



STATE OF NEW JERSEY
Board of Public Utilities
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DIVISION OF ENERGY AND
OFFICE OF CLEAN ENERGY

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)

ORDER APPROVING
STIPULATION

DOCKET NO. GO18030355

Parties of Record:

Andrew Dembia, Esq., New Jersey Natural Gas Company
Stefanie A. Brand, Esq., Director, New Jersey Division of Rate Counsel

BY THE BOARD:

On March 29, 2018, New Jersey Natural Gas Company ("NJNG" or "Company") filed a petition with the New Jersey Board of Public Utilities ("Board" or "BPU") requesting approval of the extension of energy efficiency programs and a Class I renewable energy program and the associated cost recovery mechanism. By this Order, the Board considers a stipulation of settlement ("Stipulation") entered into by NJNG, the New Jersey Division of Rate Counsel ("Rate Counsel"), and Board Staff ("Staff") (collectively, the "Parties") which resolves all issues in this matter.

BACKGROUND AND PROCEDURAL HISTORY

On January 13, 2008, L. 2007, c. 340 (the "Act") was signed into law based on the New Jersey Legislature's findings that energy efficiency ("EE") and conservation measures must be essential elements of the State's energy future, and that greater reliance on energy efficiency and conservation will provide significant benefits to the citizens of New Jersey. The Legislature also found that public utility involvement and competition in the conservation and energy efficiency industries are essential to maximize energy efficiencies.

Pursuant to Section 13 of the Act, codified as N.J.S.A. 48:3-98.1(a)(1), an electric or gas public utility may, among other things, provide and invest in energy efficiency and conservation programs in its service territory on a regulated basis. Such investment in energy efficiency and

conservation programs may be eligible for rate treatment approved by the Board, including a return on equity, or other incentives or rate mechanisms that decouple utility revenue from sales of electricity and gas. N.J.S.A. 48:3-98.1(b). Ratemaking treatment may include placing appropriate technology and program cost investments in the utility's rate base, or recovering the utility's technology and program costs through another ratemaking methodology approved by the Board. An electric or gas public utility seeking cost recovery for energy efficiency and conservation programs pursuant to N.J.S.A. 48:3-98.1 must file a petition with the Board.

On July 17, 2009, the Board authorized NJNG to implement three energy efficiency programs: 1) Home Performance with Energy Star ("HPwES") Enhancements; 2) Enhanced Warm Advantage Rebate Program; and 3) Commercial Customer Direct Install Program as part of the Economic Stimulus Plan announced in October 2008¹ ("Original Programs"). The programs were designed to complement or supplement existing New Jersey Clean Energy Program ("NJCEP") offerings including the ongoing WarmAdvantage, COOLAdvantage, HPwES, Commercial Direct Install and Smart Start Building programs. The NJNG programs were available to eligible customers for approximately twelve months. In the event there was still program funding available after that period, NJNG could continue to offer the approved programs through December 31, 2010.

By Order dated September 24, 2010, the Board authorized NJNG to extend and expand the Original Programs through December 31, 2011.² In addition to authorizing modifications to the Original Programs, the September 2010 Order authorized the Company to implement an OPOWER pilot through which customers could obtain information about their specific energy use in comparison to comparable households, an incremental incentive for Combined Heat and Power projects undertaken in conjunction with NJCEP, and a program that offers eligible customers an opportunity for customized provisions, fostering environmental and economic development (collectively, "NJNG SAVEGREEN Project").

By Order dated January 18, 2012, the Board further extended the NJNG SAVEGREEN Project, with modifications, for an additional twelve (12) months.³ In addition, NJNG also received approval to implement its proposed Access Program, which offered higher efficiency heating equipment through conversions to natural gas for electric heat customers receiving benefits from the Universal Service Fund Program. By Order dated June 21, 2013, the Board authorized NJNG to further extend the NJNG SAVEGREEN Project, with modifications through June 30, 2015.⁴ The Order was subsequently revised on August 21, 2013, to make a necessary correction regarding the SAVEGREEN Direct Install program.⁵ By Order dated July 23, 2015

¹ 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 (July 17, 2009.)

² 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 (September 24, 2010.) ("September 2010 Order")

³ In re the Petition of New Jersey Natural Gas Company for Approval of an Extension of the Energy Efficiency Programs and the Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. GR11070425 (January 18, 2012.)

⁴ In re the Petition of New Jersey Natural Gas Company for Approval of an Extension of the Energy Efficiency Programs and the Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket Nos. GO12070640 and GR12070641 (June 21, 2013.)

⁵ In re the Petition of New Jersey Natural Gas Company for Approval of an Extension of the Energy Efficiency Programs and the Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. GO12070640 (August 21, 2013.)

("July 2015 Order"),⁶ the Board authorized NJNG to extend the SAVEGREEN Program through July 31, 2017. By Order dated June 29, 2016, the Board approved a no-cost extension of the existing SAVEGREEN programs through December 31, 2018.⁷

March 2018 Filing

On March 29, 2018, NJNG filed the instant petition with the Board including supporting testimonies of Thomas J. Massaro, Isaac Gabel-Frank, and Daniel P. Yardley. In the filing, the Company requested Board authorization to continue its existing energy efficiency programs with some modifications, as well as to continue its on-bill repayment program ("OBRP"). In addition, the Company sought approval to implement several new energy efficiency programs, including Emerging Technologies and Approaches, Community Efficiency, and SAVEGREEN Low Income Solar. The Company sought approval to continue the existing SAVEGREEN programs, as well as various new SAVEGREEN programs, and the implementation of a new proposed solar program through December 31, 2024.

As proposed in the filing, the total projected cost of the SAVEGREEN programs is approximately \$352.84 million over the six (6) year program period, comprised of \$158.37 million of direct investment, \$182.83 million of loans and associated OBRP, and \$11.64 million of operation and maintenance expenses.

In addition, the Company requested approval of rate recovery of all costs through its EE Rider, as well as a return on investment. NJNG estimated it would recover a total of approximately \$302.28 million through 2049. NJNG requested that any variance between cost and recovery accrue at the rate of the Company's most recent monthly commercial payment rate. The Company did not request a contemporaneous change in the rate, stating that it would address recovery of the costs associated with the proposed SAVEGREEN program in its annual energy efficiency rate filing.⁸

By Order dated April 25, 2018, the Board designated President Fiordaliso as Presiding Commissioner and authorized him to rule on all motions that arise during the pendency of these proceedings, and to modify any schedules that may be set as necessary to secure a just and expeditious determination of the issues. Further, the Board ordered that any entity seeking to intervene or participate file the appropriate application with the Board by May 27, 2018.

On April 26, 2018, Board Staff notified the Company that the March 29, 2018 filing was deemed administratively complete. Therefore, pursuant to the Board's May 2008 Order, the 180-day review period commenced on March 29, 2018.

By letter dated May 25, 2018, Public Service Electric & Gas ("PSE&G") Company filed a motion to intervene. In its motion, PSE&G argued that as the State's largest electric and gas

⁶ In re the Petition of New Jersey Natural Gas Company for Approval of an Extension of the Energy Efficiency Programs and the Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. GO12070640 (July 23, 2015.)

⁷ 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 (June 29, 2016.)

⁸ The Company filed its annual energy efficiency rate filing on May 29, 2018. I/M/O New Jersey Natural Gas Company - Approval Of The Cost Recovery Associated With Energy Efficiency Programs, BPU Docket No. GR18050585.

distribution company the Board's decision in this matter could have precedential effect on PSE&G due to its existing and anticipated future energy efficiency and solar investments. On May 25, 2018, NJNG filed a response in opposition, arguing that its filing has no direct impact on PSE&G since PSE&G is not a NJNG customer. In addition, NJNG stated that since none of its prior EE filings had such an effect, it could be deduced that neither would the current filing. NJNG also objected to participant status. By letter dated June 7, 2018, PSE&G filed a response to NJNG, asserting that there is no requirement that an intervenor in a utility matter be a customer of the utility in question. PSE&G reiterated its claim that it had a significant interest by virtue of being a utility which delivered electric and gas service and which had invested over a billion dollars in clean energy. By letter dated June 6, 2018, Rate Counsel filed a statement of no position on PSE&G's motion. By Order dated September 11, 2018, President Fiordaliso denied PSE&G's motion to intervene but in the alternative granted PSE&G participant status.

After notice in newspapers of general circulation within the service territory, public hearings were held on July 25, 2018 in Freehold Township, New Jersey and on July 26, 2018 in Rockaway Township, New Jersey. No members of the public appeared at any of the public hearings. Two written comments were received by the Board in support of the Company's filing.

STIPULATION

Following discovery, the Parties executed the Stipulation on September 10, 2018 in this matter. In a letter dated September 7, 2018, PSE&G indicated that it had no objection to the Stipulation. The Stipulation provides for the following:⁹

13. The Parties agree that the Company may offer the following approved sub-programs (collectively, "SAVEGREEN 2018") for a term of three (3) years commencing January 1, 2019 and ending December 31, 2021, subject to the Parties' re-assessment after the second year of the three-year term:

	Direct Investment	OBRP / Financing	Total
<u>RESIDENTIAL:</u>			
BEHAVIORAL	\$ 5,879,122	\$ -	\$ 5,879,122
EFFICIENT PRODUCTS REBATES	15,755,716	5,629,986	21,385,702
HOME ENERGY ASSESSMENTS	2,098,823	381,931	2,480,754
HVAC INCENTIVES	8,547,165	17,605,875	26,153,040
HOME PERFORMANCE w/ ENERGY STAR	1,669,618	41,207,257	42,876,875
TOTAL RESIDENTIAL	\$ 33,950,443	\$ 64,825,049	\$ 98,775,492
<u>COMMERCIAL & INDUSTRIAL:</u>			
SAVEGREEN ON MAIN INCENTIVE	\$ 2,742,441	\$ 3,996,587	\$ 6,739,028
ENGINEERED SOLUTIONS INCENTIVES	13,184,838	8,534,560	21,719,397
DIRECT INSTALL / SMART START	560,020	7,261,721	7,821,741
TOTAL COMMERCIAL & INDUSTRIAL	\$ 16,487,299	\$ 19,792,867	\$ 36,280,166
TOTAL PROGRAM	\$ 50,437,742	\$ 84,617,917	\$ 135,055,659

⁹ Although summarized in this Order, should there be any conflict between this summary and the Stipulation, the terms of the Stipulation control, subject to the findings and conclusion in this Order. Each paragraph is numbered to coincide with the paragraphs in the Stipulation.

14. The Operation and Maintenance ("O&M") expense for SAVEGREEN 2018, including Administration and Program Development, Sales and Marketing, Training, Audit and Quality Control, and Evaluation and Related Research, shall not exceed \$5.22 million. To facilitate the startup of the Programs, the Company may incur costs upon the effective date of the Board Order which will be reviewed in the Company's subsequent Energy Efficiency Cost Recovery filing.
15. The Parties agree that the design for all sub-programs will be as described in Attachment A of the Stipulation, The SAVEGREEN 2018 Program Plan.
16. In an effort to avoid market disruption, and maintain momentum in energy efficiency, the Parties agree to implement NJNG's SAVEGREEN 2018 and its contained sub-programs for the specific term and design as described in Attachment A of the Stipulation and to address any potential modifications to term and/or conditions of the sub-programs as detailed in the Stipulation.
17. To effectuate any future modifications to the energy efficiency market, NJNG will, no later than December 31, 2020, file a comprehensive assessment of the SAVEGREEN 2018 Program with the Board and Rate Counsel. This assessment will include, but not be limited to, the following items:
 1. A Cost Benefit Analysis ("CBA"), reflective of actual costs and customer participation. The CBAs shall be calculated in accordance with prevailing approved NJCEP protocols at the subprogram level and will include:
 - a. CBA ratios for the following tests:
 - Participant Cost Test
 - Program Administrator Cost Test
 - Ratepayer Impact Measure Test
 - Total Resource Cost Test
 - Societal Cost Test
 - b. Energy savings by fuel type
 - c. Monetary savings
 - d. Environmental savings
 2. Summary CBAs will also be provided at the program and portfolio level;
 3. The number of participants by sub program;
 4. The budgeted dollars per sub program;
 5. The actual dollars spent through October 31, 2020 by type of expenditure:
 - a. Direct Investment
 - b. On-Bill Repayment/Financing
 - c. Administrative costs
 6. The actual dollars committed through October 31, 2020;
 7. Recap of recent policy determinations or NJCEP program changes that are relevant by sub program;

8. Summary of insights and barriers identified to date for the sub-programs;
 9. Summary of relevant insights regarding the potential for joint/aligned utility efforts by sub program, including potential timing for advancements in this area; and
 10. Description of how the program delivery and administrative mechanisms of those programs which are subsequently determined to be more appropriately delivered by NJCEP will be transitioned from NJNG to NJCEP management.
18. NJNG will, no later than February 28, 2021, schedule an initial meeting among the Parties to review this assessment. Based on this discussion, the Parties may schedule additional meetings to discuss potential prospective determinations on the structure of the SAVEGREEN 2018. These determinations may include:
1. No action deemed necessary, i.e., SAVEGREEN 2018 continues as approved for the remainder of the three (3) year term established by the stipulation;
 2. Extension of approved sub-programs to continue for an additional year, i.e., four (4) years in total; and
 3. Modifications to existing sub-programs to comply with the recently approved State legislation, L. 2018, c. 21, changes in the NJCEP, or policy decisions made by the Board since the date of Board approval of the stipulation, or based on program results. These modifications could include processes for some sub-programs to be replaced by successor programs approved through the assessment processes; or
 4. Designating some or all of the programs to be wound down and terminated, depending on the implementation of the legislative requirements, changes in the NJCEP, or policy decisions made by the Board since the date of Board approval of the stipulation, the Board's strategic planning process, or program results.
19. In addition, NJNG commits to share market insights from all SAVEGREEN 2018 programs with the BPU and other stakeholders as the State begins to address the legislative mandates for energy efficiency and renewable energy or as otherwise deemed appropriate by the BPU.
20. Work related to any specific SAVEGREEN 2018 offer or application that has been initiated prior to the end date of December 31, 2021 may continue for close-out and completion purposes within the budget levels agreed to in the Stipulation.
21. The Parties agree that NJNG is permitted to shift funds between the approved sub-programs and operation and maintenance expense, subject to actual participation levels and overall budget considerations. The Company agrees to provide written notice to the BPU and Rate Counsel for any proposed changes between sub-program funding levels or any changes resulting from Board-approved changes to NJCEP programs, including a

description of the proposed budget re-allocation with supporting schedules. Furthermore, if applicable funds approved for SAVEGREEN 2018 through December 31, 2021 are not fully expended or committed by December 31, 2021, NJNG will transfer those amounts to the proposed program work in future years or to other BPU-approved NJNG energy efficiency programs as directed by the Board. The Parties agree that should there be a prospective change to an NJCEP program for which the Company has a corresponding SAVEGREEN 2018 program, the Company will modify its corresponding program to be consistent with the NJCEP program. The Company agrees to implement any such modified offering within sixty (60) days of the BPU Order approving the modification to the NJCEP program, or a date as determined by the BPU. The Company will notify the Parties if it believes that a longer transition time is necessary to perform the required implementation activities by the Company or to better align with NJCEP implementation dates as determined by the BPU, and explain the reasoning and need for the longer timeframe. If a longer transition is needed, the Company will notify the Parties and explain the reasoning and need for the longer timeframe.

