures
14 the net costs of a program as a resource option based on the costs incurred by the
15 program administrator or utility (including incentive costs) and excluding any net
16 costs incurred by the participant. The benefits are similar to the TRC benefits. Costs
17 include the total program costs. This test measures the net economic impact of
18 investing in energy efficiency programs from the perspective of the utility.
- 19 • Ratepayer Impact Measure Test – The Ratepayer Impact Measure test measures
20 what happens to customer rates due to changes in utility revenues and operating
21 costs caused by the program.

22 In aggregate, these tests provide the Board with multiple viewpoints of the benefits and
23 costs associated with the programs.

1 **Q. Please describe your approach to assessing cost effectiveness using the six tests**
2 **described above.**

3 A. I completed all six tests using guidance from the Board’s Order Adopting the First New
4 Jersey Cost Test (“August 24 Order”) and the California Standard Practice Manual.^{1,2} The
5 August 24 Order provided specific guidance on how to estimate costs and benefits of
6 programs, including assumptions on line losses and discount rate, for the New Jersey Cost
7 Test. I applied the Board’s guidance on the development of specific benefits and costs to
8 all tests conducted. For the Societal Cost Test, I included additional benefits that were not
9 included in the August 24 Order. For those benefits, I relied on industry best practice
10 methods.

11 **Q. Did you evaluate all the programs being proposed using the six CBA tests required in**
12 **the MFRs?**

13 A. Yes, for all proposed programs I evaluated cost effectiveness using all six tests. The results
14 of this analysis are presented in Exhibit BJB-2. The associated workpapers are attached as
15 Exhibit BJB-3.

16 **Q. Please summarize your conclusions.**

17 A. The CBA shows the NJNG portfolio is cost effective under the New Jersey Cost Test.
18 Under the New Jersey Cost Test, the three-year portfolio resulted in net benefits of
19 \$191,329,781 and a cost benefit ratio of 2.0. This implies that for every dollar NJNG spends
20 on energy efficiency programs, NJN customers will receive \$2.01 in benefits.

¹ New Jersey Board of Public Utilities. *Order Adopting the First New Jersey Cost Test*. Docket Nos. QO19010040 and QO20060389. August 24, 2020.

² California Public Utilities Commission. 2001. *California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects*.

[cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy - Electricity and Natural Gas/CPUC STANDARD PRACTICE MANUAL.pdf](http://cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/CPUC_STANDARD_PRACTICE_MANUAL.pdf)

1 The portfolio also produced significant environmental and economic benefits. I
2 estimate that the energy savings produced by the NJNG Plan will reduce carbon dioxide
3 (“CO₂”) emissions by 1.4 million tons, sulfur dioxide (“SO₂”) emissions by 466 tons, and
4 nitrogen oxide (“NO_x”) emissions by 968 tons.³ The displacement of these emissions will
5 avoid human health and environmental harms, providing additional benefits to NJNG’s
6 customers. The portfolio also will provide significant economic development benefits. I
7 estimate the portfolio will add \$496 million to the New Jersey GDP and create 5,605 job-
8 year equivalents.⁴

9 **Q. Did you also review the NJNG cost to achieve values in relation to the Board’s**
10 **proposed guidelines from the June 10 Order?**

11 A. Yes. The sector level cost to achieve values are shown in Exhibit BJB-6. As the exhibit
12 shows, the NJNG cost to achieve is below the Board’s guidelines for the Residential sector.
13 The NJNG Commercial & Industrial, Multi-Family, and low-income cost to achieve values
14 exceed the Board’s guidelines. The NJNG programs were designed to build from those
15 currently offered by OCE with modifications geared to achieve deeper, longer lasting
16 savings. The first-year cost to achieve metrics do not capture the long-term focus of these
17 programs. Further, the programs are designed to be, and are, cost-effective based upon the
18 New Jersey Cost Test, and therefore will deliver substantial benefits to New Jersey. As
19 stated above, these programs are good investments for the state because for every dollar
20 spent, they will generate \$2.01 of benefits. Finally, the derivation of the Board’s cost to
21 achieve guidelines was not made available for review and was based upon program
22 portfolios from Massachusetts and Rhode Island, which are very mature states in the energy

³ The results of the emissions avoided analysis are shown in Exhibit BJB-4.

⁴ The results of the economic development benefits analysis are shown in Exhibit BJB-5.

1 efficiency space and not like comparisons for New Jersey at the current time. While both
2 states have similar energy savings targets as New Jersey, they are fundamentally different
3 because of the maturity of the energy efficiency programs. New Jersey also is a prevailing
4 wage state, which will increase program costs relative to other states.

5 **III. COST-BENEFIT ANALYSIS ASSUMPTIONS**

6 **Q. What types of cost benefit analyses did you prepare?**

7 A. I prepared analysis for each of the six CBA tests required by the Board's MFRs
8

9 **Q. What methodology did you use to undertake these calculations?**

10 A. I relied on methodology outlined in the Board's August 24 Order and the California
11 Standard Practice Manual.^{5,6} Within the CBA tests, there are a wide range of costs and
12 benefits used to characterize program integrity, some of which are applicable in conducting
13 certain tests but not others. Table 1 shows a list of specific costs and benefits and the tests
14 they apply to:

⁵ New Jersey Board of Public Utilities. *Order Adopting the First New Jersey Cost Test*. Docket Nos. QO19010040 and QO20060389. August 24, 2020.

⁶ California Public Utilities Commission. 2001. *California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects*.

[cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy -
Electricity and Natural Gas/CPUC STANDARD PRACTICE MANUAL.pdf](http://cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/CPUC_STANDARD_PRACTICE_MANUAL.pdf)

1 **Table 1: Costs and Benefits Utilized in CBA Tests**

	NJCT	SCT	TRC	PCT	PAC	RIM
Program Benefits						
Avoided Wholesale Natural Gas	x	x	x		x	x
Avoided Wholesale Electric Energy	x	x	x		x	x
Avoided Electric Ancillary Services	x	x	x		x	x
Avoided Wholesale Electric Capacity	x	x	x		x	x
Demand Reduction Induced Price Effect	x	x	x		x	x
Avoided RPS REC Purchases		x			x	x
Avoided Wholesale Volatility		x			x	x
Avoided T&D	x	x	x		x	x
Avoided Retail Electric and Gas Costs				x		
Customer Rebates and Incentives				x		
Utility Lost Revenues						x
Non-Energy Benefits 5% Adder	x					
Low-Income Benefit 10% Adder	x					
Avoided Emissions Impacts (CO ₂)	x	x				
Avoided Emissions Impacts (SO ₂ & NO _x)		x				
Economic Development Benefits		x				
Program Costs						
Incremental Costs	x	x	x			
Participant Costs				x		
Administration Costs	x	x	x		x	x
Customer Rebates and Incentives					x	x
Utility Lost Revenues						x

2 **Q. Please describe the Program Benefits shown in Table 1.**

3 A. The following sections describe the benefits and calculation approach.

4 1. Avoided Wholesale Natural Gas Costs

5 The avoided wholesale natural gas costs category captures wholesale natural gas
6 market purchases that would be avoided as a result of reduction in energy usage associated
7 with the programs.

8 The value of avoided natural gas costs is estimated using New York Mercantile
9 Exchange (“NYMEX”) forward trading prices for Henry Hub adjusted for transportation
10 to Texas Eastern Transmission Pipeline (Tetco) M3 delivery point. The underlying Henry

1 Hub supply forecast was combined with the Tetco M3 basis to determine the avoided cost
2 projection. All values were adjusted to account for average losses and sales and use tax.
3 This approach is consistent with the prescribed method in the New Jersey Cost Test
4 guidance document.⁷

5 2. Avoided Wholesale Electric Energy Costs

6 The avoided wholesale electric energy costs benefit represents the wholesale
7 electric market purchases that would be avoided as a result of reductions in energy usage
8 associated with the programs. Consistent with the New Jersey Cost Test guidance
9 document, this value was estimated using the three year average of historic PJM energy
10 prices.⁸ The prices were then forecasted using a blend of energy market forward trading
11 price for PJM-Western Hub, the most liquidly traded zone in PJM, and forecasted prices
12 from the Energy Information Administration (“EIA”) in its newest (currently 2020) Annual
13 Energy Outlook generation reference case for the PJM/East region.⁹ Values were
14 calculated for on- and off-peak prices on a monthly basis. All values were adjusted to
15 account for marginal line losses on the JCP&L and PJM systems, and sales and use tax.

16 3. Avoided Electric Ancillary Services Costs

17 The avoided electric ancillary services costs benefit represents the wholesale
18 electric ancillary service market purchases that would be avoided as a result of reductions
19 in energy usage associated with the programs. Consistent with the New Jersey Cost Test

⁷ *Ibid* page 13.

⁸ New Jersey Board of Public Utilities. *Order Adopting the First New Jersey Cost Test*. Docket Nos. QO19010040 and QO20060389. August 24, 2020. p. 12

⁹ United States Energy Information Administration. Annual Energy Outlook 2020. Table 54. Electric Power Projections by Electricity Market Module Region (Reference Case, PJM/East Region).

[eia.gov/outlooks/aeo/data/browser/#/?id=62-AEO2020®ion=5-10&cases=ref2020&start=2018&end=2050&f=A&linechart=ref2020-d112119a.130-62-AEO2020.5-10&map=&ctype=linechart&sourcekey=0](https://www.eia.gov/outlooks/aeo/data/browser/#/?id=62-AEO2020®ion=5-10&cases=ref2020&start=2018&end=2050&f=A&linechart=ref2020-d112119a.130-62-AEO2020.5-10&map=&ctype=linechart&sourcekey=0).

1 guidance document, this value was estimated using the three-year average of historic PJM
2 ancillary service prices based upon data from PJM’s Independent Market Monitor.¹⁰ The
3 prices were then forecasted using the electric energy forecast described above.

4 4. Avoided Wholesale Electric Capacity Costs

5 The avoided wholesale electric capacity costs category captures the wholesale
6 reduction in PJM capacity as a result of the reductions in electric demand associated with
7 the programs. I used actual cleared PJM Eastern Mid-Atlantic Area Council (“EMAAC”)
8 Locational Deliverability Area (“LDA”) prices where available. Clearing prices were
9 forecasted based upon a baseline of the average of the previous three delivery year clearing
10 prices. Prices were escalated based upon a regression forecast of how capacity prices have
11 increased over time. All values were adjusted to account for marginal line losses on the
12 JCP&L and PJM systems, PJM’s Forecast Pool Requirement (“FPR”) to account for
13 avoided reserve requirements, and sales and use tax.

14 5. Demand Reduction Induced Price Effect Benefits (Electric & Gas)

15 The demand reduction induced price effects (“DRIPE”) price suppression (also
16 known as merit order benefits) is a benefit that captures the reduction in wholesale electric
17 and natural gas market prices to all customers, not just participants, as a result of energy
18 efficiency. Wholesale electric and natural gas markets are fundamentally supply and
19 demand based – therefore, downward movement in the electric or natural gas demand curve
20 as a result of reduced consumption should result in less expensive generation resources
21 being dispatched for electricity, and less expensive natural gas delivered. If either market

¹⁰ Monitoring Analytics, LLC. *2019 State of the Market Report for PJM*. Section 10 Ancillary Services. Table 10-4. History of ancillary service costs per MWh of load: 1999 through 2019. monitoringanalytics.com/reports/PJM_State_of_the_Market/2019/2019-som-pjm-sec10.pdf

1 “clears” at a lower price, the associated reductions in market prices flow through to all
2 customers.

3 Both electric energy and capacity DRIPE benefits were estimated using a univariate
4 regression model. This approach is consistent with the NJCT guidance document.¹¹

5 6. Avoided RPS REC Purchase Costs

6 The avoided Renewable Portfolio Standard (“RPS”) Renewable Energy
7 Certificates (“REC”) purchase cost estimates the reduced volume of RECs that must be
8 purchased by New Jersey’s electric retail suppliers as a result of energy efficiency
9 electricity reductions. The New Jersey RPS sets the total volume requirement of RECs that
10 must be purchased as a percentage of retail load. A reduction in retail load due to energy
11 efficiency will reduce the total number of RECs required to be purchased.

12 Forecast market prices for New Jersey Class I RECs, Class II RECs and SRECs
13 (legacy, transition, successor) were used based upon an internal supply-demand analysis
14 and compliance costs for the three New Jersey REC markets.

15 7. Avoided Wholesale Volatility Costs (Electric & Gas)

16 The avoided wholesale volatility cost category estimates the value of avoiding risk
17 of wholesale purchases. Wholesale electric and natural gas prices are inherently risky as
18 they are market-based and not fixed in price or volume. Large fluctuations in prices expose
19 customers and retail suppliers to risks that ultimately are priced into retail rates. Energy
20 efficient measures and practices amount to a purchase of energy service which does not
21 contain the energy price volatility implicit in the price of electricity and natural gas. By

¹¹ New Jersey Board of Public Utilities. *New Jersey Cost Test*. August 24, 2020. Page 15-16.
bpu.state.nj.us/bpu/pdf/boardorders/2020/20200824/8A - ORDER New Jersey Cost Test.pdf

1 reducing the overall energy purchases of customers, customers are exposed to less fuel
2 volatility. In this regard, energy efficiency can be viewed as an energy resource that does
3 not contain the price volatility embedded in purchases from the electric and gas supply
4 systems.

5 The risk avoidance benefit of energy efficiency was applied as a price adder to the
6 cost of electricity and natural gas (only in the SCT). The price adder was determined based
7 upon a review of studies and regulatory decisions. While there is some variation among
8 the studies, a conservative premium based on these precedents equal to 10% of electric and
9 natural gas costs was assumed.¹²

10 8. Avoided Transmission and Distribution (“T&D”) Costs

11 The value of avoided T&D costs was estimated using the methods prescribed in the
12 NJCT guidance document. For electric transmission, the most recent Network Integrated
13 Transmission Service (“NITS”) rate for the JCP&L service territory was used.¹³ For
14 electric and natural gas distribution, the value was estimated in the manner prescribed by
15 the Board in the NJCT guidance document. This required estimating the total distribution
16 charges that would have been paid by program participants in the absence of the program

¹² For studies reviewed, please see Baatz et al. Estimating the Value of Energy Efficiency to Reduce Wholesale Energy Price Volatility. American Council for an Energy-Efficient Economy; [aceee.org/research-report/u1803](https://www.aceee.org/research-report/u1803). Stanton et al. Net Metering in Mississippi. Synapse Energy Economics. Appendix A. synapse-energy.com/sites/default/files/Net%20Metering%20in%20Mississippi.pdf; Hornby et al. Avoided Energy Supply Costs in New England: 2013 Report. Synapse Energy Economics. pp 5-22. publicservice.vermont.gov/sites/dps/files/documents/Energy_Efficiency/AESC%20Report%20-%20With%20Appendices%20Attached.pdf; 2013 Integrated Resource Plan. Rocky Mountain Power. pacificorp.com/energy/integrated-resource-plan.html Bolinger et al. Quantifying the Value that Energy Efficiency and Renewable Energy Provide As a Hedge Against Volatile Natural Gas Prices. Lawrence Berkley National Labs. [aceee.org/files/proceedings/2002/data/papers/SS02_Panel5_Paper02.pdf](https://www.aceee.org/files/proceedings/2002/data/papers/SS02_Panel5_Paper02.pdf); Is Fixed Price Energy a Good Deal? Walden Labs. waldenlabs.com/is-fixed-price-energy-a-good-deal; EEU Avoided Costs for the 2016-2017 Time Period. Page. 17 – number 6. puc.vermont.gov/sites/psbnew/files/doc_library/order-re-eeu-avoided-cost-2016-2017.pdf.

¹³ PJM Annual Transmission Revenue Requirements and Rates. [pjm.com/-/media/markets-ops/settlements/network-integration-trans-service-june-2020.ashx?la=en](https://www.pjm.com/-/media/markets-ops/settlements/network-integration-trans-service-june-2020.ashx?la=en)

1 and then subtracting the total distribution charges the customer paid after the
2 implementation of the energy efficiency measures.¹⁴

3 9. Avoided Retail Electric and Natural Gas Costs

4 The avoided retail electric and natural gas cost categories captures the actual bill
5 savings to participants of the programs. A key benefit of energy efficiency is reduced
6 consumption by participants which results in reduced utility costs.

7 Avoided retail electric costs were calculated based upon the electric charges and
8 applicable rate classes in JCP&L's Tariff for Electric Service. This method results in a
9 "price to compare" analysis, as only portions of the tariff which would be offset as a result
10 of the programs are included in the analysis. By way of example, customers will not offset
11 any of the monthly fixed service charge, so that avoiding that charge was not included in
12 the retail electric savings analysis. Each charge was escalated, by component, to account
13 for separate escalation rates for distribution and supply charges. Charges related to electric
14 delivery and transmission were escalated at 2.0% per year and electric energy and capacity
15 supply charges were escalated in a manner consistent with the wholesale market escalations
16 explained above.

17 Avoided retail natural gas costs were calculated based on the natural gas charges
18 and applicable rate classes available in New Jersey Natural Gas's Tariff for Gas Service.
19 This method results in a "price to compare" type analysis, as only portions of the tariff
20 which would be offset as a result of the programs are included in the analysis. By way of
21 example, customers will not offset any of the monthly fixed service charge, so that avoiding
22 that charge was not included in the retail natural gas savings analysis. Each charge was

¹⁴ New Jersey Board of Public Utilities. *New Jersey Cost Test*. August 24, 2020. Page 13.
bpu.state.nj.us/bpu/pdf/boardorders/2020/20200824/8A - ORDER New Jersey Cost Test.pdf

1 escalated, by component, to account for separate escalation rates for distribution and supply
2 charges. Charges related to natural gas delivery were escalated at 2.0% per year while
3 natural gas supply charges were escalated in a manner consistent with the wholesale market
4 escalations explained above.

5 10. Customer Rebates and Incentives

6 The customer rebate and incentive cost category capture the direct rebate incentives
7 provided to participants of the programs. Depending on perspective, customer rebates and
8 incentive costs can either be a benefit to a program (to participants) or a cost to programs
9 (to the utility and ultimately, ratepayers). This benefit is only realized in the participant
10 cost test, as that test singles out the experience of a participant in the programs. The time-
11 value of money associated with the provision of loans to participations is also a benefit to
12 customers (and costs to the utility and ultimately, ratepayers), and is captured as a benefit
13 in the PCT, and as a cost in the PAC and RIM tests.

14 11. Avoided Emissions Damages

15 The avoided emissions damages category captures the economic value (also known
16 as the avoided social cost) of reductions in CO₂, NO_x, and SO₂. Energy efficiency programs
17 displace power plant emissions, which reduce human health and environmental harms, also
18 known as damages. I did not include any other criteria air pollutants or greenhouse gases.

19 To estimate the displaced CO₂, I relied on the electric emissions factor of 1,374
20 pounds per MWh and natural gas emission factor of 11.7 pounds per therm, per the NJCT
21 guidance document.¹⁵ The avoided damages for CO₂ were estimated using the “Social Cost
22 of Carbon for Regulatory Impact Analysis - Under Executive Order 12866” produced by

¹⁵ *Ibid* page 17.

1 the Interagency Working Group on Social Cost of Greenhouse Gases, United States
2 Government.¹⁶ This benefit was included in the NJCT and SCT.

3 I also estimate the economic value of the avoided SO₂ and NO_x emissions from the
4 programs. While not included in the NJCT, the economic value of avoiding these emissions
5 is substantial and reflected in the SCT. To estimate displaced SO₂ and NO_x emissions, I
6 relied on the non-baseload tons per MWh estimate from the most recent eGrid data release
7 (currently eGRID2018 released in March 2020).¹⁷ I then de-escalated these rates over time
8 based upon emissions rates from the most recent EIA Annual Energy Outlook (currently
9 2020) for the PJM/East region.¹⁸ The de-escalation is intended to reflect the likely shift
10 away from fossil-based generation towards more renewable generation sources. To
11 estimate the avoided damages from SO₂ and NO_x, I relied on the February 2018 Technical
12 Support Document Estimating the Benefit per Ton of Reducing PM_{2.5} Precursors from 17
13 Sectors by the U.S. Environmental Protection Agency Office of Air and Radiation Office
14 of Air Quality Planning and Standards.¹⁹ This source was used and approved by the Board²⁰

¹⁶ Interagency Working Group on Social Cost of Greenhouse Gases, United States Government. 2016 Technical Support Document: -Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis -Under Executive Order 12866. August 2016. [epa.gov/sites/production/files/2016-12/documents/sc_co2_tsd_august_2016.pdf](https://www.epa.gov/sites/production/files/2016-12/documents/sc_co2_tsd_august_2016.pdf)

¹⁷ United States Environmental Protection Agency. Emissions and Generation Resource Integrated Database (eGRID). Released 1/28/2020, Revised 3/9/2020. [epa.gov/energy/emissions-generation-resource-integrated-database-egrid](https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid)

¹⁸ United States Energy Information Administration. Annual Energy Outlook 2020. Table 54. Electric Power Projections by Electricity Market Module Region (Reference Case, PJM/East Region). [eia.gov/outlooks/aeo/data/browser/#/?id=62-AEO2020®ion=5-10&cases=ref2020&start=2018&end=2050&f=A&linechart=ref2020-d112119a.108-62-AEO2020.5-10-ref2020-d112119a.156-62-AEO2020.5-10-ref2020-d112119a.157-62-AEO2020.5-10-ref2020-d112119a.158-62-AEO2020.5](https://www.eia.gov/outlooks/aeo/data/browser/#/?id=62-AEO2020®ion=5-10&cases=ref2020&start=2018&end=2050&f=A&linechart=ref2020-d112119a.108-62-AEO2020.5-10-ref2020-d112119a.156-62-AEO2020.5-10-ref2020-d112119a.157-62-AEO2020.5-10-ref2020-d112119a.158-62-AEO2020.5)

¹⁹ United States Environmental Protection Agency. 2018. Technical Support Document: Estimating the Benefit per Ton of Reducing PM_{2.5} Precursors from 17 Sectors. [epa.gov/sites/production/files/2018-02/documents/sourceapportionmentbptsd_2018.pdf](https://www.epa.gov/sites/production/files/2018-02/documents/sourceapportionmentbptsd_2018.pdf).

²⁰ In the Matter of the Board of Public Utilities Offshore Wind Solicitation for 1,100 MW – Evaluation of the Offshore Wind Applications. Docket No. QO18121289. [bpu.state.nj.us/bpu/pdf/boardorders/2019/20190621/6-21-19-8D.pdf](https://www.bpu.state.nj.us/bpu/pdf/boardorders/2019/20190621/6-21-19-8D.pdf)

1 in the Evaluation of New Jersey Solicitation for ORECs for Offshore Wind Capacity
2 Framework for Evaluation of Impacts.²¹

3 12. Economic Development Benefits

4 Energy efficiency programs can be a powerful tool for local economic development
5 and job creation. While cost effective energy efficiency programs provide many other
6 benefits including reduced utility system costs, improved health outcomes, and lower bills
7 for program participants, the job creation and local economic growth benefits are critical
8 as states begin to recover from the COVID-19 pandemic.

9 Economic benefits are created by energy efficiency programs in two significant
10 ways. First, economic benefits are created through the direct implementation of the
11 programs. Second, benefits are also created through the ripple effects on the economy of
12 customer bills savings. Energy efficiency programs create bill savings, which increase
13 disposable income for residents and businesses. The spending of this increased disposable
14 income stimulates the economy, providing ripple effects in many sectors of the economy.

15 I estimated the economic development benefits using IMPLAN, a widely used
16 industry standard input/output model. IMPLAN and similar input/output models have been
17 presented to the Board numerous times, including instances by its own consultants and by
18 consultants to Rate Counsel. IMPLAN is also one of the input output models suggested by
19 the Board for evaluation of offshore wind investments. Finally, input/output modeling is
20 required under the Offshore Wind Economic Development Act (“OWEDA”) for offshore
21 wind projects submitting for ORECs.²²

²¹ Levitan & Associates, Inc. *Evaluation of New Jersey Solicitation for ORECs for Offshore Wind Capacity Framework for Evaluation of Impacts*. bpu.state.nj.us/bpu/pdf/boardorders/2019/20190621/6-21-19-8D - Public Version - Levitan NJ OREC Final Report.pdf

²² N.J.A.C. 14: § 14:8-6.5 Application Requirements. nj.gov/bpu/pdf/boardorders/2018/20180917/9-17-18-8G.pdf

1 I estimated the economic impacts by imputing the projected program spending and
2 bill savings into IMPLAN. For program spending, I used a program by program approach
3 to break out materials and labor, mapping spending into specific industries within
4 IMPLAN. For bill savings, I mapped the increased disposable income to households by
5 income level and to relevant commercial industries. Finally, to capture the negative
6 economic impacts of higher rates and bills from the cost recovery associated with the
7 programs, I offset the increased disposable income by the projected increase in bills driven
8 by program costs, and calculate the impacts of reduced revenues to utility companies
9 implied by reduced consumer purchases. Collectively, these three steps provide a
10 comprehensive estimate of economic impacts and job creation.

11 13. Non-Energy and Low-Income Adders

12 I applied a 5% adder to avoided energy benefits to address non-energy benefits. I
13 also applied a 10% adder to avoided energy benefits to address low-income non energy
14 benefits. The low-income adder was in addition to the 5% non-energy benefit adder. Both
15 adders are consistent with the prescribed method in the New Jersey Cost Test guidance
16 document.²³

17 **Q. Please describe the Program Costs listed in Table 1 above.**

18 **A.** The program costs include:

19 1. Incremental Costs

20 The incremental cost category captures the incremental cost of participating in the
21 programs. This cost is calculated based upon the difference between the efficient measure
22 costs assumed to install energy efficiency technologies and processes and the base measure

²³ New Jersey Board of Public Utilities. *New Jersey Cost Test*. August 24, 2020. Page 18.
bpu.state.nj.us/bpu/pdf/boardorders/2020/20200824/8A - ORDER New Jersey Cost Test.pdf

1 cost assumed that a participant would otherwise pay without access to the proposed
2 program.

3 2. Participant Costs

4 The participant cost category captures the incremental cost of participating in the
5 programs paid by participants. This category includes both incremental costs paid by
6 participants for the non-subsidized portion of energy efficiency costs, as well as loan
7 repayments for programs offering financing.

8 3. Program Administration Costs

9 The program administration cost category captures the cost of administering the
10 energy efficiency programs by NJNG. These include costs for marketing, outside services,
11 utility administration, inspections and quality control, and evaluation. These costs were
12 developed based on NJNG's previous experience delivering similar programs and guidance
13 from the Board in the CEA Order and August 24 Order.

