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December 1, 2023

# IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY FOR APPROVAL OF ITS CLEAN ENERGY FUTURE-ENERGY EFFICIENCY II ("CEF-EE II") PROGRAM ON A REGULATED BASIS

BPU Docket No.	

# **VIA ELECTRONIC MAIL**

Sherri L. Golden, Secretary of the Board Board of Public Utilities 44 South Clinton Avenue, 1<sup>st</sup> Floor Trenton, New Jersey 08625

Dear Secretary Golden:

Enclosed for filing is the Verified Petition of Public Service Electric and Gas Company ("PSE&G" or the "Company") in the above-entitled matter along with the appendix and attachments thereto.

PSE&G is filing this Petition seeking approval by the Board of Public Utilities ("BPU" or "Board") for its second program cycle ("Triennium 2") of the Clean Energy Future - Energy Efficiency Program ("CEF-EE II"), and is being filed pursuant to *N.J.S.A.* 48:3-98.1 (referred to as the "RGGI Law"), the Clean Energy Law (P.L. 2018, c. 17) ("CEA") and in response to the two Framework Orders issued by the Board this year.

Through CEF-EE II, the Company is requesting \$3.11 billion for investment and 10% in administrative expenses to provide energy efficiency, demand response ("DR") and building decarbonization ("BD") programs in support of the State's vision for achieving 100% clean energy by 2035. The offerings in CEF-EE II are designed to reduce customers' energy bills, continue its Clean Energy Jobs Program, and lower greenhouse gas emissions, while also modernizing the electric grid, increasing its resiliency, and enhancing the overall utility experience for PSE&G customers.

While energy efficiency is regularly recognized as the lowest cost energy resource, New Jersey has made great strides, improving its ranking to 14<sup>th</sup> from 29<sup>th</sup> in electric savings achieved according to the American Council for an Energy-Efficient Economy 2022 State Energy Efficiency Scorecard. At the time of the Company's filing of its first program cycle of the energy efficiency program in 2018, New Jersey was achieving less than one-seventh the energy savings being achieved in states like Massachusetts. However, due to New Jersey's strong commitment to energy efficiency as demonstrated by the enactment of the CEA, the utilities' associated energy efficiency programs, and its requirement that utilities reduce gas and electric usage by their customers, New Jersey is now in the top third of all states when it comes to energy efficiency. PSE&G's CEF-EE II continues to support the State in this effort and is well positioned to meet the state-mandated energy savings of 2% annual electric usage savings and 0.75% annual gas usage by program year five as required by the Clean Energy Law.

Overall, the energy industry is making progress in energy efficiency and preparedness for the challenges that lie ahead. Increased storm intensity, changing customer demands associated with the information and digital era in which we live, and the continued threat of climate change are some of the serious challenges that continue to face the industry. As referenced earlier, New Jersey is catching up, and even surpassing its peers in terms of its energy efficiency activity and its regulatory model that encourages the utilities to invest in clean energy. The CEF-EE II filing supports New Jersey's improvements in energy efficiency as New Jersey is increasingly establishing itself as a global leader in addressing the challenges facing our industry and the state.

In support of PSE&G's CEF-EE II Petition, attached and filed herewith are the Direct Testimonies and Schedules of the following witnesses.

Attachment	<u>Witness</u>	Area of Responsibility
1	Karen Reif, Vice President, Renewables and Energy Solutions, PSE&G	Energy efficiency
2	Stephen Swetz, Senior Director, Corporate Rates and Revenue Requirements, PSEG Services Corporation	Revenue requirements, cost recovery methodology, and rate design

<sup>\*</sup>Please note that workpapers will be provided electronically only.

Lastly, in accordance with the Order in Docket No. EO20030254, dated March 19, 2020, the Company hereby submits this filing via electronic delivery only to the Board Secretary, and will suspend submitting such filings as paper documents until the Board directs otherwise. We

look forward to the opportunity to actively participate in these upcoming proceedings and continuing the journey on New Jersey's path to a Clean Energy Future.

Respectfully submitted,

Steway m. mickles

Stacey M. Mickles

cc: Attached service list

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# **Table of Contents**

# **PSE&G Petition**

# **Appendix**

A- Location of MFRs- CEF-EE II Program

# **Attachments**

- 1-Direct Testimony of Karen Reif
- 2-Direct Testimony of Stephen Swetz
- **3-Accounting Schedules**
- **4-Clean and Redlined Tariff Sheets**
- 5-Typical Residential Customer Bill Impacts
- 6-Form of Notice and Filing and Public Hearings

# STATE OF NEW JERSEY BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF (	)	
PUBLIC SERVICE ELECTRIC AND GAS	)	<b>PETITION</b>
COMPANY FOR APPROVAL OF ITS	)	
CLEAN ENERGY FUTURE-ENERGY EFFICIENCY )	)	BPU Docket No.
II (CEF-EE II) PROGRAM ON A REGULATED BASIS )	)	

# I. INTRODUCTION

Public Service Electric and Gas Company ("PSE&G", "Petitioner" or the "Company"), a corporation of the State of New Jersey, having its principal offices at 80 Park Plaza, Newark, New Jersey, respectfully petitions the New Jersey Board of Public Utilities ("Board" or "BPU") pursuant to N.J.S.A. 48:2-21, N.J.S.A. 48:2-21.1, N.J.S.A. 48:3-98.1, and any other statute or regulation the Board deems applicable, as follows:

- 1. Petitioner is a public utility engaged in the distribution of electricity and the provision of electric Basic Generation Service ("BGS"), and the distribution of gas and the provision of Basic Gas Supply Service ("BGSS"), for residential, commercial, and industrial purposes within New Jersey. PSE&G provides service to approximately 2.4 million electric and 1.8 million gas customers in an area having a population in excess of 6.2 million people, which extends from the Hudson River opposite New York City, southwest to the Delaware River at Trenton and south to Camden, New Jersey.
- 2. PSE&G is subject to regulation by the Board for the purposes of setting its retail distribution rates and to assure safe, adequate, and reliable electric distribution and natural gas distribution service pursuant to N.J.S.A. 48:2-21 et seq.
- 3. Through this Petition and the accompanying schedules and testimonies, PSE&G seeks BPU approval for the second program cycle ("Triennium 2") of the Company's Clean

Energy Future – Energy Efficiency Program ("CEF-EE II") which, forms the basis for a clean and resilient energy future. The CEF-EE II Program will build upon the success of the Clean Energy Future - Energy Efficiency ("CEF-EE")<sup>1</sup> Program and continue to expand PSE&G's energy efficiency deployment in its service territory beyond current levels, in order for the State to meet its clean energy objectives.

- 4. CEF-EE provided the foundation to allow the State to meet its clean energy goals, as set forth in New Jersey's Clean Energy Act ("CEA"), P.L.2018, c. 17. More recently, on February 23, 2023, Governor Murphy issued three Executive Orders (EO 315, EO 316 and EO 317) which provide plans for the inclusion of the development of the 2024 NJ Energy Master Plan and significantly accelerate the previously established clean energy, electrification and emission reduction goals. Governor Murphy accelerated the goal of 100% clean energy sources from January 1, 2050 to January 1, 2035. CEF-EE II in particular will further the State's goals by, among other benefits: (a) providing continuing opportunity to lower energy consumption and customer bills; (b) further reducing greenhouse gas emissions; (c) offering building decarbonization ("BD") and demand response ("DR") programs to residential and commercial and industrial customers; and (d) continuing and expanding on the Clean Energy Jobs Program.
- 5. As a result of the work and success of the utilities' energy efficiency and peak demand reduction programs, New Jersey has established itself as a leader in the development of a Clean Energy Future. It has been five years since the Board's implementation of the CEA. The Board, the utilities and other interested stakeholders have worked together to develop and refine the energy

<sup>1</sup> I/M/O Public Service Electric and Gas Company for Approval of its Clean Energy Future- Energy Efficiency ("CEF-EE") Program on a Regulated Basis, BPU docket numbers GO18101112 and EO18101113 (September 23, 2020)

- 2 -

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efficiency landscape of New Jersey. The continuation of these programs at this time is appropriate because this implementation, compared to the CEF-EE, will have the benefits of the experiences and learnings of the first program cycle ("Triennium 1"). The BPU's Division of Clean Energy must continue to play a critical role in oversight, standard setting, and ensuring consistency in implementation of energy efficiency programs throughout the State, where appropriate.

# II. <u>CEF – EE II Program</u>

# A. Background

- 6. Pursuant to Section 13 of P.L. 2007, c. 340 (the "RGGI Law"), codified in part 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. An electric or gas public utility's investment in energy efficiency and conservation programs is eligible for rate treatment approved by the Board, including a return on equity, or other incentives or rate mechanisms. N.J.S.A. 48:3-98.1(b). In addition, the CEA, which Governor Murphy signed into law on May 23, 2018, requires each utility to implement energy efficiency measures to reduce electricity usage by 2% and natural gas usage by 0.75%, and requires that a utility shall include in an annual petition for cost recovery the revenue impact of sales losses resulting from the implementation of those measures.<sup>2</sup>
- 7. PSE&G has made several energy efficiency filings pursuant to Section 13 of the RGGI Law, including:

<sup>&</sup>lt;sup>2</sup> P.L. 2018, c. 17, § 3(a) and (e)(1).

- On June 23, 2008, PSE&G filed a petition with the Board seeking approval of its Carbon Abatement Program, which the BPU approved by Order dated December 16, 2008;<sup>3</sup>
- On January 21, 2009, PSE&G filed a petition with the Board seeking approval of its Energy Efficiency Economic Stimulus Program ("EEE Program"), which the BPU approved by Order dated July 16, 2009;<sup>4</sup>
- On January 24, 2011, PSE&G filed a petition with the Board seeking approval to extend three of the EEE subprograms (*i.e.*, Multifamily Housing, Government/Municipal/Non-Profit Direct Install, and Hospital Efficiency), which the BPU approved on July 14, 2011;<sup>5</sup>
- On August 8, 2014, PSE&G filed a petition with the Board seeking a further extension of the three EEE subprograms with certain modifications, which the BPU approved on April 15, 2015;<sup>6</sup> and
- On March 3, 2017, PSE&G filed a petition with the Board seeking a further extension of the three EEE subprograms with certain modifications, along with a request for two new subprograms (*i.e.*, smart thermostats and a data analytics pilot) ("EE2017"). The Board approved this filing on August 23, 2017.<sup>7</sup>
- On October 11, 2018, PSE&G filed a petition with the Board seeking approval of its CEF-EE Program, including a request to implement 22 energy efficiency and demand response programs. The Board approved this filing on September 23, 2020.

<sup>&</sup>lt;sup>3</sup> In the Matter of the Petition of Public Service Electric and Gas Company Offering a Carbon Abatement Program in its Service Territory on a Regulated Basis and Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. EO08060426, Order (Dec. 16, 2008).

<sup>&</sup>lt;sup>4</sup> In the Matter of the Petition of Public Service Electric and Gas Company Offering an Energy Efficiency Economic Stimulus Program in its Service Territory on a Regulated Basis and Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. E009010058, Decision (July 16, 2009).

In the Matter of the Petition of Public Service Electric and Gas Company for an Extension of Three Sub-Components of its Energy Efficiency Economic Stimulus Program in its Service Territory on a Regulated Basis and Associated Cost Recovery and for Changes in the Tariff for Electric Service, B.P.U.N.J. No. 15 Electric and the Tariff for Gas Service, B.P.U.N.J. No. 15 Gas, Pursuant to N.J.S.A. 48:2-21, 48:2-21.1, and 48:3-98.1, BPU Docket No. EO11010030, Decision and Order (July 14, 2011).

In the Matter of the Petition of Public Service Electric and Gas Company to Continue its Energy Efficiency Economic Extension Program on a Regulated Basis ("EEE Extension II"), BPU Docket No. EO14080897, Order Adopting Stipulation (Apr. 15, 2015).

In the Matter of the Petition of Public Service Gas and Electric Company for Approval of its Energy Efficiency 2017 Program and Recovery of Associated Costs ("17 EE Program"), BPU Docket No. EO17030196, Order Adopting Stipulation (Aug. 23, 2017).

- On September 11, 2019, the Board approved a stipulation authorizing PSE&G to extend four of PSE&G's EE2017 subprograms for one year.
- On February 19, 2020, the Board approved a further extension of five of PSE&G's EE2017 subprograms for a six month period.
- On September 20, 2022, PSE&G filed a Letter Petition with the Board seeking approval to extend its existing CEF-EE Program for a ninemonth period (October 1, 2023 through June 30, 2024) ("CEF-EE Extension"), invest an additional \$320 million (plus administrative costs equal to 10% of the additional investment), allocate existing investment dollars across the subprograms; and to offer electric CEF-EE programs during the extension period to Butler customers who are also PSE&G gas customers. The Board approved this filing on May 24, 2023. 8
- 8. As with the Company's CEF-EE Program, CEF-EE II is being filed pursuant to Section 13 of the RGGI Law. The RGGI Law sets forth the New Jersey Legislature's findings that energy efficiency 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 New Jersey citizens. The Legislature has also found and declared that public utility involvement and competition in the conservation and energy efficiency industries are essential to maximize efficiencies. *See* N.J.S.A. 26:2C-45.

# B. <u>CEF-EE II Procedural Matters</u>

9. Pursuant to the legislative authority set forth in the RGGI Law, on May 8, 2008, the Board issued an Order (the "May 2008 Order") that allows electric and gas public utilities to offer energy efficiency and conservation programs on a regulated basis, provided that the utility files a petition and obtains BPU approval for such programs and the associated mechanism for program

Hereinafter, all references to CEF-EE I include the CEF-EE I Extension.

<sup>&</sup>lt;sup>8</sup> I/M/O Public Service Electric and Gas Company for Approval of its Clean Energy Future- Energy Efficiency ("CEF-EE") Program on a Regulated Basis, BPU docket numbers GO18101112 and EO18101113 (May 24, 2023)

cost recovery.<sup>10</sup> Pursuant to the CEA, on June 10, 2020, the Board issued an Order directing the electric and gas utilities to establish energy efficiency ("EE") and peak demand reduction ("PDR") programs ("June 2020 Framework Order").<sup>11</sup> On May 23, 2023 and July 26, 2023, the Board set forth the framework for Triennium 2 of energy efficiency and conservation programs (the "2023 Framework Orders").<sup>12</sup>

- 10. As part of the May 2008 Order, the Board also established minimum filing requirements ("MFRs") that require the submission of certain information with each petition. These MFRs were revised by the June 2020 Framework Order and further revised by the 2023 Framework Orders. Please see Appendix A for the location in this filing of all CEF-EE II MFRs.
- 11. The May 2008 Order also requires a utility to meet with BPU Staff and Rate Counsel at least 30 days prior to filing its energy efficiency petition to discuss: (a) the nature of the energy efficiency program; (b) the program cost recovery mechanism to be proposed in the petition; and (c) the MFRs to be submitted along with the petition. *See* May 2008 Order, at p. 6.
- 12. With respect to the current Petition, on August 29, 2023, and September 5, 2023, joint 30-day pre-filing meetings were conducted with BPU Staff, Rate Counsel and the other New Jersey utilities<sup>13</sup> in accordance with the May 2008 Order.

Decision, 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, BPU Docket No. EO08030164, Order Pursuant to N.J.S.A. 48:3-98.1(c) (May 8, 2008).

In re the Implementation of P.L. 2018, c. 17 Regarding the Establishment of Energy Efficiency and Peak Demand Reduction Programs, BPU Docket No. QO19010040, Order dated June 10, 2020 ("June 10 Framework Order").

<sup>12</sup> I/M/O the implementation of the Implementation of P.L. 2018, C. 17, Regarding the Second Triennium of Energy Efficiency and Peak Demand Reduction Programs, BPU Docket no. QO23030150, Order Directing the Utilities to Propose Second Triennium Energy Efficiency and Peak Demand Reduction Programs (May 24, 2023 and July 27, 2023)

<sup>&</sup>lt;sup>13</sup> The NJ utilities that participated in the 30-day meeting were Atlantic City Electric Company, Elizabethtown Gas Company, Jersey Central Power & Light Company, New Jersey Natural Gas Company, Rockland Electric Company and South Jersey Gas Company.