22. The Parties agree that the Company is and will be authorized to defer and seek recovery of all reasonable and prudent SAVEGREEN 2018 program costs, including grant costs, customer incentives, and associated reasonable and prudent O&M expenses as noted on Attachment B of the Stipulation. These costs shall be subject to recovery through rates in future periods pursuant to the terms of NJNG's Rider F and separately tracked through a sub-component of Rider F called SAVEGREEN 2018. Annual true-up filings will separately break out the expenses, investments, unamortized investments and revenue requirement calculations for the Program. The SAVEGREEN 2018 program costs shall be subject to the terms set forth in Rider F and shall be recovered through a per-therm EE charge relative to all applicable jurisdictional throughput on the NJNG distribution system as provided in Rider F. Proposed Tariff sheets are provided as Attachment C of the Stipulation.
23. The calculation of the carrying costs on the average monthly balances of under-recovery or over-recovery of deferred costs shall be subject to the terms under Rider F and as described in more detail in the Board's Order in BPU Docket Nos. EO09010056 and EO09010057, dated July 17, 2009. The interest rate shall not exceed the overall rate of return as authorized by the Board in NJNG's pre-tax Weighted Average Cost of Capital ("WACC") as identified in Paragraph 22 of the Stipulation or as authorized in NJNG's subsequent base rate case.

24. NJNG agrees that the SAVEGREEN 2018 program investments made in participating customer rebates and incentive payments will be amortized over a seven (7) year period, on a straight line basis, with the return of the investment and return on the unamortized investments based upon a rate of 6.69 percent as shown in the capital structure below.

	Percent	Embedded Cost	Weighted Cost
Long-Term Debt	45.07%	3.41%	1.54%
Short-Term Debt	2.43%	1.55%	0.04%
Common Equity	52.50%	9.75%	5.12%
Total	100.00%		6.69%

25. The Parties agree that any change in the WACC authorized by the Board in a subsequent base rate case will be reflected in the subsequent monthly revenue requirement calculations as of the date of the next scheduled annual true-up.
26. As currently structured, the customer repayment periods for the OBRP offers will be two (2), three (3), five (5), seven (7), and ten (10) years, depending on the program and total OBRP funds made available. In computing the return component of its costs, NJNG will, in addition to a reduction for the accumulated amortization of its investments, deduct the applicable deferred income taxes related to the amortization of SAVEGREEN 2018 program costs over a two-year, three-year, five-year, seven-year, and ten-year period for book purposes and over one year for tax purposes. NJNG will continue to calculate the monthly net investment balances by subtracting from the monthly net investment balances the current month-end accumulated amortization balances.
27. The SAVEGREEN 2018 program investments and operating costs will be reconciled to actual recoveries from the EE Rate in the EE Rate Recovery filings to be submitted in June of each year, for which the Company may seek recovery. Any federal or state benefits, if applicable, received by the Company and associated with these programs will be used to reduce the revenue requirement to be collected from ratepayers.
28. The Company's current EE Rate Recovery filing, BPU Docket No. GR18050585, seeks a January 1, 2019 effective date. The Company will include in its annual EE Rate Recovery filings the Minimum Filing Requirements ("MFRs") set forth in Attachment D of the Stipulation.
29. NJNG will continue to submit data regarding the SAVEGREEN programs and expenses in accordance with the format and timing dictated by the NJCEP Program Administrator. The Company will continue to submit each report within thirty (30) days of the end of the calendar month covered by the report or consistent with the timing dictated by NJCEP's Program Administrator.

DISCUSSION AND FINDING

During the pendency of this filing, two (2) significant policy shifts occurred. The Governor ordered the Board and several executive branch agencies to begin work on a new Energy Master Plan ("EMP") that would contain several significant changes to former State energy policy as identified in the 2011 New Jersey EMP and 2015 Update to that EMP.¹⁰ At the same time, P.L.2018 c. 17 ("Clean Energy Act") was signed into law. The Clean Energy Act contains several provisions addressing energy efficiency, including provisions specific to the role of energy utilities. The Board has and will continue to maintain a central role in the implementation of these changes to existing law and policy; its energy and clean energy policies will be profoundly impacted. While these changes are pending, a cautious and incremental approach to the introduction of new utility-run programs best supports the transitions under way.

The Stipulation provides for continuing several successful EE programs. The Parties have also agreed to implement several carefully selected new programs for a two-year period, with a third year contingent on review and analysis of an assessment to be submitted by NJNG no later than December 31, 2020.

As the above discussion indicates, much has changed since the Board initially approved NJNG's SAVEGREEN Program on July 17, 2009.¹¹ The Board's commitment to the principles stated in the July 17 Order, however, has not changed. Energy efficiency investments, if properly implemented, serve to help the State meet its environmental goals, serve the need to provide jobs in the short term, and enhance the State's competitiveness, business climate, and economic prospects in the long term. NJNG has been able to build on its relationships with customers to help those customers improve the energy efficiency of existing residential and commercial buildings, and, by proposing the extension of the SAVEGREEN Program, the Company shows that it is committed to continuing that effort. The Board **FINDS** that NJNG's SAVEGREEN Program has assisted in achieving the State's energy efficiency goals.

While the Board remains committed to the principles stated in the July 17, 2009 Order, it is equally committed to achieving the State's goals in a cost effective and efficient manner. Staff and Rate Counsel thoroughly reviewed and analyzed the financial documentation provided by the Company. Based on that review and analysis, and on other information provided by NJNG, Staff and Rate Counsel have executed the Stipulation as being in the public interest. The Board has carefully reviewed the petition submitted by the Company and the Stipulation signed by the Parties. There will be no immediate change to the EE rate or impact on customer bills as a result of the Stipulation. Pursuant to Board-approved Rider F, NJNG shall submit annual filings for changes to the EE rate.

The Board, having carefully reviewed the Stipulation, **HEREBY FINDS** the Stipulation to be reasonable, in the public interest, and in accordance with the law. Accordingly, the Board **HEREBY APPROVES** the attached Stipulation in its entirety, and **HEREBY INCORPORATES** its terms and conditions as though fully stated herein.

The Board **HEREBY RATIFIES** the decisions made by President Fiordaliso during the pendency of this proceeding for the reasons stated in his decisions and Orders.

¹⁰ Executive Order 29 (May 23, 2018).

¹¹ In The Matter Of The Petition Of New Jersey Natural Gas Company For Approval Of Energy Efficiency Programs With An Associated Cost Recovery Mechanism, Docket Nos. EO09010056 and GO09010057 (July 17, 2009) ("July 17 Order").

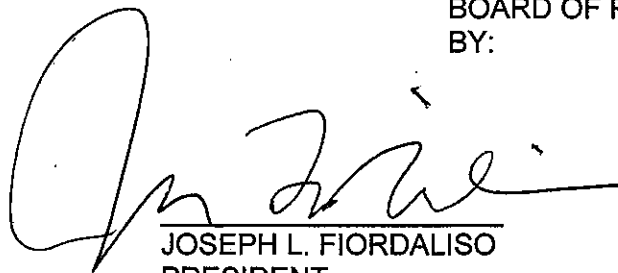
The Board **HEREBY ORDERS** the Company to file revised tariff sheets conforming to the terms of this Order and the Stipulation by October 1, 2018.

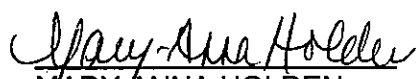
The Company's costs remain subject to audit by the Board. This Decision and Order shall not preclude or prohibit the Board from taking any such actions determined to be appropriate as a result of any such audit.

The effective date of this Order is September 27, 2018.

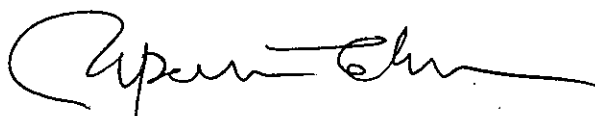
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BOARD OF PUBLIC UTILITIES
BY:

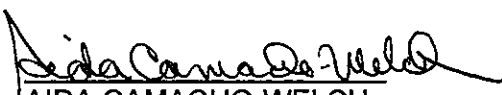

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MARY ANNA HOLDEN
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COMMISSIONER

ATTEST: 
AIDA CAMACHO-WELCH
SECRETARY

I HEREBY CERTIFY that the within
document is a true copy of the original
in the files of the Board of Public Utilities.

In the Matter of 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. GO18030355

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

**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

STIPULATION OF SETTLEMENT

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Alex Moreau and **Renee Greenberg**, Deputy Attorneys General, for the Staff of the New Jersey Board of Public Utilities (**Gurbir S. Grewal**, Attorney General of New Jersey)

THE NEW JERSEY BOARD OF PUBLIC UTILITIES:

BACKGROUND

1. On March 29, 2018, New Jersey Natural Gas (“NJNG” or the “Company”) filed a petition (“2018 EE Petition”) with the New Jersey Board of Public Utilities (“Board” or “BPU”) seeking approval to continue, with modifications, the existing energy-efficiency programs offered through NJNG’s The SAVEGREEN Project®

(“SAVEGREEN”), approval of new energy efficiency programs, approval of a Class I renewable energy program, and continuation of the associated cost recovery mechanism, hereinafter referred to as the “SAVEGREEN 2018 program.” The existing programs included 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. The proposed new energy-efficiency programs included rebates and discounts for smart thermostats and other energy-efficient products for residential customers; additional incentives, energy audits and other technical assistance for commercial customers; a grant program to fund development of emerging technologies; an educational program for schools; and a program to subsidize conversion of a selected all-electric cooperatively owned senior community to natural gas. In addition, the Company sought approval of a Class I Renewable Energy program involving the installation of solar panels at Company facilities and assigning the resulting electric bill credits and revenues from Solar Renewable Energy Certificates to a subset of its low-income customers. NJNG also requested that the Board allow the Company to continue the Board-approved Energy-Efficiency (“EE”) Rider, Rider F, which has been in effect since August 1, 2009 for collection of the costs associated with these programs.¹ Those

¹ 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), and June 29, 2016 (BPU Docket No. GO14121412), NJNG is authorized to recover all reasonably and prudently incurred costs associated with the SAVEGREEN Programs.

costs included funds for customer grants, incentives, and the associated incremental program investments and expenses such as incremental O&M expenses and carrying costs. The Company requested to offer these programs for a period of six (6) years. If approved by the BPU, the proposed SAVEGREEN 2018 program would have continued until December 31, 2024.

2. There would be no immediate change to the EE rate or impact on customer bills from this filing. The Company stated that any change to the EE Rider rate would be proposed in conjunction with the EE Rate Filing that was filed on June 1, 2018 in BPU Docket No. GR18050585. Additionally, pursuant to the EE Rider, NJNG shall submit annual filings for changes to the EE rate.

NJNG Proposed Programs In Its Current Filing

3. The 2018 EE Petition included supporting testimonies of Thomas J. Massaro, Isaac Gabel-Frank, and Daniel P. Yardley, program descriptions and schedules providing financial information as well as cost benefit analysis and job creation data. The Company requested Board approval to continue, with certain modifications, the energy-efficiency programs (the “EE Programs”) and the on-bill repayment program options (“OBRP”) operating through SAVEGREEN as well as new EE Programs and a Class I Renewable Energy Program. As set forth in the 2018 EE Petition, NJNG proposed to continue the ongoing work of SAVEGREEN with modifications to current BPU approved programs as well as new programs that have been developed in response to market demands, state policy changes and customer needs. NJNG sought approval to provide customers with the

opportunities proposed in this filing over a six (6) year period beginning January 1, 2019 or the effective date of the Board Order approving this filing.

4. The following are the categories of existing as well as new programs that the Company proposed. The italicized names indicate new programs and sub-programs, which the Company proposed in its 2018 EE Petition.

Residential Proposed Level of Investment: \$66.43 million

The proposed Residential Program (“Residential”) included programs designed to engage a broad range of customers and provide them with both low-costs energy-saving opportunities and resources to pursue additional energy savings. The five proposed sub-programs were: i) Behavioral; ii) *Efficient Products*; iii) *Home Energy Assessments*; iv) HVAC incentives; and v) Home Performance with ENERGY STAR (HPwES).

Commercial and Industrial Proposed Level of Investment: \$53.28 million

The proposed Commercial and Industrial program included the current SAVEGREEN offer that supports NJCEP’s Direct Install (“DI”) and SmartStart programs along with the introduction of several new programs to better serve the needs of our commercial customers. The four proposed sub-programs were: i) DI and SmartStart; ii) *SAVEGREEN on Main*; iii) *Energy Management*; and iv) *Engineered Solutions*.

Emerging Technologies and Approaches Proposed Level of Investment: \$13.57 million

The proposed Emerging Technologies and Approaches (“ETA”) program included grants for research and development and other support for new energy efficiency measures and approaches. The two proposed sub-programs were: i) the *ETA Develop* sub-program and ii) the *ETA Deploy* sub-program. The nature and structure of the support to be provided under this program was proposed to be developed through a collaborative effort among stakeholders to be appointed to an ETA Stakeholder Advisory Committee.

Community Efficiency Proposed Level of Investment: \$11.75 million

The proposed Community Efficiency program included support of energy education in K-12 schools and a program to subsidize conversion to natural gas service for low to moderate income senior citizens subject to high energy bills

residing in an all-electric cooperatively owned development. The two proposed sub-programs were: i) *PowerSave Schools* and ii) *SAVEGREEN Seniors*.

SAVEGREEN Low Income Solar

Level of Investment: \$13.34 million

The proposed SAVEGREEN Low Income Solar program involved installation of an estimated 3.5 MW-dc, over multiple energy years, of solar PV panels at facilities where NJNG operates and where the property is a suitable location for a solar system. The value of the energy savings from those solar installations and the companion value of SRECs were proposed to be distributed to a subset of income qualified customers through credits on their natural gas bills.