14 4. Customer Rebate and Incentives Cost

15 The customer rebate and incentive cost category capture the direct rebate incentives
16 provided to participants of the programs. These costs were developing through a
17 coordinated approach with other New Jersey utilities, but also based on existing programs
18 in New Jersey and other jurisdictions for similar measures.

19 5. Utility Lost Revenues

20 An associated cost is the reallocated distribution costs category which captures the
21 value of any distribution costs being avoided by participants that must be collected from
22 the balance of ratepayers. These are not direct program costs and represent the transfer

1 between existing ratepayer subsectors. This cost is also known as lost utility costs or lost
2 revenues.

3 Utility lost revenues were calculated based upon the individual rate charges which
4 currently contribute to supporting distribution costs. In addition, the utility lost revenues
5 also include tariff surcharges and riders which do not contribute to distribution costs but
6 would likely be reallocated to ratepayers at large. Utility lost revenues do not include any
7 supply related costs, as New Jersey's electric and natural gas utilities are deregulated, and
8 avoided supply costs resulting from energy efficiency are not borne by ratepayers.

9 **Q. In your opinion, does the NJCT accurately reflect all the benefits of the proposed**
10 **program portfolio?**

11 A. No. The NJCT excludes several significant benefits, including the environmental benefits
12 associated with reducing SO₂ and NO_x, economic development benefits, market hedge
13 value of reducing retail sales, avoided RPS compliance, and others. These benefits are
14 significant and not included in the NJCT.²⁴ However, these benefits were estimated and
15 included in the SCT for consideration. The Board has also identified several areas of
16 consideration for further examination by the EM&V Workgroup.

17 **Q. What assumptions did you use for measure-level energy savings?**

18 A. My primary source to estimate measure level savings is the New Jersey Board of Public
19 Utilities Protocols to Measure Resource Savings FY2020 ("Protocols").²⁵ I used the
20 Protocols for the majority of measures, but when estimating savings for measures not

²⁴ Gabel Associates filed extensive comments on these benefits during the stakeholder process for the NJCT. These comments can be found at the following web address, beginning on page 156.

njcepfiles.s3.amazonaws.com/2020.8.5+NJCT+Comments.pdf

²⁵ New Jersey Board of Public Utilities. New Jersey's Clean Energy Program Protocols to Measure Resource Savings FY2020. Approved July 10, 2019.

[njcleanenergy.com/files/file/NJCEP%20Protocols%20to%20Measure%20Resource%20Savings%20FY20_FINAL.p
df](https://njcleanenergy.com/files/file/NJCEP%20Protocols%20to%20Measure%20Resource%20Savings%20FY20_FINAL.pdf)

1 covered in the Protocols, I relied on other regional technical reference manuals to estimate
2 savings. These references included, but are not limited to, the Mid-Atlantic Technical
3 Reference Manual,²⁶ Massachusetts Technical Reference Manual,²⁷ the New York
4 Technical Reference Manual²⁸, and engineering analysis where necessary.

5 **Q. The programs include both gas and electric savings. Please explain.**

6 A. The programs outlined in the NJNG portfolio include electric and gas savings. This is the
7 result of including measures which save both fuels (i.e. smart thermostats) and the
8 coordinated delivery approach for many programs. NJNG will incent and install electric
9 measures for projects but will be transferring the electric savings (and associated costs,
10 where applicable)²⁹ to the overlapping electric companies. This process will occur through
11 the statewide coordinator and ensures electric customers are paying for electric savings and
12 gas customers are paying for gas savings.

13 For cost-benefit purposes, I analyzed all program costs and benefits associated with projects where
14 NJNG is expected to be the Lead Utility. Under this approach, I included all gas savings and costs
15 and all electric savings and costs estimated for these projects. While costs and savings will
16 ultimately be allocated to a Partner Utility through the Statewide Coordinator,³⁰ the CBA should
17 be predicated on the full set of circumstances for a project, not a portion. Separate from the CBA,
18 I expect the electric companies overlapping the NJNG service territory to produce natural gas

²⁶ Mid-Atlantic Technical Reference Manual. Version 9. October 2019.
[neep.org/sites/default/files/resources/Mid Atlantic TRM V9 Final clean wUpdateSummary%20-%20CT%20FORMAT.pdf](http://neep.org/sites/default/files/resources/Mid%20Atlantic%20TRM%20V9%20Final%20clean%20wUpdateSummary%20-%20CT%20FORMAT.pdf)

²⁷ Massachusetts Technical Reference Manual. 2016-2018 Plan Version. ma-eeac.org/wordpress/wp-content/uploads/Exhibit-1-Gas-and-Electric-PAs-Plan-2016-2018-with-App-except-App-U.pdf

²⁸ New York State Department of Public Service. Technical Reference Manual.
dps.ny.gov/W/PSCWeb.nsf/All/72C23DECF52920A85257F1100671BDD

²⁹ Please refer to Exhibit P-3, Testimony of JMC, for further detail.

³⁰ See the direct pre-filed testimony of Anne-Marie Peracchio (Exhibit-P-2) for additional and James M. Corcoran (Exhibit- P-3) for additional information on utility coordination in overlapping territories and Exhibit P-1 Schedule NJNG-19 for more information on the role of the Statewide Coordinator.

1 savings in dual fuel projects and measures, and NJNG will require budget to cover expenditures
2 related to these savings. Information on the total budget pursuant to transfers between Lead and
3 Partner utilities (separate from the CBA) can be found in the Company’s Petition, see Exhibit P-3
4 Corcoran Testimony.

5 **Q. Were the costs and benefits evaluated on a nominal or present value basis?**

6 A. For the purposes of each of the CBA tests, all costs and benefits were evaluated on a present
7 value basis. The NJCT and SCT both relied on a 3% societal discount rate as prescribed by
8 the Board in the August 24 Order.³¹ The TRC, PCT, PAC, and RIM tests relied on the
9 NJNG weighted average cost of capital based on its most recent base rate case of 6.95% to
10 discount costs and benefits. See Exhibit P-3 Corcoran Testimony for cost of capital.

11 **Q. What net to gross assumption did you make in conducting the cost benefit analysis?**

12 A. Consistent with Board guidance, I used a 1.0 net-to-gross factor for all programs and
13 measures.³²

14 **Q. Did you also estimate the NJNG metrics for the BPU proposed quantitative
15 performance indicators?**

16 A. Yes. Exhibit BJB-7 shows how NJNG is estimated to perform on all seven quantitative
17 performance indicators (“QPI”). Although the Company will only be evaluated on two
18 QPIs, first year and lifetime energy savings in therms, all seven QPIs were included for
19 informative purposes.

20 **Q. Please describe how the NJNG energy savings target was developed.**

³¹ New Jersey Board of Public Utilities. *New Jersey Cost Test*. August 24, 2020. Page 13.
bpu.state.nj.us/bpu/pdf/boardorders/2020/20200824/8A%20-%20ORDER%20New%20Jersey%20Cost%20Test.pdf

³² New Jersey Board of Public Utilities. *Order Directing the Utilities to Establish Energy Efficiency and Peak Demand Reduction Programs*. Docket Nos. QO19010040, QO19060748, and QO10791004. June 10, 2020.

1 A. The NJNG energy savings target is based on guidance from the Board in the CEA Order.
2 In the CEA Order, Staff recommends that “the average usage for the purposes of
3 compliance be calculated based on the average of retail sales for the most recent three-year
4 years relative to the program year for which the target is applicable.”³³ Accordingly, the
5 savings target for each program year is based on an average of the three prior calendar
6 years. For program year one, which runs from July 1, 2021 through June 30, 2022, the
7 savings target is based on the average of the actual sales in 2018-2019 and forecasted sales
8 for 2020. For program year two, the savings target is developed based on the average of
9 actual sales in 2019, and forecasted sales in 2020-2021. The program year three target was
10 based upon forecasted sales for 2021-2023. I also removed the distributed generation sales
11 from the total to determine the baseline. The baseline developed through this approach was
12 then multiplied by the energy savings target percentages in the CEA Order to determine
13 the therm goals. The target development is detailed in Exhibit BJB-8.

14 **IV. CONCLUSIONS**

15 **Q. Please summarize your testimony and recommendations to the Board.**

16 A. The NJNG 2021-2023 Energy Efficiency Program Plan is a cost-effective portfolio of
17 energy efficiency programs that achieve the state policy goals of the Board. The programs
18 provide energy savings opportunities to all customers in the NJNG service territory and
19 ensure low-to-moderate income customers have equal opportunity to realize program
20 benefits. The portfolio enables NJNG to maintain the current level of energy efficiency
21 projects in their territory and put NJNG on a trajectory to meet the program year five energy
22 savings target required under the CEA Order.

³³ *Ibid* page 19.

1 The CBA shows that the NJNG program portfolio is cost effective under the New
2 Jersey Cost Test with a cost benefit ratio of 2.0 and net benefits of \$191,329,781. These
3 results indicate that the programs will provide significant benefits to all NJNG customers,
4 while improving environmental quality and stimulating economic development.

5 **Q. Does this conclude your testimony?**

6 **A. Yes. I reserve the right to supplement my testimony should the need arise.**

Brendon J. Baatz

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Brendon Baatz has nearly ten years of experience working directly on issues related to the electric and gas utility industry. His primary areas of expertise include electric cost of service and rate design, energy efficiency program design, energy efficiency policy, cost benefit analysis, utility regulatory strategy, stakeholder engagement, integrated resource planning, electric vehicle policy, and renewable energy technology and policy.

Mr. Baatz is an internationally recognized expert in rate design and energy efficiency policy. He has published peer reviewed papers and spoken on a variety of topics at trade events and conferences. Mr. Baatz is also a sought-after expert witness in litigated cases before regulatory commissions. He has appeared before commissions in Arizona, Colorado, Indiana, Maryland, New Jersey, New York, Oklahoma, Pennsylvania, and Washington D.C.

Professional Experience

Gabel Associates Inc.
Vice President

Highland Park, NJ
2018-Present

- Support and advise clients on a variety of energy and regulatory issues including retail and wholesale electric rate design, energy efficiency policy and program design, cost benefit analysis, resource planning, and renewable energy project development.
- Lead consultant to the solar industry in New York Reforming the Energy Vision (REV) regulatory process on rate design for mass market customers.
- Provide ongoing consulting services to multiple gas and electric utilities on energy efficiency program design, cost benefit analysis, avoided cost development, strategic guidance, and program delivery in New Jersey.
- Advise various wholesale energy market clients, including power plant project developers and operators on regulatory issues such as retail ratemaking, wholesale ratemaking, RTO governance, FERC rulemakings, and other relevant issues.
- Provide technical expert testimony for various clients in regulatory matters before state energy commissions. Have testified in Arizona, Colorado, Indiana, Maryland, New Jersey, New York, Oklahoma, Pennsylvania, and Washington D.C

American Council for an Energy-Efficient Economy
Senior Manager, Utilities Program

Washington, D.C.
2014-2018

- Oversaw and coordinated ACEEE's efforts related to utility sector energy efficiency programs. Served as project manager and lead author for research projects involving utility sector energy efficiency programs, business models, best practices, rate design, and other topics.
- Provided technical assistance for utilities and other energy efficiency implementation partners such as state government agencies on a variety of regulatory policy and best practice program topics.
- Filed testimony and formal comments before state regulatory commissions on issues related to energy efficiency programs, integrated resource planning, rate design, and other issues related to the best practices and policies for implementing energy efficiency.

Federal Energy Regulatory Commission
Energy Industry Analyst

Washington, D.C.
2013–2014

- Served as a technical expert in litigated cases before the Federal Energy Regulatory Commission on behalf of the FERC trial staff. Issues examined included: wholesale energy rates, transmission rates, Open Access Transmission Tariff interpretation, transmission capacity rights, cost allocation for various customer classes, formula rate mechanics and protocols, electric cost of service, interruptible load, rate design, and regional transmission organization functionality and governance.

Maryland Public Service Commission
Energy Analyst

Baltimore, MD
2012–2013

- Reviewed and analyzed utility filings for EmPOWER Maryland statewide energy efficiency, conservation, and demand response programs. Presented results of research before the Commission. Worked closely with the Agency energy efficiency evaluation contractor to develop evaluation policies that reduced costs for Maryland ratepayers while ensuring integrity of the evaluation process.

Indiana Office of Utility Consumer Counselor
Utility Analyst

Indianapolis, IN
2011–2012

- Served as a technical expert witness in utility cases before the Indiana Utility Regulatory Commission on behalf of utility ratepayers in the State of Indiana. Developed agency position through analyses of relevant utility applications, petitions, testimony, schedules, and exhibits. Served as agency representative in collaborative demand side management oversight boards for electric and gas utilities.

Education

Master of Public Affairs, Environmental Policy Analysis, Indiana University Bloomington, 2010
BS, Political Science and Sociology, Arizona State University, 2007

Selected Research Publications

B. Baatz, G. Relf, and S. Nowak. 2018. The Role of Energy Efficiency in a Distributed Energy Future. *The Electricity Journal*, Vol. 31, Issue 10. doi.org/10.1016/j.tej.2018.11.004.

B. Baatz, J. Barrett, and B. Stickles. 2018. Estimating the Value of Energy Efficiency to Reduce Wholesale Energy Price Volatility. Washington, DC: ACEEE. aceee.org/research-report/u1803.

B. Baatz, G. Relf, and M. Kelly. 2017. Consequences of Large Customer Opt Out: An Ohio Example. *The Electricity Journal*, Vol. 30, Issue 9. doi.org/10.1016/j.tej.2017.10.002.

B. Baatz. 2017. Rate Design Matters: The Intersection of Residential Rate Design and Energy Efficiency. Washington, DC: ACEEE. aceee.org/research-report/u1703.

B. Baatz and J. Barrett. 2017. Maryland Benefits: Examining the Results of EmPOWER Maryland through 2015. Washington, DC: ACEEE. aceee.org/research-report/u1701.

B. Baatz and A. Gilleo. 2016. Big Savers: Experiences and Recent History of Program Administrators Achieving High Levels of Electric Savings. *The Electricity Journal*, Vol. 29, Issue 8. doi.org/10.1016/j.tej.2016.09.009.

B. Baatz. 2015. Everyone Benefits: Practices and Recommendations for Utility System Benefits of Energy Efficiency. Washington, DC: ACEEE. aceee.org/everyone-benefits-practices-and-recommendations.

S. Nowak, B. Baatz, A. Gilleo, M. Kushler, M. Molina, and D. York. 2015. Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency. Washington, DC: ACEEE. aceee.org/beyond-carrots-utilities-national-review.

Selected Expert Witness Regulatory Cases

Elizabethtown Gas; New Jersey Board of Public Utilities; July 31, 2020 (Docket No. GR20070503). Client: Elizabethtown Gas. Issues: cost benefit analysis for energy efficiency true up filing.

Tucson Electric Power Company; Arizona Corporate Commission (Docket No. E- 01933A-19-0028); October 11, 2019. Client: Southwest Energy Efficiency Partnerships Issues: performance-based ratemaking, energy efficiency program cost recovery, time of use rate design, electric vehicle rate design.

Black Hills Colorado Electric; Public Utilities Commission of Colorado (Proceeding No. 18A-0676E), January 22, 2019. Client: Pueblo County, Colorado. Issue: time of use pilot proposal, low income bill analysis.

Oklahoma Gas and Electric Company; Oklahoma Corporate Commission (Cause No. PUD 201800140); April 22, 2019. Client: Oklahoma Energy Results. Issues: prudence of environmental cost recovery for aged coal units, integrated resource planning assessment.

Lancaster Solid Waste Management Authority; Federal Energy Regulatory Commission (Docket No. ER19-342); November 14, 2018. Client: Lancaster Solid Waste Management Authority. Issue: reactive power ratemaking.

Elizabethtown Gas; New Jersey Board of Public Utilities (Docket No. GR18080860); August 8, 2018. Client: Elizabethtown Gas. Issues: cost benefit analysis for energy efficiency true up filing.

Duquesne Light Company; Pennsylvania Public Utility Commission (Docket R-2018-3000124); June 25, 2018. Client: Keystone Energy Efficiency Alliance, Natural Resources Defense Council, and Clean Air Council. Issues: submetering for multifamily buildings, time of use rates, rate design.

Tucson Electric Power Company; Arizona Corporate Commission (Docket No. E- 01933A-15-0322); June 24, 2016. Client: Southwest Energy Efficiency Partnerships Issues: rate design, prepaid electricity.

PECO Electric Company; Pennsylvania Public Utility Commission (Docket R-2015-2468981); June 23, 2015. Client: Keystone Energy Efficiency Alliance, Natural Resources Defense Council, and Clean Air Council. Issues: rate design, revenue decoupling.

PPL Electric Corporation; Pennsylvania Public Utility Commission (Docket R-2015-2469275); June 23, 2015. Client: Keystone Energy Efficiency Alliance, Natural Resources Defense Council, and Clean Air Council. Issues: rate design, revenue decoupling.

Northern Indiana Public Service Company; Indiana Utility Regulatory Commission (Cause 44012); October 20, 2011. Representing Indiana Office of Utility Consumer Counselor. Issues: environmental control upgrades, alternate scenario economic analysis.

Indianapolis Power and Light Company; Indiana Utility Regulatory Commission (Cause 43623 DSM-5); April 26, 2012. Representing Indiana Office of Utility Consumer Counselor. Issue: energy efficiency performance incentive reconciliation.

Indianapolis Power and Light Company; Indiana Utility Regulatory Commission (Cause 44018); August 22, 2011. Representing Indiana Office of Utility Consumer Counselor. Issue: renewable energy feed in tariff design.

Indiana Michigan Power Company; Indiana Utility Regulatory Commission (Cause 44034); August 12, 2011. Representing Indiana Office of Utility Consumer Counselor. Issue: renewable energy credit benefit allocation.

Indiana Gas Company, Inc. and Indiana Gas and Electric Company; Indiana Utility Regulatory Commission (Cause 44019); May 20, 2011. Representing Indiana Office of Utility Consumer Counselor. Issue: revenue decoupling.

Total Resource Cost Test (TRC)				Res	C&I	LMI	Total Portfolio (Res & C&I)	Behavioral	EE Products	HPwES	QHEC	Mod. Inc Weath.	Multi-family	Comm & Presc.	Energy Mgmt	Eng. Solutions	DI	Hybrid Heat	Portfolio														
BENEFITS																																	
1	Avoided Wholesale Electric Energy and Electric Ancillary Costs	\$	3,507,427	\$	17,868,433	\$	168,762	\$	21,375,860	\$	-	\$	2,021,382	\$	793,037	\$	693,008	\$	168,762	\$	5,124,882	\$	964,340	\$	267,400	\$	5,391,157	\$	11,245,537	\$	(358,947)	\$	-
2	Avoided Wholesale Electric Capacity Costs	\$	378,008	\$	13,840,374	\$	34,687	\$	14,218,382	\$	-	\$	74,256	\$	224,173	\$	79,579	\$	34,687	\$	1,050,822	\$	199,782	\$	49,287	\$	1,324,604	\$	12,266,700	\$	-	\$	-
3	Avoided Wholesale Natural Gas Costs	\$	20,719,692	\$	12,901,833	\$	553,777	\$	33,621,525	\$	2,450,104	\$	14,846,864	\$	3,253,918	\$	168,807	\$	553,777	\$	1,464,893	\$	3,311,396	\$	137,530	\$	5,030,124	\$	4,422,783	\$	825,243	\$	-
4	Avoided RPS REC Purchase Costs	\$	1,827,822	\$	8,364,588	\$	84,618	\$	10,192,411	\$	-	\$	1,093,180	\$	379,524	\$	355,118	\$	84,618	\$	2,192,730	\$	481,908	\$	149,017	\$	2,132,306	\$	5,601,358	\$	(171,892)	\$	-
5	Avoided Wholesale Volatility Costs	\$	2,460,513	\$	4,461,064	\$	75,723	\$	6,921,577	\$	245,010	\$	1,694,250	\$	427,113	\$	94,139	\$	75,723	\$	764,060	\$	447,552	\$	45,422	\$	1,174,588	\$	2,793,502	\$	46,630	\$	-
6	Electric Energy and Capacity Demand Reduction Induced Price Effects (DI)	\$	968,376	\$	18,715,670	\$	65,245	\$	19,684,046	\$	-	\$	400,035	\$	373,422	\$	194,920	\$	65,245	\$	1,901,839	\$	371,999	\$	101,528	\$	2,212,931	\$	16,029,212	\$	(49,488)	\$	-
7	Avoided Transmission and Distribution Costs	\$	36,076,007	\$	64,102,698	\$	1,063,624	\$	100,178,705	\$	3,923,908	\$	24,829,201	\$	5,992,824	\$	1,330,074	\$	1,063,624	\$	9,090,934	\$	4,106,744	\$	333,225	\$	7,298,616	\$	52,364,113	\$	708,587	\$	-
	Total Benefits		1+2+3+4+5+6+7		140,254,660		2,046,435		206,192,505		6,619,021		44,959,168		11,444,010		2,915,646		2,046,435		21,590,159		9,883,721		1,083,408		24,564,325		104,723,205		1,000,133		-
COSTS																																	
8	Incremental Costs	\$	63,362,258	\$	59,165,731	\$	4,098,231	\$	122,527,989	\$	4,239,334	\$	43,035,445	\$	15,685,596	\$	401,883	\$	4,098,231	\$	14,406,201	\$	1,919,699	\$	2,222,569	\$	32,721,748	\$	22,301,716	\$	1,188,871	\$	-
9	Administration Costs	\$	15,734,364	\$	9,041,742	\$	2,100,394	\$	24,776,106	\$	661,918	\$	7,202,473	\$	3,718,889	\$	4,151,084	\$	2,100,394	\$	4,167,249	\$	1,660,502	\$	284,976	\$	3,020,731	\$	4,075,533	\$	506,210	\$	3,158,893
	Total Costs		8+9		68,207,473		6,198,624		147,304,095		4,901,251		50,237,918		19,404,486		4,552,967		6,198,624		18,573,450		3,580,201		2,507,545		35,742,479		26,377,248		1,695,081		3,158,893
	Benefit Cost Ratio		(1+2+3+4+5+6+7)/8+9		0.8		2.1		0.3		1.4		0.9		0.6		0.6		0.3		1.2		2.8		0.4		0.7		4.0		0.6		0.0
Participant Cost Test (PCT)				Res	C&I	LMI	Total Portfolio (Res & C&I)	Behavioral	EE Products	HPwES	QHEC	Mod. Inc Weath.	Multi-family	Comm & Presc.	Energy Mgmt	Eng. Solutions	DI	Hybrid Heat	Portfolio														
BENEFITS																																	
10	Avoided Retail Electric Costs	\$	15,231,046	\$	80,450,678	\$	723,937	\$	95,681,724	\$	-	\$	8,980,930	\$	3,321,430	\$	2,928,685	\$	723,937	\$	19,137,138	\$	2,419,425	\$	582,885	\$	9,980,198	\$	67,468,170	\$	(1,511,316)	\$	-
11	Avoided Retail Natural Gas Costs	\$	66,008,052	\$	30,486,957	\$	1,743,286	\$	96,495,009	\$	8,021,524	\$	47,149,724	\$	10,293,262	\$	543,542	\$	1,743,286	\$	4,331,696	\$	8,093,628	\$	286,291	\$	9,900,073	\$	12,206,966	\$	2,714,770	\$	-
12	Program Incentive Costs	\$	36,419,084	\$	49,840,274	\$	4,175,425	\$	86,259,357	\$	4,239,334	\$	20,475,780	\$	11,083,998	\$	619,971	\$	4,175,425	\$	8,624,643	\$	1,105,063	\$	889,027	\$	19,969,039	\$	27,877,144	\$	960,006	\$	-
13	Time-Value of Loan Repayments	\$	7,217,765	\$	8,599,989	\$	-	\$	15,817,754	\$	-	\$	4,685,287	\$	2,532,478	\$	-	\$	-	\$	1,505,758	\$	4,786,891	\$	254,766	\$	1,827,473	\$	1,730,858	\$	675,921	\$	-
	Total Benefits		10+11+12+13		169,377,898		6,642,649		294,253,844		12,260,858		81,291,721		27,231,169		4,092,199		6,642,649		33,599,235		16,405,006		2,012,970		41,676,783		109,283,139		2,839,381		-
COSTS																																	
14	Lifetime Participant Costs	\$	63,362,258	\$	59,165,731	\$	4,098,231	\$	122,527,989	\$	4,239,334	\$	43,035,445	\$	15,685,596	\$	401,883	\$	4,098,231	\$	14,406,201	\$	1,919,699	\$	2,222,569	\$	32,721,748	\$	22,301,716	\$	1,188,871	\$	-
	Total Costs		14		59,165,731		4,098,231		122,527,989		4,239,334		43,035,445		15,685,596		401,883		4,098,231		14,406,201		1,919,699		2,222,569		32,721,748		22,301,716		1,188,871		-
	Benefit Cost Ratio		(10+11+12+13)/14		2.0		2.9		1.6		2.9		1.9		1.7		10.2		1.6		2.3		8.5		0.9		1.3		4.9		2.4		n/a
Program Administrator Cost Test (PAC)				Res	C&I	LMI	Total Portfolio (Res & C&I)	Behavioral	EE Products	HPwES	QHEC	Mod. Inc Weath.	Multi-family	Comm & Presc.	Energy Mgmt	Eng. Solutions	DI	Hybrid Heat	Portfolio														
BENEFITS																																	
15	Avoided Wholesale Electric Energy and Electric Ancillary Costs	\$	3,507,427	\$	17,868,433	\$	168,762	\$	21,375,860	\$	-	\$	2,021,382	\$	793,037	\$	693,008	\$	168,762	\$	5,124,882	\$	964,340	\$	267,400	\$	5,391,157	\$	11,245,537	\$	(358,947)	\$	-
16	Avoided Wholesale Electric Capacity Costs	\$	378,008	\$	13,840,374	\$	34,687	\$	14,218,382	\$	-	\$	74,256	\$	224,173	\$	79,579	\$	34,687	\$	1,050,822	\$	199,782	\$	49,287	\$	1,324,604	\$	12,266,700	\$	-	\$	-
17	Avoided Wholesale Natural Gas Costs	\$	20,719,692	\$	12,901,833	\$	553,777	\$	33,621,525	\$	2,450,104	\$	14,846,864	\$	3,253,918	\$	168,807	\$	553,777	\$	1,464,893	\$	3,311,396	\$	137,530	\$	5,030,124	\$	4,422,783	\$	825,243	\$	-
18	Avoided RPS REC Purchase Costs	\$	1,827,822	\$	8,364,588	\$	84,618	\$	10,192,411	\$	-	\$	1,093,180	\$	379,524	\$	355,118	\$	84,618	\$	2,192,730	\$	481,908	\$	149,017	\$	2,132,306	\$	5,601,358	\$	(171,892)	\$	-
19	Avoided Wholesale Volatility Costs	\$	2,460,513	\$	4,461,064	\$	75,723	\$	6,921,577	\$	245,010	\$	1,694,250	\$	427,113	\$	94,139	\$	75,723	\$	764,060	\$	447,552	\$	45,422	\$	1,174,588	\$	2,793,502	\$	46,630	\$	-
20	Electric Energy and Capacity Demand Reduction Induced Price Effects (DI)	\$	975,610	\$	18,723,791	\$	66,507	\$	19,699,401	\$	970	\$	405,089	\$	374,584	\$	194,966	\$	66,507	\$	1,904,225	\$	375,536	\$	101,564	\$	2,216,006	\$	16,030,686	\$	(48,805)	\$	-
21	Avoided Transmission and Distribution Costs	\$	36,076,007	\$	64,102,698	\$	1,063,624	\$	100,178,705	\$	3,923,908	\$	24,829,201	\$	5,992,824	\$	1,330,074	\$	1,063,624	\$	9,090,934	\$	4,106,744	\$	333,225	\$	7,298,616	\$	52,364,113	\$	708,587	\$	-
	Total Benefits		15+16+17+18+19+20+21		140,262,781		2,047,698		206,207,860		6,619,992		44,964,222		11,445,172		2,915,692		2,047,698		21,592,545		9,887,257		1,083,444		24,567,401		104,724,680		1,000,816		-
COSTS																																	
22	Administration Costs	\$	15,734,364	\$	9,041,742	\$	2,100,394	\$	24,776,106	\$	661,918	\$	7,202,473	\$	3,718,889	\$	4,151,084	\$	2,100,394	\$	4,167,249	\$	1,660,502	\$	284,976	\$	3,020,731	\$	4,075,533	\$	506,210	\$	3,158,893
23	Program Rebate Costs	\$	36,419,084	\$	49,840,274	\$	4,175,425	\$	86,259,357	\$	4,239,334	\$	20,475,780	\$	11,083,998	\$	619,971	\$	4,175,425	\$	8,624,643	\$	1,105,063	\$	889,027	\$	19,969,039	\$	27,877,144	\$	960,006	\$	-
24	Time-Value of Loan Repayments	\$	7,217,765	\$	8,599,989	\$	-	\$	15,817,754	\$	-	\$	4,685,287	\$	2,532,478	\$	-	\$	-	\$	1,505,758	\$	4,786,891	\$	254,766	\$	1,827,473	\$	1,730,858	\$	675,921	\$	-
	Total Costs		22+23+24		67,482,004		6,275,818		126,853,216		4,901,251		32,363,541		17,335,366		4,771,055		6,275,818		14,297,650		7,552,456		1,428,770		24,817,243		33,683,535		2,142,137		3,158,893
	Benefit Cost Ratio		(15+16+17+18+19+20+21)/22+23+24		1.1		2.1		0.3		1.4		1.4		0.7		0.6		0.3		1.5		1.3		0.8		1.0						