- 13. In addition, a meeting was conducted on September 14, 2023 with PSE&G, BPU Staff and Rate Counsel also in connection with this matter.
- 14. On September 27, 2023, the Board issued an order retaining the EE Triennium 2 petitions, designating presiding commissioners and extending the filing deadline until December 1, 2023.
- 15. On October 25, 2023, the Board issued an Order revising the Triennium 2 program period and the duration of Program Year 4 ("October 2023 Order"). <sup>14</sup> The October 2023 Order also updated the Triennium 2 energy savings targets for the energy efficiency programs. Triennium 2 will be a thirty-month period covering January 1, 2025 through June 30, 2027. Program Year 4 ("PY4") will be the six-month period from January 1, 2025 through June 30, 2025. In addition, the Board adjusted the utility energy savings targets for each program year of Triennium 2. The revised energy savings targets for electric are 0.64% for the 6-month PY 4, 1.57% for Program Year 5 ("PY 5"), and 1.56% for Program Year 6 ("PY 6"). The revised energy savings targets for natural gas are 0.245% for the 6-month PY4, and 0.55% for PY5 and PY6.
- 16. An additional meeting was held by PSE&G on November 9, 2023, to provide an update to BPU Staff and Rate Counsel on PSE&G's filing in this matter.
- 17. Under the RGGI Law, once a petition has been filed with the Board, Board Staff shall have 30 days, commencing on the date the petition was filed, to determine whether the petition is administratively complete and to so advise the utility in writing. If BPU Staff determines that the petition is not administratively complete, it shall set forth the deficiencies and the items required to remedy the deficiencies. *See* May 2008 Order, at p. 6. PSE&G respectfully requests

<sup>&</sup>lt;sup>14</sup> I/M/O the implementation of the Implementation of P.L. 2018, C. 17, Regarding the Second Triennium of Energy Efficiency and Peak Demand Reduction Programs, BPU Docket no. QO23030150, Order dated October 25, 2023.

that BPU Staff conduct its administrative completeness assessment of the CEF-EE II Petition at this time.

- 18. PSE&G's CEF-EE II filing is being submitted pursuant to Section 13 of the RGGI Law, the Board's May 2008 Order (as modified by the October 20, 2017 Order) and the 2023 Framework Orders (as modified by the October 25, 2023 Order), which allots the BPU 180 days from the date of an energy efficiency filing to review and approve any such filing submitted thereunder once the Board determines that the filing has met the MFRs. *See* N.J.SA. 48:3-98.1(b); May 2008 Order, at p. 6.
- offerings, as well as reviews of similar N.J.S.A. 48:3-98.1 offerings by other electric and gas utilities, the Board has retained jurisdiction of this matter and appointed BPU Commissioner Mary-Anna Holden as the presiding commissioner in this matter. PSE&G looks forward to the opportunity to work with Commissioner Holden and all parties to arrive at a mutually acceptable resolution of any issues that may arise in this proceeding. As stated in the May 2008 Order, "[t]he Board encourages all interested parties to work toward a settlement for the Board's consideration before expiration of the 180 day period." *See* May 2008 Order, at p. 5.

# C. CEF-EE II Program Description

20. CEF-EE II consists of eight (8) energy efficiency programs and three (3) other programs, which include BD and DR programs, which are required by the Framework Order, and a Next Generation Savings program, (collectively, the "CEF-EE II Program"). Customers in PSE&G's electric and/or gas service territory who meet the criteria for the respective CEF-EE II Program will be eligible to participate in them. CEF-EE II has been designed to specifically address

the following hard to reach sectors: low-income customers, overburdened communities ("OBCs"), multi-family buildings, small businesses, and local government facilities.

21. The proposed residential programs will take advantage of the momentum gained from CEF-EE to continue to significantly upgrade efficiency in homes throughout PSE&G's service territory. The residential programs are designed to address replacement of inefficient appliances, equipment, and systems by promoting and incentivizing new, high efficiency equipment and providing easily accessible channels for such purposes. In addition, one of the residential programs specifically addresses the unique needs of low-to-moderate income customers. The multifamily sector program provides a targeted approach to securing energy efficiency upgrades for landlords and residents, which encourages landlords to install high efficiency measures that will allow the residents of multifamily dwellings to realize the benefits of those measures. Where appropriate, CEF-EE II provides additional beneficial program features to customers through on-bill repayment and other incentives. Based on the success of these programs during CEF-EE, PSE&G will continue to sponsor awareness, educational and behavioral advertising, in an effort to change the culture of energy use and efficiency in its territory.

22. A detailed description of the programs is set forth in Schedule KR-CEF-EE-2. A summary of the CEF-EE II programs is as follows:

Sector	Program	Description
Residential	Whole Home	Provides comprehensive residential energy efficiency assessment and installation services to provide 'one stop shop' for all applicable energy efficiency and decarbonization upgrades for PSE&G residential customers, including on-bill repayment ("OBR"), for weatherization and equipment replacement.
	Income Qualified	Similar offering to Whole Home program with 100% incentive coverage for assessment and efficiency upgrades for income-qualified residential customers; also included enhanced financial support for pre-

		weatherization barrier mitigation and health and safety measures.
	Energy Efficient Products	Offers incentives and OBR for energy efficient equipment and appliances.
	Behavioral	Provides electric and gas customers with information about their energy use, the usage of their peers, and suggested actionable steps to produce energy savings through behavioral changes and engagement with other energy efficiency programs.
Commercial	Energy Solutions	Whole-building engineered savings including expanded outreach, technical assistance, and financial incentives supporting whole-building energy efficiency upgrades through a streamlined suite of energy solutions. Also includes incentives for retrocommissioning and strategic energy management, in addition to OBR.
and Industrial ("C&I")	Prescriptive & Custom	Rebates & OBR for measures such as HVAC, lighting, motors & drives, refrigeration, water heaters, air compressors, food service equipment, and custom measures.
	Direct Install	Provides free audit and easy-to-complete process with enhanced incentive coverage and OBR available for relatively simple EE projects for smaller C&I customers.
Multifamily	Multifamily	Targeted program directed at the specific challenges of this hard-to-reach customer segment. Offers a standalone program that leverages measures from both Residential and C&I programs with multi-family specific incentive levels and marketing, including OBR.
	Next Generation Savings	Support for field testing and assessment of opportunities to incorporate new technologies and program designs.
Other	Building Decarbonization	Includes several approaches that incentivize switching from fossil fuel to electric measures in buildings. Includes a utility owned Geothermal Network Demonstration and a PSE&G Building Decarbonization Demonstration. OBR will be available for pathways where the incentives do not cover the full cost of the project.
	Demand Response	Several different demand response approaches to residential and commercial customers to reduce usage during times of high demand, OBR may be available for pathways where there are costs to customers.

- 23. PSE&G is also proposing to assume the administration of the Comfort Partners program in its territory. <sup>15</sup> Comfort Partners provides energy efficiency upgrades and health and safety measures to low-income households at no cost to qualifying homeowners. If approved, the Comfort Partners program would become part of the residential Income Eligible program offering.
- 24. Allowing PSE&G to administer the Comfort Partners program as part of its larger suite of program offerings allows the Company to offer more comprehensive energy efficiency solutions, streamline customer access to the programs, improve the customer experience and effectively manage the needs and unique circumstances of these customers. Utility administration of the Comfort Partners program will also mean that accountability for savings targets associated with Comfort Partners, which already rests with the utilities, is more appropriately aligned with the budgeting and management of the program, which was historically the responsibility of the BPU.
- 25. As part of its C&I sector programs, Direct Install and Energy Solutions are two pathways that address the needs of public entities. The Company has provided solutions to the public sector throughout its energy efficiency programs since 2008. To address concerns around compliance with Local Public Contracts Law, N.J.S.A 40:A-11 and Local Public Schools Contract Law, N.J.S.A. 18:A-5, PSE&G is proposing certain reporting enhancements to its current programs. To satisfy the provision of Local Public Contracts Law, N.J.S.A 40:11-5(1)(f), and Local Public Schools Contract Law, N.J.S.A. 18:A-5.a(7), the Company will file a schedule of unit

<sup>&</sup>lt;sup>15</sup> The CEF-EE II Framework Order allows a utility to request to administer the Comfort Partners Program.

pricing for energy efficiency measures with the BPU on an annual basis. Further, PSE&G will provide a confidential filing to the BPU listing competitively sensitive pricing information associated with offering the Direct Install and Energy Solutions programs. PSE&G will file these schedules on or about the time the PSE&G makes its annual GPRC filing.

- 26. PSE&G, as part of its process for seeking bids and/or proposals for public entities, may assign contractors by geographic regions. While the pricing may vary across regions (due to contractor availability, product availability and pricing), the pricing for municipal entities will be consistent for projects within a region.
- 27. In addition to the schedules of pricing, the Company will provide the certified payrolls it receives to public sector entities on a weekly basis and will also require its public sector contractors to be Departments of Property Management and Construction ("DPMC") certified in DPMC category P051- Energy Auditing.
- 28. In addition to the energy efficiency, BD and DR programs that are filed as part of this Petition and required by the 2023 Framework Orders, PSE&G is proposing an additional utility-led program. The Next Generation Savings program is being filed in conjunction with the other utilities and will promote the adoption of new technologies in the EE programs and support the programs in modernizing as updated clean energy technologies become available.
- 29. PSE&G is also proposing the following demonstrations, which are part of its BD and DR programs. Under the BD program, the Company is proposing a utility-owned Networked Geothermal system and is also proposing to electrify one of its own facilities, the Elizabeth Electric

Distribution Facility. Through the DR program, the Company is proposing a Virtual Power Plan ("VPP") demonstration.

- 30. PSE&G is also proposing to continue the Clean Energy Jobs program. During Triennium 1 the Clean Energy Jobs program created clean energy jobs, trained workers, and provided supportive services to support long-term job retention. The Clean Energy Jobs program also focused on hiring and training Minority, Women and Veteran Business Enterprises ("MWVBE"). As of October 2023, PSE&G's Clean Energy Jobs program has placed over 2,400 people in clean energy jobs and trained and upskilled more than 600 employees to foster long-term energy efficiency careers and a pathway to career growth.
- 31. PSE&G has conducted a cost-benefit analysis to analyze the cost effectiveness of the CEF-EE II Program using the six cost-benefit analysis tests, where applicable, and as required by the MFRs. However, as determined by the Board, the New Jersey Cost Test ("NJCT") is the primary test to determine the merit of the energy efficiency programs. Using the NJCT, this analysis demonstrates the value of the CEF-EE II Program and merits approval by the Board. Using the NJCT, the CEF-EE II is cost effective with a result of 1.3. The results of all six cost benefit tests are set forth in the Direct Testimony of Karen Reif, Vice President, Renewables and Energy Solutions (Attachment 1 to this Petition). The Clean Energy Act emphasizes the importance of measuring the environmental and economic benefits (see N.J.S.A. 48:3-87(g)-(h)), as does the Offshore Wind Economic Development Act of 2010 (see N.J.S.A. 48:3-87.1(a)(10)). The detailed results of the cost-benefit analysis are reflected in Attachment 1, Schedule KR-CEF-EE-2, Appendix E.

# D. <u>CEF-EE II Benefits</u>

- 32. CEF-EE II supports the State's objectives, including those reflected in the New Jersey Energy Master Plan ("NJEMP"), the Clean Energy Act, the New Jersey Global Warming Response Act ("NJGWRA"), and Governor Murphy's Executive Order 316 ("EO 316") by: (a) reducing energy consumption, thereby lowering participating customers' utility bills; (b) supporting the State's goal of achieving 100% clean energy by 2035; (c) supporting the State's target to advance electrification in commercial and residential buildings; (d) producing environmental benefits; and (e) creating "green jobs" and bolstering New Jersey's clean energy economy.
- 33. With respect to reducing energy consumption and lowering customers' bills: in total, the proposed CEF-EE II Program is expected to save approximately 13.3 billion kWh and 639 million therms, resulting in gross lifetime savings of \$3.518 billion over the life of energy efficiency measures for participating customers.
- 34. With respect to supporting the advancement of electrification of residential and commercial buildings, CEF-EE II provides several pathways under its BD program for residential, commercial and industrial customers to electrify their buildings. PSE&G is proposing total investment of \$205 million in its BD program, consistent with the funding guidance set forth in the 2023 Framework Orders.
- 35. With respect to supporting the advancement of reduced energy usage during periods of peak demand, CEF-EE II provides several pathways under its DR program for residential, commercial and industrial programs and includes opportunities for both electric and gas customers.
- 36. With respect to environmental benefits: CEF-EE II is expected to result in an avoidance of 9.9 million metric tons of carbon dioxide emissions 1,631 metric tons of sulfur

dioxide emissions; and 3,845 metric tons of nitrogen oxide emissions over the life of the measures installed. CEF-EE II environmental benefits also include:

- helping New Jersey meet its clean energy goals in a manner consistent with the Clean Energy Act's energy savings requirements; and
- putting New Jersey on the path to meeting the mandates of the NJGWRA, which requires by 2050 a level of greenhouse gas emissions ("GHG") equal to the 2006 level of GHG emissions. <sup>16</sup>
- 37. With respect to creating "green jobs:" CEF-EE II is expected to create and/or maintain approximately 5,500 full time jobs annually 17.

# E. <u>CEF-EE II Expenditures</u>

- 38. PSE&G proposes to commit up to \$3,111.7 million in CEF-EE II. PSE&G also proposes an administrative expense budget of \$310.5 million over the term of the program. The projected CEF-EE II investment and expense budget, by individual program where applicable, are reflected in Schedule KR-CEF-EE-2, Appendix B and Schedule KR-CEF-EE-3.
- 39. The overall CEF-EE II budget includes all identified costs necessary to plan, develop and deliver programs including customer incentives, on-bill repayment, information technology ("IT"), capital expenditures, administration, workforce development, marketing, outreach and education, training, program management, inspections, evaluations, quality assurance/quality control efforts and development/planning for future program cycles.
- 40. PSE&G proposes to commit the investment over the thirty-month period towards the delivery of the programs contained in the CEF-EE II. The thirty-month period will commence

New Jersey Global Warming Response Act, N.J.S.A. 26:2c-37 et seq.

<sup>&</sup>lt;sup>17</sup> These numbers equate to roughly 6.12 direct job-years for every million dollars spent based on an analysis of the jobs impact of the energy efficiency programs using the IMPLAN Economic Modeling Analysis platform.

on January 1, 2025. <sup>18</sup> Investments related to committed CEF-EE II participants may occur beyond the thirty-month period due to long project lead and construction times for certain programs. CEF-EE II also anticipates expenses related to amortization, repayments and program evaluation to extend beyond the thirty-month period. Providing authorization for utilization of CEF-EE II administrative expense dollars for planning, development and evaluation of programs for future program cycles will allow the Company to efficiently utilize experienced contractors who are already working on existing energy efficiency programs to provide for greater continuity of programs and investment necessary to support future energy efficiency programs. Furthermore, continuing long-term energy efficiency programs are necessary to comply with the ongoing energy usage reduction targets set forth in the CEA.

Proposed administrative expenses cover the thirty-month program cycle and will also cover administrative expenses for projects that were initiated in CEF-EE.

- 41. The Company is also requesting that, upon receiving BPU approval of its program, it be allowed to expend CEF-EE II funding in preparation for program delivery on or after January 1, 2025.
- 42. As provided for in the 2023 Framework Orders, PSE&G will have the flexibility to transfer funds between CEF-EE II programs and sectors and across program years to respond to market conditions and participant demands to optimize energy savings and program resources. For purposes of fund transfers among CEF-EE II programs and sectors, the Company considers the BD, DR, and Next Gen Savings programs to be a new sector. The Company will continue to

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<sup>&</sup>lt;sup>18</sup> I/M/O the Implementation of L. 2018, c. 17 The New Jersey Clean Energy Act of 2018, Regarding the Second Triennium of Energy Efficiency and Peak Demand Reduction Programs, BPU Docket No. QO23030150, October 25, 2023.

provide reports to Board Staff and Rate Counsel regarding the CEF-EE II programs consistent with the agreed upon way it currently reports on its CEF-EE programs.