5. The Company requested that the energy-efficiency programs offered through SAVEGREEN 2018 program and the associated recovery mechanism continue for a six (6) year period commencing January 1, 2019 or from the date of receipt of the Board's Order in this proceeding. NJNG sought authorization for the following levels of expenditures over the proposed six-year period:

<u>RESIDENTIAL:</u>	DIRECT INVESTMENT	OBRP	TOTAL
BEHAVIORAL	\$ 11,724,749	\$ -	\$ 11,724,749
HOME ENERGY ASSESSMENTS	4,257,358	811,551	5,068,909
HVAC INCENTIVES	17,179,864	35,211,750	52,391,614
EFFICIENT PRODUCT REBATES	29,965,069	10,036,062	40,001,131
HOME PERFORMANCE WITH ENERGY STAR	3,300,247	82,414,515	85,714,762
TOTAL RESIDENTIAL	\$ 66,427,287	\$ 128,473,878	\$ 194,901,165
 <u>COMMERCIAL & INDUSTRIAL:</u>			
SAVEGREEN ON MAIN INCENTIVE	\$ 8,668,672	\$ 10,177,693	\$ 18,846,365
ENERGY MANAGEMENT	4,009,451	-	4,009,451
ENGINEERED SOLUTIONS	41,202,979	27,830,086	69,033,065
DIRECT INSTALL / SMART START	1,227,534	14,523,442	15,750,976
TOTAL COMMERCIAL & INDUSTRIAL	\$ 55,108,636	\$ 52,531,221	\$ 107,639,857
 <u>EMERGING TECHNOLOGY & APPROACHES:</u>			
DEVELOP	\$ 6,530,028	\$ -	\$ 6,530,028
DEPLOY	7,043,250	-	7,043,250
TOTAL EMERGING TECHNOLOGY & APPROACHES	\$ 13,573,278		\$ 13,573,278
 <u>COMMUNITY EFFICIENCY:</u>			
POWERSAVE SCHOOLS	\$ 4,836,893	\$ -	\$ 4,836,893
SAVEGREEN SENIORS	6,914,941	-	6,914,941
TOTAL COMMUNITY EFFICIENCY	\$ 11,751,834		\$ 11,751,834
 <u>SOLAR:</u>			
LOW INCOME SOLAR	\$ 13,339,974	\$ -	\$ 13,339,974
TOTAL SOLAR	\$ 13,339,974		\$ 13,339,974
 TOTAL PROGRAM	 \$160,201,009	 \$181,005,099	 \$341,206,108

6. The Board's May 2008 Order² required that a utility meet with BPU Staff and the New Jersey Division of Rate Counsel ("Rate Counsel") at least thirty 30 days in advance of submitting a filing to provide an overview of the elements of the filing and cost recovery mechanism proposed. Accordingly, NJNG conferred, via teleconference, with representatives of Rate Counsel, BPU Staff, and the Division of Law within the Department of Law and Public Safety on February 1, 2018 to provide an overview of the program modifications and cost recovery mechanism proposed within this filing.
7. On April 26, 2018, BPU Staff notified the Company that the March 29, 2018 filing was deemed administratively complete. Therefore, pursuant to the Board's May 2008 Order, the 180-day review period commenced on March 29, 2018, the day that the Company filed its 2018 EE Petition.
8. By Order dated April 25, 2018, the Board designated President Joseph L. Fiordaliso as the Presiding Commissioner, who is authorized to rule on all motions that arise during the pendency of these proceedings and modify any schedules that may be set as necessary to secure a just and expeditious determination of the issues. The Signatory Parties subsequently agreed upon a procedural schedule and this was approved by President Fiordaliso by Order dated June 29, 2018.
9. In order to facilitate settlement discussions, the initial procedural schedule adopted by President Fiordaliso was modified. Pursuant to the initial procedural schedule, Rate Counsel's expert witness testimonies were due June 25, 2018. The Company

² I/M/O 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, Dkt. No. EO08030164 (May 12, 2008).

consented to have Rate Counsel file their expert witness testimonies on July 25, 2018. The Company later consented to have Rate Counsel file their expert witness testimonies on August 15, 2018 and again consented to a further extension to August 22, 2018. The Company then consented to a further extension to September 4, 2018. Furthermore, due to these extensions for the filing of Rate Counsel's testimonies, the Company consented to extending the 180-day procedural schedule set forth in N.J.S.A. 48:3-98.1. The 180-day requirement for the Board to act on this matter would have been September 24, 2018. The Company consented to a thirty-five (35) day extension. This would require the Board to act on this matter by October 29, 2018.

10. Public hearings on the 2018 EE Petition were held on July 25, 2018 in Freehold Township, New Jersey, and on July 26, 2018 in Rockaway Township, New Jersey. No members of the public appeared at any of the public hearings. Two written comments were received by the Board in support of the Company's filing.
11. NJNG has received and responded to all discovery requests that have been propounded in this proceeding by Rate Counsel and BPU Staff.
12. Based upon further discussions, NJNG, Rate Counsel, and BPU Staff (collectively, the "Parties") have reached an agreement to enter into this Stipulation finalizing the SAVEGREEN 2018 program and resolving all issues raised in or related to the SAVEGREEN 2018 program.

Specifically, based upon and subject to the terms and conditions set forth herein, the Parties **STIPULATE AND AGREE** as follows:

STIPULATED ISSUES

13. The Parties agree that the Company may offer the following approved sub-programs for a term of three (3) years commencing January 1, 2019 and ending December 31, 2021, subject to the Parties’ re-assessment after the second year of the three-year term:

	Direct Investment	OBRP / Financing	Total
<i><u>RESIDENTIAL:</u></i>			
BEHAVIORAL	\$ 5,879,122	\$ -	\$ 5,879,122
EFFICIENT PRODUCTS REBATES	15,755,716	5,629,986	21,385,702
HOME ENERGY ASSESSMENTS	2,098,823	381,931	2,480,754
HVAC INCENTIVES	8,547,165	17,605,875	26,153,040
HOME PERFORMANCE w/ ENERGY STAR	1,669,618	41,207,257	42,876,875
TOTAL RESIDENTIAL	\$ 33,950,443	\$ 64,825,049	\$ 98,775,492
<i><u>COMMERCIAL & INDUSTRIAL:</u></i>			
SAVEGREEN ON MAIN INCENTIVE	\$ 2,742,441	\$ 3,996,587	\$ 6,739,028
ENGINEERED SOLUTIONS INCENTIVES	13,184,838	8,534,560	21,719,397
DIRECT INSTALL / SMART START	560,020	7,261,721	7,821,741
TOTAL COMMERCIAL & INDUSTRIAL	\$ 16,487,299	\$ 19,792,867	\$ 36,280,166
TOTAL PROGRAM	\$ 50,437,742	\$ 84,617,917	\$ 135,055,659

14. The Operation and Maintenance (“O&M”) expense for this Program, including Administration and Program Development, Sales and Marketing, Training, Audit and Quality Control, and Evaluation and Related Research, shall not exceed \$5.22 million. To facilitate the startup of the Programs, the Company may incur costs upon the effective date of the Board Order which will be reviewed in the Company’s subsequent Energy Efficiency Cost Recovery filing.
15. The Parties agree that the design for all sub-programs will be as described in Attachment A, The SAVEGREEN 2018 Program Plan.

16. In an effort to avoid market disruption, and maintain momentum in energy efficiency, the Parties stipulate and agree to implement NJNG's SAVEGREEN 2018 Program and its contained sub-programs for the specific term and design as described in Attachment A and to address any potential modifications to term and/or conditions of the sub-programs as detailed below.
17. To effectuate any future modifications to the energy efficiency market, NJNG will, no later than December 31, 2020, file a comprehensive assessment of this Program with the Board and Rate Counsel. This assessment will include, but not be limited to, the following items:
 1. A Cost Benefit Analysis ("CBA"), reflective of actual costs and customer participation. The CBAs shall be calculated in accordance with prevailing approved NJCEP protocols at the subprogram level and will include:
 - a. CBA ratios for the following tests:
 - Participant Cost Test
 - Program Administrator Cost Test
 - Ratepayer Impact Measure Test
 - Total Resource Cost Test
 - Societal Cost Test
 - b. Energy savings by fuel type
 - c. Monetary savings
 - d. Environmental savings
 2. Summary CBAs will also be provided at the program and portfolio level;
 3. The number of participants by sub program;
 4. The budgeted dollars per sub program;
 5. The actual dollars spent through October 31, 2020 by type of expenditure:
 - a. Direct Investment
 - b. On-Bill Repayment/Financing
 - c. Administrative costs
 6. The actual dollars committed through October 31, 2020;
 7. Recap of recent policy determinations or NJCEP program changes that are relevant by sub program;
 8. Summary of insights and barriers identified to date for the sub-programs;

9. Summary of relevant insights regarding the potential for joint/aligned utility efforts by sub program, including potential timing for advancements in this area; and
 10. Description of how the program delivery and administrative mechanisms of those programs which are subsequently determined to be more appropriately delivered by NJCEP will be transitioned from NJNG to NJCEP management.
18. NJNG will, no later than February 28, 2021, schedule an initial meeting among the Parties to review this assessment. Based on this discussion, the Parties may schedule additional meetings to discuss potential prospective determinations on the structure of the SAVEGREEN 2018 Program.

These determinations may include:

1. No action deemed necessary, i.e., Program continues as approved for the remainder of the three (3) year term established by this stipulation;
 2. Extension of approved sub-programs to continue for an additional year, i.e., four (4) years in total; and
 3. Modifications to existing sub-programs to comply with the recently approved State legislation., L. 2018, c. 21, changes in the NJCEP, or policy decisions made by the Board since the date of Board approval of this stipulation, or based on program results. These modifications could include processes for some sub-programs to be replaced by successor programs approved through the assessment processes; or
 4. Designating some or all of the programs to be wound down and terminated, depending on the implementation of the legislative requirements, changes in the NJCEP, or policy decisions made by the Board since the date of Board approval of this stipulation, the Board's strategic planning process, or program results.
19. In addition, NJNG commits to share market insights from all SAVEGREEN programs with the BPU and other stakeholders as the State begins to address the legislative mandates for energy efficiency and renewable energy or as otherwise deemed appropriate by the BPU.

20. Work related to any specific SAVEGREEN 2018 offer or application that has been initiated prior to the end date of December 31, 2021 may continue for close-out and completion purposes within the budget levels agreed to herein.
21. The Parties agree that NJNG is permitted to shift funds between the approved sub-programs and operation and maintenance expense, subject to actual participation levels and overall budget considerations. The Company agrees to provide written notice to the BPU and Rate Counsel for any proposed changes between sub-program funding levels or any changes resulting from Board-approved changes to NJCEP programs, including a description of the proposed budget re-allocation with supporting schedules. Furthermore, if applicable funds approved for SAVEGREEN 2018 through December 31, 2021 are not fully expended or committed by December 31, 2021, NJNG will transfer those amounts to the proposed program work in future years or to other BPU-approved NJNG energy efficiency programs as directed by the Board. The Parties agree that should there be a prospective change to an NJCEP program for which the Company has a corresponding SAVEGREEN 2018 program, the Company will modify its corresponding program to be consistent with the NJCEP program. The Company agrees to implement any such modified offering within sixty (60) days of the BPU Order approving the modification to the NJCEP program, or a date as determined by the BPU. The Company will notify the Parties if it believes that a longer transition time is necessary to perform the required implementation activities by the Company or to better align with NJCEP implementation dates as determined by the BPU, and explain the reasoning and need for the longer timeframe. If a longer

transition is needed, the Company will notify the Parties and explain the reasoning and need for the longer timeframe.

22. The Parties agree that the Company is and will be authorized to defer and seek recovery of all reasonable and prudent SAVEGREEN 2018 program costs, including grant costs, customer incentives, and associated reasonable and prudent O&M expenses as noted on Attachment B herein. These costs shall be subject to recovery through rates in future periods pursuant to the terms of NJNG's Rider F and separately tracked through a sub-component of Rider F called SAVEGREEN 2018. Annual true-up filings will separately break out the expenses, investments, unamortized investments and revenue requirement calculations for the Program. The SAVEGREEN 2018 program costs shall be subject to the terms set forth in Rider F and shall be recovered through a per-therm EE charge relative to all applicable jurisdictional throughput on the NJNG distribution system as provided in Rider F. Proposed Tariff sheets are provided as Attachment C hereto.
23. The calculation of the carrying costs on the average monthly balances of under-recovery or over-recovery of deferred costs shall be subject to the terms under Rider F and as described in more detail in the Board's Order in BPU Docket Nos. EO09010056 and EO09010057, dated July 17, 2009. The interest rate shall not exceed the overall rate of return as authorized by the Board in NJNG's pre-tax Weighted Average Cost of Capital ("WACC") as identified in Paragraph 22 of the Stipulation or as authorized in NJNG's subsequent base rate case.
24. NJNG agrees that the SAVEGREEN 2018 program investments made in participating customer rebates and incentive payments will be amortized over a

seven (7) year period, on a straight line basis, with the return of the investment and return on the unamortized investments based upon a rate of 6.69 percent as shown in the capital structure below.

	Percent	Embedded Cost	Weighted Cost
Long-Term Debt	45.07%	3.41%	1.54%
Short-Term Debt	2.43%	1.55%	0.04%
Common Equity	52.50%	9.75%	5.12%
Total	100.00%		6.69%

25. The Signatory Parties agree that any change in the WACC authorized by the Board in a subsequent base rate case will be reflected in the subsequent monthly revenue requirement calculations as of the date of the next scheduled annual true-up.
26. As currently structured, the customer repayment periods for the OBRP offers will be two (2), three (3), five (5), seven (7), and ten (10) years, depending on the program and total OBRP funds made available. In computing the return component of its costs, NJNG will, in addition to a reduction for the accumulated amortization of its investments, deduct the applicable deferred income taxes related to the amortization of SAVEGREEN 2018 program costs over a two-year, three-year, five-year, seven-year, and ten-year period for book purposes and over one year for tax purposes. NJNG will continue to calculate the monthly net investment balances by subtracting from the monthly net investment balances the current month-end accumulated amortization balances.
27. The SAVEGREEN program investments and operating costs will be reconciled to actual recoveries from the EE Rate in the EE Rate Recovery filings to be submitted in June of each year, for which the Company may seek recovery. Any federal or


state benefits, if applicable, received by the Company and associated with these programs will be used to reduce the revenue requirement to be collected from ratepayers.

28. The Company's current EE Rate Recovery filing, BPU Docket No. GR18050585, seeks a January 1, 2019 effective date. The Company will include in its annual EE Rate Recovery filings the Minimum Filing Requirements ("MFRs") set forth in Attachment D.
29. NJNG will continue to submit data regarding the SAVEGREEN programs and expenses in accordance with the format and timing dictated by the NJCEP Program Administrator. The Company will continue to submit each report within thirty (30) days of the end of the calendar month covered by the report or consistent with the timing dictated by NJCEP's Program Administrator.
30. The Parties stipulate and agree that this Stipulation fully disposes of all issues in controversy in this proceeding, is consistent with law, and is in the public interest. This Stipulation represents a mutual balancing of interests, contains interdependent provisions and, therefore, is intended to be accepted and approved in its entirety. In the event any provision of this Stipulation is not accepted and approved in its entirety by the Board, any Party aggrieved thereby shall not be bound to proceed with this Stipulation and shall have the right to litigate all issues addressed herein to a conclusion. More particularly, in the event the Board, in any applicable order, does not adopt this Stipulation in its entirety, then any Party hereto is free to pursue its then available legal remedies with respect to all issues addressed in this Stipulation as though this Stipulation had not been signed.