Ratepayer Impact Measure Test (RIM)				Res	C&I	LMI	Total Portfolio (Res & C&I)	Behavioral	EE Products	HPwES	QHEC	Mod. Inc Weath.	Multi-family	Comm & Presc.	Energy Mgmt	Eng. Solutions	DI	Hybrid Heat	Portfolio																
BENEFITS																																			
25	Avoided Wholesale Electric Energy and Electric Ancillary Costs	\$	3,507,427	\$	17,868,433	\$	168,762	\$	21,375,860	\$	-	\$	2,021,382	\$	793,037	\$	693,008	\$	168,762	\$	5,124,882	\$	964,340	\$	267,400	\$	5,391,157	\$	11,245,537	\$	(358,947)	\$	-		
26	Avoided Wholesale Electric Capacity Costs	\$	378,008	\$	13,840,374	\$	34,687	\$	14,218,382	\$	-	\$	74,256	\$	224,173	\$	79,579	\$	34,687	\$	1,050,822	\$	199,782	\$	49,287	\$	1,324,604	\$	12,266,700	\$	-	\$	-		
27	Avoided Wholesale Natural Gas Costs	\$	20,719,692	\$	12,901,833	\$	553,777	\$	33,621,525	\$	2,450,104	\$	14,846,864	\$	3,253,918	\$	168,807	\$	553,777	\$	1,464,893	\$	3,311,396	\$	137,530	\$	5,030,124	\$	4,422,783	\$	825,243	\$	-		
28	Avoided RPS REC Purchase Costs	\$	1,827,822	\$	8,364,588	\$	84,618	\$	10,192,411	\$	-	\$	1,093,180	\$	379,524	\$	355,118	\$	84,618	\$	2,192,730	\$	481,908	\$	149,017	\$	2,132,306	\$	5,601,358	\$	(171,892)	\$	-		
29	Avoided Wholesale Volatility Costs	\$	2,460,513	\$	4,461,064	\$	75,723	\$	6,921,577	\$	245,010	\$	1,694,250	\$	427,113	\$	94,139	\$	75,723	\$	764,060	\$	447,552	\$	45,422	\$	1,174,588	\$	2,793,502	\$	46,630	\$	-		
30	Electric Energy and Capacity Demand Reduction Induced Price Effects (DI)	\$	968,376	\$	18,715,670	\$	65,245	\$	19,684,046	\$	-	\$	400,035	\$	373,422	\$	194,920	\$	65,245	\$	1,901,839	\$	371,999	\$	101,528	\$	2,212,931	\$	16,029,212	\$	(49,488)	\$	-		
31	Avoided Transmission and Distribution Costs	\$	36,076,007	\$	64,102,698	\$	1,063,624	\$	100,178,705	\$	3,923,908	\$	24,829,201	\$	5,992,824	\$	1,330,074	\$	1,063,624	\$	9,090,934	\$	4,106,744	\$	333,225	\$	7,298,616	\$	52,364,113	\$	708,587	\$	-		
	Total Benefits		25+26+27+28+29+		65,937,845		140,254,660		2,046,435		206,192,505		6,619,021		44,959,168		11,444,010		2,915,646		2,046,435		21,590,159		9,883,721		1,083,408		24,564,325		104,723,205		1,000,133		-
COSTS																																			
32	Administration Costs	\$	15,734,364	\$	9,041,742	\$	2,100,394	\$	24,776,106	\$	661,918	\$	7,202,473	\$	3,718,889	\$	4,151,084	\$	2,100,394	\$	4,167,249	\$	1,660,502	\$	284,976	\$	3,020,731	\$	4,075,533	\$	506,210	\$	3,158,893		
33	Program Rebate Costs	\$	36,419,084	\$	49,840,274	\$	4,175,425	\$	86,259,357	\$	4,239,334	\$	20,475,780	\$	11,083,998	\$	619,971	\$	4,175,425	\$	8,624,643	\$	1,105,063	\$	889,027	\$	19,969,039	\$	27,877,144	\$	960,006	\$	-		
34	Re-allocated Distribution Costs	\$	35,776,029	\$	52,959,045	\$	1,040,492	\$	88,735,074	\$	3,923,908	\$	24,770,529	\$	5,809,873	\$	1,271,719	\$	1,040,492	\$	3,993,842	\$	3,979,191	\$	295,939	\$	6,095,988	\$	42,587,928	\$	708,587	\$	-		
35	Time-Value of Loan Repayments	\$	7,217,765	\$	8,599,989	\$	-	\$	15,817,754	\$	-	\$	4,685,287	\$	2,532,478	\$	-	\$	-	\$	1,505,758	\$	4,786,891	\$	254,766	\$	1,730,858	\$	675,921	\$	-				
	Total Costs		32+33+34+35		95,147,242		120,441,049		7,316,310		215,588,291		8,825,159		57,134,070		23,145,239		6,042,774		7,316,310		22,691,492		11,531,647		1,724,709		30,913,231		76,271,463		2,850,723		3,158,893
	Benefit Cost Ratio		(25+26+27+28+29)		0.7		1.2		0.3		1.0		0.8		0.8		0.5		0.5		0.3		1.0		0.9		0.6		0.8		1.4		0.4		0.0
Societal Cost Test (SCT)																																			
			Res		C&I		LMI		Total Portfolio (Res & C&I)		Behavioral		EE Products		HPwES		QHEC		Mod. Inc Weath.		Multi-family		Comm & Presc.		Energy Mgmt		Eng. Solutions		DI		Hybrid Heat		Portfolio		
BENEFITS																																			
36	Avoided Wholesale Electric Energy and Electric Ancillary Costs	\$	4,534,115	\$	25,141,236	\$	225,093	\$	29,675,350	\$	-	\$	2,544,432	\$	1,097,447	\$	892,236	\$	225,093	\$	7,860,223	\$	1,296,881	\$	306,936	\$	8,445,074	\$	15,092,344	\$	(498,999)	\$	-		
37	Avoided Wholesale Electric Capacity Costs	\$	540,036	\$	19,934,092	\$	51,347	\$	20,474,128	\$	-	\$	105,259	\$	328,105	\$	106,672	\$	51,347	\$	1,677,214	\$	284,980	\$	60,323	\$	2,141,748	\$	17,447,041	\$	-	\$	-		
38	Avoided Wholesale Natural Gas Costs	\$	27,323,381	\$	18,026,273	\$	802,755	\$	45,349,654	\$	2,648,341	\$	19,974,033	\$	4,497,013	\$	203,994	\$	802,755	\$	2,166,188	\$	4,095,229	\$	157,798	\$	7,839,780	\$	5,933,466	\$	1,146,310	\$	-		
39	Electric Energy and Capacity Demand Reduction Induced Price Effects (DI)	\$	1,306,932	\$	26,799,610	\$	95,099	\$	28,106,542	\$	-	\$	517,730	\$	535,711	\$	253,491	\$	95,099	\$	2,964,053	\$	520,366	\$	120,777	\$	3,518,036	\$	22,640,431	\$	(65,923)	\$	-		
40	Natural Gas Demand Reduction Induced Price Effects (DRPIE)	\$	10,019	\$	12,380	\$	2,859	\$	22,399	\$	1,028	\$	7,261	\$	1,675	\$	56	\$	2,859	\$	4,168	\$	4,708	\$	41	\$	5,602	\$	2,030	\$	1,009	\$	-		
41	Avoided RPS REC Purchase Costs	\$	2,316,078	\$	11,303,303	\$	109,621	\$	13,619,381	\$	-	\$	1,356,422	\$	509,677	\$	449,979	\$	109,621	\$	3,151,590	\$	635,166	\$	170,875	\$	3,122,660	\$	7,374,602	\$	(231,713)	\$	-		
42	Avoided Wholesale Volatility Costs	\$	3,239,753	\$	6,310,160	\$	107,920	\$	9,549,913	\$	264,834	\$	2,262,372	\$	592,256	\$	120,290	\$	107,920	\$	1,170,363	\$	567,709	\$	52,506	\$	1,842,660	\$	3,847,285	\$	64,731	\$	-		
43	Avoided Transmission and Distribution Costs	\$	46,752,744	\$	82,513,557	\$	1,481,600	\$	129,266,300	\$	4,246,936	\$	32,715,599	\$	8,128,309	\$	1,661,900	\$	1,481,600	\$	13,303,681	\$	5,126,477	\$	376,402	\$	10,616,364	\$	66,394,313	\$	973,344	\$	-		
44	Avoided CO ₂ Emissions Damages	\$	27,458,384	\$	41,924,288	\$	923,733	\$	69,382,672	\$	2,099,542	\$	19,331,744	\$	4,899,843	\$	1,127,256	\$	923,733	\$	10,329,038	\$	5,038,302	\$	473,227	\$	15,292,853	\$	21,119,906	\$	453,049	\$	-		
45	Avoided SO ₂ + NOx Emissions Damages	\$	11,454,374	\$	33,916,222	\$	453,053	\$	45,370,596	\$	558,082	\$	7,496,437	\$	2,303,307	\$	1,096,547	\$	453,053	\$	10,199,767	\$	2,516,824	\$	398,858	\$	11,733,775	\$	19,266,765	\$	(333,861)	\$	-		
46	Job and Energy Savings Economic Value-Added Multiplier Benefits	\$	173,979,608	\$	184,378,618	\$	3,631,252	\$	358,358,226	\$	2,390,317	\$	145,815,831	\$	22,338,967	\$	3,434,493	\$	3,631,252	\$	33,543,567	\$	16,305,594	\$	2,659,539	\$	31,569,126	\$	133,844,359	\$	13,557,161	\$	1,536,300		
	Total Benefits		36+37+38+39+40+		298,915,423		450,259,738		7,884,332		749,175,162		12,209,079		232,127,120		45,232,308		9,346,916		7,884,332		86,369,851		36,392,237		4,777,282		96,127,677		312,962,542		15,065,108		1,536,300
COSTS																																			
47	Incremental Costs	\$	66,861,822	\$	64,483,891	\$	4,328,580	\$	131,345,713	\$	4,395,768	\$	45,474,344	\$	16,567,237	\$	424,472	\$	4,328,580	\$	15,900,264	\$	2,028,910	\$	2,350,986	\$	36,548,766	\$	23,555,229	\$	1,261,506	\$	-		
48	Administration Costs	\$	16,574,509	\$	9,517,429	\$	2,209,423	\$	26,091,938	\$	697,398	\$	7,589,134	\$	3,916,158	\$	4,371,818	\$	2,209,423	\$	4,390,932	\$	1,746,820	\$	296,833	\$	3,180,898	\$	4,292,878	\$	532,701	\$	3,317,348		
	Total Costs		47+48		83,436,330		74,001,320		6,538,004		157,437,651		5,093,166		53,063,479		20,483,395		4,796,290		6,538,004		20,291,196		3,775,731		2,647,819		39,729,664		27,848,107		1,794,208		3,317,348
	Benefit Cost Ratio		(36+37+38+39+40)		3.6		6.1		1.2		4.8		2.4		4.4		2.2		1.9		1.2		4.3		9.6		1.8		2.4		11.2		8.4		0.5
New Jersey Cost Test (NJCT)																																			
			Res		C&I		LMI		Total Portfolio (Res & C&I)		Behavioral		EE Products		HPwES		QHEC		Mod. Inc Weath.		Multi-family		Comm & Presc.		Energy Mgmt		Eng. Solutions		DI		Hybrid Heat		Portfolio		
BENEFITS																																			
49	Avoided Wholesale Electric Energy and Electric Ancillary Costs	\$	4,534,115	\$	25,141,236	\$	225,093	\$	37,261,667	\$	-	\$	2,544,432	\$	1,097,447	\$	892,236	\$	225,093	\$	7,860,223	\$	1,296,881	\$	306,936	\$	8,445,074	\$	15,092,344	\$	(498,999)	\$	-		
50	Avoided Wholesale Electric Capacity Costs	\$	540,036	\$	19,934,092	\$	51,347	\$	22,202,689	\$	-	\$	105,259	\$	328,105	\$	106,672	\$	51,347	\$	1,677,214	\$	284,980	\$	60,323	\$	2,141,748	\$	17,447,041	\$	-	\$	-		
51	Avoided Wholesale Natural Gas Costs	\$	27,323,381	\$	18,026,273	\$	802,755	\$																											

New Jersey Natural Gas Company
Energy Efficiency Program Filing
CBA Workpapers

*Confidential – see Electronic file in Confidential email 3 of 3

New Jersey Natural Gas Company
Energy Efficiency Program Filing
Emissions Avoided Results Summary

Subprogram	CO ₂ Emissions Reduction (tons)	SO ₂ Emissions Reduction (tons)	NO _x Emissions Reduction (tons)
Behavioral	41,394	0	33
EE Products	352,243	34	262
HPwES	88,274	14	64
QHEC	21,014	11	12
Mod. Inc Weath.	16,506	3	12
Multi-family	181,814	99	106
Comm & Presc.	93,822	16	67
Energy Mgmt	9,129	4	5
Eng. Solutions	266,194	101	173
DI	386,383	191	225
Hybrid Heat	8,063	-6	9
Total	1,464,834	466	968

New Jersey Natural Gas Company
Energy Efficiency Program Filing
Economic Development and Job Creation Results Summary

Table BJB-2.1 Nominal Economic Impacts

Subprogram	Value Added to GDP (NPV)	Value Added to GDP (Nominal)
Behavioral	\$ 2,514,211	\$ 2,195,128
EE Products	\$ 132,186,030	\$ 162,192,665
Existing Homes-HPwES	\$ 20,143,941	\$ 25,243,654
Existing Homes- QHEC	\$ 3,149,802	\$ 3,781,201
Existing Homes-Mod. Inc Weath.	\$ 3,356,176	\$ 4,092,276
Multi-family	\$ 24,993,971	\$ 46,308,050
Energy Solutions for Business - Comm & Presc.	\$ 14,304,447	\$ 18,764,577
Energy Solutions for Business- Energy Mgmt	\$ 2,758,089	\$ 2,487,770
Energy Solutions for Business- Engineered Solutions	\$ 24,812,361	\$ 42,081,636
DI	\$ 103,723,481	\$ 172,835,118
Hybrid Heat	\$ 12,813,148	\$ 14,301,768
Portfolio	\$ 1,464,370	\$ 1,604,950
Total	\$ 346,220,027	\$ 495,888,791

Table BJB-2.2 Anticipated Job Creation Impacts

Subprogram	Direct Job Creation	Indirect + Induced Job Creation	Total Job Creation
Behavioral	6	15	21
EE Products	955	1,132	2,087
Existing Homes-HPwES	190	157	347
Existing Homes- QHEC	15	7	23
Existing Homes-Mod. Inc Weath.	31	4	36
Multi-family	194	247	441
Energy Solutions for Business - Comm & Presc.	123	101	224
Energy Solutions for Business- Energy Mgmt	34	22	56
Energy Solutions for Business- Engineered Solutions	214	183	397
DI	993	820	1,812
Hybrid Heat	84	65	149
Portfolio	17	-5	11
Total	2,855	2,749	5,605

New Jersey Natural Gas Company
Energy Efficiency Program Filing
Cost to Achieve Results

Sector	Total
Res Projected Cost to Achieve (\$/therm)	6.837
C&I Projected Cost to Achieve (\$/therm)	12.472
MF Projected Cost to Achieve (\$/therm)	26.545
LMI Projected Cost to Achieve (\$/therm)	57.701

New Jersey Natural Gas Company
Energy Efficiency Program Filing
Quantitative Performance Indicators

QPI Metric	Program Year 1	Program Year 2	Program Year 3
Annual Energy Savings (therm)	3,785,807	4,181,061	4,122,859
Annual Demand Savings (Pk therm)	361	407	385
Lifetime Energy Savings (therm)	39,373,751	43,503,383	45,273,463
Lifetime of Persisting Demand Savings (Pk therm)	3,385	3,780	3,900
NPV of UCT Net Benefits (\$)	26,021,211	27,008,760	26,403,590
Low-Income Lifetime Savings (therm) ¹	629,987	692,986	727,635
Small Business Lifetime Savings (therm)	4,640,250	5,104,275	5,359,489

¹ Comfort Partners is intended to remain the prior energy efficiency program for serving the needs of low income customers. It is not addressed in this filing because the program will continue to be funded by the Societal Benefits Charge and filed coincident with the NJCEP filing schedules. Accordingly, it is not addressed as part of this filing

New Jersey Natural Gas Company
Energy Efficiency Program Filing
NJNG EE Target Development

Year	Total	Distributed Generation	Adjusted Total	Program Year	Baseline (therms)	Target (%)	Target (therms)
2018	722,882,800	4,971,017	717,911,782				
2019	708,508,761	5,397,756	703,111,005				
2020	665,632,935	6,063,426	659,569,509				
2021	715,842,443	6,315,735	709,526,709	PY1	693,530,766	0.30%	2,080,592
2022	721,816,254	6,170,133	715,646,121	PY2	690,735,741	0.34%	2,348,502
2023	721,816,254	6,170,133	715,646,121	PY3	694,914,113	0.51%	3,544,062

The SAVEGREEN Project Program Plan

New Jersey Natural Gas

9/25/2020

1. Core Programs

The Utilities will administer the following core programs and subprogram to engage customers and encourage the pursuit of energy efficient solutions from single transactions to comprehensive upgrades. The Utilities will strive to provide customized guidance wherever possible and provide supporting resources to make energy-efficient retrofits more accessible for all customers. Core Programs and subprograms include:

1.1 Residential Core

Efficient Products: This program provides incentives for Efficient Products, including retail products, appliance rebates, HVAC equipment, and appliance recycling.

Existing Homes: Home Performance with Energy Star: This subprogram provides incentives to encourage customers to pursue comprehensive upgrades to their home.

1.2 Multifamily Core

Multifamily Program: This program recognizes the variation in property types of multifamily housing and takes a collaborative approach, working in conjunction with customers, to identify the most important efficiency projects with a focus on encouraging more comprehensive projects wherever possible and offering incentives to encourage the investment in energy efficiency.

1.3 Commercial Core

C&I Direct Install: This program is focused on installation of efficiency measures for small businesses, non-profit organizations, municipalities, schools and faith-based organizations (“eligible customers”) that typically lack the time, knowledge, or financial resources necessary to investigate and pursue energy efficiency. Incentives will be offered to encourage these customers to invest in energy efficiency

Energy Solutions for Business - Prescriptive and Custom Measures: This subprogram promotes the installation of high-efficiency electric and/or natural gas equipment to NJNG customers, either via the installation of prescriptive or custom measures or projects to commercial and industrial customers. Incentives will be offered to encourage these customers to invest in energy efficiency

Note: Comfort Partners, the comprehensive energy efficiency solution for low income customers in New Jersey, is not addressed within this filing since it is intended to be run as a Co-Managed Program under Societal Benefits Clause funding which is not the subject of this proceeding.

1.1 Residential Core Programs

1.1.1 ENERGY EFFICIENT PRODUCTS

Program Description (MER II.a.i)

This program will promote the installation of ENERGY STAR and other high-efficiency electric and natural gas equipment by residential customers by offering a broad range of energy efficient equipment and appliances through a variety of channels, including an online marketplace, downstream rebates to customers (including but not limited to in-store or online), up-front rebates, reduced point of sale costs, a midstream or upstream component and a network of trade allies and in collaboration with local foodbank and non-profit organizations serving customers in need. The program will provide incentives for energy efficient lighting, appliances, electronics, and heating and cooling equipment, as well as other energy efficiency products (e.g. smart thermostats, water saving measures, weatherization items, and prepackaged kits). Measures range in type and price, but include both electric and natural gas technologies that improve energy efficiency in the home. The program may include customer opportunities at no up-front cost to engage and introduce customers to energy savings opportunities and achieve energy savings. Up-front rebates will also be offered to reduce initial costs on some purchases, and on-bill repayment or access to financing with similar terms will be available to further reduce first cost barriers for select products. The program is designed to provide easy and cost-effective access to energy efficient measures through customers' preferred channels and also provide a means to encourage customers to take the first steps toward energy-efficiency.

The program is designed to:

- Provide incentives for products that reduce energy use in the home and information about other programs that encourage the installation of high efficiency equipment, such as lighting, HVAC units, other heating and cooling equipment, electronics and appliances.
- Provide midstream incentives to retailers and/or distributors to increase sales of ENERGY STAR or other energy efficient products.
- Continue to support and/or provide downstream approaches for certain measures to ensure market is properly supported.
- Provide a marketing mechanism for retailer and high efficiency product suppliers to promote energy efficient equipment and products to end users.
- Ensure the participation process is clear, easy to understand and simple for the customer and contractor.
- Provide online or other channels for customers that include but are not limited to online and in-store eligibility options to acquire select ENERGY STAR products, as well as low and moderately priced energy-saving products.
- Recognize unique barriers that low- and moderate-income customers face and employ strategies to address those barriers, including no cost measures and/or enhanced incentives where appropriate.

- Utilize energy efficiency kits to introduce and promote energy efficiency technologies that can be easily installed in the home. The kits will serve as a gateway to other programs by including energy efficiency and conservation educational materials and promotional materials for other program opportunities, including the utility, Comfort Partners and NJCEP programs.
- Provide energy efficiency kits to local foodbank and non-profit organizations and at energy assistance outreach events to reach low- to moderate-income customers, with schools to promote energy efficiency education in classrooms, to new movers, customers upon request, and within utility marketplaces to support customer engagement.

This program will increase adoption of energy efficient equipment and products by harnessing the unique utility customer relationship to positively impact the entire sales process surrounding efficient equipment, from education and awareness of customers, engagement with trade ally contractors and equipment distributors and retailers, to on-bill repayment or access to financing with similar terms for select products.

The utilities will use their brand and customer outreach infrastructure to increase the availability, awareness, and customer uptake of energy efficient products. On-bill repayments or access to financing with similar terms will be available to customers to cover the remaining cost (after applying the rebate discount) for the balance of the efficient product cost for select products and services.

Utility staff and/or a third-party implementation contractor(s) will be selected to assist with the administration, oversight, and delivery of the program. Activities will include in the launch of a statewide online marketplace with utility-specific interfaces, efforts to raise awareness of the program, on-going refinements to the list of eligible measures, validating customer eligibility and processing incentives and conducting outreach to and securing partnerships with retailers, wholesalers, distributors, manufacturers and trade allies to assure all customers are able to easily purchase energy efficient products and equipment through the program. Customer engagement and sales channels may include:

- **Post Purchase (Downstream) Rebates:** Rebates will be made available to customers after they have made their purchase. Applications may be available online or in stores to submit either electronically or in hard copy with proof-of-purchase.
- **Online Marketplace:** This online marketplace is an easy to use source for the online purchase of efficient products and services. Participants will be able to browse energy efficient equipment and appliances and purchase through the marketplace which will offer instant rebates and may offer the option for on-bill repayments or access to financing with similar terms for select products.
- **Point of Sale Rebates:** Prescriptive rebates will be made available at the point of sale for selected products. The utilities will also explore the viability of using a digital, smartphone-based application platform, to enable customers to purchase efficient equipment at traditional consumer retail outlets and instantly redeem rebates at point-of-sale in both physical

stores and online. Allowing easy access to rebates encourages customers to purchase qualifying efficient products.