43. As further discussed in Ms. Reif's testimony, there are several factors contributing to the increased budget for energy efficiency programs in Triennium 2. In addition to the increase in the energy savings goals, the key contributors to increased budget are the adoption of net-to-gross ratios less than 1 for calculating energy savings, and changes to state and Federal energy efficiency codes and standards.

For example, the impact of the adoption by the BPU of the net-to-gross methodology for calculating energy savings represents roughly 32% for electric measures and 13% for gas measures of the increase in program investments for the energy efficiency programs in Triennium 2.

# F. Butler CEF-EE II Program Offerings

- 44. As part of the CEF-EE Extension Order, the Company was authorized to offer electric energy efficiency programs to customers of Butler Power and Light ("Butler") who are residents of Butler, Bloomingdale, and Kinnelon Boroughs, or residents serviced by Butler in the Township of West Milford and the Borough of Riverdale who are also gas customers of PSE&G (the "Butler EE Customers").
- 45. The Company is proposing to continue offering Butler EE Customers residential and C&I energy efficiency programs as part of its CEF-EE II Program in a manner consistent with the CEF-EE Extension Order.<sup>19</sup>

<sup>&</sup>lt;sup>19</sup> The Behavioral program will not be offered to Butler EE customers as PSE&G does not have access to customer usage data.

- 46. As a result of electric usage data limitations, Butler EE Customers will not be able to participate in the electric demand response offerings, however, may be able to participate in gas DR offerings as PSE&G gas customers.
- 47. Butler EE Customers will be able to participate in the BD offerings for measures that are offered through the core programs. PSE&G is seeking to streamline access to programs for Butler EE Customers and will integrate energy efficiency and BD offerings where appropriate.
- 48. PSE&G will continue to make and retain the energy efficiency investments for Butler EE Customers but will credit Butler with the electric energy savings associated with its customers for purposes related to determining compliance with the savings requirements set forth in the CEA and Framework Orders. This will allow Butler to count these savings towards their goals for electric energy savings. PSE&G shall not be responsible for achievement of Butler's energy efficiency savings targets, and no incentives or penalties shall be assigned to PSE&G related to these targets. PSE&G shall also not be responsible for reporting Butler's energy efficiency savings to the BPU.
- 49. For purposes of the cost-benefit analysis and determining the cost to achieve, PSE&G is proposing to include in its calculations the electric energy savings associated with the Butler EE Customers and as such, will retain the savings for purposes related to measuring the cost-effectiveness of its programs and associated cost benefit analysis. These savings will be removed from PSE&G's savings reports to the BPU.

# G. Budget Adjustments in Utility Overlapping Territories

50. For the Triennium 2 energy efficiency period, PSE&G, in conjunction with the other utilities, is proposing an adjustment mechanism to coordinate utility budgets and eliminate

potential budget constraints such as those experienced during the 1st triennium. Budget constraints limit customers' access to energy efficiency and disrupt the development of a clean energy economy.

- 51. The process for managing the budgets in overlapping utility territories in Triennium 1 was inefficient and time consuming. The proposed mechanism will allow for investments to be made in the overlapping territories without creating the budget constraints and labor-intensive management of the budgets as experienced in Triennium 1.
- 52. Under the current proposal, PSE&G and each utility has developed its own budget for expenditures that it will make in its own and overlapping utility territories (the "Lead Utility") which are designed as part of its overall budget to achieve its energy savings targets. PSE&G's budget will include costs for the overlapping utility's fuel source to account for savings achieved by installing energy efficiency measures as the Lead Utility. PSE&G estimates that it will spend approximately \$42 million in costs as the Lead Utility for the overlapping utilities' fuel source. <sup>20</sup>
- 53. As part of this petition, PSE&G proposes that it be allowed to recover expenditures in its territory, for its fuel source, based on the expenditures it makes as the Lead Utility as well as the costs billed by overlapping Utilities in delivery of coordinated projects (the "Net Expenditure"). The Net Expenditure includes the total expenditure by PSE&G less the costs billed to overlapping utilities in delivery of coordinated projects made by PSE&G in the Partner Utility territory, plus the costs paid to the overlapping utilities in delivery of coordinated projects made by the Partner Utility on PSE&G's behalf. PSE&G's actual Net Expenditure may be either higher than or lower than its approved budget as the Lead Utility.

<sup>&</sup>lt;sup>20</sup> Assuming an outflow of 0.5% electric and 3.9%. natural gas investment budget for energy efficiency programs excluding Behavioral going to Partner Utilities based upon Program Year 2 outflow ratios.

- 54. Allowing the recovery of the Net Expenditure, rather than just PSE&G's budget as Lead Utility, ensures that the investment dollars are being recovered from the customers in the utility territory that received the benefit of the investment. This mechanism will eliminate the opportunity for cross-subsidization since the dollars spent and recovered will align with the territory in which the investment was made.
- 55. As with the current methodology for investments in overlapping territories, the transfer of funds and energy savings will be managed and accomplished through the established Statewide Coordinator ("SWC") system.
- 56. Allowing a utility to adjust the level of spending in a proceeding has been allowed by the Board in prior instances. For example, the Board has allowed "For prudent changes in investment up to 15% greater than the cumulative investment amount for the Program of..." In this case, the PSE&G sought to extend its Solar for All ("S4AEII") program. As part of the stipulation agreed to by Staff and Rate Counsel, among others, there was an acknowledgement that budget adjustments may be necessary due to real market and site conditions. As a result, the stipulation provided for an increase in the cumulative program investment up to 15%. Additionally, investments that would require greater than a 15% increase in cumulative investments required 30-day prior written notification to Staff and Rate Counsel. 22
- 57. As in the S4AEII, real market conditions can affect the location and magnitude of the demand for energy efficiency programs. Flexibility to adjust to market conditions is necessary for these programs to be successful, especially in the areas where the utility territories overlap.

<sup>&</sup>lt;sup>21</sup> I/M/O the Petition of Public Service Electric and Gas Company for a Second Extension of a Solar Generation Investment Program and Associated Cost Recovery Mechanism for Changes in the Tariff for Electric Service, B.P.U.N.J. No. 15 Pursuant to N.J.S.A. 48:2-21, 48:2-21.1 and N.J.S.A. 48.3-98.1 <sup>22</sup> Id, paragraph 20.

- 58. PSE&G requests flexibility in investments similar to the mechanism set forth in S4AEII, which would allow its Net Expenditure to exceed its Lead Utility budget by an amount up to 15% of its budget.
- 59. PSE&G, along with the other utilities, has included in its Form of Notice an explanatory statement regarding this proposed mechanism. Additionally, PSE&G will include the actual Net Expenditure as part of its annual rate recovery filings. Notice of an increase in rates, if any, will be provided to customers as part of this annual process.
- 60. In addition to the annual rate recovery filings, the utilities will file a joint annual reconciliation schedule that documents that collective spending is within approved limits.

# H. CEF-EE Cost Recovery

- 61. The Company requests, for purposes of CEF-EE II, that the Board grant approval to recover the revenue requirements associated with all CEF-EE II costs in a manner consistent with the CEF-EE cost recovery, which is currently made and tracked via the CEF-EE component ("CEF-EEC") of the Company's electric and gas Green Programs Recovery Charge ("GPRC"), which is filed annually for its CEF-EE. The Company proposes to include the recovery of the revenue requirement for CEF-EE II as a new component of the GPRC ("CEF-EE IIC"). The testimony of Mr. Swetz (Attachment 2 to this Petition) contains the revenue requirement methodology, cost recovery mechanism, and bill impact analysis associated with the CEF-EE II.
- 62. PSE&G proposes to earn a return on its net investment in CEF-EE II based upon an authorized return on equity ("ROE") and capital structure including income tax effects. The Company proposes to utilize the latest cost of capital authorized by the Board in a base rate case proceeding. PSE&G is utilizing for forecasting purposes the weighted average cost of capital

("WACC") approved in the Company's 2018 base rate case.<sup>23</sup> *See* Attachment 2, Schedule SS-CEF-EE II-1 for the calculation of the current Pre-Tax WACC utilized in the revenue requirement calculation. Any change in the WACC authorized by the Board in any subsequent electric, gas or combined base rate case would be reflected in the subsequent monthly revenue requirement calculations. Any changes to current tax rates would also be reflected in an adjustment to the After-Tax WACC.

- 63. As set forth in the Framework Orders, amortization of program investments are to align with the weighted average useful life of the proposed portfolio, with a maximum amortization period of ten years. The weighted average useful life of all measures in the portfolio is above 10 years, therefore the Company is using a 10 year amortization for investments as a general matter, subject to some exceptions related to BD. For discussion of depreciation/amortization, including the BD demonstration projects, please see Mr. Swetz's testimony. The Company is also open to a 15 year amortization period which would lower the near-term rate impact to customers.
- 64. The initial recovery period for CEF-EE II will be January 1, 2025 through September 30, 2025. The expected electric CEF-EE IIC for the initial CEF-EE II recovery period would be (\$0.000325) per kWh without New Jersey Sales and Use Tax ("SUT") ((\$0.000347) per kWh with SUT), with an expected maximum increase occurring in the period from October 1, 2034 through September 30, 2035 with a rate of \$0.007586 per kWh without SUT (\$0.008089 per kWh with SUT).

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<sup>&</sup>lt;sup>23</sup> I/M/O the Petition of Public Service Electric and Gas Company for Approval of an Increase in Electric and Gas Rates and for Changes in the Tariffs for Electric and Gas Service, B.P.U.N.J. No. 16 electric and B.P.U.N.J. No. 16 Gas, and for Changes in Depreciation Rates, Pursuant to N.J.S.A. 48:2-18, N.J.S.A. 48:2-21 and N.J.S.A. 48:2-21.1, and for Other Appropriate Relief, BPU Docket Nos. ER18010029 and GR18010030, Decision and Order Adopting Initial Decision and Stipulation, dated October 29, 2018.

- 65. PSE&G's typical residential electric customer using 740 kWh in a summer month and 577 kWh in an average month (6,920 kWh annually) would experience an initial decrease in their average monthly bill of \$0.20, from \$117.48 to \$117.28, or approximately 0.17% (based upon Delivery Rates and BGS-RSCP charges in effect November 1, 2023, and assuming the customer receives BGS-RSCP service from PSE&G). In addition, the expected maximum average monthly bill increase of \$4.66, or approximately 3.97%, is projected to occur in the period from October 2034 to September 2035.
- 66. The expected gas CEF-EE IIC for the initial CEF-EE II recovery period would be \$0.004082 per therm without SUT (\$0.004352 per therm with SUT) with an expected maximum increase occurring in the period from October 1, 2028 through September 30, 2029, with a rate of \$0.044020 per therm without SUT (\$0.046936 per therm with SUT).
- 67. PSE&G's typical residential gas heating customers using 172 therms in a winter month and 87 average monthly therms (1,040 therms annually), would experience an initial increase in their average monthly bill of \$0.38 from \$93.22 to \$93.60, or approximately 0.41% (based upon current Delivery Rates and BGSS-RSG charges in effect November 1, 2023, and assuming the customer receives BGSS service from PSE&G and not including any BGSS-RSG Bill Credits). The expected maximum increase of \$4.07, or approximately 4.36%, will occur in the period from October 2028 to September 2029 based on rates in effect November 1, 2023.
- 68. PSE&G has submitted proposed tariff sheets as Attachment 5 (redlined and clean), effective upon issuance of a BPU order, designed to recover the CEF-EE II Program costs, which includes carrying charges on the Company's expenditures.

- 69. The residential customer bill impacts comparing the current and proposed delivery charges are stated in the Typical Residential Bill Impacts and draft CEF-EE II Form of Notice of Filing and of Public Hearings set forth in Attachments 6 and 7, respectively.
- 70. In calculating the monthly interest on net over- and under-recoveries, the interest rate shall be based upon the Company's interest rate obtained on its commercial paper and/or bank credit lines utilized in the preceding month. If both commercial paper and bank credit lines have been utilized, the weighted average of both sources of capital shall be used. In the event that neither commercial paper nor bank credit lines was utilized in the preceding month, the last calculated rate will be used. The interest rate shall not exceed PSE&G's overall rate of return as authorized by the Board in PSE&G's pre-tax WACC. The interest amount charged to the CEF-EE II Program balances will be computed using the methodology described in Attachment 2, and is the same as the Board-approved methodology that was specified in the Board's September 23, 2020 Order authorizing the Company's CEF-EE II.
- 71. The eligibility and performance rules for the PJM capacity market ("Reliability Pricing Model" or "RPM") continue to evolve and may change over the life of this filing. Given current performance rules and the performance risk to customers, the Company has not assumed any capacity revenues with respect to the CEF-EE II Program. However, the Company will continue to offer EE resources into the PJM capacity market in compliance with the BPU Framework Order. All auction proceeds will be credited to ratepayers. Furthermore, any other revenues generated by the CEF-EE II programs will also be credited to ratepayers. For example, in CEF-EE, the marketplace generated revenues based on a percentage of marketplace sales which were credited to ratepayers.

- 72. The electric CEF-EE IIC will be applicable to all electric rate schedules on an equal dollar per kilowatt-hour basis for recovery of costs associated with the electric allocation of the CEF-EE II. The gas CEF-EE IIC will be applicable to all gas rate schedules on an equal dollar per therm basis for recovery of costs associated with the gas allocation of the CEF-EE II. The CEF-EE IICs will be based on estimated CEF-EE II revenue requirements from January 1, 2025 through September 30, 2025. Thereafter, the CEF-EE II electric and gas components of the GPRC will be changed as part of the BPU's annual review of the GPRC, incorporating a true-up for actuals and an estimate of the revenue requirements for the upcoming year.
- 73. PSE&G requests that the rates to be charged to recover all of the CEF-EE II costs be approved by the Board along with the CEF-EE II cost recovery mechanism proposed herein. PSE&G also requests that the Board authorize the Company to implement the rates proposed herein, upon issuance of a written BPU order.

# V. <u>SUPPORTING TESTIMONY AND PUBLIC NOTICE</u>

74. Below is a table listing the supporting testimony for this Petition and other attachments:

Appendix Letter or Attachment No.	Document Description
A	Location of MFRs – CEF-EE II Program
1	Testimony of Karen Reif in support of the CEF-EE II Program
2	Testimony of Stephen Swetz describing revenue requirement methodologies, cost recovery mechanisms, and bill impact analysis for the CEF-EE II Program
3	Accounting Schedules
4	Clean and Redlined Tariff Sheets – GPRC
5	Typical Residential Customer Bill Impacts – CEF-EE II Program
6	Form of Notice of Filing and of Public Hearings – CEF-EE II Program

75. The Form of Notice sets forth the requested changes to electric and gas rates, where applicable, and will be placed in newspapers having a circulation within the Company's service territory upon receipt, scheduling, and publication of public hearing dates. Public hearings will be held virtually with access available both online and telephonically. The Form of Notice will be served on the County Executives and Clerks of all municipalities within the Company's electric and gas service territories upon receipt, scheduling, and publication of public hearing dates.