31. The Parties further agree that they consider this Stipulation to be binding on them for all purposes herein.
32. It is specifically understood and agreed that this Stipulation represents a negotiated agreement and has been made exclusively for the purpose of these proceedings. Except as expressly provided herein, NJNG, Board Staff, and Rate Counsel shall not be deemed to have approved, agreed to, or consented to any principle or methodology underlying or supposed to underlie any agreement provided herein. All rates are subject to audit by the Board. The Parties further acknowledge that a Board Order approving, rejecting, or modifying this Stipulation will become effective upon the service of said Board Order, or upon such date after the service thereof as the Board may specify, in accordance with N.J.S.A. 48:2-40.

WHEREFORE, the Parties hereto respectfully submit this Stipulation to the Board for its review and the issuance of a Decision and Order approving this Stipulation, in its entirety, in accordance with the terms hereof, as soon as reasonably possible.

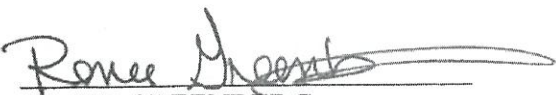
**NEW JERSEY NATURAL GAS COMPANY
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Attorneys for Staff of the Board of Public Utilities**

By:  9/10/2018
RENEE GREENBERG
DEPUTY ATTORNEY GENERAL

Date: September¹⁰, 2018

The SAVEGREEN Project Program Plan

New Jersey Natural Gas Company

BPU DOCKET NO. GO18030355

8/8/2018

1. Residential Programs

Through this program, New Jersey Natural Gas Company (“NJNG”) will engage a broad range of customers to provide customized energy saving guidance. This will include low cost/no cost opportunities to start saving energy while enhancing their understanding of the deeper opportunities to save energy and providing supporting resources to make energy-efficient retrofits more accessible. Subprograms include:

Behavioral: an expansion of the current NJNG Home Energy Report program. NJNG plans to significantly expand the subprogram to capture energy savings from more customers and provide meaningful insight.

Efficient Products: instant rebates and On-Bill Repayment Program (“OBRP”) options for low to moderate cost energy savings measures. It includes partnerships with local foodbanks to reach customers most in need of assistance.

Home Energy Assessments: an independent, low cost entry point audit with some direct energy savings measures. It includes special provisions for customers facing financial hardships.

HVAC Incentives: incentives to encourage the installation of high efficiency HVAC equipment and maintains a connection to a home energy audit by NJNG staff. It features OBRP options to ensure broad access for participation, including special terms for low to moderate income customers.

Home Performance with ENERGY STAR: continuation of OBRP options in lieu of the prevailing NJCEP financing that relies upon traditional credit screening.

1.1 RESIDENTIAL BEHAVIORAL (MFR II.a.1)

The Residential Behavior Subprogram will provide 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 subprograms. This is intended to be an expansion of the general approach that NJNG currently implements through its Opower program. However, in the years since NJNG launched its behavioral program, other vendors have started to provide similar services. Accordingly, NJNG intends to conduct a competitive solicitation process to ensure enhanced functionality can be captured and that vendor costs are competitive.

Direct mailed and/or electronic home energy reports (“HERs”) will be the cornerstone of the subprogram 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. Subject to the outcome of the competitive solicitation process, NJNG may also use the vendor 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 subprogram 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. Depending upon the results of the competitive solicitation process, this functionality may be provided by the same vendor issuing the HERs or a different vendor supporting other system subprograms proposed within this filing.

An online portal will be used to provide customers with usage information, recommendations, tips and links to energy-efficiency subprograms 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 subprograms.

NJNG will share participation information with the HERs 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)

Market Segment/Efficiency Targeted (MFR II.a.2)

The subprogram will provide HERs to the maximum amount of customers to whom the vendor can cost effectively provide the service and maintain an appropriate control group. The exact volume will be subject to the competitive solicitation process, but NJNG estimates this program should provide reports to approximately 270,000 residential customers annually. This quantity 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 subprogram will primarily target single family homes, but NJNG intends to maintain a subset of HERS for income eligible markets.

Delivery Method (MFR II.a.3) (MFR II.e)

NJNG will select a HER vendor after a competitive solicitation process requiring vendors to address the functionality they can provide beyond a traditional HER report. Vendors must identify the potential for

more analytical functions and explicitly address all security protections in place to ensure customer data is appropriately safeguarded. Contract requirements will mandate that the vendor cannot sell or profit from the underlying data.

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. Subsequent to the launch of the program, NJNG will work with the HER vendor to explore additional functionality that would issue high usage alerts to customers receiving HERs via email to customers for whom NJNG has a valid email address.

Projected Participants (MFR II.a.4) and Energy Savings (MFR II.a.5)

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 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 1: Residential Behavioral Estimated Participation and Savings

Metric	2019	2020	2021
Estimated Participants	270,000	270,000	270,000
Estimated Natural Gas Savings (therms)	2,556,900	2,556,900	2,556,900
Estimated Electric Savings (kWh)	9,043,982	9,043,982	9,043,982
Note: Since NJNG intends to conduct a competitive solicitation to secure the best services and value for customers, these values are estimated.			

Relationship to Existing Programs (MFR II.a.6) (MFR II.b)

The Residential Behavior Subprogram has similar components to the current NJNG Opower program that has been running since March 2011. However, this subprogram provides access to more customers and provides a linkage to enable customers to realize greater energy savings through the suite of NJNG energy-efficiency subprogram offerings.

Some peer utilities within the state, including Atlantic City Electric Company, South Jersey Gas Company and Elizabethtown Gas Company, are also running home energy reporting programs for residential customers and online audit tools. Jersey Central Power & Light Company only provides an online audit tool, but it is not integrated with specific information about energy-efficiency incentives available in New Jersey. This subprogram will complement the peer utility programs and include additional direction to next steps for residential customers within NJNG’s service territory. NJCEP does not offer any similar programs at this time.

Comparison to Out of State Programs (MFR II.c)

More than 100 utilities are currently running behavior programs that leverage Home Energy Reports to engage their customers. This includes the majority of utilities in the top 10 of the American Council for an Energy Efficient Economy (“ACEEE’s”) 2017 Utility Scorecard, including National Grid, Southern California Gas, Con Edison, Commonwealth Edison and Pacific Gas and Electric.

Proposed Incentives (MFR II.a.8)

All services under this subprogram will be provided at no cost to the customer.

Marketing Approach (MFR II.a.12) (MFR II.g)

The recipients of the HERs and the related control group will be selected by NJNG and its selected HER vendor. Accordingly, there is no marketing for the HER program itself. However, this subprogram will influence residential customers to be more aware of other NJNG energy-efficiency subprograms and drive participation in those subprograms 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 subprograms will be referred to the online audit tool and online portal where appropriate. The audit will highlight additional NJNG energy-efficiency subprograms, as well as relevant NJCEP programs, and drive participation in those subprograms.

Contractor Role (MFR II.a.13)

NJNG will utilize a third-party vendor implementation contractor to provide the services under this subprogram.

Market Barriers (MFR II.a.14) (MFR II.h)

The primary market barriers that this subprogram 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 subprogram 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 subprogram addresses this barrier by sending the HER reports directly to the customer several times throughout the year. The customer does not have to initiate the engagement about their energy usage.

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. NJNG will utilize the behavioral subprogram to cross-promote other energy-efficiency offerings as a means of spreading awareness of the range of energy-efficiency opportunities proposed in this plan.

1.2 RESIDENTIAL EFFICIENT PRODUCTS (MFR II.a.1)

The Residential Efficient Products Subprogram will promote low and moderately priced energy-efficiency products by offering a broad range of energy-efficient measures through a variety of channels, including an online marketplace, potential retail in-store rebates, a network of trade allies and collaboration with local foodbanks. The subprogram will incent smart thermostats, water saving measures, weatherization items, as well as pre-packaged conservation kits. Installation services will be offered as a component of the subprogram for the smart thermostats. Measures range in type and price, but include both natural gas and limited electric energy saving measures that improve energy efficiency in the home. Up-front rebates will be offered on all technologies to reduce initial costs, and smart thermostat purchases will qualify for on-bill repayments to further reduce upfront cost barriers to ensure equitable access for all customers. The subprogram 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 subprogram is designed to:

- Provide online channels for customers to acquire and select low and moderately priced energy-efficiency products.
- Provide incentives to encourage customers to purchase low and moderately priced energy-efficiency products to reduce energy use in the home.
- Provide an option for interested customers to secure the installation of smart thermostats purchased through this program. Installation may be performed at the customer's request for a set fee by a participating HVAC contractor. (Note: NJNG audit staff will install thermostats purchased through this program when a customer participates in the Home Energy Assessment Program).
- Ensure the participation process is clear and easy for the customer.
- Partner with local foodbanks to distribute no-cost kits to their clients. Intention is to provide some immediate energy savings assistance to low to moderate income customers and ensure they are aware of other resources to help them with their energy bills, including NJCEP Comfort Partners and relevant energy assistance programs. NJNG will also explore partnering with non-profits serving the needs of our senior citizens to ensure customers have the opportunity to access these products.
- Provide no-cost kits to customers seeking assistance during the annual Energy Assistance ("EA") days held throughout NJNG's service territory. At EA days, staff from NJNG partner with representatives from state-designated agencies to help identify which programs fit customers' needs and assist with the application process. This approach will provide customers most in need of assistance with immediate energy savings through simple energy saving measures and strong encouragement to participate in the NJCEP Comfort Partners program or other energy-efficiency programs that may be available.

This subprogram is intended to encourage customers to increase the adoption of low and moderately priced energy-efficient measures by harnessing NJNG's unique customer relationship. NJNG will positively impact the sales process, from education and awareness with customers, engagement with trade allies and the availability of on-bill repayments for the balance of the costs on smart thermostats to ensure equitable access for all customers. NJNG will use these entry level purchases to encourage customers to advance to programs within the residential retrofit category.

Market Segment/Efficiency Targeted (MFR II.a.2)

The Residential Efficient Products Subprogram will be available to all natural gas customers in NJNG's service territory. The subprogram is focused on promoting the sale and installation of efficient natural gas

and limited electric energy saving measures. It can be easily promoted to trade allies and customers via straightforward prescriptive rebates. Potential technologies incentivized through this subprogram include smart thermostats, water saving measures, weatherization items and pre-packaged conservation kits. To ensure low income customers have the opportunity to access savings through this program and are also made aware of the free resources through the NJCEP Comfort Partners Program, NJNG will also partner with the main foodbanks within our service territory to distribute thousands of free energy conservation kits. Finally, NJNG will distribute free conservation kits during EA Days.

Delivery Method (MFR II.a.3) (MFR II.e)

NJNG will use its brand, its customer outreach infrastructure, and its marketplace relationships to increase the availability, awareness and customer uptake of energy efficient products. On-bill repayments will be available to customers (after applying the rebate discount) for the balance of the product cost for select products and services.

NJNG will utilize our internal marketing communication tools including monthly customer newsletter, bill inserts and E-tips which is our monthly opt-in e-newsletter. Products will be promoted on the SAVEGREEN microsite (receiving thousands of unique visitors each month) and through our Customer Service Representatives. Traditional advertising methods including email will be used as well as digital and social media channels. Information will be available at community outreach events and through our channel partners. Customer engagement channels may include:

- **Online Marketplace:** NJNG will launch a self-branded online marketplace, using a third party vendor. NJNG intends to use a competitive solicitation process to secure the marketplace vendor to optimize the range of functionality and value for our customers. This online marketplace will be an easy to use source for the on-line purchase of energy-efficient products and services. Participants will be able to browse low and moderately priced energy saving measures and purchase mainly self-installed products through the marketplace which will offer one-stop rebates. NJNG will explore options with the vendor to validate customer eligibility and also the potential for validation of in-store rebates for the smart thermostats with major retailers
- **Trade Allies:** More than 2,600 contractors have participated in our SAVEGREEN program to date and we’ve fostered a strong on-going relationship with these trade allies through our training series and monthly contractor eblast. NJNG will ensure these contractors recognize the opportunity they have to promote this subprogram and grow their services by offering installation service for the featured smart thermostat with the on-bill repayment option.

Projected Participants (MFR II.a.4) and Energy Savings (MFR II.a.5)

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 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.

Table 2: Residential Efficient Products Estimated Participation and Savings

Metric	2019	2020	2021
Participants	71,433	71,767	71,433
Natural Gas Savings (therms)	1,771,443	1,837,615	1,771,443
Electric Savings (kWh)	11,262,433	11,476,539	11,262,433

Relationship to Existing Programs (MFR II.a.6) (MFR II.b)

Last year, PSE&G received approval to launch a program to offer a limited number of smart thermostats to customers. That program offers a rebate toward the initial cost of the unit but does not include the OBRP option so the offer may not be accessible to all customers.

To gain insights regarding customer and contractor interest in smart thermostats and potential barriers for broader deployment, NJNG is running a small pilot for smart thermostats using funds from the Conservation Incentive Program. That pilot offers a free thermostat to customers who participate in a SAVEGREEN program, but is not a direct comparison to this program because it does not have an option for customers to purchase the smart thermostat on a standalone basis.

While NJCEP currently offers an Energy Efficiency Products Program (for clothes washers & dryers and refrigerators), they do not provide incentives for smart thermostats, water savings items, low cost weatherization products, or packaged conservation kits. NJCEP currently does not offer an online marketplace.

This subprogram will complement the peer utility subprograms and expand to include additional low price entry point products, rebate opportunities and OBRP options to make energy efficiency more accessible to a broader range of customers. Additionally, this subprogram adds components to help meet the needs of low to moderate income customers and raise their awareness of deeper resources to help with their energy needs.

Comparison to Out of State Programs (MFR II.c)

Residential Efficient Products is an extremely common approach to engaging customers and over the past few years many utilities have implemented an online marketplace. In fact, the predominant vendor in the space is currently working with more than 50 utilities including National Grid, Pacific Gas & Electric, Commonwealth Edison and Xcel Energy. Many are dominated by lighting products, but some also offer discounts on smart thermostat offers and other energy saving products. NJNG is not a direct comparison to any of them since NJNG will promote products that are not a focus for NJCEP (i.e., smart thermostats, conservation kits, water saving measures and weatherization items).