- **Appliance Recycling:** Rebates will be provided to customers for recycling qualifying, inefficient, operating appliances. Offering an incentive for the drop off or pick-up and removal of an appliance prevents the appliance from being maintained as a second unit or transferred to another customer.
- **Midstream or Upstream Rebates:** The utilities will pursue a midstream or upstream rebate component to encourage purchase of certain efficient equipment. The utilities will work with retail partners (such as Home Depot, Lowes, etc.), distributors or manufacturers to assure that measures are available throughout the state. Midstream or upstream rebates encourage market transformation and wider availability of efficient equipment. Efficient products that are rebated via a midstream or upstream approach may be passed on or discounted to the customer at the retail level. Utilities may also offer downstream rebate programs to ensure customers and trade allies are properly supported.
- **Trade Allies:** The utilities will establish a network of trade allies to promote certain components of the program with a consistent experience to the customer where applicable. The trade ally network will consist of qualified installation contractors, plumbers, electricians, and other trade service professionals who meet all applicable statewide requirements for performing the respective service (e.g. HVAC license, insurance requirements). Trade allies will be able to leverage the program and offer customers rebates through their normal course of business.
- **Community Partners:** The utilities will partner with foodbanks and other community organizations serving customers in need to help reduce the energy burden of those customers with no-cost energy efficient products and to raise the awareness of other energy efficiency and energy assistance programs available to help.

By developing relationships with both program and trade allies, the program will develop a broad reach across the marketplace, and also solicit feedback from the marketplace to ensure incentives and measures are impacting the market as designed. Targeted program and trade allies may include:

- Efficient equipment retailers, distributors and manufacturers;
- HVAC & appliance contractors; and
- General contractors, plumbers, electricians, and other trade service professionals.

Regardless of the delivery mechanism, the utilities will take steps to ensure customers are made aware of utility engagement in helping to off-set up-front costs of the efficient products.

Target Market or Segment (MFR II.a.ii)

The target market for this program will be all electric and/or natural gas customers served by at least one investor-owned utility in New Jersey. The program is focused on promoting the sale and installation of efficient electric and natural gas equipment across all major residential end-use

categories, and can be easily promoted to program allies, trade allies and customers via straightforward prescriptive rebates. Technologies incentivized through this program include lighting, HVAC, other heating/cooling equipment, electronics, appliances, smart thermostats, water saving measures, weatherization items, pre-packaged kits, and other efficient products. The program will also promote the retirement, recycling, and replacement of old refrigerators, freezers, and other inefficient appliances.

The utilities may offer enhanced incentives for Low-to-Moderate income (“LMI”) customers (up to 400% of federal poverty level) for certain products to assure that the program reaches all customer types. Eligibility for these enhanced incentives can be determined based on screening an individual customer however the utilities will also explore implementing automatic eligibility for enhanced incentives based upon a physical location (e.g. census tract, environmental justice community, Urban Enterprise Zone) to encourage more activity in LMI communities.

Marketing Plan (MFR II.a.xiv)

The utilities will implement both multi-pronged direct and indirect marketing campaigns to promote this program. Customers will be exposed to broad-based energy efficiency awareness campaigns, web-based engagement and information, digital advertising, social media and hard-copy materials to promote awareness, as well as tie-ins with other programs. Retailers, wholesalers, distributors, manufacturers and trade allies will be contacted directly and through trade associations to develop networks and promote involvement in the program where applicable. The utilities will also look to leverage the behavior program for ‘warm leads’ into this program through both the home energy reports and online audit tool. In addition, the kits provided through this Program will include pamphlets and literature recommending customers visit utilities online portals and marketplace, further increasing engagement.

Targeting and promotion within this program will be enabled through intelligence gained through other residential programs or offerings, primarily Behavioral Home Energy Reports, Existing Homes, and other activity in the Efficient Products program. The utilities will explore opportunities to provide customized information to customers with prioritized action items, to maximize availability and uptake.

A combination of strategies will be used to train and support retailers, distributors and other program allies, including media advertising, outreach community forums, events, and direct outreach to customers. Marketing activities may include:

- Point of purchase displays and materials, joint advertising, coupons, and special “instant sales events;
- Public relations materials;
- Brochures that describe the benefits and features of the program including application forms and processes. The brochures will be available for various public awareness events (community events, presentations, seminars etc.);
- Bill inserts, bill messages, email, Facebook, Twitter and other social media platforms, pop-up stores;

- NJNG website content providing program information resources, contact information, online application forms, online retail store and links to other relevant service and information resources;
- Customer representatives trained to promote the program to their customers; and
- Presence at conferences and public events used to increase general awareness of the program and distribute program promotional materials.

The primary market barriers that impact this program include:

- **Initial Cost of Efficient Equipment:** Relative to the market baseline, efficient equipment often carries a higher upfront cost but a lower lifetime operating cost. Customers often may not fully value the lifetime operating cost advantage of efficient equipment and, as a result, higher upfront cost is a barrier to purchasing efficient equipment. To address this barrier, incentives are provided to the customer to reduce the initial cost. On-bill repayment or access to financing with similar terms will also help mitigate the up-front cost barrier.
- **Customer Awareness and Engagement:** Residential customers may not be aware of the benefits of installing efficient equipment and/or lack the time and resources to pursue efficient equipment when replacing existing equipment. To address this barrier, the utilities will educate customers on the benefits of installing efficient equipment through targeted marketing, ensure that incentives are easily accessible, and encourage market transformation and stocking of efficient equipment through midstream incentives. Through outreach efforts, the utilities will seek to partner with retail and wholesale entities to promote program offerings, and also focus marketing, education, and outreach efforts on the trade ally community to ensure that trade allies are aware of available incentives and prepared to serve customers. To increase awareness among customers with English as a second language, utilities may develop and provide outreach materials in Spanish. The utilities intend to be active participants in both the Equity or Marketing Working groups and expect to address the need and cost for developing materials in a broader range of languages as part of those discussions.
- **Landlord/Tenant Arrangements:** Split incentives between landlord/tenants with respect to who pays for energy use vs. who owns the energy-using equipment challenge investment decisions. To address this barrier, the program will be marketed to both landlords and tenants to assure that those exposed to energy costs are able to participate in the program. Utilities may also provide technical and outreach assistance to property owners and managers in developing and marketing green properties to attract tenants.
- **Sufficient Stocking and Availability of Efficient Products:** The utilities will look for opportunities to develop and promote a midstream component for specific equipment to encourage high levels of participation via incenting midstream market actors and/or directly discounting the cost of the efficient equipment at the point of sale.

The utilities will seek to manage all barriers to program success through a commitment to applying best practices in program design, delivery, outreach, and marketing/advertising. The utilities established customer communication channels, data, and brand in the marketplace will all be leveraged to deliver best-practice programs that identify and confront market barriers on an

ongoing basis. To the extent possible, the utilities will cross-promote programs to spread awareness of the range of efficiency opportunities proposed in this plan.

Implementation Plan, Delivery Method and Contractor Roles (MFR II.a.v) (MFR II.a.viii) (MFR.II.a.xiii)

The utilities and/or third-party implementation contractors will be responsible for identifying and engaging retail and wholesale entities dealing in energy efficient equipment to on-board them with the program vision, eligible efficient products, rebates, and ways to participate. Additionally, the utility and/or third-party implementation contractors will engage trade allies, including local HVAC, electrical, plumbing, and other contractors to educate them on program benefits and build a trade ally network which will reliably install energy efficient equipment for participating customers. The utility and/or third-party implementation contractors will also monitor participation to assess the effectiveness of outreach efforts, incentive levels, delivery methods, and both program ally and trade ally availability to provide suggestions to assure that the program is continually providing customers with their needs. The utility and/or third-party implementation contractors will be responsible for the management of the online marketplace. The utilities will oversee the build-out of the online marketplace as well as the retail and Trade Ally network, which may be administered by third-party implementation contractors. The utility and/or third-party implementation contractors will also process the online instant rebates, verify eligibility of customers and manage the delivery of items purchased on the website.

To select qualified third-party implementation contractors, the utilities will prioritize criteria including but not limited to:

- Experience delivering similar programs or initiatives;
- Resources and marketing strength;
- Cost; and
- The amount of business placed with minority, women, veteran and service-disabled veteran owned businesses.

By allowing participants to select a trade ally they are comfortable with for select products, the program reduces barriers to entry related to knowledge of energy efficiency confidence in assessments, and measure installation. The utilities will perform customer satisfaction and other quality assurance and quality control activities to monitor, ensure program and verify quality standards are met.

NJNG existing staff is familiar with many of the programs managed by the New Jersey Clean Energy Program (“NJCEP”) ¹ NJNG is also committed to a competitive solicitation process for our online marketplace but may consider extending the current contract with our existing vendor to ensure there is no disruption to marketplace availability given the tight timeframe between program approval and launch. If NJNG decides to extend that contract, it would conduct a competitive solicitation for

¹ While NJNG was not the primary QC inspector for WARMAdvantage, all of our BPI certified auditors occasionally noted issues as part of their audit work.

those services in late Fiscal 2022. NJNG will also continue to work closely with the other utilities on elements that are required to be consistent or coordinated. NJNG intends to hire additional staff to help support the residential sector programs. We expect to be operational with most program components by July 1, 2021 but newer elements may be launched later in the year.

Existing and Proposed Incentive Ranges (MFR II.a.iii) (MFR II.a.iv)

The utilities propose to provide a range of incentives depending on the measure type, subject to changes based upon customer response and marketplace changes over the plan period. Incentives will vary depending on the specific product, the incremental cost of the high-efficiency technology, and the product maturity in the marketplace. Refer to Exhibit P-2, Schedule AMP-1, for the Summary of Existing and Proposed Incentive Ranges for this program.

Incentives will be available in several ways and are adapted to the retail partner needs and market response. Strategies may include:

- Mail-in applications available from the retailer and the program website or directly from contractors;
- Online rebate forms;
- Point of Sale or In-store “Instant Reward” coupons that are redeemed in-store at the time of purchase;
- Special sale events in retail stores;
- Manufacturer buy down to Retailer;
- Midstream or upstream incentives to retailers, distributors or manufacturers to encourage them to stock and promote efficient products or to provide product incentives at time of purchase; and
- Partnerships with community groups, schools, and/or non-profit organizations.

Incentives may change based on market prices, as well as manufacturer and distributor co-funding. Other incentive alternatives may be used as the market evolves and new and innovative customer, program ally and trade ally engagement opportunities become apparent.

In instances where incentives are not immediate, the utilities will complete consumer or contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of program requirements such as necessary field inspections (if required).

Customer Financing Options (MFR II.a.vi)

Refer to Exhibit P-2, Schedule AMP-2, for the Summary of Proposed Financing for this program.

Customer Access to Current and Historic Energy Usage Data (MFR II.a.vii)

Refer to Exhibit P-2, Schedule AMP-4, for a description of how NJNG will provide for customers to access their energy data.

Projected Energy Savings (MFR II.a.x, II.a.ix)

The table below summarizes the projected participation and savings associated with this program. All values are annual incremental totals, and do not incorporate savings achieved in prior years. Participation estimates are calculated as the sum of forecasted measure-level participation units, and each unit of participation is based on a measure-specific forecasted savings unit of measure. Savings estimates are based on projected participation during each year of the forecast period.

Table 1: Products Program Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (products)	93,820	93,886	93,922
Projected Net Annual Natural Gas Savings (therms)	1,245,514	1,320,538	1,354,803
Projected Net Lifetime Natural Gas Savings (therms)	15,973,600	17,229,615	17,842,702
Projected Net Lifetime Natural Gas Savings from Qualifying Low-Income Customers (therms)	1,145,506	1,145,506	1,145,506
Projected Net Annual Electric Savings (kWh)	2,923,269	2,928,544	2,930,127
Projected Net Lifetime Electric Savings (kWh)	28,714,468	28,777,769	28,796,759
Projected Net Lifetime Electric Savings from Qualifying Low-Income Customers (kWh)	13,541,616	13,541,616	13,541,616
Projected Net Annual Peak Demand Savings (kW)	9	9	9
Projected Net Lifetime Peak Demand Savings (kW)	127	128	128

For customers in areas where gas and electric service territories overlap, the utilities will use the Statewide Coordinator to allocate costs and energy savings for shared measures. Refer to Exhibit P-1, Schedule NJNG-19, for a description of the role of the Statewide Coordinator.

Program Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected program expenditures for the program.

Table 2: Products Program Budget

Cost Category	PY1	PY2	PY3
Capital Cost ²	146,825	0	0
Utility Administration	1,122,803	1,154,129	1,186,396
Marketing	260,873	262,699	264,580
Outside Services	637,687	637,250	633,994
Incentives	15,046,500	16,533,930	17,229,517
Inspections and Quality Control	38,002	39,142	40,316
Evaluation	483,003	517,050	534,287
Total	17,735,694	19,144,201	19,889,090

² Capital Cost reflects start-up costs so only reflected in budgets for Program Year 1.

1.1.2 EXISTING HOMES-HOME PERFORMANCE WITH ENERGY STAR

Program Description (MFR II.a.i)

Home Performance with ENERGY STAR (“HPwES”) will provide a holistic approach for customers to explore and invest in the efficiency and comfort of their homes. All participants in this subprogram must have an initial energy audit performed directly by a qualified HPwES contractor or auditor. That audit will develop an energy efficiency action-plan that includes recommendations for upgrades and available incentives. To ensure the upgrades are accessible to customers, there will be financing available through either an On-Bill Repayment Program (“OBRP”) or access to financing with similar terms.

This subprogram is designed to review the entire status of a home, including equipment and envelope to achieve deeper energy savings. The subprogram will follow guidelines and qualifying criteria associated with the U.S. Environmental Protection Agency HPwES program subject to as-needed enhancements to maximize participation and cost-effective energy savings opportunities. The utilities will also seek to increase the number of contractors certified to offer customers the U.S. Department of Energy Home Energy Score (“HES”) to help customers understand how HPwES improvements can improve the efficiency and comfort of their home.

Target Market or Segment (MFR II.a.ii)

HPwES will be available to all single-family and single-family attached (1 to 4 unit properties) electric and/or natural gas customers served by at least one of the investor owned utilities in New Jersey.

As noted, all customers will start with a comprehensive energy audit or through upgrading from a Quick Home Energy Check-up. Potential measures incentivized through this subprogram include but are not limited to insulation, air sealing, smart thermostats, and HVAC. All HPwES projects must include air sealing and insulation.

Marketing Plan (MFR II.a.xiv)

The utilities will utilize many marketing avenues to assure subprogram awareness and participation is maximized. These include traditional marketing avenues, such as web-based engagement and information, digital advertising, media advertising, and hard-copy materials to promote awareness among trade allies and customers. The utilities will also cross promote this subprogram to participants in other energy efficiency program offerings. Information garnered from other programs, such as the Residential Behavioral and Residential Efficient Products could also be used to identify prime candidates for participation in this HPwES subprogram. For example, a review of usage data contained in Home Energy Reports from the Residential Behavioral program could allow the utilities to identify customers who are particularly susceptible to changes in weather and would be ideal candidates for an audit. Likewise, the

Residential Efficient Products program could provide leads to customers interested in energy efficiency. Most importantly, the QHEC subprogram was specifically designed to educate, engage and provide immediate energy savings to customers and identify strong leads for candidates that would benefit from participating in this HPwES subprogram.

Consistent with current New Jersey HPwES subprogram practices, the utilities may offer Cooperative Marketing funding to encourage contactors to promote this subprogram.

The Primary Market Barriers that Impact this subprogram include:

- **Initial Cost of Comprehensive Home Retrofits:** Home retrofits are more expensive and involved than purchasing efficient equipment and therefore, require more participant investment and commitment. Customers must be willing and able to invest in more expensive energy-efficiency projects. The utilities address this barrier by offering incentives and On-Bill Repayment Programs or access to financing with similar terms.
- **Traditional Credit Screening:** Many customers interested in pursuing comprehensive projects may not be able to pass traditional credit screening (e.g. requirements for debt to equity ratio) despite having a proven track record for paying their utility bills on time. The utilities will explore solutions to help more customers access this incentive through either an OBRP approach or access to financing with similar terms that relies on a review of utility payment history and bankruptcy check to ensure customers who have a proven track record have the opportunity to participate or through innovative approaches.
- **Customer Awareness and Engagement:** Many customers are unaware of the “whole house” approach to energy-efficiency or the fact that building science exists. The utilities will work to address this by:
 - Continuing to educate customers about the HPwES subprogram and how both the structure and equipment work together;
 - Highlighting the extra training that participating contractors must have;
 - Identifying how the shell measure improvements can improve their comfort within the home;
 - Noting that an audit includes health and safety testing; and
 - Reinforcing that the investments in equipment and shell measures may increase the value of their home.

To increase awareness among customers with English as a second language, utilities may develop and provide outreach materials in Spanish. The utilities intend to be active participants in both the Equity or Marketing Working groups and expect to address the need and cost for developing materials in a broader range of languages as part of those discussions.

- **Trade Ally Awareness and Training:** To meet the participation goals, sufficient HPwES contractors must be available to undertake the work. The utilities will address this barrier by trying to recruit more contractors to secure the additional certification necessary to participate in this subprogram, including pursuing initiatives that align with the Workforce Development Working Group strategies to include more local, underrepresented, and disadvantaged workers.

The utilities will seek to manage all barriers to program success through a commitment to applying best practices in program design, deliver, outreach, and marketing/advertising. The utilities established customer communication channels, data, and brand in the marketplace will all be leveraged to deliver best-practice programs that identify and confront market barriers on an ongoing basis.

Implementation Plan, Delivery Method and Contractor Roles (MER II.a.v) (MER II.a.viii) (MER.II.a.xiii)

The utilities will administer this HPwES subprogram and may also choose to select third-party implementation contractors to manage delivery of this subprogram.

Utility staff and/or third-party implementation contractors will oversee all aspects of the subprogram, including training and engagement, quality assurance (“QA”) / quality control (“QC”), and rebate processing. There will be a significant focus on developing, training, and growing a qualified trade ally network. This will include trade ally training sessions, workshops, and market development events to grow and develop the trade ally network, with a priority placed on encouraging them to integrate home efficiency performance into their business and become Building Performance Institute (“BPI”) certified contractors. Utility staff and/or third-party implementation contractors will maintain a close relationship with trade allies to ensure consistent subprogram delivery experience and high customer satisfaction. Utility staff and/or third-party implementation contractors will also take on the responsibility of providing an additional layer of customer support as needed and conducting selective verification of trade ally installation work.

Trade allies will consist of companies employing BPI-certified professionals to complete HPwES audits and energy-saving projects. In order to facilitate trade ally access to participants, utilities or the third-party implementation contractor will maintain a list of companies and professional services where customers can find local trade allies based on geography and other criteria.

Selection of third-party implementation contractors will prioritize criteria including but not limited to:

- Experience delivering similar subprograms or initiatives;
- Knowledge of the current marketplace;
- Ability to educate and train contractors;
- Local presence;
- Cost; and
- The amount of business placed with minority, women, veteran and service-disabled veteran owned businesses.

The utilities will encourage all participating contractors to also look for opportunities to promote measures from the Residential Efficient Products program, such as home appliances (e.g. clothes washers) to increase energy savings and leverage those incentives.

NJNG existing staff is familiar with the NJCEP HPwES program that will be transitioned to this program. Our team has experience answering customer inquiries, and screening for and issuing

On Bill Repayment Programs. NJNG anticipates using a competitive solicitation process to secure a third-party implementer for some functions that will have not addressed under our prior programs like field inspections for QC. NJNG intends to hire additional staff to help support the residential sector programs. NJNG will also continue to work closely with the other utilities on elements that are required to be consistent or coordinated. We expect to be operational by July 1, 2021.

Existing and Proposed Incentive Ranges (MFR.II.a.iii) (MFR II.a.iv)

The utilities will provide incentives to encourage customers to implement the measures recommended during their audit. Incentives will be calculated based on modeled savings through a sliding scale up to an overall project cap. Modeled savings will be based upon software that will use consistent calculations across territories. As the utilities work to launch midstream incentives for HVAC measures through the EE Products program, there is a recognition that a baseline incentive may be provided when a participating contractor secures the equipment from a participating distributor or retailer. The utilities intend to adjust the calculation of the incentive when an incentive has already been provided through a midstream path. However, the utilities have a shared intention to have the value of an HVAC measure being installed through this subprogram be higher than a standalone HVAC equipment installation to ensure that customers are encouraged to pursue comprehensive upgrades and to recognize additional energy savings associated with improving the building shell.

Consistent with current practices for the New Jersey HPwES subprogram, the utilities are proposing an incentive range for a Contractor Production incentive and separate scale for incentives for multifamily properties.

Refer to Schedule Exhibit P-2, AMP-1, for the Summary of Existing and Proposed Incentive Ranges for this subprogram.

The utilities and/or third-party implementation contractors will complete consumer or contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of subprogram requirements such as necessary field inspections (if required).

Customer Financing Options (MFR II.a.vi)

Refer to Exhibit P-2, Schedule AMP-2, for the Summary of Proposed Financing for this subprogram.

Customer Access to Current and Historic Energy Usage Data (MFR II.a.vii)

Refer to Exhibit P-2, Schedule AMP-4, for a description of how NJNG will provide for customers to access their energy data.

Projected Participants (MFR II.a.ix) and Energy Savings (MFR II.a.x)

The table below summarizes the projected participation and savings associated with this subprogram. All values are annual incremental totals, and do not incorporate savings achieved in prior years. Savings estimates are based on projected participation during each year of the forecast period.

Table 3: HPwES Residential Subprogram Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (customers)	670	737	774
Projected Net Annual Natural Gas Savings (therms)	206,938	227,631	239,013
Projected Net Lifetime Natural Gas Savings (therms)	3,517,940	3,869,734	4,063,220
Projected Net Lifetime Natural Gas Savings from Qualifying Low-Income Customers (therms)	0	0	0
Projected Net Annual Electric Savings (kWh)	647,013	711,714	747,300
Projected Net Lifetime Electric Savings (kWh)	10,999,220	12,099,142	12,704,099
Projected Net Lifetime Electric Savings from Qualifying Low-Income Customers (kWh)	0	0	0
Projected Net Annual Peak Demand Savings (kW)	22	24	25
Projected Net Lifetime Peak Demand Savings (kW)	373	411	431

For customers in areas where gas and electric service territories overlap, the utilities will use the Statewide Coordinator to allocate costs and energy savings. Refer to Exhibit P-1, Schedule NJNG-19, for a description of the role of the Statewide Coordinator.

Subprogram Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected expenditures for this subprogram.

Table 4: HPwES Residential Subprogram Program Budget

Cost Category	PY1	PY2	PY3
Capital Cost	146,825	0	0
Utility Administration	551,794	565,991	580,613
Marketing	247,869	249,305	250,784
Outside Services	195,049	194,115	193,311
Incentives	7,886,000	8,674,600	9,108,330
Inspections and Quality Control	35,177	36,233	37,320
Evaluation	260,880	273,876	285,680
Total	9,323,595	9,994,119	10,456,038

1.2.1 MULTIFAMILY PROGRAM

Program Description (MFR II.a.i)

This Program addresses multifamily structures with three or more units. As such, there can be significant variation in the types of structures served under this Program ranging from residential type dwelling with three units to large garden apartment complexes to multi-story high rise buildings. In order to meet the specific needs of each customer, the Multifamily Program will provide, in conjunction with the customer, a structured screening review to identify and develop the project plan for the customer. Potential program services include customer engagement with energy efficiency education through energy assessments, installation of standard energy savings measures, comprehensive energy savings opportunities including prescriptive equipment replacement, custom retrofit projects and engineered solutions and emergency equipment replacement. In addition, the Multifamily Program will provide On-Bill Repayment or access to financing with similar terms and enhanced incentives for low income/affordable housing properties.

The Multifamily Program will seek to work with each customer to determine and package the best energy savings opportunities based on NJNG's current program offerings (e.g. direct installation of standard energy savings measures, prescriptive equipment replacement, custom retrofit or engineered solutions), with an emphasis to encourage more comprehensive projects wherever possible. Customers will begin participation in the Multifamily Program with a screening to identify and develop a project plan. The initial screening may include an energy assessment and installation of standard energy savings measures to help encourage program participation. The assessment will also identify additional energy savings opportunities and develop the project plan that is the best fit for each specific customer and building.

Applications to this program will be reviewed to determine the project plan depending on the type of housing stock and ownership structure. The screening process will consider various factors to create a project plan that will deliver a high level of energy savings in the most cost-effective manner. Examples of these factors include, but are not limited to:

- Building size;
- Number of units;
- If the facility is being served by a central plant;
- If there are individual heating and cooling units;
- If there are building envelope/weatherization opportunities;
- Application review with a potential virtual site inspection;
- Application review with potential telephone interview with property management; and
- An on-site pre-scoping audit may be performed.

Depending upon the screening results and the customer's interests, a customer's project plan could include direct installation of standard energy saving measures, incentives for prescriptive equipment replacement, custom retrofit opportunities, or a comprehensive Engineered

Solutions project. The measures within the project plan will be consistent with the terms and conditions of the NJNG's applicable residential and/or commercial & industrial program offerings (e.g. Existing Homes, Efficient Products, Energy Solutions for Business). Therefore, the project plan can include prescriptive measures with set energy-savings and/or custom projects with savings on a project basis. Please refer to these program descriptions for more information on these program offerings and the associated terms and conditions, including delivery methods and contractor roles.

Target Market or Segment (MFR II.a.ii)

All multifamily buildings with three or more units that are served by at least one investor owned utility are eligible to participate. The Program targets multifamily property owners, property managers, and residents, who, because of the building owner – tenant relationship, have always had difficulty investing in energy efficiency equipment. The utilities will also target outreach to economically-qualified occupants and owners of multifamily buildings who are eligible for enhanced incentives. Eligibility for these enhanced incentives can be automatic based upon the type of property that has a Low or Moderate-Income designation (e.g. New Jersey Housing and Mortgage Financing Agency qualified, Housing Authorities) or by a physical location (e.g. census tract, environmental justice community, Urban Enterprise Zone). The program may refer prospective customers to Comfort Partners as appropriate.

Marketing Plan (MFR II.a.xiv)

The marketing strategy will focus on informing property owners, managers, associations, tenant groups, municipalities, and community organizations about the availability and benefits of the program and how to participate. Marketing activities will also target lower and moderate-income multifamily sector. Key elements of the marketing strategy may include:

- Targeted outreach through direct mailings and presentations to inform property owners, managers, apartment associations, tenant groups, municipalities and community organizations about the benefits of the program and participation processes;
- Brochures highlighting the benefits and features of the program as well as the enrollment and participation processes;
- Website content providing program information resources and contact information;
- In-person visits by program representatives to properties with three or more units; and
- Energy assessments of properties may include the direct installation of standard energy savings measures to engage, educate and promote the building owners or facility managers to participate in the other program offerings targeting deeper savings.