# **COMMUNICATIONS**

Communications and correspondence related to the Petition should be sent as follows:

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VI. <u>CONCLUSION AND REQUESTS FOR APPROVAL</u>

For all the foregoing reasons, PSE&G respectfully requests that the Board, which has

retained jurisdiction of this matter, review and expeditiously issue an order approving the CEF-EE

II, specifically finding that:

1. The CEF-EE II is in the public interest;

2. The CEF-EE II, as described herein, is reasonable and prudent;

3. PSE&G is authorized to implement and administer the CEF-EE II under the terms set

forth in this Petition and accompanying Attachments;

4. The cost recovery proposal and mechanism for the CEF-EE II set forth in this Petition

will provide for implementation of just and reasonable rates, and are approved;

5. PSE&G may recover all prudently-incurred costs associated with the CEF-EE II, on

a full and timely basis, under the cost recovery mechanism set forth herein; and

Respectfully submitted,

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

Stacey M. Mickles

Associate Counsel - Regulatory

stercery m. mickles

**PSEG Services Corporation** 

80 Park Plaza, T10

Newark, New Jersey 07102

DATED: December 1, 2023

Newark, New Jersey

- 28 -

### **VERIFICATION**

STATE OF NEW JERSEY	
COUNTY OF ESSEX	`

Karen Reif, of full age, being duly sworn according to law, on her oath deposes and says:

- I am Vice President, Renewables and Energy Solutions of Public Service
   Electric and Gas Company, the petitioner in the foregoing Petition.
- 2. I have read the annexed Petition, and the matters and things contained therein are true to the best of my knowledge and belief.
- 3. Copies of the Petition have been provided to the NJBPU, the Department of Law & Public Safety, and the Division of Rate Counsel.

Karen Reif

Sworn and subscribed to )
before me this 1<sup>st</sup> day )
of December, 2023 )

CATTLYN M. WHITE
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires 9/19/2024

Minimum Filing Requirements	Location in Filing		
General MFRs (Attachment A)			
I. General Filing Requirements	I. General Filing Requirements		
a. The utility shall provide a table of contents for each filing.	1) Table of contents		
b. The utility shall provide with all filings, information and data pertaining to the specific program proposed, as set forth in applicable sections of N.J.A.C. 14:1-5.11 and N.J.A.C. 14:1-5.12.	1) Attachment 4 - Proposed GPRC Tariff Attachment 6 - CEF-EE II- Public Notice 2) Financial Statements: Attachment 3A - Balance Sheet 2020-2022 Attachment 3B - Balance Sheet 2020-2022 Attachment 3C - Balance Sheet - March 2023 Attachment 3D - Electric & Gas Revenue by Class Attachment 3E - Payment or Accruals to Affiliates 2020 -2022 3) Petition		
c. All filings shall contain information and financial statements for the proposed program(s) in accordance with the applicable Uniform System of Accounts that is set forth in N.J.A.C. 14:1-5.12. The utility shall provide the accounts and account numbers that will be utilized in booking the revenues, costs, expenses, and assets pertaining to each proposed program so that they can be properly separated and allocated from other regulated and/or other programs.	1) Attachment 2 - Schedules SS-CEF-EE II-1 thru SS-CEF-EE II-7G (Cost Recovery Mechanism) 2) Attachment 3F - Journal Entries		
d. The utility shall provide supporting explanations, assumptions, calculations, and work papers as necessary for each proposed program and cost recovery mechanism petition filed under N.J.S.A. 48:3-98.1. The utility shall provide electronic copies of such supporting information, with all inputs and formulae intact, where applicable.	1) Attachment 2 - Schedules SS-CEF-EE II-1 thru SS-CEF-EE II-7G (Cost Recovery Mechanism) 2) Workpapers: Workpaper WP-SS-CEF-EE II-1 .xlsx Workpaper WP-SS-CEF-EE II Geo-2.xlsx Workpaper WP-KR-CEF-EE II-1.xlsx Workpaper WP-KR-CEF-EE II-2,xlsx Workpaper WP-KR-CEF-EE II-2,xlsx Workpaper WP-KR-CEF-EE II-3.xlsx 3) Petition 4) Schedule KR-CEF-EE II-2 (Prorgam Plan)		

Minimum Filing Requirements	Location in Filing
e. The filing shall include testimony supporting the petition, including all proposed programs.	Attachment 1- Direct Testimony of Karen     Reif     Attachment 2- Direct Testimony of     Stephen Swetz
f. For any proposed program, the utility shall be subject to the requirements in this and all subsequent Sections. If compliance with Section V and VI of these requirements would not be feasible for a particular program or sub-program, the utility may request an exemption but must demonstrate why such exemption should be granted. Examples of historical situations that have qualified for exemption include pilot programs, programs that had an educational or policy goal rather than resource acquisition focus, and programs that introduced novel ideas where documentation supporting estimated costs/benefits may not be easily produced.	1) Petition 2) Schedule KR-CEF-EE II-2 (Program Plan)
g. If the utility is filing for an increase in rates, charges, etc. or for approval of a program that may increase rates/changes to ratepayers in the future, the utility shall include a draft public notice with the petition and proposed publication dates.	1) Attachment 6 - CEF-EE II- Public Notice
II. Program Description	
a. The utility shall provide a detailed description of each proposed program for which the utility seeks approval, including, if applicable:	
i. Program description/design	Schedule KR-CEF-EE II-2 (Program Plan) Section 3     (for each individual program)     2) Petition
ii. Target market segment – including eligible customers, properties, and measures/services – and eligibility requirements and processes	Schedule KR-CEF-EE II-2 (Program Plan) Section 3 (for each individual program)     Petition
iii. Existing incentives	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3 (for each individual program) 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6h: Appendix H (for each individual program) 3) Petition
iv. Proposed incentive structure or incentive ranges, including incentive payment processes and timeframes	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3 (for each individual program) 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6h: Appendix H (for each individual program)

Minimum Filing Requirements	Location in Filing
v. Customer financing options	Schedule KR-CEF-EE II-2 (Program Plan) Section 3 (for each individual program)     Schedule KR-CEF-EE II-2 (Program Plan) Section 4h
vi. Contractor requirements and role: The utility shall provide a description of the extent to which the utility intends to utilize employees, contractors, or both to deliver the program(s). The utility shall also provide a description of contractor requirements, including common application elements and training requirements.	Schedule KR-CEF-EE II-2 (Program Plan) Section 3 (for each individual program)
vii. Estimated program participants, by year	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6a: Appendix A (for each individual program)
VII.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6a: Appendix A (for each individual program) 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6f: Appendix F (for each individual program)
ix. Program budget, by year	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B (for each individual program)
x. Projected program costs, by year, broken down into the following categories, as applicable:  • capital cost;  • utility administration;  • marketing and outreach;  • outside services;  • incentives (including rebates and low- or no-interest loans);  • inspections and quality control; and evaluation.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B (for each individual program)
b. The utility shall provide the following information about the proposed portfolio:	•
i. Quality assurance and control standards and remediation policies: The utility shall provide a detailed description of the process(es) for ensuring the quality of the programs and resolving any customer complaints related to the program(s).	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4a

Minimum Filing Requirements	Location in Filing
ii. Plan for workforce development and job training partnerships and pipelines for energy efficiency jobs, including for local, underrepresented, and disadvantaged workers. The utility will also provide a description of how the utility plans to engage with and support participation by minority-, women-, and veteran-owned and other underrepresented businesses to ensure equitable access to contracting opportunities under the proposed programs.	1) Attachment 1- Direct Testimony of Karen Reif Section XII: Clean Energy Jobs Program 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 4b
iii. Customer access to current and historic energy usage data	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4c
iv. Total budget summary, including an annual budget summary and joint budgets with partner utilities	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6c: Appendix C
v. Benefit-cost analysis (as defined in Section V)	1) Attachment 1- Direct Testimony of Karen Reif Section IV: Cost Effectiveness 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6e: Appendix E
vi. The utility shall list its forecasted average cost to achieve each unit of energy savings in each sector.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6d: Appendix D
vii. Marketing plan: The utility shall provide a description of where and how the proposed portfolio will be marketed or promoted to the sectors served by the utility's customer base, including coordinated customer outreach on core programs with other utilities. This shall include an explanation of how the specific services, along with prices, incentives, and energy bill savings for the proposed portfolio, will be conveyed to customers, where available and applicable. The marketing plan shall also include a description of any known market barriers that may impact implementation and strategies to address known market barriers.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4d
c. In areas where gas and electric service territories overlap, the utility shall provide a description of the program structure for coordinated, consistent delivery of programs between the utilities and estimated coordinated budgets and allocation of costs and energy savings between the utilities. The utility shall provide a description of how the utilities coordinated their program assumptions and other factors that could influence results for each coordinated program.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 5 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6c: Appendix C
III. Additional Filing Information Applicable Only to Renewable Energy Projects	
a. The utility shall propose the method for treatment of Renewable Energy Certificate ("RECs"), including solar incentives, or any other renewable energy incentive developed by the Board, including Greenhouse Gas Emissions Portfolio and Energy Efficiency Portfolio Standards including ownership and use of the certificate revenue stream(s).	N/A

Minimum Filing Requirements	Location in Filing
b. The utility shall also propose the method for treatment of any air emission credits and offsets, including Regional Greenhouse Gas Initiative carbon dioxide allowances and offsets, including ownership and use of the certificate revenue stream(s). For programs that are anticipated to reduce electricity sales in its service territory, the utility shall quantify the expected associated annual savings in REC, solar incentive, and any other renewable energy incentive costs.	N/A
IV. Cost Recovery Mechanism	
a. The utility shall provide appropriate financial data for the proposed program(s), including estimated revenues, expenses, and capitalized investments for each of the first three years of operations and at the beginning and end of each year of the three year period. The utility shall include pro forma income statements for the proposed program(s) for each of the first three years of operations and actual or estimated balance sheets at the beginning and end of each year of the three-year period.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b. Appendix B 2) Attachment 2 - Schedules SS-CEF-EE II-7E and SS-CEF-EE II-7G (Income Statement and Balance Sheet) 3) Petition
b. The utility shall provide detailed spreadsheets of the accounting treatment of the proposed cost recovery, including describing how costs will be amortized, which accounts will be debited or credited each month, and how the costs will flow through the proposed program cost recovery method.	1) Attachment 2 - Direct Testimony of Stephen Swetz
c. The utility shall provide a detailed explanation, with all supporting documentation, of the recovery mechanism it proposes to utilize for cost recovery of the proposed program(s), including proposed recovery through the Societal Benefits Charge, a separate clause established for these programs, base rate revenue requirements, government funding reimbursement, retail margin, and/or other mechanisms.	1) Direct Testimony of Stephen Swetz - Section 2 2) Petition
d. The utility's petition for approval, including proposed tariff sheets and other required information, shall be verified as to its accuracy and shall be accompanied by a certification of service demonstrating that the petition was served on the New Jersey Division of Rate Counsel simultaneous to its submission to the Board.	1) Attachment 4 - Proposed GPRC Clean and Red- Lined Tariffs 2) Petition

Minimum Filing Requirements	Location in Filing
e. The utility shall provide a rate impact summary by year for the proposed program(s) and a cumulative rate impact summary by year for all approved and proposed programs showing the impact of individual programs, based upon a revenue requirement analysis that identifies all estimated program costs and revenues for each proposed program on an annual basis. Such rate impacts shall be calculated for each customer class. The utility shall also provide an annual bill impact summary by year for each program, and an annual cumulative bill impact summary by year for all approved and proposed programs showing bill impacts on a typical customer for each class.	1) Initial Rate Impact and Cumulative GPRC Rate Impacts: Attachment 2 - Schedule SS-CEF-EE II-3 Attachment 2 - Schedules SS-CEF-EE II-4E and SS-CEF- EE-4G Attachment 2 - Schedules SS-CEF-EE II-5E and SS-CEF-EE II-5G 2) Petition
f. The utility shall provide, with supporting documentation, a detailed breakdown of the total costs for the proposed program(s), identified by cost segment, consistent with the program cost categories enumerated in Section II(a)(x). This shall also include a detailed analysis and breakdown and separation of the embedded and incremental costs that will be incurred to provide the services under the proposed program(s), with all supporting documentation. Embedded costs are costs that are provided for in the utility's base rates or through another rate mechanism. Incremental costs are costs associated with or created by the proposed program that are not provided for in base rates or another rate mechanism.	1) Attachment 2 - Schedules SS-CEF-EE II-7E and SS CEF-EE II-7G 2) Petition
g. The utility shall provide a detailed revenue requirement analysis that clearly identifies all estimated annual program costs and revenues for the proposed program(s), including effects upon rate base and pro forma income calculations.	Attachment 2 - Schedules SS-CEF-EE II-2E     and SS CEF-EE II-2G     Petition
h. The utility shall provide, with supporting documentation: (i) a calculation of its current capital structure, as well as its calculation of the capital structure approved by the Board in its most recent electric and/or gas base rate cases, and (ii) a statement as to its allowed overall rate of return approved by the Board in its most recent electric and/or gas base rate cases.	1) Attachment 2- Direct Testimony of Stephen Swetz 2) Attachment 2 - Schedule SS-CEF-EE-1 (WACC) 3) Petition
i. If the utility is seeking carrying costs for a proposed program, the filing shall include a description of the methodology, capital structure, and capital cost rates used by the utility. A utility seeking performance incentives shall provide all supporting justifications and rationales for the incentives, along with supporting documentation, assumptions, and calculations. Utilities that have approved rate mechanisms or incentive treatment from previous cases and are not seeking a modification of such treatment through the current filing are not subject to this requirement.	1) Attachment 2 - Schedule SS-CEF-EE-1 (WACC)
V. Benefit-Cost Analysis	

Minimum Filing Requirements	Location in Filing
a. The utility shall conduct a benefit-cost analysis of the programs and portfolio using the most recent New Jersey Cost Test, including its most recent avoided cost methodologies, as a primary test. In addition, the utility shall conduct benefit-cost analysis using the Participant Cost Test, Program Administrator Cost Test, Ratepayer Impact Measure Test, Total Resource Cost Test, and Societal Cost Test that assesses all program costs and benefits from a societal perspective i.e., that includes the combined financial costs and benefits realized by the utility and the customer as defined in the then-current version of the California Standard Practice Manual. The utility may also provide any additional benefit-cost analysis that it believes appropriate with supporting rationales and documentation.	Section IV: Cost Effectiveness 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6e:
b. The utility must demonstrate how the results of the tests in Section V(a) support Board approval of the proposed program(s), including how the programs are designed to achieve a benefit-to-cost ratio greater than or equal to 1.0 at the portfolio level when using the New Jersey Cost Test.	1) Attachment 1- Direct Testimony of Karen Reif Section IV: Cost Effectiveness 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6e: Appendix E
c. Renewable energy programs, workforce development and job training costs, health and safety measures, and outreach to community-based organizations shall not be subject to a benefit-cost test, but the utility must estimate all direct and indirect benefits resulting from such a proposed program as well as provide the projected costs.	1) Attachment 1- Direct Testimony of Karen Reif Section IV: Cost Effectiveness 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B 3) Schedule KR-CEF-EE II-2 (Program Plan) 6e. Appendix E
d. The level of energy and capacity savings shall be calculated using the most recent Technical Reference Manual approved by the Board. To the extent that a protocol does not exist or an alternative protocol is proposed for a filed program, the utility must submit a savings methodology for the program or contemplated measure for approval by the Board.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6a: Appendix A 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6j: Appendix J
e. For calculation of energy and capacity savings, as well as for cost effectiveness calculations, the utility shall apply the applicable net-to-gross ("NTG") ratio and realization rates provided in the current Technical Reference Manual. To the extent that a NTG value does not exist or an alternative NTG value is proposed for a filed program, the utility must submit a NTG value for the program or contemplated measure for approval by the Board.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6a: Appendix A
VI. Evaluation, Measurement, and Verification ("EM&V")	1