Proposed Incentives (MFR II.a.8)

For the Smart Thermostats, NJNG proposes the following structure:

- \$150 rebate to reduce the upfront cost of the investment.
- For customers who purchase the product through the marketplace, NJNG will allow the balance of the cost of the unit to be placed on an OBRP to be recovered over a two year period.
- Customers who opt to have the unit installed by a participating contractor will be allowed to place up to \$120 on their NJNG bill for the installation cost over a two-year period.

As noted in the description for this subprogram, NJNG will be considering options to obtain a presence with retailers through a competitive solicitation process.

For the conservation kits and other online marketplace products, NJNG proposes a 50% discount off the retail cost. These products are intended to provide immediate savings to customers, engage a broader audience at lower price points than traditional HVAC focused energy-efficiency programs, and also educate customers about additional programs that can help with deeper savings through energy-efficiency upgrades on HVAC systems and building shell measures.

NJNG anticipates periodically refreshing the mix of low cost products and contents of the conservation kits in the marketplace. This will allow NJNG to include new products that may be identified and engage more customers.

Marketing Approach (MFR II.a.12) (MFR II.g)

NJNG will use digital and social media channels, as well as email campaigns, to promote this program and analyze results to maximize its effectiveness and the best use of our marketing dollars. NJNG will promote programs through internal marketing tools including bill inserts, customer newsletters, and E-Tips our monthly opt-in newsletter. We will continue to grow and foster our existing channel marketing with realtors and contractors which has proven to be very effective while we explore and develop new channel partners who can promote our programs. Remarketing campaigns will be employed to target customers who have shown interest in our program(s) but have not yet taken action or have the opportunity to take further action. Finally, our community outreach specialist will work to promote all residential programs to educate our customers on energy-efficiency and the programs available to assist them. NJNG will also look to leverage the behavior subprogram for ‘warm leads’ into this subprogram through both the home energy reports and online audit tool

Targeted promotion in the Residential Efficient Products subprogram will be supported with intelligence gained from marketing efforts in other Residential Programs. The Behavioral and Home Energy Assessments will be especially valuable in these efforts.

A combination of strategies will be used to support outreach to customers through our usual communication channels. Marketing activities include:

- Bill inserts, bill messages, email messages, Facebook and Twitter
- Brochures that describe the benefits and features of the subprogram including application forms and processes. The brochures will be available for various public awareness events (presentations, seminars etc.)
- Company website content providing subprogram information resources, contact information, online application forms, online retail store and links to other relevant service and information resources
- Public relations materials
- Promotion at conferences and events used to increase general awareness of the subprogram and distribute subprogram promotional materials

Contractor Role (MFR II.a.13)

NJNG will conduct a competitive solicitation process to secure a vendor for the online marketplace and the potential to include a retail component for some measures (initially only the smart thermostat discount). NJNG will work closely with the vendor on the build-out of the online marketplace and potential retail component. NJNG will engage our trade ally network to ensure they understand the customer discount and On-Bill Repayment option for thermostat installation which can provide new opportunities for their business.

To select a qualified third-party vendor, NJNG will prioritize criteria including, but not limited to:

- Experience delivering similar subprograms or initiatives
- Features and the related potential to engage more customers
- Cost effectiveness

Market Barriers (MFR II.a.14) (MFR II.h)

The primary market barriers that are addressed by this subprogram include:

- **Initial Cost of Efficient Products:** Relative to the market baseline, efficient equipment often carries a higher upfront cost and a lower lifetime operating cost. Purchasers often may not fully value the lifetime operating cost advantage of energy-efficient equipment and, as a result, higher upfront cost is a barrier to purchasing energy-efficient equipment. To address this barrier, incentives are provided to the customer to reduce the initial cost, including OBRP options.
- **Customer Awareness and Engagement:** Residential customers may not be aware of the benefits of installing energy-efficient measures or even the existence of some measures (e.g. Evolve products). Some customers may lack the time and resources to secure and /or install such measures. To address this barrier, NJNG will endeavor to educate customers on the benefits of the products available in this program through targeted marketing and ensure that incentives are easily accessible. As is currently done, NJNG will seek to partner with trade allies to promote subprogram offerings and focus marketing, education and outreach efforts to the trade ally community to ensure they are aware of available incentives and prepared to serve customers.
- **Timing of Customer Interest:** Since SAVEGREEN was launched in 2009, NJNG has conducted extensive outreach to engage our customers. NJNG staff frequently encounter customers who are interested in saving energy but may have a relatively new home or relatively new equipment or appliances. As such, under the existing SAVEGREEN and NJCEP programs there is little opportunity to refer these customers to energy-efficiency programs. Behavioral research has shown that convincing customers to take a small action toward energy-efficiency may encourage them to make larger energy-efficiency investments in the future. Accordingly, this program addresses the current barrier by providing small investments a customer can make regardless of the age of their equipment and appliances.

NJNG will seek to manage 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 programs that identify and confront market barriers on an ongoing basis. To the extent possible, NJNG will cross-promote subprograms to spread awareness of the range of efficiency opportunities proposed in this plan.

1.3 HOME ENERGY ASSESSMENTS (MFR II.a.1)

NJNG's Home Energy Assessment Program is intended to help residential customers have a comprehensive, independent assessment of the energy saving potential in their homes. The assessment will cost customers \$49.00 and will be performed by one of NJNG's auditors, all of whom have Building Performance Institute ("BPI") certifications. The intention of the audit is to educate and encourage customers who are good candidates for the Residential Retrofit Program to move on to tackle the more comprehensive energy-efficiency investments. Customers will be educated about the incentives under those programs to support such work, including the availability of 0% On-Bill Repayment options to ensure that customers recognize up-front cost barriers can be addressed through the other programs in our portfolio.

The assessment will also include the issuance of the U.S. Department of Energy's ("DOE") Home Energy Score. Developed by DOE and its national laboratories, the Home Energy Score provides home owners, buyers and renters directly comparable and credible information about their home's energy use. Like a miles-per-gallon rating for a car, the Home Energy Score is based on a standard assessment of energy-related assets to easily compare energy use across the housing market. Since the assessment will show both the Home Energy Score under existing conditions in the home and after the impact of installing the measures recommended by the comprehensive assessment, customers can start to understand that energy-efficiency expenditures can provide immediate savings and be a smart long term investment.

During the course of the assessment, the NJNG auditors will install/provide some low cost energy savings measures (e.g. gaskets, LED lightbulbs) and will provide some coaching about other low/no-cost energy savings tips (e.g. changing furnace filters, use of ceiling fans).

These assessments can also provide significant non-energy benefits. The assessment will follow the BPI health and safety checklist, including combustion safety-testing. Customers will be made aware of any potential health and safety concerns within their home (e.g. high carbon monoxide levels, ventilation situations fostering mold, back-drafting appliances) and immediate action will be taken to rectify significant conditions (e.g. natural gas leaks).

At the conclusion of the assessment, all customers will have a recommended workscope they can share with contractors. Interested customers can sign a release to have their assessment results posted to NJNG's Contractor Portal which will allow up to three interested contractors to follow-up with customers to provide quotes for potential projects. NJNG will be able to follow-up with both the customers and the contractors to ensure customers receive timely proposals and have the information they need to consider moving ahead with a Residential Retrofit program. NJNG's energy consultants are available to answer questions and assist customers through the process.

At the time assessments are booked, NJNG will encourage customers to consider purchasing a smart thermostat through our Efficient Products program. Customers opting to make that purchase can have their smart thermostat installed by NJNG staff and can roll the cost of their assessment into their On-Bill Repayment Program for their thermostat purchase. Correspondingly, customers contacting NJNG for information on our smart thermostat discount will be encouraged to participate in this program.

To ensure that NJNG customers with a proven need for assistance with their energy bills, but who are not eligible for the NJCEP Comfort Partners Program, NJNG will offer to waive the assessment fee and provide and install one smart thermostat to the customer at no cost. Customers would automatically be eligible for this program after they receive a grant from either the BPU's Payment Assistance for Gas and Electric (PAGE) program or NJSHARES. While customers may qualify for these energy assistance benefits in multiple years, this waiver would be limited to one free assessment and thermostat per customer.

Market Segment/Efficiency Targeted (MFR II.a.2)

This subprogram will be available to all residential customers in NJNG’s service territory. NJNG will specifically target customers likely to be interested in assessing how much energy their home consumes and to learn and evaluate what measures they can take to make it energy-efficient. Outreach efforts will use targeted messaging to both existing and new customers utilizing our customer database and customer segmentation tools that assist in targeting customers who are most likely to move forward in the program. We will reach out to different groups such as new movers, communities with older housing stock and budget conscious customers (e.g. senior communities). The availability of the independent assessment by NJNG provides peace of mind for customers skeptical of contractor sales proposals.

The efficiencies targeted include the low cost measures provided during the assessment and the behavioral energy savings advice offered by the auditor. The more significant target is the prompt to encourage customers who are good candidates to move into the Residential Retrofit programs.

NJNG will also conduct direct outreach to customers who receive either a PAGE or NJ SHARES grant with screening for prior participation.

Delivery Method (MFR II.a.3) (MFR II.e)

NJNG will use its brand and customer outreach infrastructure to encourage customers to participate in this subprogram. NJNG also anticipates leveraging the networks of other stakeholders interested in advancing energy efficiency (e.g. local green teams,) to help raise awareness of this program. When the assessment is bundled with smart thermostats purchased through our energy-efficiency products program, NJNG will also offer customers the opportunity to include the cost of the assessment with their smart thermostat OBRP.

NJNG will use our own BPI certified auditors to deliver the assessments. NJNG will use its contractor portal to facilitate customers’ ability to easily secure multiple quotes for potential Residential Retrofit projects.

Projected Participants (MFR II.a.4) and Energy Savings (MFR II.a.5)

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 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.

Table 3: Home Energy Assessments Estimated Participation and Savings

Metric	2019	2020	2021
Participants	1,050	1,088	1,128
Natural Gas Savings (therms)	100,474	104,123	107,917
Electric Savings (kWh)	1,224,562	1,268,918	1,315,049

Relationship to Existing Programs (MFR II.a.6) (MFR II.b)

The Home Energy Assessment subprogram is an enhanced version of the independent Home Energy Assessment NJNG currently offers today. The current version does not include the installation of any energy savings measures and the standard cost is \$250. While NJNG has had the ability to provide this audit to customers at lower income levels at no-cost, there has been limited uptake to date. NJNG is confident that a standard \$49 assessment offer with the inclusion of energy saving measures, paired with a smart thermostat installation in addition to the option to include the cost as part of a smart thermostat OBRP, will significantly increase customer interest in this program.

Elizabethtown Gas currently offers a Home Energy Assessment program that does not require any customer contribution to the cost of the assessment and offers the installation of other measures (e.g. programmable thermostat). Customers within their program may be encouraged to participate in the NJCEP Warm Advantage or Home Performance with ENERGYSTAR (“HPwES”) programs or may be eligible for other seal-up and insulation measures outside of HPwES.

NJNG anticipates additional utilities will propose an offering similar to this proposed subprogram.

Comparison to Out of State Programs (MFR II.c)

There are several other utilities and energy-efficiency programs that offer a no/low cost home energy assessment with the direct installation of some low cost energy efficient measures similar to what is being proposed. A few relevant examples would be

- The MASS Save utilities currently offer a no-cost assessment with the installation of energy savings measures.
- PEPCO offers a free Home Energy Check-up that includes the installation of energy saving measures.
- Energize CT utilities currently offers a \$149 home energy assessment, however, they report providing an average of \$1,000 in services per home in this program.

Proposed Incentives (MFR II.a.8)

The \$49 assessment fee is intended to generate stronger customer interest in participating in the program and create additional leads for the residential retrofit program.

The measures included during the assessment will be provided at no cost to the customer with the exception of when a smart thermostat is paired with an assessment. Customers pairing the programs will pay the \$49 assessment fee and the net per unit cost of the smart thermostat for up to two units. The combined cost can be repaid through an OBRP over two years.

Marketing Approach (MFR II.a.12) (MFR II.g)

NJNG will implement a multi-pronged direct and indirect marketing campaign to promote this subprogram. NJNG will use digital and social media channels as well as email campaigns to promote this program and analyze results to maximize its effectiveness and our marketing dollars. Programs will be promoted through internal marketing tools including bill inserts, customer newsletters, and E-Tips our monthly opt-in newsletter. Traditional marketing venues such as direct mail and advertising will be used as necessary. Relationships with our existing channel partners including realtors and contractors will be fostered while we explore and develop new channel partners who can promote our programs. Remarketing campaigns will be employed to target customers who have shown interest in our program(s) but have not yet taken action or customers who have the opportunity to make additional energy saving measures. Finally our community outreach specialist will work to promote all residential programs and educate our customers on energy efficiency and the programs available to assist them.

NJNG will engage customers through a variety of messages, including highlighting:

- the low cost of the assessment
- the immediate savings from the energy savings measures
- the ability to pair with the smart thermostat offer and use the OBRP option
- the provision of the DOE Home Energy Score
- the independent nature of our assessment as an objective roadmap to making their homes more energy -efficient.

NJNG also anticipates partnering with local stakeholders to promote the program.

Contractor Role (MFR II.a.13)

While contractors are not directly involved in the provision of the home energy assessments, they will receive the benefit of the strong leads from interested, educated customers who have participated in this program.

Market Barriers (MFR II.a.14) (MFR II.h)

The primary market barriers that impact this subprogram include:

- **Customer Awareness and Engagement:** Residential customers may not be aware of the best energy-efficiency opportunities for their home. This program addresses this barrier by providing an independent assessment.
- **Up-front Cost of a Home Energy Audit:** Many customers would not be interested in an assessment if the costs were more than \$50. This program addresses this barrier by offering the assessment at \$49 and offering the ability to include the cost as an OBRP when paired with a smart thermostat purchase.
- **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. NJNG does not perform any installation work so NJNG is able to address this barrier by providing an independent assessment.

1.4 HVAC INCENTIVES (MFR II.a.1)

The HVAC Incentives Subprogram will encourage customers to invest in high-efficiency equipment. NJNG will offer incentives when customers install qualifying high-efficiency gas furnaces/boilers, combination (heat and hot water) units, water heaters, and qualifying air conditioning systems when combined with one of these natural gas measures. To continue to educate customers about additional energy saving opportunities for their home, NJNG will continue to require customers to participate in a no-cost home energy assessment audit conducted by NJNG following the installation of equipment. The assessment conducted by NJNG identifies additional energy-saving opportunities, and customers will be encouraged to move forward with recommended upgrades to achieve a whole-house approach to energy-efficiency. NJNG will also give customers their DOE Home Energy Score.

Equipment eligibility will continue to align with the requirements of NJCEP's WARM and COOLAdvantage programs (or appropriate successor should NJCEP modify their program offers). NJNG will offer customers the option of an up-front rebate or an On-Bill Repayment Program ("OBRP"). Customers will still be able to participate in the WARM and COOLAdvantage programs but any OBRP executed will be net of the value of available NJCEP incentives.