The primary market barriers that impact this program include:

- **Business/Operational Constraints:** Multifamily properties often have unique operations and time constraints that act as a barrier to implement energy-efficiency projects. This barrier will be addressed by ensuring the program operates cooperatively with participants, provides program participation and technical assistance, and offers timely incentives and financing support.

- **Customer Awareness and Engagement:** Eligible participants may be unaware of energy-efficiency opportunities and programs because the segment has historically not been well served by traditional energy-efficiency programs. To address this barrier, this program was designed specifically to support the multifamily segment. The utilities will execute targeted outreach strategies to ensure that relevant customers are aware of program opportunities and consider energy efficiency in equipment investments and long-term planning. The program will also prepare and distribute successful case studies of prior participants and their experiences and energy savings. To increase awareness among customers with English as a second language, utilities may develop and provide outreach materials in Spanish. The utilities intend to be active participation in both the Equity or Marketing Working groups and expect to address the need and cost for developing materials in a broader range of languages as part of those discussions.
- **Cost Effectiveness:** Efficiency upgrades require an initial investment that is recovered by lower long-run operating costs and non-energy benefits. Multifamily projects may carry longer payback periods than traditional energy-efficiency projects due to the unique needs of the segment. To address this barrier, incentives and access to OBRP or similar financing options will be provided to the customer to reduce the initial cost. The utilities will also communicate the non-energy benefits offered by many efficiency upgrades that may not be captured in the cost/benefit analysis to further promote efficiency upgrades to customers.

Additionally, the utilities considered the following market barriers identified in the Utility Demographic and Firmographic Profile 2020 Study.³

- **Split Incentives:** Multifamily properties can face challenges for energy efficiency improvements since the owner generally does not pay the utility bills and may not reap the full benefit of any energy efficiency investment. To address this barrier, the utilities will market to both landlords and tenants to assure that those exposed to energy costs are able to participate in the program, provide low- and no-cost measures at no cost to the tenant or the landlord, and offer comprehensive approaches for multifamily, including application, technical and engineering support to design cost-effective projects with benefits for owners and renters. Utilities may also provide technical and outreach assistance to property owners and managers in developing and marketing green properties.
- **Complex Buying Process:** There can be a broad range of potential energy efficiency investments but it can be challenging to identify which strategies may be the most beneficial for owners and/or tenants. To address this barrier, the program will provide

³ The purpose of this study was to examine the demographics and firmographics of all customers in the service territories of each of the electric and gas public utilities in New Jersey. This is to comply with P.L. 2018, c. 17, codified at N.J.S.A. 48:3-51-87 et seq., commonly known as the Clean Energy Act of 2018 (“Clean Energy Act” or “CEA”), as well as in response to the New Jersey Board of Public Utilities (NJBPU) Order Docket Nos. QO19010040 and QO19060748 (dated October 7, 2019), which directed the utilities to complete a demographic analysis pursuant to the Clean Energy Act. The study was released on April 30, 2020 and can be found [here](#).

customized screening and on-going support to help find the best solution for the customer and include incentives to encourage the customer to implement the recommended solutions.

The utilities will seek to manage all barriers to program success through a commitment to applying best practices in program design, delivery, outreach, and marketing/advertising. The utilities will leverage their established customer communication channels, data, and brand in the marketplace to identify and confront market barriers on an ongoing basis.

Implementation Plan, Delivery Method and Contractor Roles (MFR II.a.v) (MFR II.a.viii) (MFR.II.a.xiii)

The Multifamily Program will be delivered in coordination between both the Lead Utility and the Partner Utility (where applicable) and/or qualified third-party implementation contractor(s) with experience delivering similar programs. Because of the unique and varied nature of the multifamily market Program representatives will build relationships with property management companies, owners, associations and their members to recruit participation in the Program. The Program will assist customers as necessary to coordinate scheduling of the Energy Assessment and direct installations and will provide program and technical support to complete program and rebate application requirements.

Delivery of energy-saving measures will be dependent on the project plan and may include direct install of standard energy savings measures, installation of prescriptive measures, and/or custom projects. It may be necessary to schedule appointments for the installation of energy saving measures in the individual living units and common areas. In-unit HVAC tune-ups may also be offered to the property owner or tenant. The installation crews are trained on the technical and educational aspects of the energy saving devices installed and leave educational materials in each unit describing the work performed and explaining the energy-saving benefits.

While there is no comparable existing NJCEP program, NJNG's existing staff is familiar with many of required functions for this program - answering customer inquiries, processing rebates, screening for and issuing On Bill Repayment Programs. NJNG anticipates using a competitive solicitation process to secure a third-party implementer for some functions, including the direct installation of measures in individual units, field inspections for QC for projects that do not have a built-in commissioning approach, and the potential to bring on additional engineering firms that may specialize in multifamily programs for Engineered Solutions. NJNG will also continue to work closely with the other utilities on elements that are required to be consistent or coordinated. NJNG expects to hire additional staff to support this program but they will work across the other program sectors. We hope to launch the HPwES Multifamily path by July 1, 2021 to avoid disrupting the market, but other program paths may be launched later in the year.

Existing and Proposed Incentive Ranges (MFR II.a.iii) (MFR II.a.iv)

The following table provides a summary of the existing and proposed incentives for each of the potential components of the project plan for each building under the Multifamily Program.

Program Component/Service	Existing Incentive ⁴	Proposed Incentive
Energy Assessment with installation of standard energy savings measures	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Energy Assessment with the equipment and installation costs for the standard energy savings measures will be provided to eligible properties with “Up to 100%” of the cost provided by the program.
Prescriptive Equipment replacement and custom retrofit projects	<ul style="list-style-type: none"> See the list of existing incentives in the descriptions of the Residential and Commercial & Industrial programs currently available for the prescriptive equipment replacement and custom retrofits 	<ul style="list-style-type: none"> Same value as incentives offered through the Residential and Commercial & Industrial programs applicable for the prescriptive equipment replacement and custom retrofits. Includes enhanced incentives offered for properties that are located in qualifying target areas or for LMI⁵ qualified customers.
Engineered Solutions	<ul style="list-style-type: none"> No cost ASHRAE⁶ Level I, II, or III audit. Program will buy-down the simple payback of the recommended energy-efficiency project cost for approved measures by up to six years, with the resulting payback not less than three years. 	<ul style="list-style-type: none"> No cost ASHRAE Level I, II, or III audit. Program will buy-down the simple payback of the recommended energy-efficiency project cost for approved measures by up to six years, with the resulting payback not less than three years.

⁴ Existing incentives generally represent currently available NJCEP incentives. For Engineered Solutions, they would represent the incentives currently approved for the New Jersey utilities that currently run this program.

⁵ Low to Moderate Income

⁶ American Society of Heating, Refrigerating and Air-Conditioning Engineers

Refer to Exhibit P-2, Schedule AMP-1, for the Summary of the Existing and Proposed Incentive Ranges.

Customer Financing Options (MFR II.a.vi)

Program Component/Service	Existing Incentive
Prescriptive Equipment replacement and custom retrofit projects	Same financing option as available through the Residential and Commercial & Industrial programs applicable for select prescriptive equipment replacement and custom retrofit projects
Engineered Solutions	After the project incentive buy-down, the remaining project costs may be repaid by participants at no to low interest financing through an OBRP or other financing option with similar terms. Properties eligible for the Enhanced Low to Moderate Income incentive will be eligible for up to a 10-year repayment term.

Refer to Exhibit P-2, Schedule AMP-2, for the Summary of Proposed Financing.

Projected Participants (MFR II.a.ix) and Energy Savings (MFR II.a.x)

The table below summarizes the projected participation and savings associated with this Program. All values are annual incremental totals, and do not incorporate savings achieved in prior years. Savings estimates are based on projected participation during each year of the forecast period.

Table 5: Multifamily Program Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (customers)	1,153	1,273	1,331
Projected Net Annual Natural Gas Savings (therms)	92,477	109,362	124,599
Projected Net Lifetime Natural Gas Savings (therms)	1,625,080	1,942,800	2,236,183
Projected Net Lifetime Natural Gas Savings from Qualifying Low-Income Customers (therms)	203,392	254,240	305,088
Projected Net Lifetime Natural Gas Savings from Qualifying Small Commercial Customers (therms)	0	0	0
Projected Net Annual Electric Savings (kWh)	3,714,529	4,570,485	5,404,637
Projected Net Lifetime Electric Savings (kWh)	70,258,453	86,974,351	103,435,635
Projected Net Lifetime Electric Savings from Qualifying Low-Income Customers (kWh)	11,356,544	14,195,680	17,034,816
Projected Net Lifetime Electric Savings from Qualifying Small Commercial Customers (kWh)	0	0	0
Projected Net Annual Peak Demand Savings (kW)	62	77	92
Projected Net Lifetime Peak Demand Savings (kW)	1,202	1,494	1,784

For customers in areas where gas and electric service territories overlap, the utilities will use the Statewide Coordinator to allocate costs and energy savings. Refer to Exhibit P-1, Schedule NJNG-19, for a description of the role of the Statewide Coordinator.

Customer Access to Current and Historic Energy Usage Data (MFR II.a.vii)

Refer to Exhibit P-2, Schedule AMP-4, for a description of how NJNG will provide for customers to access their energy data.

Program Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected program expenditures for the program.

Table 6: Multifamily Program Budget

Cost Category	PY1	PY2	PY3
Capital Cost	111,111	0	0
Utility Administration	1,011,828	1,022,683	1,033,863
Marketing	116,390	116,881	117,388
Outside Services	100,597	106,383	113,377
Incentives	5,835,937	7,001,314	8,100,773
Inspections and Quality Control	3,251	3,349	3,449
Evaluation	220,042	246,716	0
Total	7,399,156	8,497,326	9,646,477

1.3 Commercial & Industrial Core Programs

1.3.1 C&I DIRECT INSTALL

Program Description (MFR II.a.i)

The C&I Direct Install Program is focused on installation of efficiency measures for small businesses, non-profit organizations, municipalities, schools and faith-based organizations (“eligible customers”) that typically lack the time, knowledge, or financial resources necessary to investigate and pursue energy efficiency. The program is designed to provide eligible customers with easy investment decisions for the direct installation of energy efficiency projects. The program will pay a percentage of the up-front cost to install the recommended energy efficiency measures, with the participating customer contributing the balance of the project not covered by the incentive. The program will also provide a repayment option to the customer for their required contribution. The no-cost energy assessment mitigates the time constraints and knowledge barriers while the reduced overall costs and repayment options mitigate up-front cost barriers and assist participants in making decisions, which otherwise would be time-consuming and difficult to justify. The C&I Direct Install program plays an important role in the marketplace because private providers of energy efficiency services typically do not target smaller customers due to the lower overall profit for their services when compared with larger non-residential customers. For these reasons, small businesses, non-profit organizations, municipalities, schools, and faith-based organizations are often hard to reach, and the program fills an important gap by targeting, promoting, and delivering efficiency services to these customers directly.

The energy assessment will be provided to customers free of charge and will offer recommendations on energy efficiency measures to reduce energy usage and costs. Standard basic energy savings measures may also be provided or installed at no cost at the time of the energy assessment to support customer engagement, participation, and energy savings.

The program will also focus on the smallest customers within the eligible customer segment. NJNG anticipates portions of the program to be directed at restaurants, small offices, convenience stores and other small independent businesses that often are left behind in less-comprehensive energy efficiency programs. Through a number of delivery mechanisms, NJNG will assure that all eligible business types are able to participate in this program.

Target Market or Segment (MFR II.a.ii)

The Utilities will seek to address the most cost-effective measures (e.g. LED lighting retrofits) but will also address all measure retrofits that would comprise a cost-effective project. Examples of end-use categories covered by the program include lighting, HVAC, controls, refrigeration, food service, motors, low-flow devices, pipe wrap and domestic hot water equipment. The program will be divided into two tiers of eligibility, determined by the customer’s individual facility peak electrical demand over the last 12 months. Tier 1 will serve the smallest of the eligible customer

base, specifically focusing on customers with an average individual facility peak electrical demand of up to 100 kW. Tier 1 will also include customers up to 200 kW within an Urban Enterprise Zone (“UEZ”), Opportunity Zone, and owned or operated by a local government, K-12 public schools. Additionally, customers with an average peak demand from 101 – 200 kW that are located within designated opportunity zones or UEZ may also qualify for Tier 1 status. Tier 2 will serve the larger segment of small non-residential customers, with an average individual facility peak electrical demand of 101 - 200 kW. This figure may be increased by the electric utility to ensure the program is properly addressing the market in the electric utility’s service territory.

Marketing Plan (MFR II.a.xiv)

The C&I Direct Install Program will be marketed to customers through a combination of direct outreach by program staff, and/or the third-party implementation contractor, web-based engagement and customer information analytics, digital advertising, and hard-copy materials to promote awareness among trade allies and customers. Direct outreach may include visits to customer premises to distribute hard-copy program materials, inform customers about the program directly, and solicit participation. Additionally, NJNG may engage community partners, including Chambers of Commerce and other local organizations including those comprised of underrepresented and socially or economically disadvantaged individuals. NJNG will also consider the potential to utilize customer information analytics or other targeted energy education outreach to identify and target customers best suited for participation in the program. The collective marketing plan strategy is useful for enrolling eligible customers that may be interested in participating but have not heard of the program and do not have the time or resources to prioritize investigating energy efficiency opportunities or reaching out to NJNG.

The primary market barriers that impact this program include:

- **Customer Awareness and Engagement:** Small businesses, non-profit organizations, schools and faith-based organizations typically have limited resources and time to consider or prioritize energy efficiency and may have efficiency needs not well aligned with traditional commercial demand side management (“DSM”) programs targeted at larger customers. This program is intended to confront these market barriers by providing turnkey, direct installation of efficiency measures tailored to these eligible customers at no cost, while identifying additional efficiency opportunities directly on-site, and through directly soliciting eligible customers for participation. This personalized approach builds trust and achieves results while increasing the likelihood of further participation referrals. To increase participation rates among a diverse demographic, utilities may include focused outreach efforts to reach minority- and women-owned small businesses, and start-ups by

engaging with business groups and organizations that support these customers. Partner business groups might include the Chamber of Commerce, and the Small Business Administration. Utilities may also explore providing outreach materials in Spanish to reach Spanish-speaking business owners.

- **Initial Cost of Efficiency Investments:** Recommended energy efficiency projects that go beyond direct-install measures will require more participant investment and commitment. This barrier will be addressed through offering incentives and a repayment option, as well as through operating a program that is flexible and easy for small business customers to utilize.
- **Landlord/Tenant Arrangements:** Split incentives between landlord/tenants with respect to who pays for energy use versus who owns the energy-using equipment presents a unique challenge because the investor in the equipment does not experience an immediate benefit. The subprogram will employ strategies to help the landlord understand the long-term benefits of participating. This subprogram will be marketed to both landlords and tenants to assure that those exposed to energy costs and investments are able to participate in the program. Utilities may also provide technical and outreach assistance to property owners and managers in developing and marketing green properties.

NJNG will seek to manage barriers to program success through a commitment to monitoring program performance and feedback channels for assessing effective program design, delivery, outreach, and marketing/advertising, and improvement opportunities. NJNG's established customer communication channels, data, and brand in the marketplace will all be leveraged to deliver best-practice programs that identify and confront market barriers on an ongoing basis. To the extent possible, NJNG will cross-promote program offerings to spread awareness of the range of efficiency opportunities proposed in this plan.

Implementation Plan, Delivery Method and Contractor Roles (MFR II.a.v) (MFR II.a.viii) (MFR.II.a.xiii)

The C&I Direct Install Program interfaces with customers via either direct solicitation or upon customer request. All participants receive a site visit, including a free on-site energy assessment to identify energy efficiency retrofit opportunities. Standard basic energy savings measures may also be provided at no cost at the time of the energy assessment for eligible Tier 1 customers, to support customer engagement, participation, and energy savings. Following the energy assessment, participants are provided with a report assessing the site and recommending investments that could further improve the energy efficiency of the facility.

Based on the results of the energy assessment report, the program will offer to initially pay a percentage of the project cost to install the recommended energy efficiency measures with the participating customer (and/or landlord). The program will also provide a payment option to the

customer (and/or landlord) for their portion of the project cost. NJNG will provide for the installation of all work and assure it is completed on time and to specifications. This approach frees up the participant, who may not have the time or resources to dedicate to project implementation. The distinction between Tier 1 and Tier 2 eligibility criteria will ensure that eligible customers, even those that are the smallest and often overlooked, receive ample focus. The simple, turnkey solution provides eligible customers with the initial site visit, energy assessment, and installation of recommended efficiency measures at no initial cost to participants.

NJNG will administer and manage the program with the support of third-party implementation contractor(s) and/or utility staff. The third-party implementation contractor or Utility Staff will have responsibility for most delivery tasks and customer outreach on behalf of NJNG. If used, the third-party implementation contractor will work closely with NJNG to optimize the program offering, including, but not limited to:

- Initial participant recruitment, energy assessment, and equipment installation;
- Program data tracking;
- Direct customer outreach/program delivery strategy;
- Development of measure mix;
- Marketing;
- Promotion of emerging technology; and
- Customer satisfaction.

The third-party implementation contractor or utility staff will take on the responsibility of implementing the program, directing the qualification and enrollment of participating contractors, and will work to assure that ample participating contractors are available to complete all work derived from the program. The participating contractors will perform the energy assessments and installations, working with NJNG and/or the third-party implementation contractors oversight to undertake all construction and installation work identified in the energy assessment process.

NJNG existing staff is familiar with the NJCEP Direct Install program that will be transitioned to this program. Our team has experience answering customer inquiries, and screening for and issuing On Bill Repayment Programs. NJNG anticipates using a competitive solicitation process to secure a third-party implementer for some functions that have not been addressed under our prior programs like field inspections for QC. NJNG expects to hire additional staff to support this program but they will work across the commercial sector programs NJNG will also continue to work closely with the other utilities on elements that are required to be consistent or coordinated. We expect to be operational by July 1, 2021.

Existing and Proposed Incentive Ranges (MFR II.a.iii) (MFR II.a.iv)

Both tiers of the program will encompass many of the same benefits, including a simple, turnkey solution for eligible customers, which requires no up-front investment. The initial site visit, energy assessment, and installation of recommended energy efficiency measures are provided at no initial cost to participants. The utilities propose to provide an incentive level of up to 70-80% of the project costs, and to continue discussions to determine the appropriate level and at what level the incentive is applied to best promote the completion of comprehensive projects while maintaining overall program cost effectiveness. Additionally, the utilities plan to coordinate on the methodologies and calculations used to determine energy savings and program incentives.

For Tier 1 customers, standard basic energy savings measures may be installed at no cost during the time of the energy assessment. The program will offer to pay up to 80% of the project cost to install the recommended energy efficiency measures with the participating customer (and/or landlord) repaying the balance not covered through the incentive either in a lump sum or through an available repayment option. Customers located in an Urban Enterprise Zone, Opportunity Zone, owned or operated by a local government or K-12 public schools will also qualify for Tier 1 status, up to an average individual facility peak electrical demand of 200 kW.

Tier 2 will serve the larger segment of eligible customers, with an average individual facility peak electrical demand of 101 - 200 kW over the past 12 months. Incentives up to 70% of the total project cost will be offered.

Refer to Exhibit P-2, Schedule AMP-1, for the Summary of Existing and Proposed Incentives for this program.

Customer Financing Options (MFR II.a.vi)

The participating customer will repay the balance not covered through the incentive either in a lump sum or through a financing option. Refer to Exhibit P-2, Schedule AMP-2 for the Summary of Proposed Financing for this program.

Projected Participants (MFR II.a.ix) and Energy Savings (MFR II.a.x)

The table below summarizes the projected participation and savings associated with this program. All values are annual incremental totals, and do not incorporate savings achieved in prior years. Participation estimates are calculated as the sum of expected number of small businesses participating in the program. Savings estimates are based on projected participation during each year of the forecast period.

Table 7: C&I Direct Install Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (projects)	225	248	260
Projected Net Annual Natural Gas Savings (therms)	309,350	340,285	357,299
Projected Net Lifetime Natural Gas Savings (therms)	4,640,250	5,104,275	5,359,489
Projected Net Lifetime Natural Gas Savings from Qualifying Small Commercial Customers (therms)	4,640,250	5,104,275	5,359,489
Projected Net Annual Electric Savings (kWh)	10,122,965	11,135,261	11,692,024
Projected Net Lifetime Electric Savings (kWh)	151,844,472	167,028,919	175,380,365
Projected Net Lifetime Electric Savings from Qualifying Small Commercial Customers (kWh)	151,844,472	167,028,919	175,380,365
Projected Net Annual Peak Demand Savings (kW)	1,322	1,454	1,527
Projected Net Lifetime Peak Demand Savings (kW)	19,833	21,816	22,907

Program Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected program expenditures for the program.

Table 8: C&I Direct Install Program Budget

Cost Category	PY1	PY2	PY3
Capital Cost	146,825	0	0
Utility Administration	385,243	394,443	403,919
Marketing	216,390	216,881	217,388
Outside Services	268,921	266,572	264,548
Incentives	13,626,704	14,989,375	15,738,843
Inspections and Quality Control	0	0	0
Evaluation	553,915	596,610	624,550
Total	15,197,998	16,463,881	17,249,248

1.3.2 ENERGY SOLUTIONS FOR BUSINESS: PRESCRIPTIVE AND CUSTOM MEASURES (MFR II.a.i)

The C&I Prescriptive and Custom Measures subprogram will promote the installation of high-efficiency electric and/or natural gas equipment by NJNG C&I customers, either via the installation of prescriptive or custom measures or projects. The subprogram provides prescriptive-based incentives to commercial and industrial customers to purchase and install energy efficient products. The subprogram will continue to support and/or provide downstream approaches to ensure the market is properly supported. The subprogram may also provide midstream or upstream incentives or buydowns and support to manufacturers, distributors, contractors, and retailers that sell select energy efficient products. These measures will incent energy efficient lighting, appliances, heating and cooling equipment, and food service equipment, among other efficiency measures. Type and value of incentive provided will range and will include electric and/or natural gas technologies that improve energy efficiency. Up-front rebates will be offered to reduce initial costs and some purchases may qualify for low to no-interest financing to further reduce first cost barriers. Prescriptive measures are designed to provide easy and cost-effective access to energy efficient measures through customers' preferred channels.

Prescriptive rebates are designed to:

- Provide incentives to facility owners and operators for the installation of high efficiency equipment and controls;
- Promote the marketing of high efficiency measures by trade allies such as electrical contractors, mechanical contractors, and their distributors to increase market demand; and
- Ensure the participation process is clear and simple.

Prescriptive incentives will increase adoption of energy efficient equipment by harnessing NJNG's unique customer relationships to positively impact the entire sales process surrounding efficient equipment, from education and awareness with customers, engagement with trade ally contractors and equipment distributors, to financing opportunities for the high efficiency equipment.

The subprogram also includes custom measures that provide calculated or performance-based incentives for electric and/or natural gas efficiency opportunities for commercial, industrial, and other non-residential customers that are non-standard and not captured by prescriptive equipment. Calculated or performance-based incentives are designed to reduce the customer's capital investment for qualifying energy efficient equipment, to retrofit specialized processes and applications and/or to implement qualifying high efficiency building shell or systems improvements. Typical custom measures that are eligible for incentives are either less common measures or efficiency opportunities in specialized applications that may include manufacturing or industry-specific processes, or non-traditional use cases. In many cases, custom efficiency projects are more complex than prescriptive equipment replacement.

Potential participants are required to submit an application for pre-approval to confirm project eligibility and reserve funding. The Utility and/or implementation contractors will develop electronic rebate application forms that will guide applicants through eligibility guidelines, subprogram requirements, terms and conditions, and general information. In addition, the Utility and/or implementation contractors will provide applications in web ready formats to ensure participants have easy access to the forms. The pre-approval process provides for the review of the customer's proposed project to confirm measure eligibility and incentive budget availability. This also supports the Company's subprogram management because it communicates projects that are in the pipeline. If accepted and pre-approved by NJNG a timeline is established for project completion to qualify for a rebate. The typical lead time for completing a custom project is 90 to 120 days but can be longer depending on the complexity of the project. Large projects, or subsets of projects, may be required to undergo pre-and post-inspection to validate project energy savings. Approved projects may also be eligible for low to no cost financing to further reduce first-cost barriers.

Target Market or Segment (MFR II.a.ii)

The C&I Prescriptive and Custom Measures subprogram will be available to all commercial, industrial, and other non-residential customers located within NJNG's service territory. This subprogram is focused on promoting the sale and installation of efficient electric and/or natural gas equipment across all major end-use categories and can be easily promoted to trade allies and customers via straightforward prescriptive rebates, or more complex custom rebates. Potential technologies incentivized through prescriptive measures include energy efficient lighting, appliances, heating and cooling equipment, and food service equipment, among other efficiency measures. Customers pursuing custom incentives will generally be customers with more complex needs and non-standard efficiency opportunities and typically include building types such as light/heavy industrial, manufacturing, data centers, and distribution centers, among others.

Marketing Plan (MFR II.a.xiv)

The C&I Prescriptive and Custom Measures subprogram will engage with customers and trade allies at multiple levels, including broad-based energy efficiency awareness campaigns, direct outreach by subprogram staff and representatives, web-based engagement and information, digital advertising, and hard-copy materials to promote awareness among trade allies and customers. In some cases, subprogram staff and representatives will reach out directly to large customers. Use of appropriate types of media are anticipated to be included in the marketing plan, such as direct mail, email, print, and digital media. Engagement with trade associations (e.g. builders, architects, engineers, equipment distributors, professional and contractor associations, etc.) will also be important venues for NJNG to present information about the subprogram, raise awareness and encourage participation.

Marketing will be used to target specific customer sectors to ensure awareness in the subprogram and enhance participation. The Utility and/or implementation contractor will target various market

sectors (i.e. education, medical/health care, manufacturing, retail, food service) to enhance participation and promote a cross-section of measures applicable to each market. Since prescriptive retrofits are generally one-for-one replacements, measure-specific collateral pieces will be developed for new measures or enhanced for continuing measures. These will be delivered to sectors most likely to utilize the specific technology. Fact sheets, mailings, post cards, e-blasts, and on-location seminars will also be used to promote specific measures. Custom marketing efforts require a consistent and directed outreach to trade allies and associations, The Utility and/or implementation contractors will be required to develop and implement a marketing plan to identify and target customers to connect them to appropriate measures using e-blasts, webinars, on-site seminars, and large customer publications, among other marketing and outreach initiatives. Further, in order to attract multiple measure participation, the Utility and/or implementation contractor will outreach via sectors, as well as to trade allies and associations such as architects, engineers and professional associations. Targeted advertisements in industry/trade publications will also be required to bring awareness to the opportunities and savings available through the Custom offering.