	Minimum Filing Requirements	Location in Filing
	a. The utility shall describe the methodology, processes, and strategies for monitoring and improving program and portfolio performance related to the utility's targets established pursuant to the Quantitative Performance Indicators ("QPIs") in Section VII. The utility shall confirm that these methodologies, processes, and strategies conform with the current New Jersey EM&V guidance documents and standards. The utility shall also provide an EM&V budget consistent with the current New Jersey EM&V guidance documents and standards.	1) Attachment 1- Direct Testimony of Karen Reif Section X: Evaluation and Reporting, Section 4e 2)Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B
I	VII. Quantitative Performance Indicators: Targets	
	a. The utility shall file QPI target values based on the metrics applicable to each program year of the three-year program filing cycle.	1) Attachment 1 - Direct Testimony of Karen Reif Section IX: Quantitative Performance Indicators 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6e: Appendix E
	b. The utility shall provide a description of how the proposed portfolio achieves the targets established for each utility pursuant to the QPIs outlined in the BPU's most recent Energy Efficiency Framework Order, as applicable for each program year:	1) Attachment 1 - Direct Testimony of Karen Reif Section IX: Quantitative Performance Indicators 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6f: Appendix F
	VIII. Reporting Plan: The utility shall comply with the reporting requirements as outlined in the BPU's most recent Energy Efficiency Framework Order	Attachment 1 - Direct Testimony of Karen Reif Section X: Evaluation and Reporting     Schedule KR-CEF-EE II-2 (Program Plan) Section 4f

Minimum Filing Requirements	Location in Filing
Building Decarbonization MFRs (Attachment B)	
I. General Filing Requirements	
a. The utility shall provide a table of contents for each filing.	1) Table of contents
b. The utility shall provide with all filings, information and data pertaining to the specific program proposed, as set forth in applicable sections of N.J.A.C. 14:1-5.11 and N.J.A.C. 14:1-5.12.	1) Attachment 4 - Proposed GPRC Tariff Attachment 6 - CEF-EE II- Public Notice 2) Financial Statements: Attachment 3A - Balance Sheet 2020-2022 Attachment 3B - Balance Sheet 2020-2022 Attachment 3C - Balance Sheet - March 2023 Attachment 3D - Electric & Gas Revenue by Class Attachment 3E - Payment or Accruals to Affiliates 2020 -2022 3) Petition
c. All filings shall contain information and financial statements for the proposed program(s) in accordance with the applicable Uniform System of Accounts that is set forth in N.J.A.C. 14:1-5.12. The utility shall provide the accounts and account numbers that will be utilized in booking the revenues, costs, expenses, and assets pertaining to each proposed program so that they can be properly separated and allocated from other regulated and/or other programs.	1) Attachment 2- Schedule SS-CEF-EE-7E and SS-CEF-EE-7G 2) Attachment 3F - Journal Entries
d. The utility shall provide supporting explanations, assumptions, calculations, and work papers as necessary for each proposed program and cost recovery mechanism petition filed under N.J.S.A. 48:3-98.1. The utility shall provide electronic copies of such supporting information, with all inputs and formulae intact, where applicable.	1) Attachment 2 - Schedules SS-CEF-EE-1 thru SS-CEF-EE-6G (Cost Recovery Mechanism) 2) Workpapers: Workpaper WP-KR-CEF-EE II-1 Workpaper WP-KR-CEF-EE II-2 Workpaper WP-KR-CEF-EE II-3 3) Petition 4)Schedule KR-CEF-EE II-2 (Prorgam Plan)
e. The filing shall include testimony supporting the petition, including all proposed programs.	1) Attachment 1- Direct Testimony of Karen Reif 2) Attachment 2- Direct Testimony of Stephen Swetz

Minimum Filing Requirements	Location in Filing
Idemonstrate why such exemption should be granted. Examples of historical situations that have qualified for exemption include pilot.	1) Petition 2) Schedule KR-CEF-EE II-2 (Program Plan)
g. If the utility is filing for an increase in rates, charges, etc. or for approval of a program that may increase rates/changes to ratepayers in the future, the utility shall include a draft public notice with the petition and proposed publication dates.	1) Attachment 6 - CEF-EE II- Public Notice
V. Benefit-Cost Analysis	
, , , , , , , , , , , , , , , , , , , ,	Section IV: Cost Effectiveness 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6e:
of the tests in Section V(a) to analyze and improve program design and performance with the goal of having BD Programs for Triennium 3 that achieve a benefit-to-cost ratio greater than or equal to 1.0 when using the NJCT.  c. Renewable energy programs, workforce development and job training costs, health and safety measures, and outreach to community-based organizations shall not be subject to a benefit-cost test, but the utility must estimate all direct and indirect benefits resulting from such a proposed program as well as provide the projected costs.	1) Attachment 1- Direct Testimony of Karen Reif Section IV: Cost Effectiveness 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6e: Appendix E 1) Attachment 1- Direct Testimony of Karen Reif Section IV: Cost Effectiveness 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B 3) Schedule KR-CEF-EE II-2 (Program Plan) 6e. Appendix E

Minimum Filing Requirements	Location in Filing
d. The level of energy and capacity savings shall be calculated using the most recent Technical Reference Manual approved by the Board. To the extent that a protocol does not exist or an alternative protocol is proposed for a filed program, the utility must submit a savings methodology for the program or contemplated measure for approval by the Board.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6a: Appendix A 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6g: Appendix G 3) Schedule KR-CEF-EE II-2 (Program Plan) Section 6j: Appendix J
e. For calculation of energy and capacity savings, as well as for cost effectiveness calculations, the utility shall apply the applicable net-to-gross ("NTG") ratio and realization rates provided in the current Technical Reference Manual. To the extent that a NTG value does not exist or an alternative NTG value is proposed for a filed program, the utility must submit a NTG value for the program or contemplated measure for approval by the Board.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6a: Appendix A 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6g: Appendix G 3) Schedule KR-CEF-EE II-2 (Program Plan) Section 6j: Appendix J
VI. Evaluation, Measurement, and Verification ("EM&V")	
a. The utility shall describe the methodology, processes, and strategies for monitoring and improving program and portfolio performance related to developing a full program for Triennium 2. The utility shall confirm that these methodologies, processes, and strategies conform with the current New Jersey EM&V guidance documents and standards or propose modifications and additions as needed for BD Programs. The utility shall also provide an EM&V budget consistent with the current New Jersey EM&V guidance documents and standards.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4e
	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.ii
VII. Targets	

Minimum Filing Requirements	Location in Filing
a. The utility shall file estimated values for each program year for the following metrics:  - Site and source energy savings by fuel (MMBtu)  - Site and source lifetime energy savings by fuel (MMBtu)  - Site and source annual emissions by fuel (CO2e MT)  - Site and source lifetime emissions by fuel (CO2e MT)  - Net annual peak demand savings by fuel (electricity and natural gas only) (peak MW or peak-day therm)  - CO2 emissions impacts by fuel (CO2e MT)  - Net CO2 emissions impacts across fuels (CO2e MT)  - Levelized cost per metric ton of CO2e (costs levelized over the EUL or AUL, as appropriate, of the measure or project divided by lifetime net CO2e impacts)  - Number of distributors and contractors engaged in the program  - Number of program participants and installations, overall and for LMI  - Number and geographic location of installations	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6g: Appendix G
b. The utility shall provide a description of how the proposed portfolio achieves the estimated outcome.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6g: Appendix G
Demand Response MFRs (Attachment C)	
I. General Filing Requirements	Ly
a. The utility shall provide a table of contents for each filing.	1) Table of contents
b. The utility shall provide with all filings, information and data pertaining to the specific program proposed, as set forth in applicable sections of N.J.A.C. 14:1-5.11 and N.J.A.C. 14:1-5.12.	1) Attachment 4 - Proposed GPRC Tariff Attachment 6 - CEF-EE II- Public Notice 2) Financial Statements: Attachment 3A - Balance Sheet 2020-2022 Attachment 3B - Balance Sheet 2020-2022 Attachment 3C - Balance Sheet - March 2023 Attachment 3D - Electric & Gas Revenue by Class Attachment 3E - Payment or Accruals to Affiliates 2020 -2022 3)Petition
c. All filings shall contain information and financial statements for the proposed program(s) in accordance with the applicable Uniform System of Accounts that is set forth in N.J.A.C. 14:1-5.12. The utility shall provide the accounts and account numbers that will be utilized in booking the revenues, costs, expenses, and assets pertaining to each proposed program so that they can be properly separated and allocated from other regulated and/or other programs.	1) Attachment 2- Schedule SS-CEF-EE-7E and SS-CEF-EE-7G 2) Attachment 3F - Journal Entries

Minimum Filing Requirements	Location in Filing
d. The utility shall provide supporting explanations, assumptions, calculations, and work papers as necessary for each proposed program and cost recovery mechanism petition filed under N.J.S.A. 48:3-98.1. The utility shall provide electronic copies of such supporting information, with all inputs and formulae intact, where applicable.	1) Attachment 2 - Schedules SS-CEF-EE-1 thru SS-CEF-EE-7G (Cost Recovery Mechanism) 2) Workpapers: Workpaper WP-KR-CEF-EE II-1 Workpaper WP-KR-CEF-EE II-2 Workpaper WP-KR-CEF-EE II-3 3) Petition 4) Schedule KR-CEF-EE II-2 (Prorgam Plan)
e. The filing shall include testimony supporting the petition, including all proposed programs.	1) Attachment 1- Direct Testimony of Karen Reif 2) Attachment 2- Direct Testimony of Stephen Swetz
f. For any proposed program, the utility shall be subject to the requirements in this and all subsequent Sections. If compliance with Section V and VI of these requirements would not be feasible for a particular program or sub-program, the utility may request an exemption but must demonstrate why such exemption should be granted. Examples of historical situations that have qualified for exemption include pilot programs, programs that had an educational or policy goal rather than resource acquisition focus, and programs that introduced novel ideas where documentation supporting estimated costs/benefits may not be easily produced.	1) Petition 2) Schedule KR-CEF-EE II-2 (Program Plan)
g. If the utility is filing for an increase in rates, charges, etc. or for approval of a program that may increase rates/changes to ratepayers in the future, the utility shall include a draft public notice with the petition and proposed publication dates.	1) Attachment 6 - CEF-EE II- Public Notice
II. Program Description	1
a) EDC DR Programs	
i) The utility shall provide a detailed description of each proposed program for which the utility seeks approval, including, if applicable:	

Minimum Filing Requirements	Location in Filing	
(1) Program description/design, including:  (a) Program kW demand reduction goals and curtailment objective(s);  (b) If using, how AMI is employed to signal load demand flexibility and to track curtailment volume, including baseline volume;  (c) How portability, as defined in the DR Guiding Principles (Appendix A), will be determined and demonstrated, including release clauses for customers to discontinue program participation and migrating services to a third party provider;  (d) Customer and aggregator access to current and historical energy usage data from smart meters, including available data fields, access rules, and technology standards; and  (e) Detailed plan with timelines and planning priorities, addressing:  (i) How their proposed second Triennium DR service programs align with DR Guiding Principles;  (ii) How to facilitate DERMS deployment & interoperability requirements that can support engagement of and compensation to aggregated grid flexibility resources; and  (iii) How the utility plans to work with stakeholders involved in creating an open, portable grid flexibility service model.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii	
<ul> <li>(2) Target market segment(s) and their priorities – including:</li> <li>(a) Eligible customers;</li> <li>(b) Measures/services;</li> <li>(c) Eligibility requirements and processes; and</li> <li>(d) Methodology to prioritize the procurement of customers for DR program participation to minimize distribution system investments.</li> </ul>	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii	
(3) Proposed incentives and/or tariffs  (a) Up-front enrollment incentive  (b) Performance or persistence based payments	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6h: Appendix H	
(4) How demand reduction performance is measured, including data sources and methodology to calculate baseline, definition of turndown events, and capacity savings;	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii	
(5) Program design and measurement to minimize rebound effects after a turndown event;	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii	
(6) Incentives structure and ranges for demand reduction performance achieved, including incentive payment processes and timeframes;	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii	

Minimum Filing Requirements	Location in Filing
(7) Any mutual exclusivity terms that may be needed for avoiding double counting in newly proposed DR programs.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii
<ul><li>(8) Qualified equipment supported by incentives, such as smart thermostats and smart inverters:</li><li>(a) Incentives structure and ranges for the equipment, including incentive payment processes and time frames; and</li><li>(b) A description of data and communication standards. If the standard is not an internationally recognized standard, give justification for why.</li></ul>	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii
ii) Capital investments, such as IT hardware and infrastructure to support DR and DERMS. Such investments may be recovered through rate-basing, but must be justified in the benefit-cost analysis.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii
<ul> <li>(1) Monthly "on bill" charges directly from utility; and</li> <li>(2) Financing through PACE programs if applicable</li> <li>(3) Third Party service billing coordinated through utility.</li> </ul>	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 4h
iv) Contractor requirements and role: The utility shall provide a description of the extent to which the utility intends to utilize employees, contractors, or both to deliver the program(s). The utility shall also provide a description of contractor requirements, including common application elements and training/certification/recertification requirements.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii
v) Estimated program participants, by market segment each year.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) 1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6: Appendix A
vi) Projections for performance metrics for each program year relative to the program's targets or quantitative performance indicators as defined in Section VII.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6g: Appendix G
vii) Program budget, by year.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B

Minimum Filing Requirements	Location in Filing
viii) Program participant exit/transition financial impacts including:  (1) Administrative updates for documentation and database management; (2) Reduced amortization from early termination; (3) Asset purchase revenues from sold equipment; and (4) Participant exit fees collected if any.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii
<ul> <li>ix) Projected program costs, by year, broken down into the following categories, as applicable:</li> <li>capital cost;</li> <li>utility administration;</li> <li>marketing and outreach;</li> <li>outside services;</li> <li>incentives (including rebates and low- or no-interest loans);</li> <li>inspections and quality control; and</li> <li>evaluation.</li> </ul>	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B
b) GDC DR Programs	
<ul> <li>i) The utility shall provide a detailed description of each proposed program for which the utility seeks approval, including, if applicable:</li> <li>(1) Program description/design, including:</li> <li>(a) Program therm demand reduction goals and curtailment objective(s);</li> <li>(b) Demand response description, including hardware and software used, event triggers, maximum event count, and customer override rules; and</li> <li>(c) Release clauses for customers to discontinue program participation.</li> </ul>	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii
<ul> <li>(2) Target market segment(s) and their priorities – including:</li> <li>(a) Eligible customers;</li> <li>(b) Measures/services;</li> <li>(c) Eligibility requirements and processes; and</li> <li>(d) Methodology to prioritize the procurement customers for DR program participation over distribution system investments.</li> </ul>	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii

Minimum Filing Requirements	Location in Filing
<ul> <li>(3) Proposed incentives and/or tariffs</li> <li>(a) How demand reduction performance is measured, including data sources and methodology to calculate baseline, definition of turndown events, and capacity savings;</li> <li>(b) Program design and measurement to minimize rebound effects after a turndown event;</li> <li>(c) Incentives structure and ranges for demand reduction performance achieved, including incentive payment processes and timeframes; and</li> <li>(d) Any mutual exclusivity terms that may be needed for avoiding double counting in newly proposed DR programs.</li> </ul>	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6h: Appendix H
<ul> <li>(4) Qualified equipment supported by incentives, such as smart thermostats:</li> <li>(a) Incentives structure and ranges for the equipment, including incentive payment processes and timeframes; and</li> <li>(b) A description of data and communication standards. If the standard is not an internationally recognized standard, give justification for why.</li> </ul>	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6h: Appendix H
(5) Capital investments, such as IT hardware and infrastructure to support DR. Such investments may be rate-based, but must be justified in the benefit-cost analysis.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6e: Appendix E
(6) Customer financing options	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4h
(7) Contractor requirements and role: The utility shall provide a description of the extent to which the utility intends to utilize employees, contractors, or both to deliver the program(s). The utility shall also provide a description of contractor requirements, including common application elements and training/certification/recertification requirements.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii
(8) Estimated program participants, by market segment each year.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6a: Appendix A