To ensure that low to moderate income customers have a viable opportunity to participate, these customers will be able to collect both the up-front rebates from NJNG and NJCEP and access a longer term OBRP repayment period. The OBRP value for these customers would be net of all rebates. Eligibility for this benefit will be tied to the prevailing income eligibility for the BPU's Payment Assistance for Gas and Electric grant program. Repayment of the principal will be made by participating customers.

Small commercial customers with residential sized equipment are eligible for a grant or OBRP following the installation of a boiler less than 300,000 BTU or a furnace less than 225,000 BTU and for a grant for water heaters that qualify under WarmAdvantage. However, if NJNG engages the customer prior to installation of the units, they will be encouraged to participate in the new SAVEGREEN on Main program.

NJNG reserves the right to limit participation in OBRP to customers who utilize natural gas as their heating source.

Market Segment/Efficiency Targeted (MFR II.a.2)

The subprogram will serve residential and certain smaller commercial customers. The program promotes the installation of high-efficiency equipment and other whole-house energy conservation measures through opportunities identified in the home energy assessment.

Delivery Method (MFR II.a.3) (MFR II.e)

NJNG auditors with BPI certification will perform the mandated home energy assessment. Customers can use any contractor they choose for the installation of the HVAC equipment, but if they are participating in our OBRP, they may only use a contractor that has completed the mandatory overview training on program requirements.

Projected Participants (MFR II.a.4) and Energy Savings (MFR II.a.5)

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 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.

Table 4: HVAC Estimated Participation and Savings

Metric	2019	2020	2021
Participants	4,750	4,750	4,750
Natural Gas Savings (therms)	570,313	570,313	570,313
Electric Savings (kWh)	1,422,545	1,422,545	1,422,545

Relationship to Existing Programs (MFR II.a.6) (MFR II.b)

This subprogram aligns with the NJCEP WARM and COOL Advantage programs and encourages stronger participation by making more expensive high efficiency equipment more accessible to all customers through either supplemental rebates or OBRP programs. The OBRP program is critical to ensuring moderate income customers have the opportunity to access energy-efficiency investments.

This approach is a slight modification to the existing approved programs for NJNG and South Jersey Gas with the connection to a home energy assessment. Elizabethtown Gas offers a supplemental HVAC rebate, but it does not include any requirement for a home energy assessment.

Comparison to Out of State Programs (MFR II.c)

While there are many utilities across the country that provide incentives for the installation of HVAC equipment, NJNG is not aware of any others that require the customer to accept an independent energy assessment to access the rebate so there is not a relevant out-of-state comparison for this subprogram.

Proposed Incentives (MFR II.a.8)

NJNG proposes to maintain the following supplemental incentives after completion of the mandated home energy assessment:

Furnace (Minimum 95% AFUE)	\$500
Boiler (Minimum Hydronic 90% AFUE)	\$500
Boiler with Indirect and/or Combo Unit (90% AFUE)	\$600
Water Heater (Minimum UEF .64 and Power Vented)	\$100

To ensure the up-front cost is not a barrier for customers, NJNG will offer customers the option to apply for an OBRP in lieu of these NJNG rebates. NJNG proposes to allow customers to finance up to \$5,000 for a qualifying furnace or boiler, up to \$7,500 for a combination (heat and hot water) unit, up to \$2,500 for a qualifying power vented water heater and up to \$3,500 for a qualifying tankless water heater. These projects can also include up to \$5,000 for a qualifying air-conditioning system if installed with an accompanying gas measure. All projects will be subject to an overall OBRP cap of \$14,000. All OBRP agreements will be net of the value of any NJCEP rebates. All OBRP agreements through this program will be at a 0% annual percentage rate for a 5 year term. Low to moderate income customers may be eligible for an extended term of 7.5 years and be able to qualify for the rebate and the OBRP. Low to moderate income customer eligibility will be consistent with the income limits for the BPU’s Payment Assistance for Gas and Electric (PAGE) Program.

NJNG recognizes that the equipment covered, minimum efficiency requirements, rebate values and even the name of the program itself may shift as NJCEP implements changes to align with the anticipated Strategic Plan. The intention within this program is to offer incentives and the financing options for any prescriptive existing homes program that NJCEP runs, including both the single measure and bundled approach.

Marketing Approach (MFR II.a.12) (MFR II.g)

NJNG employs a variety of channels and methods to educate customers on the benefits of energy-efficiency, including working through the Conservation Incentive Program communications channels, Customers Service Representative tips, monthly customer newsletters, bill inserts as well as E-Tips, our opt-in monthly newsletter. The SAVEGREEN Project utilizes a microsite to promote its programs and educate our customers. NJNG will continue to use digital and social media channels as well as email campaigns to promote this program and analyze results to maximize its effectiveness and our marketing dollars. Traditional marketing venues such as direct mail and advertising will be used as necessary. Relationships with our existing channel partners including realtors and contractors will be fostered while we explore and develop new channel partners who can promote our programs. Remarketing campaigns will be employed to target customers who have shown interest in our program(s) but have not yet taken action or those customers who have additional opportunities. Finally, our community outreach specialist will work to promote all residential programs to educate our customers on energy-efficiency and the programs available to assist them.

NJNG will promote the upgrade to high-efficiency equipment to all residential and eligible small commercial customers (installing boilers less than 300,000 BTU or furnaces less than 225,000 BTU) through a variety of communication channels. NJNG will continue to target homeowners at or close to the time they are making decisions about new heating and cooling equipment, and will continue to engage HVAC contractors in promoting the program. SAVEGREEN will continue to market in a manner that encourages a change to high-efficiency equipment linked with the implementation of whole-house improvements. NJNG will work cooperatively with various entities, including community groups, our trade allies (local contractors, supply houses, and the realtor community) to coordinate with other grass roots efforts.

Contractor Role (MFR II.a.13)

Customers can use any contractor they choose for the installation of the HVAC equipment, but if they are participating in our OBRP, they may only use a contractor that has completed the mandatory overview training on program requirements.

Market Barriers (MFR II.a.14) (MFR II.h)

The primary market barriers that impact this subprogram include:

- **Initial Cost of Energy-efficient HVAC Equipment:** High efficiency HVAC equipment is more expensive and complex to install than standard efficiency equipment and therefore, requires more participant investment and commitment. Customers must be willing and able to invest in more expensive energy-efficiency projects. Without significant incentives, customers are likely to opt for standard equipment to secure the lower up-front cost despite the longer term benefits to them and to society. In addition to incentives, on-bill repayment will be available to customers to reduce upfront cost barriers.
- **Traditional Credit Screening:** Many customers may need financing to purchase the high efficiency equipment, but 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. NJNG's OBRP approach 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.

- **Customer Awareness and Engagement:** Residential customers may not be aware of the best energy-efficiency opportunities for their home or how to get the information and resources they need. This program addresses this barrier by informing and educating customers through our multiple communication channels including our community outreach program. Our EE marketing consultants are available to explain the programs, answer questions and help them through the process
- **Trade Ally Awareness and Training:** To meet the participation goals set forth for this subprogram, trade allies must be available to undertake the work and be interested in marketing high-efficiency equipment to customers. A lack of viable trade allies could result in customers not installing energy-efficiency measures. NJNG will continuously work to train and develop the local contractor network to ensure a high-quality network of contractors is available to serve subprogram participants.

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 programs that identify and confront market barriers on an ongoing basis. To the extent possible, NJNG will cross-promote subprograms to spread awareness of the range of energy-efficiency opportunities proposed in this plan.

1.5 HOME PERFORMANCE WITH ENERGY STAR (HPWES) ON-BILL REPAYMENT PROGRAM (MFR II.a.1)

NJNG will continue to leverage existing utility communications channels and conduct marketing and outreach campaigns to help raise awareness of the “whole house” approach to energy efficiency and the availability of incentives through NJCEP’s Home Performance with ENERGY STAR (“HPwES”) program. NJNG will continue to support HPwES by offering utility financing options in lieu of the standard NJCEP financing. All 0% financing options will be provided as an On-Bill Repayment Program (“OBRP”) and options that include an interest rate may rely on the use of a third party loan servicer. NJNG reserves the right to limit participation in OBRP to customers who utilize natural gas as their heating source.

Market Segment/Efficiency Targeted (MFR II.a.2)

The subprogram will be targeted to residential customers seeking comprehensive solutions to equipment upgrades, to customers with comfort issues within their homes, as well as many customers who have completed the Home Energy Assessment Program. Additionally, customers who have recently upgraded their equipment will be targeted for additional energy saving measures including insulation and seal-up.

Delivery Method (MFR II.a.3) (MFR II.e)

NJNG will utilize in-house staff for the credit screening and OBRP enrollment process. A third party vendor will be used for any financing options with an interest rate.

Projected Participants and Energy Savings (MFR II.a.4) (MFR II.a.5)

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 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.

Table 5: Home Performance with ENERGY STAR Estimated Participation and Savings

Metric	2019	2020	2021
Participants	1,500	1,500	1,500
Natural Gas Savings (therms)	241,425	241,425	241,425
Electric Savings (kWh)	1,572,397	1,572,397	1,572,397

Relationship to Existing Programs (MFR II.a.6) (MFR II.b)

This subprogram is integrated with the NJCEP HPwES program and displaces their need to finance externally through either participating NJ Credit Union entities or Energy Finance Solutions. While those financing options rely on traditional credit screening, NJNG reviews eligibility to participate based on utility payment history and lack of recent bankruptcies.

This subprogram is identical to what NJNG currently offers in support of NJCEP’s HPwES program for any qualified HPwES project where the customer meets our credit criteria. South Jersey Gas currently offers a utility financing option for any Tier 3 project. The other New Jersey utilities currently do not support NJCEP’s HPwES Program.

Comparison to Out of State Programs (MFR II.c)

There are many variations on how HPwES programs are delivered throughout the country. However, since the structure of this NJNG subprogram is the displacement of the existing financing component within the NJCEP HPwES program offer and NJNG does not control the terms of the NJCEP incentive structure, any

comparisons to out of state programs would not be relevant to NJNG’s proposal to continue to support this NJCEP program with financing options.

Proposed Incentives (MFR II.a.8)

NJNG will continue to offer the prevailing NJCEP HPwES financing component as a utility financing option.

Financing Options for HPwES	
Tier 2 or Prescriptive Path	up to a \$5,000 OBRP at 0% with a 7-year maximum term
Tier 3	Either up to a \$10,000 loan at 0% with a 7-year maximum term or 4.99% financing with a 10-year maximum term up to \$15,000

NJNG recognizes that the terms for financing and even the name of the subprogram itself may shift as NJCEP implements changes to align with the anticipated Strategic Plan. The intention within this subprogram is to offer the financing components for any “whole house” program that NJCEP offers.

Marketing Approach (MFR II.a.12) (MFR II.g)

NJNG will continue to encourage customers to take a more comprehensive look at energy-efficiency throughout their residence, utilizing the “whole-house” method through the HPwES program. NJNG employs a variety of channels and methods to educate customers on the benefits of energy-efficiency, including working through the Conservation Incentive Program communications channels, Customers Service Representative tips, monthly customer newsletters, bill inserts as well as E-Tips, our opt-in monthly newsletter. The SAVEGREEN Project utilizes a microsite to promote its programs and educate our customers. NJNG will continue to use digital and social media channels as well as email campaigns to promote this program and analyze results to maximize its effectiveness and our marketing dollars. Traditional marketing venues such as direct mail and advertising will be used as necessary. Relationships with our existing channel partners including realtors and contractors will be fostered while we explore and develop new channel partners who can promote our programs. Remarketing campaigns will be employed to target customers who have shown interest in our program(s) but have not yet taken action. Finally our community outreach specialist will work to promote all residential programs to educate our customers on energy-efficiency and the subprograms available to assist them.

Contractor Role (MFR II.a.13)

NJNG will continue to allow all contractors participating in the NJCEP HPwES program to offer the OBRP feature to their customers. These contractors will be able to access all HPwES leads generated from both the Home Energy Assessment program and from the required home energy assessment from the HVAC incentives program. To access those leads, contractors must commit to not charging customers for any additional audit testing work. NJNG also reserves the right to limit the participation of contractors with repeated customer service issues.

Market Barriers (MFR II.a.14) (MFR II.h)

The primary market barriers addressed by 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. NJNG addresses this barrier by offering incentives and on-bill repayment options.
- **Traditional Credit Screening:** Many customers interested in pursuing the financing offered by the NJCEP HPwES 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. NJNG's OBRP approach 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.
- **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 HPwES program 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
 - reinforcing that the investments in equipment and shell measures may increase the value of their home.
- **Trade Ally Awareness and Training:** To meet the participation goals, sufficient HPwES contractors must be available to undertake the work. Contractor participation in HPwES has remained stagnant over the past few years. NJNG will address this barrier by trying to recruit and refer HVAC contractors to NJCEP for inclusion in this program.

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 programs that identify and confront market barriers on an ongoing basis. To the extent possible, NJNG will cross-promote subprograms to spread awareness of the range of energy-efficiency opportunities proposed in this plan.

2. Commercial and Industrial Programs

Through this program, NJNG will continue to support specific NJCEP commercial programs and will introduce several new subprograms to serve the needs of our commercial and industrial customers. Subprograms include:

Direct Install and SmartStart: Continuation of an On-Bill Repayment option to address the upfront cost barrier for these NJCEP programs to make participation more accessible for commercial customers.

SAVEGREEN on Main: New approach to serve the needs of our commercial customers using less than 5,000 therms per year. It features an assessment, up-front incentive, OBRP option for the balance of the project cost and the opportunity to earn a performance-based incentive.

Engineered Solutions: Tailored energy assistance to reduce the energy burden for public service entities (e.g. municipalities, universities and colleges, schools, hospitals, non-profit entities). It will include energy assessment, up-front incentives and OBRP options to encourage comprehensive upgrades by eliminating the upfront cost barrier.

2.1 NJCEP DIRECT INSTALL AND SMART START ON-BILL REPAYMENT PROGRAMS (MFR II.a.1)

Commercial customers implementing upgrades through NJCEP's Direct Install ("DI") program are eligible to participate in an NJNG no-interest On-Bill Repayment Program (OBRP). Repayment of the principal will be made by participating customers. The program is intended to address up-front cost barriers customers may face by offering an OBRP for the amount of the project not covered by the NJCEP incentive. Additionally, to ensure that customers have adequate resources to pursue recommended energy-efficient equipment upgrades, NJNG proposes to allow customers to apply for an OBRP for measures incented under the NJCEP SmartStart Building program. The OBRP amount would be net of NJCEP incentives.

Consistent with current NJNG program terms, customers can take advantage of both the NJCEP DI and SmartStart Buildings incentives and the OBRP. Only customers who meet NJNG's credit review criteria will be eligible to participate in the on-bill repayment option. NJNG reserves the right to limit participation in OBRP to customers who utilize natural gas as their heating source.