The primary market barriers that impact this subprogram include:

- **Initial Cost of Efficient Equipment:** Relative to the market baseline, efficient equipment often carries a higher upfront premium but a lower lifetime operating cost. Purchasers often may not fully value the lifetime operating cost advantage of efficient equipment and as a result, higher upfront cost is a barrier to purchasing efficient equipment. To address this barrier, incentives are provided to the customer to reduce the initial cost through a variety of channels including at midstream and downstream points. Access to financing for certain measures will also help address this barrier.
- **Customer Awareness and Engagement:** Commercial and Industrial customers may not be aware of the benefits of installing efficient equipment and/or lack the time and resources to pursue efficient equipment when replacing existing equipment. To address this barrier, NJNG will educate customers on the benefits of installing efficient equipment through targeted marketing, ensure that incentives are easily accessible, and encourage market transformation and stocking of efficient equipment through midstream incentives. Through outreach efforts, NJNG will seek to partner with retail and wholesale entities to promote subprogram offerings, and also focus marketing, education, and outreach efforts on the trade ally community to ensure that trade allies are aware of available incentives and prepared to serve customers. To increase participation rates among a diverse demographic, NJNG will include focused outreach efforts to reach minority- and women-owned small businesses, and start-ups by engaging with business groups and organizations that support these customers. Partner business groups might include the Chamber of Commerce, and the Small Business Administration. Utilities may also explore providing outreach materials in Spanish to reach Spanish-speaking business owners.

- **Landlord/Tenant Arrangements:** Split incentives between landlords, who own the energy-using equipment, and tenants, who pay for energy use, present a unique challenge because the investor in the equipment does not experience an immediate benefit. The subprogram will employ strategies to help the landlord understand the long-term benefits of participating. This subprogram will be marketed to both landlords and tenants to assure those exposed to energy costs are able to participate in the subprogram. Utilities may also provide technical and outreach assistance to property owners and managers in developing and marketing green properties.
- **Sufficient Stocking and Availability of Efficient Products:** To support a robust marketplace for efficient equipment, the Utilities may promote midstream incentives for specific equipment types to encourage participation via incentives for distributors or retailers to stock and promote the purchase of or for directly marking down the cost of the efficient equipment at the point of sale

NJNG will seek to manage barriers to subprogram success through a commitment to monitoring program performance and feedback channels for assessing effective program design, delivery, outreach, and marketing/advertising, and improvement opportunities. NJNG's established customer communication channels, data, and brand in the marketplace will all be leveraged to deliver best-practice programs that identify and confront market barriers on an ongoing basis. NJNG will cross-promote programs and subprograms to spread awareness of the range of efficiency opportunities proposed in this plan.

Implementation Plan, Delivery Method, and Contractor Roles (MFR II.a.v) (MFR II.a.viii) (MFR II. a. xiii)

The Utilities may outsource some, or all, of the implementation of this subprogram to an implementation contractor who would be responsible for defined functions, which could include administration, marketing, application processing and documentation regarding purchased products and processing incentives and rebates. NJNG will perform overall administration and oversight of the subprogram. To maximize customer participation and streamline the customer experience, NJNG will use its strong customer and marketplace relationships to support multiple implementation strategies to achieve subprogram goals.

- **Trade Allies:** NJNG and/or the implementation contractor will target trade allies (e.g. electricians, HVAC contractors, lighting retailers and distributors, building energy managers, etc.) to promote the efficiency opportunities and incentives to their clients. Preserving this downstream approach will ensure that customers and trade allies are properly supported. Trade allies will be able to leverage the subprogram and offer customers rebates through their normal course of business. By developing relationships with trade allies, the subprogram will develop a broad reach across the marketplace and

solicit feedback to ensure incentives and measures are impacting the market as designed. Examples of targeted trade ally firms include:

- Design, engineering, and controls firms;
 - HVAC distributors, contractors, and retail providers;
 - Food service retailers and service providers; and
 - Commercial lighting distributors and wholesalers.
-
- **Retail:** NJNG subprogram staff and/or the implementation contractor field representatives will work with retailers and distributors that directly target C&I customers to inform them of the participation process and available equipment incentives. The Utility and/or implementation contractor will also provide support and assistance to retailers or distributors to support identification and promotion of qualifying energy efficient products. This will also include training and instruction to participating retailers and distributors about the NJNG application forms.
 - **Midstream:** The Utilities and/or the implementation contractors may promote a midstream component for specific equipment types to encourage purchase of efficient equipment via directly marking down the cost of the efficient equipment at the point of sale. Midstream rebates encourage market transformation and wider availability of efficient equipment. The Utilities anticipate offering midstream point of sale discounts across numerous equipment types, including, but not limited to: LED lighting, HVAC, and food service equipment. Efficient products that are rebated via a midstream approach will not be eligible for rebates in any other utility rebate program. The Utility and/or implementation contractor will also provide support and assistance to distributors to support identification and promotion of qualifying energy efficient products. This will also include training and instruction to participating distributors as well as enrollment of distributors to participate in midstream subprogram offerings
 - **Digital:** The subprogram will be marketed directly to C&I customers on the NJNG website, where customers will have easy access to information regarding eligible equipment and savings opportunities, how to participate, and incentives across all efficient equipment types and end-uses.
 - **Targeted Customer Outreach:** NJNG staff may choose to reach out directly to large business and commercial customers to develop relationships with energy and facilities managers, operations staff, and procurement personnel. Subprogram staff can help facilitate completion of rebate applications and serve as a direct resource to these customers, providing technical support and helping to assist customers in identifying efficiency opportunities.
 - **Technical Customer Assistance:** An important element of the C&I Prescriptive and Custom Measures subprogram is the availability of technical support. The Utility and/or implementation contractor will provide technical support to customers on the application

of the energy efficiency measures and technologies included in this subprogram, including supporting project identification, developing energy savings calculations, and assessing project economics as required.

Measurement & Verification (“M&V”) for projects that do not have reliable information to accurately forecast energy savings may require energy monitoring before and after project implementation to determine savings and incentive amounts.

If used, it is anticipated that any third-party implementation contractor will work closely with the utility to optimize the subprogram’s strategic direction, including, but not limited to, the following activities:

- Offered incentive levels and strategies;
- Customer satisfaction;
- Measurement and verification during on-site visits;
- Subprogram data tracking; and
- Rebate payments.

NJNG may select a qualified third-party implementation contractor (or contractors) based on, but not limited to, the following factors:

- Technical Approach;
- Organizational and Management Capability;
- Experience;
- Cost; and
- The amount of business placed with minority, women, veteran and service-disabled veteran owned businesses.

A comprehensive contractor agreement, containing information about equipment certification (such as DLC lighting, etc.), licensing, insurance requirements and more, will be developed and provided to all participating contractors.

Some of NJNG’s existing staff is familiar with the NJCEP SmartStart program that will be transitioned to this subprogram. Our team has experience answering customer inquiries, and screening for and issuing On Bill Repayment Programs. NJNG anticipates using a competitive solicitation process to secure a third-party implementer for some functions that will have not addressed under our prior programs like field inspections for QC. NJNG expects to hire additional staff to support this subprogram but they will work across the commercial sector programs. NJNG will also continue to work closely with the other utilities on elements that are required to be consistent or coordinated. We expect to be operational by July 1, 2021.

Existing and Proposed Incentive Ranges (MFR II.a.iii) (MFR II.a.iv)

The utilities propose to provide a range of incentives depending on the measure type, subject to changes based upon customer response and market conditions over the plan period. Incentives will vary depending on factors including but not limited to the specific product, the incremental cost of the high-efficiency technology, and the product maturity in the marketplace.

Refer to Exhibit P-2, Schedule AMP-1, for the Summary of the Existing and Proposed Incentive Ranges for this subprogram.

In instances where incentives are not immediate, the utilities will complete consumer or contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of subprogram requirements such as necessary field inspections (if required).

Customer Financing Options (MFR II.a.vi)

The participating customer will repay the balance not covered through the incentive either in a lump sum or through a financing option. Refer to Exhibit P-2, Schedule AMP-2, for the Summary of Proposed Financing for this subprogram.

Projected Participants (MFR II.a.ix) and Energy Savings (MFR II.a.x)

The table below summarizes the projected participation and savings associated with this subprogram. All values are annual incremental totals, and do not incorporate savings achieved in prior years. Savings estimates are based on projected participation during each year of the forecast period.

Table 9: C&I Prescriptive and Custom Measures Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (measures)	981	1,080	1,135
Projected Net Annual Natural Gas Savings (therms)	422,080	464,521	489,546
Projected Net Lifetime Natural Gas Savings (therms)	3,566,177	3,926,276	4,149,576
Projected Net Lifetime Natural Gas Savings from Qualifying Small Commercial Customers ⁷ (therms)	0	0	0
Projected Net Annual Electric Savings (kWh)	824,076	923,626	1,102,666
Projected Net Lifetime Electric Savings (kWh)	12,338,057	13,829,008	16,513,331
Projected Net Lifetime Electric Savings from Qualifying Small Commercial Customers (kWh) ⁸	0	0	0
Projected Net Annual Peak Demand Savings (kW)	13	15	18
Projected Net Lifetime Peak Demand Savings (kW)	203	228	278

For customers in areas where gas and electric service territories overlap, the utilities will use the Statewide Coordinator to allocate costs and energy savings for shared measures and for certain comprehensive projects. Refer to Exhibit P-1, NJNG-Schedule 19, for a description of the role of the Statewide Coordinator.

⁷ Small commercial customers will participate in this program. However, it is not possible to estimate participation levels at this time based upon available data.

⁸ Small commercial customers will participate in this program. However, it is not possible to estimate participation levels at this time based upon available data.

Program Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected expenditures for this subprogram.

Table 10: C&I Prescriptive and Custom Measures Subprogram Budget

Cost Category	PY1	PY2	PY3
Capital Cost	111,111	0	0
Utility Administration	233,903	240,920	248,147
Marketing	216,390	216,881	217,388
Outside Services	60,837	60,823	61,303
Incentives	6,305,912	7,230,625	8,324,944
Inspections and Quality Control	2,825	2,910	2,997
Evaluation	52,172	48,847	51,877
Total	6,983,149	7,801,006	8,906,656

2.0-Additional Utility Led Programs

In addition to core programming, utilities will also administer utility-run program and subprograms to further engage customers and promote energy efficiency projects. Utility-run programs and subprograms will compliment and expand upon core programs to ensure that utilities reach a diverse customer base and that customers receive adequate support in applying for and completing energy efficiency upgrades.

Utility-run programs and subprograms include:

2.1 Residential Additional Utility Led Programs

Behavioral: This program initially includes Behavioral initiatives and energy education. This program can reach a significant portion of the NJNG customer base, including low- to moderate-income segment and share personalized education, including guidance on low and no-cost energy saving strategies.

Existing Homes: Quick Home Energy Check-Up: This subprogram helps customers understand their best opportunities to save energy through an in-home consultation and secure energy savings during that visit through the direct installation of energy saving measures. It will be designed to help renters as well as homeowners and promotes additional energy savings opportunities and upgrades available to the customer. NJNG will also offer a QHEC+ option that provides a complete home energy assessment for a fee.

Existing Homes: Moderate Income Weatherization: This subprogram provides an opportunity for moderate-income customers to receive no cost energy efficiency measures and upgrades.

Hybrid Heat: This program is a pilot to promote and provide incentives for the installation of hybrid heat systems.

2.2 Commercial and Industrial Additional Utility Led Programs

Engineered Solutions: This subprogram will provide tailored energy-efficiency assistance to public service entities, such as municipalities, universities, schools, hospitals (“MUSH”), and non-profit entities. Incentives will be offered to encourage these customers to invest in energy efficiency

Energy Management: This subprogram targets energy savings for existing commercial and industrial facilities by providing a holistic approach to improving building energy performance. Incentives will be offered to encourage these customers to invest in energy efficiency

2.1 Residential Additional Utility Led Programs

2.1.1 BEHAVIORAL

Program Description (MFR II.a.i)

The Residential Behavior subprogram educates and provides customers with granular and easy-to-understand information about their energy use, the usage of their peers, and suggested actionable steps to generate awareness and motivate customers to produce energy savings through behavioral changes and engagement with other energy-efficiency programs. Direct mailed and/or electronic home energy reports (“HERs” and “eHERs” collectively) will be the cornerstone of the program and will provide participants with customized, easy to implement action steps and recommendations to reduce energy consumption and support behavior modification for improved energy efficiency. The HERs will present participants with a view of their historical energy consumption compared to peer group customers. NJNG will also continue to issue high usage alerts by email to customers when weather patterns and other data indicate their next bill is trending higher and provide the customer with tips to manage their usage.

The program will also offer an internet-based home energy self-audit to all residential customers. This audit will allow customers to better understand their energy usage and opportunities for energy savings.

An online portal will be used to provide customers with usage information, recommendations, tips and links to energy-efficiency programs provided by NJNG. NJNG will utilize the information gathered from the HERs and online audits to not only gain a better understanding of the residential customer base, but also assist in making smart decisions moving forward with the energy-efficiency programs.

NJNG will share participation information with the Behavioral vendor to ensure that customers get messages that properly target their remaining efficiency opportunities (e.g. avoid sending a furnace replacement message to a customer that has recently installed a high-efficiency furnace). Incorporating participation feedback into the program on a prospective basis can improve the customer experience and potentially lead to higher engagement (e.g. build higher confidence in relevance of energy saving advice) and participation in other energy saving programs.

Target Market or Segment (MFR II.a.ii)

The program will provide HERs to the maximum number of customers to whom the vendor can cost effectively provide the service and maintain an appropriate control group. This number will be reviewed periodically and modified as needed to maximize cost-effective energy savings. The online energy audit will be available to all NJNG residential customers. The HERs and online audit will offer tailored recommendations to reduce their energy consumption.

The program primarily targets single-family homes, and NJNG will maintain a subset of HERs for its income-eligible markets. These customers receive customized low- to no-cost energy saving tips and other program opportunities available to them including income-qualified programs.

Marketing Plan (MFR II.a.xiv)

The recipients of the HERs and the related control group will be selected by NJNG and its selected Behavioral vendor. Accordingly, there is no marketing for the program itself. However, this program will influence residential customers to be more aware of other NJNG energy-efficiency programs and drive participation in those programs as well.

The online audit will be marketed through bill-insert mailers, digital advertising, community partners and other means to assure that all customers are aware of the availability of these resources. Participants in other NJNG energy-efficiency programs will be referred to the online audit tool and online portal where appropriate. The audit will highlight additional NJNG energy-efficiency programs, as well as relevant NJCEP programs, and drive participation in those programs.

The primary market barriers that this program addresses include:

- **Lack of Understanding:** Many customers have no sense of how their energy usage for any particular period compares to their prior usage or to that of similar homes. In the absence of the HER reports, customers don't have an inherent sense of how much energy they use or the extent to which they might be able to reduce energy usage by utilizing their own historical usage in addition to similar homes. This program addresses this barrier by providing this information to customers through the HERs. Customers who are not selected to receive HERs, but are interested in learning more, can take advantage of the self-service online audit.
- **Lack of Customer Effort:** While many utilities have offered self-service online audits for years, the traditional participation rate is very low. This program addresses this barrier by sending the HER reports directly to the customer several times throughout the year. To increase customer engagement, the program will continue to use an opt-out model where customers automatically receive reports unless they specify otherwise.
- **Insufficient Data:** Customers may delay participating in energy programming because they lack sufficient data, or the ability to interpret data, related to their own energy use, as well as financial and other benefits of energy efficiency projects. To address this barrier, utilities will ensure that HERs reports include important information to guide customers on how to interpret their energy use and how to measure the potential impact of efficiency measures. For example, as indicated above, HERs will compare customers' energy use to their peers and indicate if monthly usage is trending up or down.
- **Lack of Motivation:** Customers may lack the motivation to pursue energy efficiency measures. To account for this, utilities will incorporate behavior change messaging into HERs reports that has proven to increase customer adoption of energy measures. For instance, HERs will indicate whether customers use more or less energy than their neighbors, and may include messaging on how other community members are already reducing energy use through efficiency measures. This type of messaging motivates energy efficiency program participation by making the reader feel that they are joining a wider community effort by participating, and by instilling a sense of friendly competition with their peers.

NJNG will seek to manage all barriers to program success through a commitment to applying best practices in program design, delivery, outreach, and marketing/advertising. NJNG's established customer communication channels, data, and brand in the marketplace will all be leveraged to deliver best-practice programs that identify and confront market barriers on an ongoing basis.

Implementation Plan, Delivery Method and Contractor Roles (MFR II.a.v) (MFR II.a.viii) (MFR.II.a.xiii)

NJNG will utilize a third-party contractor to provide the services under this program. NJNG is committed to a competitive procurement process to ensure we secure competitive pricing and superior features for our customers. However, NJNG may consider extending the contract with our existing vendor for the first year of the triennial due to the tight timeline between program approval and launch.

NJNG's HER vendor will identify and distribute HERs to residential customers at no charge to the participant. The online audit will be available for all NJNG residential customers free of charge. Customers will also have access to online functionality provided under the program that all customer can easily utilize to see additional tips on how to save energy, complete the online audit tool, and review their usage over a period of time.

NJNG expects to have a program operational as of July 1, 2021 but typically HERs are not issued until closer to the start of the heating season. Customers in the treatment group would be eligible to receive eHERs and all customers would have access to the online portal and online audit.

Existing and Proposed Incentive Ranges (MFR II.a.iii) (MFR II.a.iv)

There is no additional cost to participating customers for participation in this program. The program provides customized Home Energy Reports and access to an Online Audit tool to assist and drive customers to develop goals and strategies to reduce their energy usage as incentive for participation.

Customer Financing Options (MFR II.a.vi)

Since there is no additional cost for participating customers, there is no need for a financing component.

Customer Access to Current and Historic Energy Usage Data (MFR II.a.vii)

Refer to Exhibit P-2, Schedule AMP-4, for a description of how NJNG will provide for customers to access their energy data.

Projected Participants (MFR II.a.ix) and Energy Savings (MFR II.a.x)

The table below summarizes the projected participation and savings associated with this program. All values are annual incremental totals and do not incorporate savings achieved in prior years. Savings per participant are based on savings per measure and an assumed mix of measures per participant. Total savings estimates are based on projected program participation during each year of the forecast period. Estimates of participants and related energy savings are based upon industry assumptions, but actual results will reflect the outcome of the competitive solicitation process.

Table 11: Residential Behavioral Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (customers)	256,000	242,000	229,000
Projected Net Annual Natural Gas Savings (therms)	1,083,826	1,232,718	1,035,177
Projected Net Lifetime Natural Gas Savings (therms)	2,311,189	2,628,691	2,207,447
Projected Net Lifetime Natural Gas Savings from Qualifying Low-Income Customers (therms)⁹	Not available at this time	Not available at this time	Not available at this time
Projected Net Annual Electric Savings (kWh)	0	0	0
Projected Net Lifetime Electric Savings (kWh)	0	0	0
Projected Net Lifetime Electric Savings from Qualifying Low-Income Customers (kWh)	0	0	0
Projected Net Annual Peak Demand Savings (kW)	0	0	0
Projected Net Lifetime Peak Demand Savings (kW)	0	0	0

Since this program is grounded in NJNG specific usage data, there is no interaction with the Statewide Coordinator for this program.

⁹ NJNG intends to maintain a dedicate pool of low income participants that receive customized messaging promoting special energy efficiency and energy assistance program available to them. Savings estimates for this separate pool is not available at this time.

Program Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected program expenditures for the program.

Table 12: Residential Behavioral Program Budget

Cost Category	PY1	PY2	PY3
Capital Cost	0	0	0
Utility Administration	34,871	35,917	36,995
Marketing	31,479	32,423	33,396
Outside Services	87,500	87,500	87,500
Incentives	1,600,000	1,512,500	1,431,250
Inspections and Quality Control	0	0	0
Evaluation	92,308	87,807	83,639
Total	1,846,158	1,756,148	1,672,780

2.1.2 EXISTING HOMES-QUICK HOME ENERGY CHECK-UP

Program Description (MFR II.a.i)

The Quick Home Energy Check-Up (“QHEC”) subprogram is an Additional Utility Led Initiative intended to provide residential customers with an understanding of opportunities to save energy and help them start saving energy immediately by providing some standard energy saving measures at no additional cost to participants. Interested customers will sign up for a QHEC to be performed by a qualified energy auditor. NJNG intends to launch the subprogram using our own Building Performance Institute Certified auditors but reserves the right to consider using a participating contractor. During the visit, the auditor will perform a walk-through of the customer’s home with the customer to provide education about the opportunities to save energy. The auditor may also identify any health and safety issues observed as well as larger opportunities for energy savings, including making referrals to other energy efficiency programs and program opportunities based on the needs for that premise and the customer’s interest in pursuing additional upgrades. This may include sharing information about the products and incentives available under the Energy Efficient Products program, the potential for comprehensive upgrades through either the HPwES subprogram, the Moderate-Income Weatherization subprogram, or the Comfort Partners program. This no-risk subprogram addresses all customer demographics and is intended to appeal to and provide benefits to both renters and homeowners.

Utility-specific Enhancement: NJNG also intends to offer QHEC+ for customers which will include the performance of a blower door test and the provision of U.S. Department of Energy Home Energy Score for fee and option to have our auditors install a smart thermostat¹⁰ during the visit. This QHEC+ option would be comparable to our current Home Energy Assessment program and would provide an independent option for customers that wanted a comprehensive assessment of their building shell and mechanical systems. The QHEC+ option will also provide an overview of the opportunities to save by upgrading to high-efficiency equipment and or installing insulation and seal-up measures.

Target Market or Segment (MFR II.a.ii)

The QHEC subprogram will be available to all single-family and single-family attached (1 to 4 unit properties)¹¹ electric and/or natural gas customers served by at least one of the participating investor owned utilities in New Jersey. Standard energy efficiency measures installed during that visit may include but not be limited to LED bulbs, energy and water saving showerheads, kitchen faucet aerators, bathroom faucet aerators, gaskets, power strips and other energy saving measures. All participants will receive a QHEC report that confirms the findings during the appointment and summarizes the measures received and the recommendations made. The QHEC report will also highlight incentives available to support the implementation of those recommendations, including educating customers about how to pursue the recommendations through other program and subprogram opportunities as well as the availability of enhanced incentives. There are also

¹⁰ Additional Fee Applies

¹¹ Properties larger than 4 units will be referred for consideration in the Multifamily Program.

additional options through other program and subprogram offerings for Low-to-Moderate income (“LMI”) customers (up to 400% of Federal Poverty Level or potential automatic eligibility based on physical location) and access to OBRP or financing with similar terms. Eligibility for these enhanced incentives can be determined based on screening an individual customer but the utilities also intend to explore implementing automatic eligibility for enhanced incentives based upon a physical location (e.g. census tract, environmental justice community, UEZ) to encourage more activity in LMI communities.

QHEC+ participants will receive a more detailed audit report that summarizes the results of the diagnostic tests performed at their home and their DOE Home Energy Score. Auditors are able to answer questions and provide information to customers on available rebates and incentives to assist with upfront costs of efficiency upgrades. In addition, should the customer choose, their audit can be posted on NJNG’s contractor bidding portal. This portal allows up to three contractors to view customers’ audits and provide an estimate on recommended upgrades and, provides customers easy access to participating contractors.

Similar to our current treatment for our Home Energy Assessment Program, NJNG will offer a QHEC+ with the installation of free smart thermostat to customers who receive a benefit from the moderate-income energy assistance programs (e.g. PAGE). NJNG may also offer the QHEC+ at no cost to customers within their first year of being at a new address to take advantage of prime periods on home upgrades.

Marketing Plan (MFR II.a.xiv)

NJNG will utilize various marketing channels to assure subprogram awareness and participation is maximized. These may include traditional marketing channels, such as web-based engagement and information, digital advertising, media advertising, and printed materials. NJNG also plan to cross promote this subprogram to participants in other energy efficiency program offerings. Information garnered from other program and subprogram offerings, such as the Residential Behavioral and Residential Efficient Products could also be used to identify prime candidates for participation in this QHEC subprogram. For example, a review of usage data contained in Home Energy Reports from the Residential Behavioral Subprogram would allow the NJNG to identify customers who are particularly susceptible to changes in weather and would be ideal candidates for a QHEC. Likewise, the Residential Efficient Products program would provide leads to customers interested in energy efficiency. Most importantly, the QHEC subprogram was specifically designed to engage and provide immediate energy savings to customers and identify strong leads for candidates that would benefit from participating in other programs.

The primary market barriers that impact this subprogram include:

- **Customer Awareness and Engagement:** Residential customers may not be fully aware of energy-efficiency opportunities for their home. This subprogram addresses this barrier by providing an independent professional assessment. NJNG will focus on promoting the subprogram to underrepresented demographics. NJNG will also provide outreach materials in Spanish and can reach younger demographics through a robust digital marketing plan. NJNG will also focus outreach efforts on reaching the highest gas users.

- **Up-front Cost of a Home Energy Assessment:** Many customers would not be interested or have the ability to pay the cost for an assessment. This subprogram addresses this barrier by offering the QHEC at no additional cost to the customer.
- **Split Incentives:** Many renters may not consider participating in energy efficiency programs because they don't own the premise and don't have a role in decisions regarding equipment replacement or structural improvements. This subprogram addresses this barrier by providing simple energy efficiency measures that provide immediate energy savings and don't require landlord approval to install or use (e.g. smart strips, LEDs).
- **Customer Skepticism of Contractor Proposals:** Some customers are skeptical that contractors don't have their best interests at heart since contractors are interested in performing the work. This subprogram addresses this barrier by ensuring the entity performing the assessment would not be performing the installation work for the EE Products or HPwES program that may be recommended as potential next steps in QHEC reports. NJNG will seek to mitigate skepticism by reaching consumers through trusted market influencers, such as Sustainable New Jersey and large employers in the state, and provide outreach and messaging from credible sources, including community groups, and local leaders.

NJNG will seek to manage all barriers to program success through a commitment to applying best practices in program design, delivery, outreach, and marketing/advertising. NJNG's established customer communication channels, data, and brand in the marketplace will all be leveraged to deliver best-practice programs that identify and confront market barriers on an ongoing basis.