Minimum Filing Requirements	Location in Filing
(9) Projections for performance metrics for each program year relative to the program's targets or quantitative performance indicators as defined in Section VII.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6g: Appendix G
(10) Program budget, by year	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B
(11) Projected program costs, by year, broken down into the following categories, as applicable:	
<ul> <li>capital cost;</li> <li>utility administration;</li> <li>marketing and outreach;</li> <li>outside services;</li> <li>incentives (including rebates and low- or no-interest loans);</li> <li>inspections and quality control; and</li> <li>evaluation.</li> </ul>	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B
ii) Any workforce development and job training costs, health and safety costs, and costs of outreach to community-based organizations shall be shown separately.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4b
c) The utility shall provide the following information about the proposed Demand Response program(s):	
i) Quality assurance and control standards and remediation policies: The utility shall provide a detailed description of the process(as) for ensuring the quality of the programs and resolving any customer complaints related to the program(s).	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4a
ii) Plan for workforce development and job training partnerships and pipelines for energy efficiency jobs, including for local, underrepresented, and disadvantaged workers. The utility will also provide a description of how the utility plans to engage with and support participation by minority-, women-, and veteran-owned and other underrepresented businesses to ensure equitable access to contracting opportunities under the proposed programs.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4b
iii) Data Transparency	

Minimum Filing Requirements	Location in Filing
(1) To support any evaluation-related work, data should be provided by the utility or state or their program administrator in full and within four weeks of the request. Time extensions may be approved by Staff if they are received more than a week before the data are due and if a meeting has been held with the Statewide Evaluator team requesting the data to identify if there are adequate substitutes (in the Statewide Evaluator's judgment) for the initially-requested data.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii
(2) Data delivery must use appropriate secure delivery systems	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii
(3) Staff will require regular (at least quarterly) reporting on data requests and their fulfilment status (timeliness, completeness, data quality, etc.).	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii
iv) Customer access to current and historic energy usage data from smart meters, including available data fields, access rules, and technology standards	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 4c
v) Total budget summary, including an annual budget summary and joint budgets with partner utilities	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6c: Appendix C
vi) Benefit-cost analysis (as defined in Section V)	
vii) The utility shall list its forecasted average cost to achieve each unit of capacity and energy savings in each program.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6d: Appendix D
viii) Marketing plan: The utility shall provide a description of where and how the proposed portfolio will be marketed or promoted to the sectors served by the utility's customer base, including coordinated customer outreach on core programs with other utilities. This shall include an explanation of how the specific services, along with prices, incentives, and energy bill savings for the proposed portfolio, will be conveyed to customers, where available and applicable. The marketing plan shall also include a description of any known market barriers that may impact implementation and strategies to address known market barriers.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4d

Minimum Filing Requirements	Location in Filing
ix) In areas where gas and electric service territories overlap, the utility shall provide a description of the program structure for coordinated, consistent delivery of programs between the utilities and estimated coordinated budgets and allocation of costs and capacity and energy savings between the utilities. The utility shall provide a description of how the utilities coordinated their program assumptions and other factors that could influence results for each coordinated program.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 5
II. Additional Filing Information Applicable Only to DR programs that are integrated with Renewable E	nergy Projects
a) The utility shall propose the method for treatment of Renewable Energy Certificates ("RECs"), including solar incentives, or any other renewable energy incentive developed by the Board, including Greenhouse Gas Emissions Portfolio and Energy Efficiency Portfolio Standards including ownership and use of the certificate revenue stream(s). The utility shall also propose the method for treatment of any air emission credits and offsets, including Regional Greenhouse Gas Initiative carbon dioxide allowances and offsets, including ownership and use of the certificate revenue stream(s). For programs that are anticipated to reduce electricity sales in its service territory, the utility shall quantify the expected associated annual savings in REC, solar incentive, and any other renewable energy incentive costs.	N/A
b) The utility shall state how any Net Energy Metering billing treatment would be impacted when a demand response event is called to reduce load behind the meter, specifically for loads that will no longer exceed generation.	N/A
III. Cost Recovery Mechanism	
a) The utility shall provide appropriate financial data for the proposed program(s), including estimated revenues, expenses, and capitalized investments for each of the first three years of operations and at the beginning and end of each year of the three-year period. The utility shall include pro forma income statements for the proposed program(s) for each of the first three years of operations and actual or estimated balance sheets at the beginning and end of each year of the three-year period.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b. Appendix B 2) Attachment 2 - Schedules SS-CEF-EE-7E and SS-CEF-EE-7G (Income Statement and Balance Sheet) 3) Petition
b) The utility shall provide detailed spreadsheets of the accounting treatment of the proposed cost recovery, including describing how costs will be amortized, which accounts will be debited or credited each month, and how the costs will flow through the proposed program cost recovery method.	1) Attachment 2- Direct Testimony of Stephen Swetz 2) Attachment 2 - Schedules SS-CEF-EE II-1 - SS-CEF-EE II-6G 3) Attachment 4F

Minimum Filing Requirements	Location in Filing
c) The utility shall provide a detailed explanation, with all supporting documentation, of the recovery mechanism it proposes to utilize for cost recovery of the proposed program(s), including proposed recovery through the Societal Benefits Charge, a separate clause established for these programs, base rate revenue requirements, government funding reimbursement, retail margin, and/or other mechanisms.	Direct Testimony of Stephen Swetz     Petition
d) The utility's petition for approval, including proposed tariff sheets and other required information, shall be verified as to its accuracy and shall be accompanied by a certification of service demonstrating that the petition was served on the New Jersey Division of Rate Counsel simultaneous to its submission to the Board.	1) Attachment 4 - Proposed GPRC Clean and Red-Lined Tariffs 2) Petition
e) The utility shall provide a rate impact summary by year for the proposed program(s) and a cumulative rate impact summary by year for all approved and proposed programs showing the impact of individual programs, based upon a revenue requirement analysis that identifies all estimated program costs and revenues for each proposed program on an annual basis. Such rate impacts shall be calculated for each customer class. The utility shall also provide an annual bill impact summary by year for each program, and an annual cumulative bill impact summary by year for all approved and proposed programs showing bill impacts on a typical customer for each class.	1) Initial Rate Impact and Cumulative GPRC Rate Impacts: Attachment 2 - Schedule SS-CEF-EE-3 Attachment 2 - Schedules SS-CEF-EE-4E and SS-CEF- EE-4G Attachment 2 - Schedules SS-CEF-EE-5E and SS-CEF-EE-5G 2) Petition
f) The utility shall provide, with supporting documentation, a detailed breakdown of the total costs for the proposed program(s), identified by cost segment, consistent with the program cost categories enumerated in Section II(a)(x). This shall also include a detailed analysis and breakdown and separation of the embedded and incremental costs that will be incurred to provide the services under the proposed program(s), with all supporting documentation. Embedded costs are costs that are provided for in the utility's base rates or through another rate mechanism. Incremental costs are costs associated with or created by the proposed program that are not provided for in base rates or another rate mechanism. Customer recovered costs is income received from customers or their agents upon exit from the program or conversion to third party operation.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6a. Appendix A 2) Attachment 2 - Schedules SS-CEF-EE II-2E and SS CEF-EE II-7G
g) The utility shall provide a detailed revenue requirement analysis that clearly identifies all estimated annual program costs and revenues for the proposed program(s), including effects upon rate base and pro forma income calculations.	1) Attachment 2 - Schedules SS-CEF-EE II-2E and SS CEF-EE II-2G 2) Petition

Minimum Filing Requirements	Location in Filing
h) The utility shall provide, with supporting documentation: (i) a calculation of its current capital structure, as well as its calculation of the capital structure approved by the Board in its most recent electric and/or gas base rate cases, and (ii) a statement as to its allowed overall rate of return approved by the Board in its most recent electric and/or gas base rate cases.	1) Attachment 2- Direct Testimony of Stephen Swetz 2) Attachment 2 - Schedule SS-CEF-EE II-1 (WACC) 3) Petition
i) If the utility is seeking carrying costs for a proposed program, the filing shall include a description of the methodology, capital structure, and capital cost rates used by the utility. A utility seeking performance incentives shall provide all supporting justifications and rationales for the incentives, along with supporting documentation, assumptions, and calculations. Utilities that have approved rate mechanisms or incentive treatment from previous cases and are not seeking a modification of such treatment through the current filing are not subject to this requirement.	1) Attachment 2 - Schedule SS-CEF-EE-1 (WACC)
IV. Benefit-Cost Analysis	
a) The utility shall conduct a benefit-cost analysis of the programs using the most recent New Jersey Cost Test, including its most recent avoided cost methodologies, as a primary test. In addition, the utility shall conduct benefit-cost analysis using the Participant Cost Test, Program Administrator Cost Test, Ratepayer Impact Measure Test, Total Resource Cost Test, and Societal Cost Test that assesses all program costs and benefits from a societal perspective i.e., that includes the combined financial costs and benefits realized by the utility and the customer as defined in the then-current version of the California Standard Practice Manual. The utility may also provide any additional benefit-cost analysis that it believes appropriate with supporting rationales and documentation.	1) Attachment 1- Direct Testimony of Karen Reif Section IV: Cost Effectiveness 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6e: Appendix E
b) The utility must demonstrate how the results of the tests in Section V(a) support Board approval of the proposed program(s), including how the programs are designed to achieve a benefit-to-cost ratio greater than or equal to 1.0 at the portfolio level when using the New Jersey Cost Test.	1) Attachment 1- Direct Testimony of Karen Reif Section IV: Cost Effectiveness 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6e: Appendix E
c) Renewable energy programs, workforce development and job training costs, health and safety measures, and outreach to community-based organizations shall not be subject to a benefit-cost test, but the utility must estimate all direct and indirect benefits resulting from such a proposed program as well as provide the projected costs.	1) Attachment 1- Direct Testimony of Karen Reif Section IV: Cost Effectiveness 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6b: Appendix B 3) Schedule KR-CEF-EE II-2 (Program Plan) 6e. Appendix E

Minimum Filing Requirements	Location in Filing
d) The level of capacity and energy savings shall be calculated using the most recent Technical Reference Manual approved by the Board. To the extent that a protocol does not exist or an alternative protocol is proposed for a filed program, the utility must submit a savings methodology for the program or contemplated measure for approval by the Board.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6a: Appendix A 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 6j: Appendix J
e) For calculation of capacity and energy savings, as well as for cost effectiveness calculations, the utility shall report net impact by applying applicable NTG ratios ("NTG") or some form of "direct to net" measurement. To the extent that a NTG value does not exist or an alternative NTG value is proposed for a filed program, the utility must submit a NTG value for the program or contemplated measure for approval by the Board.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 6a: Appendix A
V. Evaluation, Measurement, and Verification ("EM&V")	
The utility shall describe the methodology, processes, and strategies for monitoring and improving program and portfolio performance related to the utility's targets established pursuant to the Reporting Plan for Performance Metrics in Section VII. Demand Response program impact methodology shall clearly define the calculation of baseline consumption and demand reduction volumes. Net-to-gross evaluation methods shall be described if the proposed measurement approach is not inherently "direct-to-net," such as measurement that uses a control group. The utility shall confirm that these methodologies, processes, and strategies conform with the current New Jersey EM&V guidance documents and standards. The utility shall also provide an EM&V budget consistent with the current New Jersey EM&V guidance documents and standards.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4e
VI. Reporting Plan for Performance Metrics	
a) The utility shall file target values based on key performance metrics applicable to each program year of the three-year program filing cycle.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 4f
b) The utility shall provide a description of how the proposed portfolio achieves the targets established for each utility pursuant to the following performance metrics as applicable for each program year:  i) Dollars spent per customer enrolled per \$ spent (\$/participant) by segment for each proposed program;  ii) Dollars spent per capacity enrolled (\$/kW) by each segment for each proposed program;  iii) Intensity impact (kWh or CO2 during peak event) for each proposed program. The utility shall, based on the program design, define the specific calculation to measure intensity impact;  iv) Ratio of number of customer responses to control requests over number of control requests.	1) Schedule KR-CEF-EE II-2 (Program Plan) Section 3b.iii 2) Schedule KR-CEF-EE II-2 (Program Plan) Section 4f

#### STATE OF NEW JERSEY BOARD OF PUBLIC UTILITIES

## IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY FOR APPROVAL OF ITS CLEAN ENERGY FUTURE-ENERGY EFFICIENCY II ("CEF-EE II") PROGRAM ON A REGULATED BASIS

<b>BPU Docket</b>	Nos.	

# PUBLIC SERVICE ELECTRIC AND GAS COMPANY DIRECT TESTIMONY OF KAREN REIF VICE PRESIDENT RENEWABLES & ENERGY SOLUTIONS

**December 1, 2023** 

	TABLE OF CONTENTS	
I.	SCOPE OF TESTIMONY	2 -
II.	CEF-EE II PROGRAM OVERVIEW AND BACKGROUND	5 -
III.	BENEFITS OF CEF-EE II PROGRAM	11 -
IV.	COST EFFECTIVENESS	14 -
V.	PROGRAM INVESTMENTS AND BUDGETS	17 -
VI.	PROGRAM DETAILS	22 -
VII.	NEW PROGRAMS	27 -
VIII.	COMFORT PARTNERS	30 -
IX.	QUANTITATIVE PERFORMANCE INDICATORS	34 -
X.	EVALUATION AND REPORTING	36 -
XI.	EQUITY	37 -
XII.	CLEAN ENERGY JOBS PROGRAM	38 -
XIII.	INFORMATION TECHNOLOGY ("IT")	41 -
XIV.	BUTLER POWER AND LIGHT ENERGY EFFICIENCY AND PEAK DEMAND REDUCTION PROGRAMS	45 -
XV.	OTHER ISSUES	47 -
XVI.	CONCLUSION	48 -
	II. III. IV. V. VI. VII. VIII. IX. XI. XII. XI	I. SCOPE OF TESTIMONY II. CEF-EE II PROGRAM OVERVIEW AND BACKGROUND III. BENEFITS OF CEF-EE II PROGRAM IV. COST EFFECTIVENESS V. PROGRAM INVESTMENTS AND BUDGETS. VI. PROGRAM DETAILS VII. NEW PROGRAMS VIII. COMFORT PARTNERS IX. QUANTITATIVE PERFORMANCE INDICATORS X. EVALUATION AND REPORTING XI. EQUITY XII. CLEAN ENERGY JOBS PROGRAM XIII. INFORMATION TECHNOLOGY ("IT") XIV. BUTLER POWER AND LIGHT ENERGY EFFICIENCY AND PEAK DEMAND REDUCTION PROGRAMS XV. OTHER ISSUES

1	PUBLIC SERVICE ELECTRIC AND GAS COMPANY
2	DIRECT TESTIMONY
3	OF
4	KAREN REIF
5	VICE PRESIDENT OF RENEWABLES & ENERGY SOLUTIONS
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#### 7 Q. Please state your name and professional title

- 8 A. My name is Karen Reif. I am the Vice President of Renewables & Energy Solutions at
- 9 Public Service Electric and Gas Company ("PSE&G" or "the Company"). My professional
- credentials are set forth in the attached Schedule KR-CEF-EE II-1.