All projects and/or measures must conform to NJCEP requirements in order to receive and take advantage of NJNG's On-Bill Repayment Program.

Market Segment/Efficiency Targeted (MFR II.a.2)

All commercial customers participating in NJCEP's Direct Install and Smart Start Buildings Programs within NJNG's service territory.

Delivery Method (MFR II.a.3) (MFR II.e)

NJNG will utilize in-house staff for the credit screening and OBRP enrollment process. NJNG staff will also assist in outreach and marketing to encourage customers to participate in these NJCEP programs and provide on-going support for customer inquiries throughout the process.

Projected Participants (MFR II.a.4) and Energy Savings (MFR II.a.5)

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 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.

Table 6: NJCEP DI and SmartStart OBRP Estimated Participation and Savings

Metric	2019	2020	2021
Participants	115	115	115
Natural Gas Savings (therms)	227,346	227,346	227,346
Electric Savings (kWh)	9,048,271	9,048,271	9,048,271

Relationship to Existing Programs (MFR II.a.6) (MFR II.b)

The subprogram is integrated with the NJCEP DI and SmartStart Buildings programs. While external financing options may rely on traditional credit screening, NJNG reviews eligibility to participate based on utility payment history and lack of recent bankruptcies.

This subprogram approach is consistent with what NJNG currently offers for our commercial customers. South Jersey Gas offers similar financing incentives for its customers. PSE&G offers its own version of a Direct Install program that is not integrated with the NJCEP program but does provide an on-bill repayment program.

Comparison to Out of State Programs (MFR II.c)

There are many variations on how commercial Direct Install and prescriptive programs are delivered throughout the country. However, since the structure of this NJNG subprogram is a financing component for NJCEP program offers and NJNG does not control the terms of the NJCEP incentive structure, any comparisons to out of state programs would not be relevant to NJNG’s proposal. While not a direct comparison to our integrated approach with NJCEP, National Grid in Massachusetts offers a Direct Install program with incentives similar to NJCEP’s Direct Install with a companion on-bill repayment program for the balance. Energize CT also offers a financing component to complement incentives offered in its small business program.

Proposed Incentives (MFR II.a.8)

For Direct Install, NJNG proposes to offer an OBRP for the value of the project not covered by the NJCEP incentive, subject to their prevailing caps. NJNG proposes to retain the current repayment term of three years. In the event NJCEP adjusts the incentive ratio or caps during the term of this approved program, the maximum available for OBRP would be adjusted accordingly to continue to target the elimination of the up-front cost barrier.

For the NJCEP SmartStart Buildings program, the OBRP amount would be net of NJCEP incentives. NJNG proposes to retain the current 10-year repayment term with a maximum OBRP of \$130,000. NJNG recognizes that there is the potential for NJCEP to adjust the name of the SmartStart program as NJCEP implements changes to align with the anticipated Strategic Plan. The intention within this program is to offer the financing components for any “single measure and multi-measure” commercial programs that NJCEP offers.

Marketing Approach (MFR II.a.12) (MFR II.g)

NJNG will work with NJCEP program administrators, as well as approved Direct Install contractors, to promote this offering in our service territory. NJNG will engage with customers and trade allies at multiple levels, including a combination of direct customer, trade ally, and local organization outreach. The Company will also promote this program through local business groups and organizations and will leverage NJNG’s existing relationships and communication channels, including commercial editions of New Jersey

Natural Gas Advantage, email and bill inserts directed to commercial customers. Dedicated commercial program information resides on our microsite and is also promoted by our commercial marketing team.

Additionally, NJNG will work with NJCEP's administration to promote the program through various channels including:

- Chambers of Commerce
- Municipal outreach including partnering with Sustainable Jersey communities pursuing certification points for promoting NJCEP's Direct Install program
- Town meetings

Informational seminars, direct mail and outreach programs will also be utilized to reach commercial customers.

Contractor Role (MFR II.a.13)

NJNG will allow any contractor authorized to participate in these NJCEP programs to offer the OBRP option to their customers for qualified NJCEP projects.

Market Barriers (MFR II.a.14) (MFR II.h)

The primary market barriers that impact this subprogram include:

- **Up-front costs:** While the NJCEP DI program provides a significant incentive and turnkey solution for customers, the ability to pay the remaining up-front costs remains a significant hurdle for many customers. NJNG addresses this barrier by offering the OBRP.
- **Skepticism of contractor offer:** Some customers are skeptical that the current NJCEP offer of a 70% incentive seems like a contractor ploy. NJNG's participation in the process and companion OBRP option lend credibility to the process.
- **Customer awareness:** NJNG continues to leverage our utility communication channels and provide direct outreach to customers to raise awareness of this subprogram.

2.2 SAVEGREEN ON MAIN (MFR II.a.1)

To help address the needs of our smaller commercial customers, NJNG will offer a free energy assessment to all customers served on our Periodic Basic Gas Supply Service (BGSS) rate. These customers have annual usage of less than 5,000 therms per year. SAVEGREEN on Main is designed to guide these customers through the process of identifying and implementing energy-saving opportunities.

- The assessment is intended to evaluate all potential energy-efficiency upgrades that make sense for that premise. The recommended upgrades could include energy-efficient equipment (HVAC, refrigeration, mechanical, shell, lighting, commercial kitchen, etc.). Customers will receive a customized report summarizing energy-saving installation options, upgrades, and a cost-benefit analysis for future improvements.
- Based on that assessment, interested customer's audit results will be posted to the Contractor Portal which would solicit competitive proposals from contractors. Customers may also contact their preferred contractor directly, but a comparison to bids from the portal would be required. This approach will ensure competitive pricing for the scope of work and also leave a path for a customer to use a contractor they have a long standing relationship with.
- All projects must include a smart thermostat with remote monitoring capabilities.
- Customers will be eligible for an up-front incentive and can have the balance of the project costs financed by an On-Bill Repayment Program (OBRP) up to a maximum of \$50,000.
- After installation, NJNG staff will meet with the customer to review satisfaction with the project and emphasize the importance of behavioral energy saving practices in a commercial environment.
- Customers will have the option to pursue performance incentives provided they are willing to share all of their electric bills during the post-installation period. This effort to tie incentives to performance represents a way to offer a pay for performance model at a cost-effective scale for smaller customers.

Market Segment/Efficiency Targeted (MFR II.a.2)

The subprogram will be open to all NJNG customers with an annual usage of less than 5,000 therms per year. The project is designed to comprehensively serve the needs of customers in this market segment by reviewing HVAC equipment, building shell, lighting, refrigeration, mechanicals and commercial kitchen equipment.

Delivery Method (MFR II.a.3) (MFR II.e)

The eligibility for the subprogram can easily be identified by their NJNG rate code. The assessment for most participants will be performed by an NJNG auditor with BPI commercial certifications. However, NJNG will consult with customers prior to the initial assessment and if the customer has more complicated technical needs, NJNG will consult with the firms under contract for the Engineered Solutions or Energy Management Programs. NJNG will leverage the contractor portal to secure competitive prices. NJNG staff will perform final Quality Control inspection.

Projected Participants (MFR II.a.4) and Energy Savings (MFR II.a.5)

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 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.

Table 7: SAVEGREEN on Main Estimated Participation and Savings

Metric	2019	2020	2021
Participants	65	81	102
Natural Gas Savings (therms)	23,981	29,977	37,471
Electric Savings (kWh)	3,554,793	4,443,492	5,554,365

Relationship to Existing Programs (MFR II.a.6) (MFR II.b)

While NJCEP Direct Install (“DI”) targets customers under certain electric demand thresholds, this subprogram is designed to focus on much smaller customers. With annual usage less than 5,000 therms or less per year, these customers have usage that is just a multiple of some residential customers. Further, the NJCEP DI program does not address shell measures. NJNG does not view the subprograms as competing with DI and NJNG intends to continue to fully support the DI program.

Comparison to Out of State Programs (MFR II.c)

Many utilities run focused energy-efficiency programs to target small businesses. It is common for them to offer turnkey efficiency services with significant incentives to target this hard to reach market. National Grid has a program that includes a 70% up-front incentive (similar to the NJCEP DI program) with an OBRP component for the balance. Con Edison offers a small business program with a 50% upfront incentive.

NJNG is not aware of any programs with a structure similar to this proposed subprogram where a significant portion of the traditional incentive is tied to meeting performance targets.

Proposed Incentives (MFR II.a.8)

To encourage customers to pursue the energy saving measures recommended through the assessment, participating customers will receive a 20% rebate on the total project cost and have the ability to put the balance of the project cost (up to a cap of \$50,000) on an OBRP for a 5 year term at 0%. Customers may also be eligible for an additional performance incentive of a 10% rebate for each year that they meet the behavioral energy savings requirement. The smart thermostat includes a custom report which tracks usage runtime for equipment controlled by the thermostats. If customers use the monitoring equipment to allow for schedule and occupancy setbacks and, as a result, can achieve an additional 5% energy savings as monitored through the system reports over a 12 month period, they will earn an additional 10% of their total project cost as a performance incentive. All customers with an OBRP will have their performance incentive directly applied to their outstanding balance. Customers who do not take advantage of NJNG’s OBRP will receive their performance incentives in the form of a check. This process will be repeated for years two and three and customers that continue to meet the savings target will earn additional loan forgiveness in those years. Customers interested in consideration for the performance rebates must submit copies of their electric bills.

Marketing Approach (MFR II.a.12) (MFR II.g)

The Company will engage with commercial customers and trade allies at multiple levels using a combination of direct outreach by NJNG staff, door-to-door canvassing and local organization outreach. NJNG will utilize its traditional internal marketing tools including, email and bill inserts directed to commercial customers. Similar to residential marketing, strategies will include web-based engagement, digital and social media advertising and printed materials to promote awareness among trade allies and customers. Other direct outreach efforts to this customer group include promotion to its existing contractor

channel while developing new partnerships with contractors concentrating in commercial installations. Additionally, NJNG will promote the program through various channels including:

- Local business organizations
- Chambers of Commerce
- Urban Enterprise Zone (“UEZ”) Managers
- Municipal outreach including partnering with Sustainable Jersey communities pursuing certification points
- Partnering with municipal green teams
- Town meetings

Contractor Role (MFR II.a.13)

NJNG participating contractors are recruited for the subprogram. Jobs are bid via a portal similar to our residential portal. This will ensure competitive pricing for the scope of work and also leave a path for customers to use a contractor they have a long standing relationship with.

Market Barriers (MFR II.a.14) (MFR II.h)

The primary market barriers that impact this subprogram include:

- **Up-front costs:** Up-front costs remains a significant hurdle for many customers. NJNG addresses this barrier by offering the OBRP.
- **Ease of process:** Many smaller commercial customers have limited staff resources and/or limited technical knowledge. NJNG addresses this barrier by helping the customer understand their energy saving opportunities and secure competitive bids for projects.
- **Customer awareness:** NJNG continues to leverage our utility communication channels and provide direct outreach to customers to raise awareness of this program.

2.4 C&I ENGINEERED SOLUTIONS (MFR II.a.1)

The C&I Engineered Solutions Subprogram will provide tailored energy-efficiency assistance to public service entities, such as municipalities, universities, schools, hospitals (“MUSH”), and non-profit entities. The subprogram will provide expert-guided 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 0% on-bill repayments over a period of five years. Through this subprogram design, participants in market segments that have typically been underserved are able to achieve greater energy savings.

Market Segment/Efficiency Targeted (MFR II.a.2)

C&I MUSH and non-profit entities located within NJNG 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 investing in energy-efficiency. The measures included in this subprogram may include HVAC, building envelope, motors, lighting, controls, energy storage and other energy consuming equipment.

Delivery Method (MFR II.a.3) (MFR II.e)

NJNG will utilize qualified trade allies to undertake the audit and engineering services required to deliver this subprogram. Participants will contract with the installation trade allies selected through the 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 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. The selected NJNG trade ally then will perform the appropriate level energy audit and prepare a customized audit report that includes a list of recommended energy-efficiency upgrades. NJNG and its representatives will 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, an engineering analysis may be required. NJNG will conduct a screening of the payback and project cost effectiveness and select a set of approved energy-efficiency measures for the project. The subprogram engineering trade ally will prepare bid-ready documents and work with the participant to prepare a Scope of Work, which will be used by the customer to obtain installation cost estimates for the project.
- **Scope of Work/Contractor Bids:** The participant will issue a Scope of Work to obtain competitive bids to complete the identified and approved project. NJNG, the subprogram engineering trade ally and the participant will review and evaluate the bids/costs received, and the participant will make the final decision on bid selection. Following bid selection, the proposed project is again screened for cost effectiveness and the participant is presented the funding commitment proposal from NJNG. Once (i) the participant and NJNG have executed the funding commitment and (ii) the installation trade ally and the participant have executed applicable agreements and contracts, the first progress payment equal to approximately 30% of the installation cost can be issued to the customer to initiate the project (Stage 1 Progress Payment).

- Measures Installation and Inspections:** NJNG and the energy engineering trade ally, acting as construction administration agent, will monitor project progress. Upon verification of satisfactory project progress, a series of Stage 2 progress payments up to 50% of total project commitment can be issued. When the project is 100% complete, a final project true-up, and final inspection are undertaken. 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 building owners can pay their contractors on a timely basis. Project progress and the project cash flow will be monitored and verified by NJNG.

Projected Participants and Energy Savings (MFR II.a.4) (MFR II.a.5)

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 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. Total savings estimates are based on the projected program participation during each year of the forecast period.

Table 9: C&I Engineered Solutions Estimated Participation and Savings

Metric	2019	2020	2021
Participants	4	7	12
Natural Gas Savings (therms)	173,160	303,030	519,480
Electric Savings (kWh)	2,378,935	4,163,137	7,136,806

Relationship to Existing Programs (MFR II.a.6) (MFR II.b)

The C&I Engineered Solution is structured to be similar to the PSE&G Hospital and Healthcare subprogram and Multi-Family subprogram. NJNG is proposing to apply this program design to the following market sectors: hospitals, healthcare, , municipalities, universities, non-profits and schools. The C&I Engineered Solutions Subprogram is designed to reach segments of the market that have difficulty accomplishing projects through the other pathways, including existing NJCEP programs.

NJCEP does not offer a similar program at this time. BPU staff actively promote Energy Savings Improvement Plans (“ESIP”) as a vehicle for local government entities and school districts to support energy-efficiency improvements without an up-front investment. However, the NJCEP website specifically states:

The ESIP approach may not be appropriate for all energy conservation and energy-efficiency improvements. Local units should carefully consider all alternatives to develop an approach that best meets their needs.

NJNG has worked collaboratively with BPU outreach staff in the past and would continue to do so with this program, including consideration of whether this subprogram offer might be appropriately incorporated into any eligible entities’ ESIP plan.