Implementation Plan, Delivery Method and Contractor Roles (MFR II.a.v) (MFR II.a.viii) (MFR.II.a.xiii)

NJNG will administer and oversee this QHEC subprogram and intends to select a third-party implementation contractor to manage delivery of this subprogram.

NJNG staff will oversee all aspects of the subprogram, including training and engagement, and QA/QC. NJNG staff will ensure a consistent subprogram delivery experience and high customer satisfaction. NJNG staff will also be responsible for customer support as needed and conducting selective verification of installation work. All QHEC+ projects will be subject to the quality verification requirements for the DOE Home Energy Score Program.

NJNG has more than a decade of experience performing in-home energy audits. Our BPI certified auditors have issued more than 25,000 DOE Home Energy Scores. We have been offering a proactive home energy assessment with an optional smart thermostat installation, which maps closely to the QHEC+ since January of 2020. We expect to be operational with this subprogram by July 1, 2021.

Existing and Proposed Incentive Ranges (MFR II.a.iii) (MFR II.a.iv)

NJNG will provide the QHEC to their interested customers at no additional cost, including the installation of standard energy efficiency measures that are appropriate for their home. Participating customers will also benefit from receiving energy efficiency conservation tips,

recommendations and referrals to other energy efficiency programs based upon the opportunities identified for their home. Customers interested in the QHEC+ option will be charged a \$49 fee although NJNG reserves the right to discount this fee for certain promotional periods to drive activity.

Refer to Exhibit P-2, Schedule AMP-1, for the Summary of the Existing and Proposed Incentive Ranges for this subprogram.

Customer Financing Options (MFR II.a.vi)

Since there is no cost for participating customers for QHEC, there is no need for a financing component. Fee will be applied for QHEC+, but it will be provided at no cost for moderate income customers.

Customer Access to Current and Historic Energy Usage Data (MFR II.a.vii)

Refer to Exhibit P-2, Schedule AMP-4, for a description of how NJNG will provide for customers to access their energy data.

Projected Participants (MFR II.a.ix) and Energy Savings (MFR II.a.x)

The table below summarizes the projected participation and savings associated with this subprogram. All values are annual incremental totals, and do not incorporate savings achieved in prior years. Savings estimates are based on projected participation during each year of the forecast period.

Table 13: Residential QHEC Subprogram Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (customers)	1,500	1,650	1,733
Projected Net Annual Natural Gas Savings (therms)	19,636	21,600	22,680
Projected Net Lifetime Natural Gas Savings (therms)	161,056	177,162	186,020
Projected Net Lifetime Natural Gas Savings from Qualifying Low-Income Customers (therms)	72,552	79,807	83,797
Projected Net Annual Electric Savings (kWh)	795,749	875,324	919,091
Projected Net Lifetime Electric Savings (kWh)	8,969,389	9,866,328	10,359,644
Projected Net Lifetime Electric Savings from Qualifying Low-Income Customers (kWh)	133,547	146,902	154,247
Projected Net Annual Peak Demand Savings (kW)	9	10	10
Projected Net Lifetime Peak Demand Savings (kW)	96	106	111

For customers in areas where gas and electric service territories overlap, the utilities will use the Statewide Coordinator to allocate costs and energy savings. Refer to Exhibit P-1, Schedule NJNG-19 for a description of the role of the Statewide Coordinator.

Program Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected expenditures for this subprogram.

Table 14: Residential QHEC Subprogram Budget

Cost Category	PY1	PY2	PY3
Capital Cost	146,825	0	0
Utility Administration	1,095,158	1,125,656	1,157,068
Marketing	137,981	139,121	140,294
Outside Services	92,313	92,261	92,216
Incentives	211,430	232,573	244,202
Inspections and Quality Control	32,511	33,487	34,491
Evaluation	90,327	85,426	87,804
Total	1,806,547	1,708,523	1,756,075

2.1.3 EXISTING HOMES-MODERATE INCOME WEATHERIZATION

Subprogram Description (MFR II.a.i)

The Moderate-Income Weatherization subprogram provides an opportunity for low- to moderate-income customers to receive energy efficiency measures and upgrades at no additional cost. Income eligible customers will undergo an audit and then receive direct install measures (such as showerheads, faucet aerators, and LED bulbs) and weatherization measures (insulation, air sealing, and duct sealing). Homeowners with nonfunctional heating and/or cooling systems may also be eligible to receive repairs or replacement at no additional cost. The subprogram will include a cap on each project with additional funding for health and safety expenses.

During the audit, customers will receive installation of low-cost measures such as LED lighting, energy-saving aerators, showerheads, smart thermostats and smart power strips at no additional cost, in addition to behavioral suggestions to improve efficiency of the home and a review of thermostat and water heating setpoints. Based on the in-home audit recommendations, the participant may also be given the opportunity for additional building envelope measures to be installed at no additional cost. These measures include air sealing and building insulation. Also, customers with nonfunctional heating and cooling equipment may receive repairs or new equipment.

Target Market or Segment (MFR II.a.ii)

The Moderate-Income Weatherization subprogram will be available to all income-qualified single-family homes served by at least one investor-owned utility in New Jersey. To qualify for this subprogram, the customer's household income must be above the Comfort Partners program eligibility and up to 400% of Federal Poverty Income Guidelines. Eligibility for these enhanced incentives can be determined based on screening an individual customer but NJNG also intends to explore implementing automatic eligibility for enhanced incentives based upon a physical location (e.g. census tract, environmental justice community, Urban Enterprise Zone) or based upon participation in a qualifying program (e.g. PAGE assistance program) to encourage more activity in LMI communities.

Marketing Plan (MFR II.a.xiv)

NJNG will utilize many marketing avenues to educate potential eligible customers about the subprogram. These include traditional marketing avenues, such as web-based engagement and information, digital advertising, and hard-copy materials to promote customer awareness. NJNG intends to cross market this subprogram and pursue additional marketing opportunities through other program offerings, such as through Home Energy Reports, where information garnered could be used to identify potential participants for this subprogram. For example, a review of usage data contained in Home Energy Reports could allow NJNG to identify customers who are particularly susceptible to changes in weather and would be ideal candidates for an audit and comprehensive weatherization. NJNG will also look at customers that did not qualify for the Comfort Partners program that might be eligible for this subprogram. Finally, NJNG customer service personnel will work to promote the subprogram and educate customers on energy efficiency and the programs available to assist them.

The primary market barriers that impact this subprogram include:

- **Initial Cost of Comprehensive Home Retrofits:** Comprehensive home retrofits are more expensive and require more participant investment and commitment. Customers must be willing and able to invest in more expensive energy-efficiency projects. NJNG addresses this barrier by offering all subprogram services at no additional cost to income-qualified customers.
- **Customer Awareness and Engagement:** Many customers are unaware of the “whole house” approach to energy-efficiency or the fact that building science exists. NJNG will work to address this by:
 - Continuing to educate customers about the subprogram and how both the structure and equipment work together;
 - Highlighting the extra training and BPI certification that contractors must have;
 - Identifying how the shell measure improvements can improve their comfort within the home;
 - Noting that the subprogram includes health and safety testing and repairs to allow Energy-saving measures to be installed; and
 - Reinforcing that the installation of equipment and shell measures may increase the value of their home.

To increase subprogram participation among historically underrepresented demographics, NJNG will provide outreach materials in Spanish, and reach younger demographics through a robust digital marketing plan.

- **Awareness and Training:** To meet the participation goals, sufficient qualified contractors must be available to undertake the work. NJNG and/or their third-party implementation contractors will address this barrier by trying to recruit qualified contractors to participate in this subprogram, including pursuing initiatives that align with the Workforce Development Working Group strategies to include more local, under-represented and disadvantaged workers.
- **Customer Skepticism:** Customers may be skeptical of the motivation behind energy efficiency programs. To address this skepticism, NJNG will provide outreach and messaging from credible sources, including community groups, and local leaders in low to moderate income areas.
- **Complex Buying Process:** There can be a broad range of potential energy efficiency investments, but it can be challenging to identify which strategies may be the most beneficial. This subprogram addresses this barrier by providing free installation of low hanging fruit measures, and technical guidance and support in implementing more extensive and costly measures.

NJNG will seek to manage all barriers to success through a commitment to applying best practices in program design, delivery, outreach, and marketing/advertising. NJNG’s established customer communication channels, data, and brand in the marketplace will all be leveraged to deliver best-practice programs that identify and confront market barriers on an ongoing basis.

Implementation Plan, Delivery Method and Contractor Roles (MFR II.a.v) (MFR II.a.viii) (MFR.II.a.xiii)

NJNG staff and/or third-party implementation contractors will oversee all aspects of the subprogram, including contractor training and engagement, quality assurance and fulfillment of subprogram services. The in-home energy audit and efficiency improvements will be conducted by third- party implementation contractors and/or program contractors. There will be a significant focus on developing and training qualified contractors. NJNG and/or third-party implementation contractors will oversee their staff and subcontractors and engage contractors to educate them on the subprogram benefits to reliably complete the in-home audits and install energy efficient equipment and improvements for participating customers. NJNG and/or third-party implementation contractors will also verify eligibility of customers and will maintain a close relationship with contractors to ensure consistent subprogram delivery experience and high customer satisfaction. NJNG and/or third-party implementation contractors will also monitor participation to assess the effectiveness of outreach efforts and that the subprogram is effectively achieving participation and serving customers. NJNG staff and/or third-party contractors will also take on the responsibility of providing an additional layer of customer support as needed and conducting selective verification of contractor installation work.

Contractors will consist of companies employing BPI-certified professionals to complete audits and energy-saving projects.

Selection of third-party implementation contractors will prioritize criteria including but not limited to:

- Experience delivering similar subprograms or initiatives;
- Knowledge of the current marketplace;
- Ability to educate and train contractors;
- Local presence;
- Cost; and
- The amount of business placed with minority, women, veteran, and service-disabled veteran owned businesses.

NJNG intends to issue a competition solicitation for a third-party implementer to run this subprogram. While we have no direct experience with this subprogram model, South Jersey Utilities has been running a similar program for more than 3 years. Similar to our approach when we launched Engineered Solutions in early 2019, we expect to be able to quickly launch this subprogram because of the cooperation and collaboration between utilities. Given the prioritization of existing programs, NJNG expects to launch this subprogram later in 2021.

Existing and Proposed Incentive Ranges (MFR II.a.iii) (MFR II.a.iv)

The customer may receive no-cost energy efficiency measures and upgrades with a per project cap for weatherization measures and an additional cap on health and safety expenses.

Refer to Exhibit P-2, Schedule AMP-1, for the Summary of Proposed Incentive Ranges for this subprogram.

NJNG and/or the third-party implementation contractors will complete contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of subprogram requirements such as necessary field inspections (if required).

Customer Financing Options (MFR II.a.vi)

All services provided under this subprogram are at no additional cost or financing to the customer.

Customer Access to Current and Historic Energy Usage Data (MFR II.a.vii)

Refer to Exhibit P-2, Schedule AMP-4, for a description of how NJNG will provide for customers to access their energy data.

Projected Participants (MFR II.a.ix) and Energy Savings (MFR II.a.x)

The table below summarizes the projected participation and savings associated with this subprogram. All values are annual incremental totals, and do not incorporate savings achieved in prior years. Savings estimates are based on projected participation during each year of the forecast period.

Table 15: Residential Weatherization Subprogram Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (customers)	100	110	116
Projected Net Annual Natural Gas Savings (therms)	34,272	37,699	39,584
Projected Net Lifetime Natural Gas Savings (therms)	629,987	692,986	727,635
Projected Net Lifetime Natural Gas Savings from Qualifying Low-Income Customers (therms)	623,687	686,056	720,359
Projected Net Annual Electric Savings (kWh)	173,864	191,250	200,812
Projected Net Lifetime Electric Savings (kWh)	2,291,984	2,521,182	2,647,241
Projected Net Lifetime Electric Savings from Qualifying Low-Income Customers (kWh)	1,955,216	2,150,737	2,258,274
Projected Net Annual Peak Demand Savings (kW)	5	5	6
Projected Net Lifetime Peak Demand Savings (kW)	88	97	102

For customers in areas where gas and electric service territories overlap, NJNG will use the Statewide Coordinator to allocate costs and energy savings. Refer to Exhibit P-1, Schedule NJNG-19 for a description of the role of the Statewide Coordinator.

Program Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected expenditures for this subprogram.

Table 16: Residential Weatherization Subprogram Estimated Participation and Savings

Cost Category	PY1	PY2	PY3
Capital Cost	146,825	0	0
Utility Administration	310,378	317,332	324,495
Marketing	40,066	41,268	42,506
Outside Services	241,415	241,064	240,760
Incentives	1,423,954	1,566,349	1,644,667
Inspections and Quality Control	6,502	6,697	6,898
Evaluation	114,165	114,353	118,912
Total	2,283,306	2,287,063	2,378,238

2.1.4 HYBRID HEAT PROGRAM

Program Description (MFR II.a.i)

This Hybrid Heat Program (“HH Program”) is a pilot to promote and provide incentives for the installation of hybrid heat systems. It will include a strong Evaluation, Measurement and Verification (“EM&V”) component to consider whether larger scale deployment of these types of systems can help meet the State cost-effectively meet long-term electrification strategies without compromising customer comfort and reliability- at the customer and system level. In addition to direct incentives and financing for high-efficiency gas furnaces when coupled with the installation of high efficiency heat pumps, the HH Program will include direct outreach to customers, trade ally outreach and training.

It is critical to run this pilot during this triennial because the 2019 Energy Master Plan indicates that the state is expected to consider broader electrification strategies within the next few years. The existing NJCEP protocols do not recognize the range of how heat pumps may be installed and used by customers. It is important to assess how using them as part of a hybrid heat approach may be able to dramatically lower natural gas heating usage and properly account for those energy savings.

The HH Program is proposed to run for the full first triennial but will begin to report preliminary findings after the conclusion of the second full program year to help inform planning for the second triennial period. The program will be marketed through NJNG’s existing HVAC trade allies and NJNG will provide them with significant training regarding the advantages of high-efficiency hybrid heating systems. NJNG is planning to provide customers who install a hybrid heat system an up-front incentive and they will be eligible to apply for a zero percent interest OBRP.

To develop a strong understanding of the performance of the HH Program an EM&V consultant would be retained to perform several key studies, including:

- Impact Evaluation Plan designed to address questions regarding electric and natural gas consumption (expected and actual with seasonal considerations), comparisons to likely alternative installations from a usage, cost and emissions perspective, variations between, impacts of equipment sizing, and accuracy of NJCEP protocols.
- Customer and Trade Ally Study designed to evaluate the operation and effectiveness of the HH Program and to provide valuable feedback regarding the potential expansion of the HH Program as a broader strategy in the next triennial. This will include customer and trade ally surveys to identify obstacles to participation, customer and trade ally satisfaction with the program and the technology, value of training, adequacy of incentives, motivation factors for participation, and customer comfort.
- Market Potential Study designed to analyze the market potential for hybrid heat systems over the period 2024 through 2030. Among other factors, the market potential study should consider projected costs of hybrid heat systems versus alternative systems, the changing demographics of NJNG’s service territory and any actual or expected federal regulations regarding equipment efficiency.

Target Market or Segment (MFR II.a.ii)

The target market for the HH Program will primarily be customers seeking to replace a gas furnace and an electric air conditioning unit. However, NJNG may also consider target marketing to customers who have recently installed high efficiency furnaces that could be compatible with a heat pump to create a hybrid system.¹² The furnace and heat pump units installed in this HH Program must meet the minimum eligibility for incentives in the Core Utility Energy Efficient Products program. Customers will apply directly with a participating contractor to ensure they understand the terms of the HH Program and commit to grant access to their energy usage.

Marketing Plan (MFR II.a.xiv)

Since the HH Program will only accept a limited number of participants per year, NJNG will conduct a more focused outreach campaign than what is being implemented for the Core Programs. Marketing materials (e.g. brochures, web content) will be developed to support participating contractors. NJNG may leverage the behavior program for ‘warm leads’ into the program through both the home energy reports and online audit tool. NJNG representatives will be trained to promote the HH Program to customers that appear to be good candidates.

The Primary market barriers that impact this HH Program include:

- **Initial Cost of Efficient Equipment:** Relative to the market baseline, efficient equipment often carries a higher upfront cost but a lower lifetime operating cost. Customers often may not fully value the lifetime operating cost advantage of efficient equipment and, as a result, higher upfront cost is a barrier to purchasing efficient equipment. To address this barrier, incentives are provided to the customer to reduce the initial cost. Our OBRP feature will also help mitigate the up-front cost barrier.
- **Customer Awareness and Engagement:** Residential customers may not be aware of the benefits of installing efficient equipment and/or lack the time and resources to pursue efficient equipment when replacing existing equipment especially for the relatively unknown hybrid heating approach. To address this barrier, the NJNG will educate customers on the benefits of hybrid heating systems. NJNG will also partner with contractors to implement marketing, education, and outreach efforts.
- **Awareness and Training:** To meet participation goals to evaluate the effectiveness of the HH Program, sufficient qualified contractors must be available to undertake the work. NJNG will address this barrier by trying to recruit qualified contractors to participate in this program.
- **Complex Buying Process:** There can be a broad range of potential energy efficiency investments, but it can be challenging to identify which strategies may be the most beneficial. The broad range of potential energy efficiency investments in hybrid heating can make it challenging to identify the best strategy for implementing efficiency projects. This program addresses this barrier by directly engaging with customers to facilitate

¹² These customers would only be entitled to the value of the prevailing heat pump incentive.

program applications and providing technical assistance to identify the most beneficial equipment upgrades.

Implementation Plan, Delivery Method and Contractor Roles (MFR II.a.v) (MFR II.a.viii) (MFR.II.a.xiii)

NJNG will be responsible for the administration of this HH Program, including partnering with respected training organizations to develop the contractor training, recruiting participating contractors, developing marketing materials, processing applications, addressing customer and contractor inquiries. NJNG will ensure quality control procedures are implemented and may explore the use of third parties to provide that service.

Participating HVAC contractors must:

- Complete an initial training class;
- Agree to the terms of the program; and
- Commit to participate in and help customers understand the importance of the evaluation studies.

NJNG expects to select an evaluator through a competitive solicitation process and would have them under contract in Spring of 2021. NJNG's existing staff has experience answering customer inquiries, and screening for and issuing OBRP. NJNG would not need to hire an incremental staff solely to support this program. NJNG will leverage our knowledge of the HVAC market, our experience running existing programs, and our relationships with contractors to launch this program in summer 2021.

Existing and Proposed Incentive Ranges (MFR II.a.iii) (MFR II.a.iv)

To ensure robust participation in the HH Program, NJNG proposes to offer participants that install qualifying equipment and agree to participate in evaluation studies are eligible for a \$2,500 rebate and OBRP at 0% APR for up to \$15,000 over 7 years.

In consultation with the evaluator, NJNG may also offer a nominal incentive for customers and contractors that fully cooperate with all evaluation studies.

Refer to Exhibit P-2, Schedule AMP-1, for the Summary of the Existing and Proposed Incentive Ranges for this program.

NJNG will complete consumer or contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of program requirements such as necessary field inspections (if required).

Customer Financing Options (MFR II.a.vi)

Refer to Exhibit P-2, Schedule AMP-2, for the Summary of Proposed Financing for this program.

Customer Access to Current and Historic Energy Usage Data (MFR II.a.vii)

Refer to Exhibit P-2, Schedule AMP-4, for a description of how NJNG will provide for customers to access their energy data.

Projected Participants (MFR II.a.ix) and Energy Savings (MFR II.a.x)

The table below summarizes the projected participation and savings associated with this program. All values are annual incremental totals, and do not incorporate savings achieved in prior years. Savings estimates are based on projected participation during each year of the forecast period.

Table 17: HH Program Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (customers)	100	150	180
Projected Net Annual Natural Gas Savings (therms)	41,545	62,317	74,781
Projected Net Lifetime Natural Gas Savings (therms)	706,264	1,059,396	1,271,275
Projected Net Lifetime Natural Gas Savings from Qualifying Low-Income Customers (therms)	0	0	0
Projected Net Annual Electric Savings (kWh)¹³	(223,687)	(335,530)	(402,636)
Projected Net Lifetime Electric Savings (kWh)	(3,802,677)	(5,704,015)	(6,844,818)
Projected Net Lifetime Electric Savings from Qualifying Low-Income Customers (kWh)	N/A	N/A	N/A
Projected Net Annual Peak Demand Savings (kW)	61	153	263
Projected Net Lifetime Peak Demand Savings (kW)	1,038	2,595	4,464

NJNG will identify a method to share information with the overlapping electric utility to ensure the customer does not receive incentives from the EE Products Program for their heat pump purchase. Customers must agree to share this information as part of their participation agreement.

¹³ The negative electric savings reflect the fact that this program promotes electrification- a stated policy objective within New Jersey's 2019 Energy Master Plan.

Program Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected program expenditures for the program.

Table 18: HH Program Budget

Cost Category	PY1	PY2	PY3
Capital Cost	35,714	0	0
Utility Administration	122,607	123,928	125,289
Marketing	8,587	8,845	9,110
Outside Services	10,750	10,750	10,750
Incentives	1,166,470	1,749,705	2,099,646
Inspections and Quality Control	3,251	3,349	3,449
Evaluation	22,679	27,467	31,505
Total	1,370,059	1,924,043	2,279,749

2.2 Commercial and Industrial Additional Utility Led Programs

2.2.1 ENERGY SOLUTIONS FOR BUSINESS-ENGINEERED SOLUTIONS

Program Description (MFR II.a.i)

The Energy Solutions for Business-Engineered Solutions subprogram will provide tailored energy-efficiency assistance to public service entities, such as municipalities, universities, schools, hospitals and healthcare facilities, (“MUSH”), and non-profit entities. The subprogram will provide guided consultative service throughout delivery to assist customers in identifying and undertaking large energy-efficiency projects, while requiring no up-front funding from the customer.

Through this subprogram, customers will be provided with an in-depth audit of their facilities as well as a detailed assessment and recommendation of energy-efficiency measures that could be economically installed. Customer incentives are determined on a project-by-project basis. Selection of trade allies will be subject to a competitive solicitation process. In addition to the calculated project-by-project incentive, participants will have the option to pay back the non-incentive portion of the project costs through on-bill repayments or access to financing with similar terms. Through this subprogram design, participants in market segments that have typically been underserved are able to achieve greater energy savings.

Target Market or Segment (MFR II.a.ii)

C&I MUSH and non-profit entities and other businesses who are seeking comprehensive solutions that can't be served by either the Direct Install or Prescriptive and Custom Measures subprograms located within NJNG's service territory are eligible to participate in this subprogram. The subprogram will provide energy audits and incentives to entities that directly serve the public, but often have difficulty investigating and investing in energy-efficiency. The measures included in this subprogram may include HVAC, building envelope, motors, lighting, controls, and other building systems, energy efficiency and energy consuming equipment.

Marketing Plan (MFR II.a.xiv)

NJNG will leverage existing relationships with municipalities, universities, schools and other public agencies to promote the subprogram, and will conduct further outreach through school, university and municipal associations. The subprogram will leverage NJNG's existing relationships and communication channels with customers through subprogram staff and account management/customer service personnel. In addition, the subprogram will work with hospitals, healthcare facilities, and non-profits to increase awareness of the subprogram.

The primary market barriers that impact this subprogram include:

- **Business/Operational Constraints:** These facilities often have unique operational constraints that act as a barrier to implement energy-efficiency projects. This barrier will be addressed by ensuring the subprogram operates cooperatively with participants by accommodating operational and capital investment cycles. NJNG will offer timely incentive and financing support and provide technical assistance from specialized professionals who understand each facility's core production processes and operating issues.
- **Risk and Uncertainty, Hidden Costs:** These market segments may be particularly averse to risk and the potential for hidden costs in efficiency upgrades. To mitigate risk and uncertainty concerns NJNG will publicly communicate cycles of energy efficiency funding to serve as an investment signal for customers and trade allies.
- **Customer Awareness and Engagement:** Eligible participants may be unaware of energy-efficiency opportunities and programs because the segment has historically not been well served by traditional energy-efficiency programs. To address this barrier, this subprogram was designed specifically to support the segment. The subprogram will include a targeted outreach strategy to ensure that relevant customers are aware of subprogram opportunities and consider energy-efficiency in equipment investments and long-term planning. The subprogram will prepare and distribute successful case studies of prior participants and their experiences and energy savings.
- **Cost Effectiveness:** Efficiency upgrades require an initial investment that is recovered by lower long-run operating costs and non-energy benefits. These projects often carry longer payback periods than traditional energy-efficiency projects due to the unique needs of the segment (e.g. hospital & health buildings). To address this barrier, incentives and on-bill repayment or access to financing with similar terms is provided to the customer to reduce the initial cost, and subprogram will endeavor to communicate the non-energy benefits offered by many efficiency upgrades that are not well captured in traditional cost/benefit analysis.
- **Complex Buying Process:** This program is designed to simplify the buying process by providing direct engagement with these market segments to facilitate completion of project applications. NJNG will serve as a direct resource to these customers, providing technical support and assisting customers in identifying efficiency opportunities.
- **Awareness and Training:** To meet participation goals of the program, sufficient qualified contractors must be available to undertake the work. NJNG and/or their third-party implementation contractors will address this barrier by trying to recruit qualified contractors to participate in this subprogram, including pursuing initiatives that align with the Workforce Development Working Group strategies to include more local, under-represented and disadvantaged workers.

NJNG will seek to manage all barriers to subprogram success through a commitment to applying best practices in subprogram design, delivery, outreach, and marketing/advertising. NJNG's established customer communication channels, data, and brand in the marketplace will all be leveraged to deliver best-practice subprograms that identify and confront market barriers on an ongoing basis.

Implementation Plan, Delivery Method and Contractor Roles (MFR II.a.v) (MFR II.a.viii) (MFR.II.a.xiii)

NJNG will administer this subprogram and may also choose to select a third-party to manage delivery of this subprogram. NJNG will oversee all aspects of the subprogram in coordination with our Partner utilities. NJNG will utilize qualified trade allies to undertake the audit and engineering services required to deliver this subprogram. NJNG may also utilize the qualified trade allies to assist in the outreach, marketing, and trade ally coordination. Participants will contract with the installation trade allies selected through a competitive solicitation process to install the measures included in projects.