#### I. SCOPE OF TESTIMONY

#### 12 Q. What is the purpose of your testimony?

A. I am testifying in support of the Company's proposed program for the Second Triennium of the Company's Clean Energy Future - Energy Efficiency Program ("CEF-EE II"). Through this filing, PSE&G is proposing a comprehensive suite of energy efficiency, building decarbonization and demand response programs which will drive New Jersey towards the achievement of its clean energy goals and position PSE&G to achieve the specific targets for the reduction of electric and natural gas usage in its territory, as established in the Clean Energy Act of 2018, P.L. 2018, c.17 ("CEA") and the two most recent energy efficiency framework orders issued by the New Jersey Board of Public Utilities ("Board" or "BPU"), on May 23, 2023 and July 26, 2023 (the "Framework Orders")<sup>1</sup>. The Company proposes to continue to build upon the strong foundation

<sup>&</sup>lt;sup>1</sup> In the Matter of the Implementation of P.L. 2018, C. 17, the New Jersey Clean Energy Act of 2018, Regarding the Establishment of Energy Efficiency and Peak Demand Reduction Programs, In the Matter of the Implementation of P.L. 2018, C. 17, the New Jersey Clean Energy Act of 2018, Regarding the Second Triennium of Energy Efficiency and Peak Demand Reduction Programs, In the Matter of Electric Public Utilities and Gas Public Utilities Offering

1 that was established during the first post-CEA program cycle ("Triennium 1"), including both the 2 Clean Energy Future-Energy Efficiency Program ("CEF-EE") and the Clean Energy Future-Energy Efficiency Program Extension ("CEF-EE Ext")<sup>2</sup>, and will expand and streamline the 3 4 existing programs in order to make it easier for customers to participate and encourage 5 comprehensive energy efficiency upgrades. The Company also proposes to introduce a Demand 6 Response Program and a Building Decarbonization Program, as well as a Next Generation Savings Program which will allow the programs to continue to integrate new technologies that are ready 7 for the market. 8 9 PSE&G believes that the programs proposed as part of CEF-EE II are critical to setting the 10 State on a path to achieve Governor Murphy's goal of 100% clean electricity sold in the State by 11 12

2035.<sup>3</sup> As outlined in the Energy Master Plan of 2019,<sup>4</sup> energy efficiency is a key strategy towards achieving the State's clean energy goals as "energy efficiency and load management are the most cost-effective energy resources for meeting customer needs and are critical to successfully meeting New Jersey's goal of 100% reliance on clean energy sources by 2050. Nationwide, energy efficiency is the third-largest electricity resource and is the cheapest method to meet customer needs." It is critical that, in order to leverage the cost effective energy resource opportunities presented by energy efficiency, the Board of Public Utilities allow continued growth of the utilities' energy efficiency programs. PSE&G's proposal is highly responsive to the State's energy

goals and aims to maintain and expand opportunities for all customers to reduce their energy

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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 and N.J.S.A. 48:3-87.9 – Minimum Filing Requirements, BPU Docket Nos. QO19010040, QO23030150, and QO17091004 (Orders dated May 24, 2023 and July 26, 2023).

<sup>&</sup>lt;sup>2</sup> Unless otherwise noted, CEF-EE and CEF-EE Ext will be collectively referred to in my testimony as CEF-EE.

<sup>&</sup>lt;sup>3</sup> Executive Order 315, February 15, 2023.

<sup>&</sup>lt;sup>4</sup> Energy Master Plan of 2019, <a href="https://nj.gov/emp/docs/pdf/2020">https://nj.gov/emp/docs/pdf/2020</a> NJBPU EMP.pdf.

<sup>&</sup>lt;sup>5</sup> Pg. 136, Energy Master Plan of 2019.

1	consumption. Details of the Company's proposal are below and included in the attached Program				
2	Plan (Schedule KR-CEF-EE II-2).				
3	As approved in CEF-EE Ext, PSE&G will continue to deliver PSE&G electric energy				
4	efficiency programs to Butler Power and Light ("Butler") customers who are also PSE&G gas				
5	customers ("Butler EE Customers").				
6	On October 25, 2023, the Board directed the utilities to file 30-month Triennium 2				
7	programs. <sup>6</sup> The Order also adjusted the energy savings targets for the utilities. Consequently,				
8	PSE&G's CEF-EE II proposal covers the thirty (30) month period from January 1, 2025 to June 30,				
9	2027.				
10	Q. Do you sponsor any schedules as part of your direct testimony?				
11	A. Yes. I sponsor the following schedules that were prepared by me and/or under my				
12	supervision and direction:				
13	- Schedule KR-CEF-EE II-1: describes my professional credentials.				
14	- Schedule KR-CEF-EE II-2: contains the Program Plan				
15	- Workpaper WP-KR-CEF-EE II-1: contains the model for the CEF-EE II				
16	Program				
17	-Workpaper WP-KR-CEF-EE II-2: contains the model related to the Networked				
18	Geothermal Demonstration, proposed as part of the Building Decarbonization				
19	Program				

 $<sup>^6</sup>$  I/M/O the implementation of the Implementation of P.L. 2018, C. 17, Regarding the Second Triennium of Energy Efficiency and Peak Demand Reduction Programs, BPU Docket no. QO23030150, Order dated October 25, 2023.

- Workpaper WP-KR-CEF-EE II-3: contains the model related to the PSE&G

  Facility Decarbonization Demonstration, proposed as part of the Building

  Decarbonization Program
- 4 Q. Is PSE&G submitting any other testimony in support of the CEF-EE II Program?
- 5 A. Yes, Mr. Stephen Swetz, Senior Director Corporate Rates and Revenue Requirements of
- 6 PSEG Services Corporation, is filing testimony in this matter addressing revenue requirements,
- 7 cost recovery, and rate impacts of the Company's CEF-EE II Program.

#### II. CEF-EE II PROGRAM OVERVIEW AND BACKGROUND

- 9 Q. Please give an overview of the Company's proposed CEF-EE II Program.
- 10 A. To support the CEF-EE II Program and the achievement of the legislatively mandated 11 efficiency goals, and in compliance with the two energy efficiency Framework Orders, the Company 12 is proposing \$3,111.7 million in investments and \$310.5 million in expenses for this Program. The 13 CEF-EE II Program consists of 11 programs designed to enable PSE&G to support the State in 14 meeting energy reduction targets in the CEA, which mandates electric savings of at least 2% of 15 annual sales and natural gas savings of at least 0.75% of annual sales by Program Year 5. The 16 Company's CEF-EE II Program aims to build upon the foundation established by the Company's CEF-EE Program, but is designed to streamline program offerings, reduce barriers to participation, 17 and increase participation among low and moderate income ("LMI") and other hard-to-reach 18 19 customer segments. The CEF-EE II Program also includes demand response programs and building decarbonization programs as required by the BPU's Framework Orders, as well as a "Next 20 21 Generation Savings" program to support new technologies and approaches that are ready for broader adoption, filed in conjunction with the other NJ utilitiess. The CEF-EE II Program also includes the 22

- 1 continuation of PSE&G's award-winning Clean Energy Jobs workforce development program,
- 2 marketing, robust quality control, and evaluation, measurement, and verification ("EM&V").
- 3 Finally, the Program includes a request to transfer the current low-income Comfort Partners program
- 4 over to full operational control to PSE&G.
- 5 Q. Please provide an overview of each program in the CEF-EE II Program.
- 6 A. The table below gives an overview of each program that comprises the proposed CEF-II
- 7 Program. More program details can be found in Schedule KR-CEF-EE II-2.

#### **8 Table 1: Program Descriptions**

Sector	Program	Description		
	Whole Home	Provides comprehensive residential energy efficiency assessment and installation services to provide 'one stop shop' for all applicable energy efficiency and decarbonization upgrades for PSE&G residential customers, including on-bill repayment ("OBR"), for weatherization and equipment replacement.		
Residential	Income Qualified	Similar offering to Whole Home program with 100% incentive coverage for assessment and efficiency upgrades for income-qualified residential customers; also included enhanced financial support for preweatherization barrier mitigation and health and safe measures.		
	Energy Efficient Products	Offers incentives and OBR for energy efficient equipment and appliances.		
	Behavioral	Provides electric and gas customers with information about their energy use, the usage of their peers, and suggested actionable steps to produce energy savings through behavioral changes and engagement with other energy efficiency programs.		
Commercial and Industrial ("C&I")	Energy Solutions	Whole-building engineered savings including expanded outreach, technical assistance, and financial incentives supporting whole-building energy efficiency upgrades through a streamlined suite of energy solutions. Also includes incentives for retrocommissioning and strategic energy management, in addition to OBR.		
	Prescriptive & Custom	Rebates & OBR for measures such as HVAC, lighting, motors & drives, refrigeration, water heaters,		

		air compressors, food service equipment, and custom measures.
	Direct Install	Provides free audit and easy-to-complete process with enhanced incentive coverage and OBR available for relatively simple EE projects for smaller C&I customers.
Multifamily	Multifamily	Targeted program directed at the specific challenges of this hard-to-reach customer segment. Offers a standalone program that leverages measures from both Residential and C&I programs with multi-family specific incentive levels and marketing, including OBR.
	Next Generation Savings	Support for field testing and assessment of opportunities to incorporate new technologies and program designs.
Other	Building Decarbonization	Includes several approaches that incentivize switching from fossil fuel to electric measures in buildings. Includes a utility owned Geothermal Network Demonstration and a PSE&G Building Decarbonization Demonstration. OBR will be available for pathways where the incentives do not cover the full cost of the project.
	Demand Response	Several different demand response approaches to residential and commercial customers to reduce usage during times of high demand, OBR may be available for pathways where there are costs to customers.

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#### Q. Is the proposed CEF-EE II Program cost-effective?

- 3 A. The proposed program will produce a net present value of \$538 million in net benefits, with
- 4 a benefit-cost ratio of 1.3 using the New Jersey Cost Test<sup>7</sup>. This means that it is expected to provide
- 5 \$1.30 of benefits to New Jersey for every dollar spent. The table below shows overall cost
- 6 effectiveness of CEF-EE II according to the six required cost-effectiveness tests. More details on
- 7 cost-effectiveness are available in Section IV.

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<sup>&</sup>lt;sup>7</sup> These cost test results reflect the net benefits and benefit-cost ratio for the energy efficiency and demand response programs.

#### Table 2: Overall Portfolio Cost-Effectiveness

Sector	New Jersey Cost Test (NJCT)	Societal Cost Test (SCT)	Total Resource Cost Test (TRC)	Participant Cost Test (PCT)	Program Administrator Cost Test (PACT)	Ratepayer Impact Measure (RIM)
Residential	0.9	1.3	0.4	2.1	0.4	0.3
Commercial and Industrial	1.7	2.1	0.8	2.5	0.7	0.6
Multifamily	0.4	0.5	0.2	1.4	0.2	0.2
Total*	1.3	1.6	0.6	2.3	0.6	0.5
Building Decarbonization	0.7	0.8	0.5	0.6	0.1	0.1
Demand Response	1.6	2.0	1.7	1.9	1.6	1.5

<sup>2 \*</sup>Total includes energy efficiency programs only

#### 3 Q. How does the proposed CEF-EE II Program align with New Jersey's policy goals?

A. The CEA mandates annual energy efficiency program savings of 2% of sales for electric utilities and 0.75% of sales for gas utilities by Program Year 5. The proposed CEF-EE II Program is designed to meet the goals of the BPU's Framework Orders, which are among the most aggressive in the nation. The CEF-EE II proposal also specifically focuses on comprehensively serving incomequalified and small business customers and increasing their access to the programs, which the BPU has established as key segments who benefit significantly from energy efficiency improvements. In addition, the Energy Master Plan, based on Executive Order 28, envisions 100% clean energy by 2050, and Governor Murphy further accelerated that goal by targeting 100% clean electricity sold in the State by 2035 in Executive Order 315. By lowering the energy loads and establishing programs for demand response and building decarbonization through the robust energy efficiency and demand response, CEF-EE II will directly support these goals. In addition, Executive Order 316 sets a target for 400,000 homes and 20,000 commercial buildings to be electrified by 2030. CEF-EE II's building decarbonization offerings will also directly support this goal by incentivizing installation of heat pumps, heat pump water heaters, and other decarbonization measures over the program period and

- set a foundation that will allow for expanded decarbonization opportunities in the future. As part of
- 2 the Building Decarbonization program, PSE&G is also proposing a Networked Geothermal
- 3 Demonstration and a PSE&G Facility Decarbonization Demonstration. Finally, New Jersey's Global
- 4 Warming Response Act<sup>8</sup> sets a goal for economy-wide GHG emissions 80% below 2006 levels by
- 5 2050. As discussed more below, the comprehensive suite of CEF-EE II programs will contribute to
- 6 reducing emissions and bolster this goal.

#### 7 Q. Please describe PSE&G's success in running energy efficiency programs during CEF-8 EE.

- 9 A. PSE&G has been extremely successful in operating energy efficiency programs during CEF-
- 10 EE. Through the CEF-EE Program thus far, PSE&G has achieved 1.404 billion kWh in electric
- savings and 34 million therms in gas savings through the third quarter of PY2023 (March 2023). In
- Program Years 1 and 2 of CEF-EE, PSE&G has achieved these energy savings while maintaining
- highly cost-effective programs, as evidenced by New Jersey Cost Test ("NJCT") results of 6.7 and
- 14 5.0, respectively. In addition to pushing the State of New Jersey towards achievement of its clean
- energy goals, PSE&G earned the following awards for excellence in energy efficiency during
- 16 Triennium 1. These include:
- Alliance to Save Energy: Stars of Energy Award, 2021
- Energy Star: Partner of the Year Award for program design and incorporation of Energy Star,
- 19 2021
- Energy Star: Partner of the Year Award for energy efficiency and program delivery, 2023
- Customer Service Week: Expanding Excellence Awards Innovation in Digital Customer
- Engagement for the EE Marketplace, 2022

<sup>&</sup>lt;sup>8</sup> New Jersey Global Warming Response Act, N.J.S.A. 26:2c-37 et seq.

- 1 Furthermore, since the inception of the CEF-EE Program PSE&G has been recognized by the American Council for an Energy-Efficient Economy ("ACEEE") Energy Efficiency Utility 2 Scorecard for accomplishments in electric energy efficiency. PSE&G has jumped seventeen spots 3 4 from 42nd in the 2020 ACEEE Utility Energy Efficiency Scorecard (utilizing data from 2018), to 25th in the 2023 Scorecard (based on program data from 2021). In addition, PSE&G was named one 5 of the top three utilities in the Mid-Atlantic region of the United States for energy efficiency 6 7 programs. The ACEEE Utility Energy Efficiency Scorecard metrics went through a major 8 transformation for the 2023 edition, in particular through the addition of workforce metrics; in the workforce development area PSE&G scored eleventh overall out of 53 utilities as a result of the 9 10 Company's highly successful and award winning Clean Energy Jobs Program.
- 11 Q. Has PSE&G received any additional awards related to CEF-EE?
- A. PSE&G has won the following marketing awards, which reflect the Company's strong focus on making the energy efficiency programs widely known and accessible to customers:
- Association of Marketing and Communication Professionals ("AMCP"):: Telly Awards
   (Television Ads) for Residential Marketing 2 Silver Awards, 1 Bronze Award, 2021
- AMCP: MarCom Awards for Residential Marketing 3 Gold Awards, 3 Honorable
   Mentions, 2022
- AMCP: MarCom Awards for C&I Marketing 1 Gold Award, 2022
- AMCP: Viddy Awards (Videos) for Residential Marketing 4 Gold Awards, 2 Platinum
   Awards, 2022
- AMCP: Hermes Creative Awards Gold Winner for Audio/Radio Ad, Platinum Winner for
   Integrated Marketing Campaign, Platinum Winner for TV Ad Campaign, Honorable mention
   for Digital Ad Campaign, 2023

- Chartwell, Inc.: Chartwell's Best Practices Awards for residential Marketing (ICF) and
   Video (ICF) Gold Award Winner for Program Marketing (Saverhood), 2023
- NJ Ad Club: 55<sup>th</sup> NJ Ad Club Jersey Awards Winner for Residential Marketing for a TV
   Ad Campaign, a Radio Ad Campaign, and a Video Ad Campaign, 2023
- AMCP: MarCom Awards for Residnetial Marketing Platium Winner for Social Videos,
   Gold Winner for Real Simple Magazine Cover Wrap, Gold Winner for Lightning Videos,
   Honorable mention for Transit Out-Of-Home, and HonorableMention for High Impact
   Display Ads, 2023
- AMCP: MarCom Awards for Business Marketing Platnium Winner for Federal Funding,
   Gold Winner for Believe it! Campaign, and Honorable mention for HVAC Seasonal, 2023

#### III. BENEFITS OF CEF-EE II PROGRAM

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#### 12 Q. What are the environmental benefits of CEF-EE II?