Comparison to Out of State Programs (MFR II.c)

The C&I Engineered Solutions subprogram provides tailored energy-efficiency assistance to public service entities, such as municipalities, universities, schools, hospitals (MUSH), and non-profit entities. While many utilities across the country offer specific programs tailored to some of the entities in these market segments, NJNG does not believe they offer a direct comparison to this proposal. Examples of other utilities with program offers targeted to similar market segments are Centerpoint Energy, Pacific Gas & Electric and PECO.

Proposed Incentives (MFR II.a.8)

The subprogram will provide a 100% incentive for an up-front ASHRAE Level I, II, or III audit, the specific audit level to be determined based upon the type, size and age of the facility. 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.

The full cost of the energy-efficiency projects (including engineering, transaction costs and cost of construction) will be provided through a combination of subprogram incentive and customer repayments.

Marketing Approach (MFR II.a.12) (MFR II.g)

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. In addition, NJNG will work with hospitals, healthcare facilities, and non-profits to increase awareness of the subprogram. The subprogram will leverage NJNG's existing relationships and communication channels with customers.

Contractor Role (MFR II.a.13)

NJNG will select qualified subprogram participating trade ally contractors to undertake all auditing and engineering work associated with the subprogram. Participants can request that their preferred installation trade allies participate in the competitive bidding process. Installation trade allies must adhere to the project specifications developed by NJNG and the engineering trade ally, and as approved by the participant. NJNG will leverage its existing 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 install energy-efficient equipment for participating customers.

Market Barriers (MFR II.a.14) (MFR II.h)

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, provides 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 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

equipment investments and long-term planning. The subprogram will also 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 is provided to the customer to reduce the initial cost, and NJNG will endeavor to communicate the non-energy benefits offered by many efficiency upgrades that are not well captured in traditional cost/benefit analysis.

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. To the extent possible, NJNG will cross-promote subprograms to spread awareness of the range of efficiency opportunities proposed in this plan.

New Jersey Natural Gas
SAVEGREEN 2018 Program

SUMMARY

Program Investment	
Residential Program	\$ 98.776
Commercial Program	<u>36.280</u>
Total Program Investment	\$ 135.056
Operation and Maintenance	\$ 5.224
Total Investment & O&M	<u><u>\$ 140.280</u></u>

**New Jersey Natural Gas
SAVEGREEN 2018 Program**

Projected Investment / OBRP-Financing & Participation Rates

	Investment					Total Investment	
	Year 1	Year 2	Year 3	Year 4*	Year 5*		
<u>Residential:</u>							
Behavioral	\$ 1,958	\$ 1,960	\$ 1,962	\$ -		\$ 5,879	
Efficient Products	5,257	5,317	5,182	-		15,756	
Home Energy Assessments	677	699	722	-		2,099	
HVAC Incentives	2,809	2,849	2,890	-		8,547	
Home Performance w/Energy Star	540	556	573	-		1,670	
	\$ 11,240	\$ 11,381	\$ 11,329	\$ -		\$ 33,950	
<u>Commercial & Industrial:</u>							
SAVEGREEN on Main	\$ 698	\$ 868	\$ 1,078	\$ 99		\$ 2,742	
Engineered Solutions	483	1,952	3,798	5,140	1,811	\$ 13,185 *	
Direct Install/ Smart Start	181	187	192	-		\$ 560	
	\$ 1,362	\$ 3,006	\$ 5,068	\$ 5,239	\$ 1,811	\$ 16,487	
TOTAL DIRECT INVESTMENT PROGRAMS	\$ 12,602	\$ 14,388	\$ 16,397	\$ 5,239	\$ 1,811	\$ 50,438	
	Term	On-Bill Repayment Plans/Financing					Total OBRP/Financing
		Year 1	Year 2	Year 3	Year 4	Year 5	
Efficient Products	2 Years	\$ 1,836	\$ 1,958	\$ 1,836	\$ -	\$ -	\$ 5,630
Home Energy Assessments	2 Years	122	127	132	-	-	\$ 382
Direct Install	3 Years	1,790	1,790	1,790	-	-	\$ 5,370
HVAC	5 Years	5,869	5,869	5,869	-	-	\$ 17,606
SAVEGREEN on Main	5 Years	1,142	1,348	1,606	(99)	-	\$ 3,997
Engineered Solutions	5 Years	75	1,096	2,358	3,671	1,334	\$ 8,535 *
Home Performance w/Energy Star @ 0%	7 Years	11,538	11,538	11,538	-	-	\$ 34,614
Home Performance w/Energy Star @ 4.99%	10 Years	2,198	2,198	2,198	-	-	\$ 6,593
Smart Start	10 Years	631	631	631	-	-	\$ 1,892
TOTAL OBRP/FINANCING PROGRAMS		\$ 25,200	\$ 26,555	\$ 27,957	\$ 3,572	\$ 1,334	\$ 84,618
TOTAL ALL PROGRAMS		\$ 37,803	\$ 40,943	\$ 44,354	\$ 8,812	\$ 3,145	\$ 135,056

* Due to the complexity of this sub-program, all commitments will be finalized within the 3-Year term of the Program but may be expended over the following 24 months.

	Participation Rates			Total Participation
	Year 1	Year 2	Year 3	
<u>Residential:</u>				
Behavioral	270,000	270,000	270,000	810,000
Efficient Products	71,333	71,667	71,333	214,333
Home Energy Assessments	1,050	1,088	1,128	3,266
HVAC	4,750	4,750	4,750	14,250
Home Performance w/Energy Star @ 0%	1,260	1,260	1,260	3,780
Home Performance w/Energy Star @ 4.99%	240	240	240	720
TOTAL RESIDENTIAL PARTICIPATION	348,633	349,005	348,711	1,046,349
<u>Commercial & Industrial:</u>				
SAVEGREEN on Main	65	81	102	248
Engineered Solutions	4	7	12	23
Direct Install/ Smart Start	115	115	115	345
TOTAL COMMERCIAL & INDUSTRIAL PARTICIPATION	184	203	229	616

New Jersey Natural Gas
SAVEGREEN 2018 Program

Summary of Revenue Requirements and Projected Bill Impacts

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Residential Revenue Requirements													
Amortization	850,405	2,466,606	4,088,853	4,850,063	4,850,063	4,850,063	4,850,063	3,998,658	2,383,457	761,210			
Income Taxes	101,435	248,130	363,403	352,673	274,357	204,570	134,784	68,736	24,759	3,116			
Return	339,214	829,780	1,215,270	1,179,389	917,468	684,112	450,736	233,208	82,798	10,421			
Total	\$ 1,291,054	\$ 3,544,517	\$ 5,667,527	\$ 6,382,125	\$ 6,041,908	\$ 5,738,746	\$ 5,435,583	\$ 4,302,603	\$ 2,491,015	\$ 774,748	\$ -	\$ -	\$ -
Commercial and Industrial Revenue Requirements													
Amortization	97,260	401,885	980,792	1,750,662	2,290,637	2,355,328	2,355,328	2,258,068	1,953,444	1,364,536	604,667	64,691	-
Income Taxes	14,129	58,698	141,256	239,494	288,651	187,863	128,364	128,364	74,181	31,678	7,213	346	
Return	47,249	196,294	472,379	800,901	965,288	828,287	628,097	429,266	248,071	105,936	24,120	1,156	
Total	\$ 158,638	\$ 656,876	\$ 1,604,427	\$ 2,791,057	\$ 3,544,576	\$ 3,431,299	\$ 3,171,246	\$ 2,815,698	\$ 2,275,696	\$ 1,502,150	\$ 636,000	\$ 66,193	\$ -
On Bill Repayment Programs Revenue Requirement													
Income Taxes	242,521	654,211	994,567	1,024,478	804,508	566,597	359,254	194,060	91,041	37,756	17,060	6,092	785
Return	620,236	1,673,114	2,543,558	2,620,054	2,057,491	1,449,045	918,775	496,298	232,832	96,559	43,631	15,580	2,007
Total	\$ 862,757	\$ 2,327,326	\$ 3,538,125	\$ 3,644,532	\$ 2,861,998	\$ 2,015,643	\$ 1,278,029	\$ 690,358	\$ 323,872	\$ 134,315	\$ 60,691	\$ 21,672	\$ 2,791
Operation & Maintenance Expense	\$ 1,302,438	\$ 1,532,511	\$ 1,813,486	\$ 575,352									
Interest Credits	\$ (55,767)	\$ (156,904)	\$ (248,931)	\$ (275,614)	\$ (246,860)	\$ (216,638)	\$ (184,873)	\$ (151,486)	\$ (116,395)	\$ (79,512)	\$ (42,869)	\$ (16,256)	\$ (2,454)
TOTAL REVENUE REQUIREMENTS	\$ 3,559,120	\$ 7,904,325	\$ 12,374,635	\$ 13,117,453	\$ 12,201,623	\$ 10,969,049	\$ 9,699,986	\$ 7,657,172	\$ 4,974,188	\$ 2,331,701	\$ 653,723	\$ 71,609	\$ 337

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Average
TOTAL REVENUE REQUIREMENTS	\$ 3,559,120	\$ 7,904,325	\$ 12,374,635	\$ 13,117,453	\$ 12,201,623	\$ 10,969,049	\$ 9,699,986	\$ 7,657,172	\$ 4,974,188	\$ 2,331,701	\$ 653,723	\$ 71,609	\$ 337	
Throughput														
Rate per Therm	\$ 0.0050	\$ 0.0112	\$ 0.0175	\$ 0.0186	\$ 0.0173	\$ 0.0156	\$ 0.0138	\$ 0.0109	\$ 0.0071	\$ 0.0033	\$ 0.0009	\$ 0.0001	\$ -	
SUT	0.0003	0.0007	0.0012	0.0012	0.0011	0.0010	0.0009	0.0007	0.0005	0.0002	0.0001	-	-	
Typical Annual Bill Impacts														
200 Annual Therms														
Residential Non-Heat	\$ 1.06	\$ 2.38	\$ 3.74	\$ 3.96	\$ 3.68	\$ 3.32	\$ 2.94	\$ 2.32	\$ 1.52	\$ 0.70	\$ 0.20	\$ 0.02	\$ -	1.99
Typical Annual Bill Impact	0.4%	0.8%	1.3%	1.4%	1.3%	1.2%	1.0%	0.8%	0.5%	0.2%	0.1%	0.0%	0.0%	0.7%
1,000 Annual Therms	\$ 5.30	\$ 11.90	\$ 18.70	\$ 19.80	\$ 18.40	\$ 16.60	\$ 14.70	\$ 11.60	\$ 7.60	\$ 3.50	\$ 1.00	\$ 0.10	\$ -	9.94
Typical Annual Bill Impact	0.5%	1.2%	1.8%	1.9%	1.8%	1.6%	1.4%	1.1%	0.7%	0.3%	0.1%	0.0%	0.0%	1.0%
12,000 Annual Therms	\$ 63.6	\$ 142.8	\$ 224.4	\$ 237.6	\$ 220.8	\$ 199.2	\$ 176.4	\$ 139.2	\$ 91.2	\$ 42.0	\$ 12.0	\$ 0.12	\$ -	11.93
Typical Annual Bill Impact	0.5%	1.0%	1.6%	1.7%	1.6%	1.5%	1.3%	1.0%	0.7%	0.3%	0.1%	0.0%	0.0%	0.9%
General Service Small	\$ 79.50	\$ 178.50	\$ 280.50	\$ 297.00	\$ 276.00	\$ 249.00	\$ 220.50	\$ 174.00	\$ 114.00	\$ 52.50	\$ 15.00	\$ 1.50	\$ -	149.08
Typical Annual Bill Impact	0.5%	1.1%	1.8%	1.9%	1.8%	1.6%	1.4%	1.1%	0.7%	0.3%	0.1%	0.0%	0.0%	1.0%

NEW JERSEY NATURAL GAS COMPANY

BPU No. 9 - Gas

***First Revised Sheet No. 172
Superseding Original Sheet No. 172***

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, GO14121412 and GO18030355.

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:
Issued by: ***Mark G. Kahrer, Vice President***
Wall, NJ 07719

***Effective for service rendered on
and after January 1, 2018***

NEW JERSEY NATURAL GAS COMPANY

Fourth Revised Sheet No. 173

BPU No. 9 - Gas

Superseding Third Revised Sheet No. 173

RIDER "F"

ENERGY EFFICIENCY - EE

I. Determination of the Rate

The EE rate 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 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 (per paragraph (1)) shall 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 rate. 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 ending 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 factor shall be credited/collected on a per therm basis within the Delivery Charge for all service classifications to which Rider "F" applies. The EE factor is as set forth below:

\$0.0265

Date of Issue:
Issued by: **Mark G. Kahrer, Vice President**
Wall, NJ 07719

Effective for service rendered on
and after January 1, 2019

NJNG Energy Efficiency Program
Minimum Filing Requirements for Rate Filing
Minimum Filing Requirements (MFRs)

1. Information on direct FTE employment impacts including a breakdown by each of the Board approved NJNG EE programs. The Company will not be responsible for addressing the level of employment activity for HVAC and/or HPES contractors that are hired by customers unless those contractors are hired by NJNG.
2. A monthly revenue requirement calculation based on EE Program expenditures, including the investment and cost components showing the actual monthly revenue requirement for each of the past twelve months or clause-review period, as well as supporting calculations, including the information related to the tax rate and revenue multiplier used in the revenue requirement calculation.
3. For the review period, actual clause revenues, by month and by rate class recorded under the EE Program.
4. Monthly beginning and ending clause deferred balances related to the EE Program, as well as the average deferred balance, net of tax, for the 12-month period.
5. The interest rate used each month for over/under deferred balance recoveries related to the EE Program, and all supporting documentation and calculations for the interest rate.
6. The interest expense to be charged or credited to ratepayers each month.
7. A schedule showing budgeted versus actual EE Program costs by the following categories: administrative (all utility costs), marketing/sales, training, rebates/incentives, including inspections and quality control, program implementation (all contract costs), evaluation, and any other costs.
8. The monthly journal entries relating to regulatory asset and deferred O&M expenses related to the EE Program for the 12 month review period.
9. Supporting details for all administrative costs related to the EE Program included in the revenue requirement.
10. Information supporting the carrying cost used for the unamortized costs of the EE program.
11. Number of participants for each of the Board approved NJNG EE programs.

12. Estimated demand and energy savings for each of the Board approved NJNG EE programs.
13. Estimated emissions reductions for each of the Board approved NJNG EE programs.
14. For programs that provide incentives for conversion of energy utilization to natural gas from other energy sources (e.g., converting from electric to gas furnaces) the company shall identify:
 - i. the number of such projects;
 - ii. an estimate of the increase in annual gas demand and energy associated with these projects; and
 - iii. the avoided use of electricity and/or other fuels.