The subprogram delivery will typically occur in four steps:

- **Audit:** NJNG shall assess the required level of an American Society of Heating, Refrigerating, and Air Conditioning Engineers (“ASHRAE”) audit to perform, based on the complexity of the facility and the potential energy efficiency measures; an investment grade audit may not be required for all facilities. NJNG will then select a subprogram trade ally to perform the appropriate level energy audit and prepare a customized audit report that includes a list of recommended energy efficiency upgrades. NJNG and our Partner Utility will then review the recommended energy efficiency upgrades with the customer to determine whether to proceed with a project.
- **Engineering Analysis of Project:** Based on the audit results and customer feedback, an engineering analysis may be required. NJNG, as the Lead Utility, will conduct a screening of the payback and project cost effectiveness and recommend the selected energy-efficiency measures for the project. NJNG will review the project with the Customer for customer agreement on the approved project and coordinate with the Partner Utility as necessary. NJNG and a subprogram engineering trade ally will work with the customer to prepare a Scope of Work and other project documents, which will be used by the customer to obtain installation cost estimates for the approved project.
- **Scope of Work/Contractor Bids:** The customer will issue a Scope of Work to obtain competitive bids to complete the identified and approved project. NJNG and the subprogram engineering trade ally and the customer will review and evaluate the bids/costs received, and the customer will make the final decision on bid selection. Following bid selection, the proposed project is again screened for cost effectiveness.

- **Measures Installation and Inspections:** NJNG and the subprogram engineering trade ally, acting as construction administration agent, will monitor project progress and will release project funds based on the following payment structure:
 - Stage 1: Project Contracting Stage - The first progress payment of up to 30% of the installation cost can be issued to the customer to initiate the project.
 - Stage 2: Construction Stage - A pre-defined series of progress payments totaling up to 50% of total project commitment can be issued.
 - Stage 3: Project Completion and Commissioning - When the project is 100% complete, a final inspection and final project true-up will be performed; remaining progress payments will be issued.

The final payment based on the results of project true-up is determined and issued only if the final inspection is successfully completed and approved. If the final costs are less than the estimated project commitment, the final payment will be adjusted down to reflect the actual costs. If the final costs are greater than the estimated project commitment, the final payment will not be adjusted and will be paid according to the executed agreements and contracts specifying original costs.

The progress payment schedule described above is designed to ensure that customers can pay their installation contractors on a timely basis. Project progress and the project cash flow will be monitored and verified by the NJNG and the trade ally engineering firm with updates to the Partner Utility as appropriate.

NJNG will select qualified subprogram trade allies to undertake all auditing and engineering work associated with the subprogram. NJNG will also monitor participation to assess the effectiveness of outreach efforts, incentive levels, delivery methods, and subprogram trade ally and installation contractor availability and provide suggestions for improvement. The installation contractor(s) will adhere to the project specifications recommended by NJNG and the subprogram engineering trade ally and set forth between the installation contractor and the customer.

Selection of subprogram trade allies will prioritize criteria including but not limited to:

- Experience delivering similar subprograms or initiatives;
- Knowledge of the current marketplace;
- Resources and marketing strength;
- Local presence;
- Cost; and
- The amount of business placed with minority, women, veteran and service disabled veteran owned businesses.

NJNG has been implementing an Engineered Solutions program since January of 2019. There are more than a dozen projects currently underway. NJNG existing staff is familiar with all aspects of implementing this program and the process for securing additional Engineering Firms as trade allies. NJNG intends to hire additional staff to help support the commercial sector programs. The program is expected to be operational by July 1, 2021.

Existing and Proposed Incentive Ranges (MFR II.a.iii) (MFR II.a.iv)

The subprogram will provide a 100% incentive for an up-front ASHRAE audit, the specific audit level will be determined on a project by project basis based on the complexity of the facility and the potential energy efficiency measures. In addition, NJNG will buy-down the simple payback of the recommended energy-efficiency project cost for approved measures by up to six years, with the resulting payback not less than three years. After the project incentive buy-down, the remaining project costs may be funded by the subprogram with participants repaying the balance of the project costs through OBRP or access to financing with similar terms.

Refer to Exhibit P-2, Schedule AMP-1 for the Summary of the Existing and Proposed Incentive Ranges for this subprogram.

NJNG will complete customer contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of program requirements such as necessary field inspections (if required).

Customer Financing Options (MFR II.a.vi)

Refer to Exhibit P-2, Schedule AMP-2 for the Summary of Proposed Financing for this program.

Customer Access to Current and Historic Energy Usage Data (MFR II.a.vii)

Refer to Exhibit P-2, Schedule AMP-4 for a description of how NJNG will provide for customers to access their energy data.

Projected Participants (MFR II.a.ix) and Energy Savings (MFR II.a.x)

The table below summarizes the projected participation and savings associated with this subprogram. All values are annual incremental totals, and do not incorporate savings achieved in prior years. Savings estimates are based on projected participation during each year of the forecast period.

Table 19: Engineered Solutions Subprogram Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (projects)	42	46	49
Projected Net Annual Natural Gas Savings (therms)	306,091	336,700	353,535
Projected Net Lifetime Natural Gas Savings (therms)	6,121,818	6,734,000	7,070,700
Projected Net Lifetime Natural Gas Savings from Qualifying Small Commercial Customers (therms)	0	0	0
Projected Net Annual Electric Savings (kWh)	4,089,374	4,498,311	4,723,227
Projected Net Lifetime Electric Savings (kWh)	81,787,477	89,966,225	94,464,536
Projected Net Lifetime Electric Savings from Qualifying Small Commercial Customers (kWh)	0	0	0
Projected Net Annual Peak Demand Savings (kW)	112	123	129
Projected Net Lifetime Peak Demand Savings (kW)	2,234	2,458	2,581

For customers in areas where gas and electric service territories overlap, NJNG will use the Statewide Coordinator to allocate costs and energy savings. Refer to Exhibit P-1, Schedule NJNG-19, for a description of the role of the Statewide Coordinator.

Program Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected expenditures for this subprogram.

Table 20: Engineered Solutions Subprogram Budget

Cost Category	PY1	PY2	PY3
Capital Cost	146,825	0	0
Utility Administration	415,867	425,986	436,408
Marketing	0	0	0
Outside Services	172,193	170,324	168,713
Incentives	12,410,880	13,651,968	14,334,566
Inspections and Quality Control	0	0	0
Evaluation	436,790	469,308	491,668
Total	13,582,555	14,717,585	15,431,355

2.2.2 C&I ENERGY MANAGEMENT SUBPROGRAM

Program Description (MFR II.a.i)

The C&I Energy Management subprogram targets energy savings for existing commercial and industrial facilities by providing a holistic approach to improving building energy performance through maintenance, tune-up and retro-commissioning services for existing buildings and through the implementation of energy savings strategies that improve the overall operation and energy performance of buildings and building systems. This subprogram compliments the Prescriptive/Custom and Engineered Solutions subprograms which focus on capital equipment replacement or process improvement investments by improving the energy performance of a building by maintaining, adjusting and optimizing the systems within the building and the implementation of complimentary energy savings measures. The program also provides paths to track the ongoing building energy performance by using retro-commissioning and strategic energy management strategies, which ensures continued energy performance. By implementing these measures, customers also receive ancillary benefits including improved occupant comfort, lower maintenance costs, and extended equipment life.

This subprogram includes measures that focus on specific energy efficiency measures and management practices that can be categorized as follows:

Building Operations

Building Operations measures provide multiple paths for a customer to implement building tune-up and maintenance services. These measures are designed to focus on midsize commercial and industrial customers and include the following:

- **HVAC Tune-Up:** Provides for a tune-up of central HVAC systems, Mini-Splits and Packaged Terminal units, and include the following measures;
 - Refrigeration charge correction (if needed);
 - Cleaning evaporator and condenser coils;
 - Filter changes;
 - Verification of proper operation of fans and motors; and
 - Other minor repairs to refrigerant lines and coils.

- **Building Tune-Up:** Provides a path for customers to implement a Building Tune-Up that will focus on the adjustment and calibration of building systems and controls, diagnostic testing and the installation of other measures that enhance building energy performance and savings. Also includes application of controls to optimize operation of building systems, and includes the following measures:
 - Calibration of building systems and controls, including energy management systems, lighting and HVAC;
 - Diagnostic and function tests of applicable major systems and equipment;
 - HVAC controls to optimize Roof Top Units (“RTU”)/Air Handling Units (“AHU”);

- Refrigeration controls to optimize refrigeration equipment;
- Lighting upgrades including application of lighting controls and optimization;
- Chiller system controls to optimize chiller performance;
- Other program eligible energy saving measures identified through the building assessment; and
- Building Operations Training for qualified personnel to obtain Building Operations Certification (“BOC”) through a certified training program or other training programs as related to the efficient design, operations and maintenance of buildings.

Retro-Commissioning

Retro-Commissioning (“RCx”) measures provide a comprehensive assessment of a customer’s commercial/industrial building by using a prescribed planning process that includes a building audit, development of an action plan for the building and development of a Measurement and Verification (“M&V”) plan to ensure the optimum on-going performance of the building and building systems. A comprehensive assessment of a commercial/industrial building using a prescribed planning and implementation process, including:

1. Audit Phase – Customer confirms intent to participate in the subprogram and registers with NJNG. Customer and/or the customer’s consultant completes the required level of an American Society of Heating, Refrigerating, and Air Conditioning Engineers (“ASHRAE”) audit based on the complexity of the facility, develops a retro-commissioning implementation plan, including project timelines and plan to implement audit identified operation and maintenance measures. There may be opportunities to complete this Phase without a full ASHRAE level audit.
2. Setup Phase - Contracted services to implement the plan are verified, long-term monitoring and reporting is developed and initiated, and a project plan is implemented by the customer.
3. M & V Phase - Savings verification and rebate payment from implementation of the plan is completed.

Typical Retro-Commissioning measures include, but are not limited to:

- Optimizing chiller and boiler operations to better match building load conditions;
- Reducing ventilation in over-ventilated areas;
- Fixing ventilation dampers that are open when they should be closed or vice versa;
- Decreasing supply air pressure setpoint and system rebalancing;
- Aligning zone temperature setpoints to match the building’s actual operating schedule; and
- Virtual Commissioning (“VCx”).

As an option to performing an on-site audit to develop a retro-commissioning plan, VCx option provides eligible customers with an analysis of their building’s energy performance by using meter usage data, other data and

building modeling to identify and recommend energy efficiency measures and operational changes to improve a building's overall energy performance. The analysis will foster participation in the utility's other programs by identifying and encouraging customers to implement other energy efficiency improvements. The VCx process can also utilize benchmarking and peer comparison metrics to help determine energy performance to identify facilities that are underperforming. This offering can also use continuous engagement, monitoring and periodic reviews of customer's energy usage to ensure that implemented measures or changes have been successfully completed. The use of building analysis using remote analysis techniques will also help customers to participate in the programs because of limited access to customer's facilities due to concerns and restrictions such as COVID-19.

Strategic Energy Management

The Strategic Energy Management ("SEM") component of this subprogram is designed to optimize energy consumption for larger C&I customers through long term management of major energy using systems. SEM provides a holistic approach that is focused on management of existing systems and processes (including behavior), as well as tracking and benchmarking performance to identify and evaluate energy optimization efforts. SEM is a long-term effort typically focused on developing and executing an energy management strategy. This strategy is formulated through a series of site and/or remote visits and interviews with building owners and staff to specifically develop a Strategic Energy Management Plan ("SEMP") for the customer's facility. The SEMP will be reviewed with the customer by the utility and/or its third-party implementation contractor on a scheduled basis. This plan may include:

- Revisions or improvements to an existing Building Automation System or the addition and initiation of the use of a Building Automation System to monitor and control the buildings components and systems. The implementation or improvements to a system or the review of an existing system, can include the proper training for building operators to achieve maximum efficiency.
- Development of a maintenance plan for existing building components and or systems to identify best practices in building performance and an interactive monitoring of system components by both staff and sponsoring utilities.
- Ongoing engagement to track energy usage and performance, assist with planning energy efficiency projects, and interact with facility personnel to adopt energy efficiency strategies and behaviors.
- Utilizing other subprogram offerings, including: Prescriptive/Custom measures, Building Tune-Up, RCx, and VCx.

- Using building modeling and benchmarking to compare customer's usage and performance to cohort of similar facilities and VCx to track energy usage and performance over time.
- Application of whole building energy modeling tools that can model buildings for both operational and capital improvements.
- Scheduling of attendance of customer personnel to attend educational workshops, webinars and group/individual training sessions with cohorts of facility managers (e.g. Building Operations Training).

Customers can participate by application to the subprogram or will be contacted directly by subprogram personnel. The subprogram will retrieve customer demographics and obtain customer agreement for the services to be provided and handle on-going customer engagement. Incentives for improvements recommended by the subprogram will be issued after the retrofit is completed. NJNG and/or a third-party implementation contractor will develop rebate application forms for this subprogram that will guide applicants through eligibility guidelines, terms and conditions, and general program information requirements. In addition, the subprogram will provide applications in web-ready formats to ensure participants and potential customers have easy access to the forms.

Target Market or Segment (MFR II.a.ii)

The C&I Energy Management subprogram will be available to all commercial, industrial, and other non-residential customers located within NJNG's service territory with buildings and building systems.

Building Operations measures target existing commercial buildings and is particularly relevant for medium building types that utilize traditional building systems and controls.

Retro-commissioning targets existing commercial buildings and is particularly relevant for medium to large building types utilizing a building energy management system.

SEM targets existing large to very large commercial and industrial customers and building types and is particularly relevant to customers with significant energy use who commit to on-going participation and engagement across the organization including various levels of management and decision making.

Marketing Plan (MFR II.a.xiv)

Marketing will specifically target commercial, industrial and government entities within NJNG's service territory depending upon the subprogram offering. Given the subprogram's breadth of offerings, the subprogram can provide basic HVAC tune up services to medium sized commercial customers up to providing Retro-Commissioning services for the larger C&I customers that have building management technology that controls the daily operations of building lighting and HVAC systems. In many cases, customers do not maintain nor operate their existing building equipment

or energy management systems, so the subprogram will focus on bringing those systems back to peak operating performance and/or implementing control schemes that will enhance the operations of those systems as well as implementing energy saving technologies that will focus on building energy savings.

NJNG will leverage existing relationships with commercial and industrial customers to promote the overall subprogram. The subprogram will be specifically marketed as a comprehensive solution for a customer to improve the energy performance of their building by utilizing many of the services that the subprogram offers. The subprogram will leverage the utility's existing relationships and communication channels with customers through subprogram staff and account management teams.

The primary market barriers that impact this subprogram include:

- **Business/Operational Constraints:** These facilities often have unique operational constraints that act as a barrier to implement energy-efficiency projects and the maintenance of equipment. This barrier will be addressed by ensuring the subprogram operates cooperatively with participants, provides technical assistance, maintenance services and offers timely incentives and financing support. NJNG may also engage directly with businesses to facilitate completion of subprogram applications and utility staff will serve as a direct resource to these customers.
- **Customer Awareness and Engagement:** Eligible participants may be unaware of energy-efficiency opportunities and programs because the segment has historically not been well served by traditional energy-efficiency programs. To address this barrier, this subprogram was designed specifically to support the segment. NJNG will execute a targeted outreach strategy to ensure that relevant customers are aware of subprogram opportunities and consider energy-efficiency in building tune-ups, retro-commissioning and strategic energy management opportunities that will cover both short term and longer planning needs in those facilities. The subprogram will also prepare and distribute successful case studies of prior participants and their experiences and energy savings.
- **Awareness and Training:** To meet participation goals to evaluate the effectiveness of the program, sufficient qualified contractors must be available to undertake the work. NJNG will address this barrier by trying to recruit qualified contractors to participate in this subprogram, including pursuing initiatives that align with the Workforce Development Working Group strategies to include more local, under-represented and disadvantaged workers.

NJNG will seek to manage all barriers to subprogram success through a commitment to applying best practices in subprogram design, delivery, outreach, and marketing/advertising. NJNG's established customer communication channels, data, and brand in the marketplace will all be

leveraged to deliver a best-practice subprogram that identify and confront market barriers on an ongoing basis. To the extent possible, NJNG will cross-promote other programs and subprograms to spread awareness of the range of efficiency opportunities proposed in this plan.

Implementation Plan, Delivery Method and Contractor Roles (MFR II.a.v) (MFR II.a.viii) (MFR.II.a.xiii)

NJNG will perform overall administration and oversight of the subprogram and may also choose to select third-party implementation contractors to manage delivery of this subprogram. NJNG staff and/or third-party implementation contractors will oversee all aspects of the subprogram. NJNG and/or third-party implementation contractors will be responsible to administer, promote and provide the subprogram to customers including staffing, processes ensuring quality and other controls supporting successful subprogram implementation. NJNG staff and/or third-party implementation contractors will conduct the marketing, management, and implementation aspects of this subprogram. Marketing will target specific customer sectors, program allies and partners to ensure awareness in the subprogram and enhance customer participation. Additional target marketing will be completed to enhance participation among hard to reach customers.

NJNG staff and/or third-party implementation contractors will select qualified subprogram trade ally contractors to undertake all subprogram services. Installation and maintenance trade allies must adhere to the project specifications developed by the utility and/or third-party implementation contractors. NJNG will leverage its existing and or develop a network of engaged trade allies, including local construction, electrical, plumbing and other contractors, to educate them on subprogram benefits and assist with building an approved trade ally network which will reliably maintain and install energy-efficient equipment for participating customers.

NJNG staff and/or third-party implementation contractors will also monitor participation to assess the effectiveness of outreach efforts, incentive levels, delivery methods, and subprogram trade ally availability and provide suggestions for improvement.

Selection of third-party implementation contractors and subprogram trade allies will prioritize criteria including but not limited to:

- Experience delivering similar subprograms or initiatives;
- Knowledge of the current marketplace;
- Resources and marketing strength;
- Local presence;
- Cost; and
- The amount of business placed with minority, women, veteran and service disabled veteran owned businesses.

NJNG's existing staff has experience answering with commercial customer outreach, addressing customer inquiries, and screening for and issuing On-Bill Repayment Programs. NJNG intends to hire additional staff to help support the commercial sector programs. Given the prioritization of existing programs, NJNG expects to launch this subprogram later in 2021.

Existing and Proposed Incentive Ranges (MFR II.a.iii) (MFR II.a.iv)

Incentives for this subprogram are structured around the measure categories that focus on specific energy efficiency measures and management practices as follows:

- **HVAC Tune-Up:** Fixed incentives for the implementation of the tune-up measures based on the size of the HVAC units.
- **Building Tune-Up:** Incentives that cover up to 70% of the project cost with a project cap of \$75,000 and up to 70% of the cost to attend qualified BOC training up to \$1000 per person.
- **Retro-Commissioning:** Incentives to cover up to 50% of the initial cost to perform the required ASHRAE level audit, and the remaining cost upon the customer commitment to implementation of energy efficiency measures defined by the audit. The customer will also be paid a custom incentive for the implementation of the energy efficiency measures determined through the audit. The total audit and project incentive will be capped at up to 70% of the project cost.
- **Strategic Energy Management:** A third-party implementation contractor may perform an engineering assessment of the Customer's facility to develop a SEMP or the Customer may choose to utilize a consultant of their choosing to perform an engineering assessment to develop the SEMP. Customers who utilize a consultant will receive an incentive to cover up to 50% of the initial cost of the engineering assessment, with the remaining cost upon the customer commitment to implementation of energy efficiency measures defined by the SEMP process. A tiered incentive structure for Customer engineering assessment will be utilized based upon square footage of Customer's facility. The SEMP will identify short, medium, and long-term goals for the customer and will set identifiable metrics for mapping to the plan. For the implementation of the energy efficiency measures determined by the SEMP, the customer will be paid an incentive that is commensurate with the applicable Commercial & Industrial Program offering that the measures are attributed.

Refer to Exhibit P-2, Schedule AMP-1, for the Summary of the Existing and Proposed Incentive Ranges for this subprogram.

NJNG will complete customer contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of subprogram requirements such as necessary field inspections (if required).

Customer Financing Options (MFR II.a.vi)

Refer to Exhibit P-2, Schedule AMP-2, for the Summary of Proposed Financing for this subprogram.

Customer Access to Current and Historic Energy Usage Data (MFR II.a.vii)

Refer to Exhibit P-2, Schedule AMP-4, for a description of how NJNG will provide for customers to access their energy data.

Projected Participants (MFR II.a.ix) and Energy Savings (MFR II.a.x)

The table below summarizes the projected participation and savings associated with this subprogram. All values are annual incremental totals, and do not incorporate savings achieved in prior years. Savings estimates are based on projected participation during each year of the forecast period.

Table 21: C&I Energy Management Subprogram Estimated Participation and Savings

Metric	PY1	PY2	PY3
Estimated Participants (projects)	10	12	13
Projected Net Annual Natural Gas Savings (therms)	24,078	27,690	31,843
Projected Net Lifetime Natural Gas Savings (therms)	120,390	138,449	159,216
Projected Net Lifetime Natural Gas Savings from Qualifying Small Commercial Customers (therms)	0	0	0
Projected Net Annual Electric Savings (kWh)	594,647	683,844	786,420
Projected Net Lifetime Electric Savings (kWh)	2,973,234	3,419,219	3,932,102
Projected Net Lifetime Electric Savings from Qualifying Small Commercial Customers (kWh)	0	0	0
Projected Net Annual Peak Demand Savings (kW)	14	16	19
Projected Net Lifetime Peak Demand Savings (kW)	71	82	94

For customers in areas where gas and electric service territories overlap, NJNG will use the Statewide Coordinator to allocate costs and energy savings. Refer to Exhibit P-1, Schedule NJNG-19 for a description of the role of the Statewide Coordinator.

Program Budget (MFR II a.xi) (MFR II.a.xii)

The table below illustrates the projected expenditures for this subprogram.

Table 22: C&I Energy Management Subprogram Budget

Cost Category	PY1	PY2	PY3
Capital Cost	111,111	0	0
Utility Administration	32,473	33,447	34,450
Marketing	0	0	0
Outside Services	10,238	10,459	11,029
Incentives	855,000	983,250	1,130,738
Inspections and Quality Control	0	0	0
Evaluation	23,096	19,561	22,231
Total	1,031,917	1,046,717	1,198,447

New Jersey Natural Gas
SAVEGREEN 2020

(\$000)

Estimated Revenue Requirements:	FY	2021-2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Rebates	\$	4,141,608	\$ 9,386,622	\$ 15,926,345	\$ 18,356,844	\$ 18,389,568	\$ 17,763,575	\$ 16,932,439	\$ 16,111,257	\$ 15,290,076	\$ 14,339,234	\$ 11,483,427	\$ 7,501,532	\$ 2,955,611	\$ 747,281	\$ 148,690
On-Bill Repayment Program		1,445,144	3,294,367	5,321,751	5,578,732	4,776,337	3,527,427	2,267,947	1,271,930	644,083	310,983	157,617	60,047	12,200	2,201	122
Operation & Maintenance Expenses		9,798,605	7,710,224	5,879,406	-	-	-	-	-	-	-	-	-	-	-	-
Total Amount to be Recovered	\$	15,385,356	\$ 20,391,213	\$ 27,127,502	\$ 23,935,576	\$ 23,165,905	\$ 21,291,002	\$ 19,200,385	\$ 17,383,187	\$ 15,934,159	\$ 14,650,217	\$ 11,641,044	\$ 7,561,579	\$ 2,967,811	\$ 749,482	\$ 148,813
Per Therm Recovery																
Throughput (000 therms)		780,588,999	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254	721,816,254
Proposed Pre-tax EE Recovery Rate \$ per Therm	\$	0.0197	\$ 0.0282	\$ 0.0376	\$ 0.0332	\$ 0.0321	\$ 0.0295	\$ 0.0266	\$ 0.0241	\$ 0.0221	\$ 0.0203	\$ 0.0161	\$ 0.0105	\$ 0.0041	\$ 0.0010	\$ 0.0002
Proposed After-tax EE Recovery Rate \$ per Therm	\$	0.0210	\$ 0.0301	\$ 0.0401	\$ 0.0354	\$ 0.0342	\$ 0.0315	\$ 0.0284	\$ 0.0257	\$ 0.0236	\$ 0.0216	\$ 0.0172	\$ 0.0112	\$ 0.0044	\$ 0.0011	\$ 0.0002
Typical Annual Bill Impacts																
<i>Residential Non-Heat</i>																
		200	Annual Therms													
Typical Annual Bill Impact	\$	4.20	\$ 6.02	\$ 8.02	\$ 7.08	\$ 6.84	\$ 6.30	\$ 5.68	\$ 5.14	\$ 4.72	\$ 4.32	\$ 3.44	\$ 2.24	\$ 0.88	\$ 0.22	\$ 0.04
% Impact		1.3%	1.9%	2.5%	2.2%	2.2%	2.0%	1.8%	1.6%	1.5%	1.4%	1.1%	0.7%	0.3%	0.1%	0.0%
<i>Residential Heat</i>																
		1,000	Annual Therms													
Typical Annual Bill Impact	\$	21.00	\$ 30.10	\$ 40.10	\$ 35.40	\$ 34.20	\$ 31.50	\$ 28.40	\$ 25.70	\$ 23.60	\$ 21.60	\$ 17.20	\$ 11.20	\$ 4.40	\$ 1.10	\$ 0.20
% Impact		1.8%	2.6%	3.5%	3.1%	3.0%	2.7%	2.5%	2.2%	2.0%	1.9%	1.5%	1.0%	0.4%	0.1%	0.0%
<i>General Service Small</i>																
		1,200	Annual Therms													
Typical Annual Bill Impact	\$	25.20	\$ 36.12	\$ 48.12	\$ 42.48	\$ 41.04	\$ 37.80	\$ 34.08	\$ 30.84	\$ 28.32	\$ 25.92	\$ 20.64	\$ 13.44	\$ 5.28	\$ 1.32	\$ 0.24
% Impact		1.6%	2.3%	3.0%	2.7%	2.6%	2.4%	2.1%	1.9%	1.8%	1.6%	1.3%	0.8%	0.3%	0.1%	0.0%
<i>General Service Large</i>																
		15,000	Annual Therms													
Typical Annual Bill Impact	\$	315.00	\$ 451.50	\$ 601.50	\$ 531.00	\$ 513.00	\$ 472.50	\$ 426.00	\$ 385.50	\$ 354.00	\$ 324.00	\$ 258.00	\$ 168.00	\$ 66.00	\$ 16.50	\$ 3.00
% Impact		2.0%	2.9%	3.8%	3.4%	3.3%	3.0%	2.7%	2.5%	2.3%	2.1%	1.6%	1.1%	0.4%	0.1%	0.0%