A. The CEF-EE II Program will result in environmental and air quality benefits and make a large contribution towards New Jersey's GHG reduction mandates set forth in the Global Warming Act. Specifically, CEF-EE II is expected to result in avoidance of 9.9 million metric tons of carbon dioxide emissions, 1,631 metric tons of sulfur dioxide emissions, and 3,845 metric tons of nitrogen oxide emissions over the lives of the measures installed. In addition to driving global warming, emissions from electric generation causes additional costs in the form of increased health care expenses.<sup>9</sup>

Q. Please summarize why PSE&G's proposed CEF-EE II Program should be approved and is in the best interests of the Company's customers and New Jersey as a whole.

<sup>&</sup>lt;sup>9</sup> The emission rates were calculated using the emissions factors set forth in Attachment B, page 103 of the July 26, 2023 Framework Order.

- A. The CEF-EE II Program fulfills the Clean Energy Act's goals while satisfying the Framework Orders' requirements. CEF-EE II will not only provide program participants with the opportunity to achieve energy and bill savings, but will also provide environmental benefits through energy savings and reductions in greenhouse gas emissions for all customers. It will generate net benefits of \$538 million for New Jersey residents using the New Jersey Cost Test. CEF-EE II is
- 6 anticipated to create and / or maintain an estimated 5,500 full time jobs annually for the duration
- 7 of the program. 10

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Finally, CEF-EE II is projected to result in energy cost savings of \$3,518 million over the lifetime of the measures. The dollars customers will retain will flow through the New Jersey economy, thereby multiplying the overall economic impact even more. For these reasons, the CEF-EE II Program should be approved.

#### 12 Q. How does the PSE&G Clean Energy Jobs Program benefit job creation?

A. Job creation benefits of the Clean Energy Jobs program include, but are not limited to: the direct hiring of New Jersey residents by a network of energy efficiency and related vendors; an increase in small business investments throughout the state with a specific focus on Minority, Women, Veteran Business-Enterprise ("MWVBE") suppliers; specific training courses offered to upskill new talent as well as incumbent workers; and supportive services to ensure long-term retention in clean energy jobs. More details regarding the Clean Energy Jobs Program are provided in Section XII. Clean Energy Jobs Program, below.

### Q. How will CEF-EE II address equity disparities and energy burdens experienced by disadvantaged customers?

<sup>&</sup>lt;sup>10</sup> These numbers equate to roughly 6.12 direct job-years for every million dollars spent based on an analysis of the jobs impact of the energy efficiency programs using the IMPLAN Economic Modeling Analysis platform.

#### **Attachment 1**

A. CEF-EE II incorporates a number of changes that will improve equity and strive to reduce energy burdens experienced by disadvantaged customers. As discussed below, PSE&G's commitment to equity is a thread that runs through all of the Company's efficiency, demand response, and building decarbonization programs. This will include enhanced outreach and services in disadvantaged communities. Further, the CEF-EE II Program significantly expands spending on underserved customer segments, with \$335 million allocated to LMI customers, as well as enhanced incentives available through the Efficient Products, Multifamily and Building Decarbonization programs. In addition, \$318 million is specifically allocated to the small business sector through the Direct Install program. 11 The proposed design for LMI customers also includes higher incentives to offset the cost of common health and safety issues facing low-income households, such as mold, asbestos, and knob and tube wiring. Although not currently directly quantified in the New Jersey Cost Test, evidence shows that these activities can have very large impacts on the health of lowincome residents. A 2018 study in Massachusetts, <sup>12</sup> for example, found that weatherization provides net present value of \$1,300 per household in household benefits, and \$13,000 in societal benefits due to lower incidence rates of things like reduced rates of asthma, sick days from work, and reduced fire risk. Additionally, by integrating the low-income program (Comfort Partners) with the energy efficiency portfolio, the Company will streamline access to and delivery of programs, while making substantial investments in health and safety improvements in income-qualified homes to facilitate comprehensive energy efficiency treatment.

#### Q. Are there other benefits to customers?

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<sup>&</sup>lt;sup>11</sup> LMI and Small Business figures include investment and administrative costs.

<sup>&</sup>lt;sup>12</sup> NMR Group, Inc. and Three<sup>3</sup>, Inc. Low-Income Multifamily Health- and Safety-Related NEIs Study: Preliminary Findings Report. Submitted to Massachusetts Program Administrators. October 15, 2018. <a href="https://ma-eeac.org/wp-content/uploads/TXC50-Low-Income-Multfamily-Health-and-Safety-NEI-Preliminary-Findings-Report 15OCT2018.pdf">https://ma-eeac.org/wp-content/uploads/TXC50-Low-Income-Multfamily-Health-and-Safety-NEI-Preliminary-Findings-Report 15OCT2018.pdf</a>.

- 1 A. Yes. CEF-EE II offers a portfolio of energy efficiency ("EE"), demand response ("DR") and
- 2 building decarbonization ("BD") programs that will help ensure that PSE&G customers have access
- 3 to a comprehensive set of services, including a single point of entry for the comprehensive programs
- 4 that will simplify their participation journey and minimize barriers to adopting energy efficiency.
- 5 CEF-EE II has programs designed for all customer sectors, and directly improve participant comfort
- as well as provide bill savings. PSE&G will expand its marketing and outreach efforts with the goal
- 7 of increasing program participation.

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### IV. <u>COST EFFECTIVENESS</u>

# 9 Q. Is the CEF-EE II Program cost effective?

- 10 A. Yes. Overall, the CEF-EE II Program is cost effective with NJCT net benefits of \$538
- million, and a benefit-cost ratio of 1.3. The NJCT is the most comprehensive approach to
- determining cost effectiveness and as directed by the Board, is the primary measure used to
- determine the merit of Energy Efficiency programs. In contrast to the more narrowly focused Total
- 14 Resource Cost ("TRC") the NJCT quantifies a range of societal impacts, including environmental
- and non-energy benefits. PSE&G analyzed the cost-effectiveness of the CEF-EE II Program using
- the NJCT, as well as the other five cost-benefit analysis tests required in the minimum filing
- 17 requirements ("MFRs").
- The cost test results are heavily driven by the Company's focus on adequately serving low
- and moderate income customers; without the low and moderate income programs included in the
- NJCT the result for the residential sector energy efficiency programs goes from 0.9 to 1.1, and 1.3
- 21 to 1.4 for all energy efficiency programs.
- The results of the benefit cost analysis for the portfolio of Energy Efficiency Programs are
- presented in Table 3 below. The results for the Demand Response and Building Decarbonization

- 1 Programs respectively are shown in Table 4. Further detail on estimated program costs and benefits
- 2 can be found in Appendix 6e of Schedule KR-CEF-EE II-2.

# Table 3: BCA Results for Programs Contributing to CEA attainment

Sector	Program	New Jersey Cost Test (NJCT)	Societal Cost Test (SCT)	Total Resource Cost Test (TRC)	Participant Cost Test (PCT)	Program Administrator Cost Test (PACT)	Ratepayer Impact Measure (RIM)
	Whole Home	1.2	1.4	0.5	1.6	0.6	0.5
	Income Qualified	0.6	0.8	0.3	2.0	0.2	0.2
Residential	Energy Efficient Products	0.9	1.5	0.4	2.9	0.3	0.3
	Behavioral	1.2	2.2	0.6	3.3	0.6	0.5
	Total Residential	0.9	1.3	0.4	2.1	0.4	0.3
Commercial	Energy Solutions	2.2	2.8	0.8	2.8	0.7	0.6
and Industrial	Prescriptive and Custom	1.4	1.7	0.8	2.3	0.8	0.7
(C&I)	Direct Install	1.6	1.9	0.7	2.4	0.7	0.6
	Total C&I	1.7	2.1	0.8	2.5	0.7	0.6
Multifamily		0.4	0.5	0.2	1.4	0.2	0.2
Total F	1.3	1.6	0.6	2.3	0.6	0.5	

# Table 4: BCA Results for Demand Response and Building Decarbonization

Program	New Jersey Cost Test (NJCT)	Societal Cost Test (SCT)	Total Resource Cost Test (TRC)	Participant Cost Test (PCT)	Program Administrator Cost Test (PACT)	Ratepayer Impact Measure (RIM)
Building Decarbonization	0.7	0.8	0.5	0.6	0.1	0.1
Demand Response	1.6	2.0	1.7	1.9	1.6	1.5

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- Q. Please discuss the approach to benefit cost analysis that PSE&G took to determine the cost-effectiveness of CEF-EE II.
- 3 A. All programs, with the exception of the Next Generation Savings program which does not
- 4 have specific energy savings estimates associated with it, were subjected to the NJCT, a well as the
- 5 other five cost effectiveness tests required by the MFRs. The Building Decarbonization program's
- 6 cost effectiveness tests were calculated with results shown above, but were not included in the overall
- 7 cost effectiveness test result as the Framework Order does not require the Building Decarbonization
- 8 program NJCT result to be 1.0 or above.
- 9 Q. Please discuss the sector level results of the primary cost test, the NJCT.
- 10 A. The portfolio overall has a NJCT Benefit-Cost Ratio of 1.3; the residential sector has a NJCT
- ratio of 0.9, the C&I sector has a NJCT ratio of 1.7, and the multifamily program has a NJCT ratio
- 12 of 0.4.
- The results of the residential sector are affected by the inclusion of the Low- and Moderate-
- 14 Income Program, which includes the former Comfort Partners program, and has a NJCT ratio of 0.6.
- 15 It is generally acknowledged that programs that serve this customer segment are among the most
- 16 costly to serve. The Multifamily program is also designed to serve a similar customer segment.
- 17 Q. Please discuss the NJCT results for the Building Decarbonization and Demand Response Programs.
- 19 A. The Building Decarbonization program has a NJCT ratio of 0.7. This result is consistent with
- 20 expectations reflected in the Framework Order, given the start up nature of the program, high upfront
- of cost of retrofitting heating systems, the nascent market for commercial heating electrification, and
- 22 the low current natural gas prices in New Jersey relative to electric prices. However, the residential
- building decarbonization program, where the technology is more market ready and where incentives
- 24 will be integrated with other efficiency programs, has a NJCT ratio of 0.9. The commercial sector

- decarbonization program, by contrast, is driven by the Networked Geothermal Demonstration project, which has relatively higher upfront cost. Actual costs and savings will be closely tracked during program implementation to evaluate which areas of residential and commercial decarbonization are most cost-effective and most promising. The Company will calculate and track the results of the cost-effectiveness tests in order to analyse and improve program design and performance, with the goal of having BD Programs for Triennium 3 that achieve a benefit-to-cost ratio greater than or equal to 1.0 when using the NJCT.
  - The Demand Response Program has a NJCT ratio of 1.6. The DR program may include a Virtual Power Plant Demonstration, which can provide significant incentives and financing for behind the meter battery storage. The Company believes that it is important to understand the costs and potential value streams of energy storage, including potential uses in allowing the Company to address distribution level load constraints.

# V. PROGRAM INVESTMENTS AND BUDGETS

- 14 Q. Please summarize the investment and expense by program.
  - A. PSE&G proposes to commit up to \$3,111.7 million in CEF-EE II Program investment and forecasted expenses of approximately \$310.5 million. The overall CEF-EE II Program budget includes currently identified costs necessary to plan, develop and deliver the CEF-EE II Program including customer incentives, OBR, information technology ("IT"), administration, workforce development, marketing, outreach and education, training, program management, inspections, evaluations, quality assurance/quality control efforts and future program development and planning. Investment and expense level detail is provided in Schedule KR-CEF-EE II-2. Table 5 below presents the investment and administrative budgets by program

#### Table 5: Investment and Administrative Budget by Program

Sector	Program	Investment (\$M)
	Whole Home*	376
	Income Qualified*	316
Residential	Energy Efficient Products	232
	Behavioral	25
	Total Residential	949
	Energy Solutions	769
Commondial and Industrial (C&I)	Prescriptive and Custom	592
Commercial and Industrial (C&I)	Direct Install	289
	Total C&I	1,651
	Multifamily	220
	Next Generation Savings	25
Othor	Building Decarbonization	205
Other	Demand Response	25
	IT	37
	Total Other	512
Total Portfolio In	3,112	
Total Portfolio	311	
Total Portfolio l	3,422	

Note: Values may not sum to total due to rounding.

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# 5 Q. How does this compare to the budget for CEF-EE?

A. As CEF-EE II will provide increased customer benefits over CEF-EE, CEF-EE II will also require a larger budget than CEF-EE. CEF-EE II will require more investment in order to increase savings to meet higher targets, compensate for the application of net-to-gross ratios ("NTG") and the loss of low-cost measures due to upgrades to codes and standards. The higher targets and loss of low cost measures, as well as the focus on LMI and small business customers, will also require significantly more marketing, outreach and education to reach customers. The BPU Framework Orders also mandate the inclusion of new building decarbonization and demand response programs which further contributes to higher funding requirements.

<sup>\*</sup>Includes \$125M in health and safety measures (\$68M in Whole Home and \$57M in Income Qualified), which are excluded from benefit-cost analysis and QPI calculations, in accordance with the BPU's Framework Orders.

# 1 Q. What are the main drivers of the CEF-EE II budget increase compared to CEF-EE?

- 2 A. The two main drivers of the increased cost are 1) loss of lower cost measures due to upgrades
- 3 in codes and standards; 2) application of NTG ratios.
- During Triennium 2 some of the lowest cost measures such as residential LEDs, low-flow
- 5 showerheads and faucet aerators have very limited contribution to savings, as a result of updates to
- 6 federal and state codes and standards. To achieve similar levels of savings, these traditionally lower
- 7 cost measures must be replaced by higher cost measures in CEF-EE II. These highly cost-effective
- 8 measures have historically made up a significant portion of energy savings.
- 9 In addition to lower costs measures going away, the CEF-EE II period will apply NTG ratios
- of under 1.0; the lower NTG ratios will cause a significant increase in program costs. The new NTG
- ratios reflect a significant reduction in claimable savings for many measures for example, the
- 12 current TRM mandates NTGs of 0.51 for refrigerator recycling, 0.60 for air sealing, and 0.74 for
- smart thermostats in 2024. Overall, PSE&G's CEF-EE II program has a weighted average NTG of
- 14 .68 for electric measures and .87 for gas measures.

# Please discuss the specific impacts of the introduction of NTG ratios less than 1 for Triennium 2.

- 17 A. As a result of the updated NTG ratios, the amount of savings that can be claimed for energy
- efficiency measures is significantly reduced and therefore more participants and installed measures
- are needed in order to achieve the savings targets and other quantitative performance indicators.
- 20 The need for increased participation and installed measures will increase the costs of the programs,
- 21 compared to Triennium 1. As discussed above, PSE&G's CEF-EE II program has a weighted
- average NTG of .68 for electric measures and .87 for gas measures, which means that claimable
- energy savings per unit will be reduced by 32% for electric measures and 13% for gas measures,
- 24 across the CEF-EE II portfolio, compared to the savings that could have been claimed in Triennium

- 1. The Company has estimated that the adoption of NTG ratios less than 1.0 is increasing the cost
- of the CEF-EE II Program by \$771 million.

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## 3 Q. Are there other drivers of the increased costs in CEF-EE II?

- 4 A. Though the loss of low cost measures and the introduction of lower NTG ratios are the major 5 drivers of cost increases in CEF-EE II, it is important to note that Triennium 2 also has higher savings 6 targets, and new programs. Additionally, for the new program cycle, the Program Year 5 targets are 7 ramping up to 1.62 and 1.08 times the Program Year 3 targets for electricity and natural gas, respectively. Additionally, CEF-EE II includes the addition of several new programs, such as 8 9 building decarbonization and demand response, which are required by the BPU's Framework 10 Orders. PSE&G is also proposing a new program to support Next Generation Savings. These new programs are further described below and, together, contribute \$277 million the CEF-EE II's total 11 budget. 12
  - Finally, CEF-EE II proposal includes the low income (Comfort Partners) program. While this increases funding needed in CEF-EE II, customers will benefit from streamlined access to programs and the increased focus on health and safety measures that do not directly contribute to savings, but that are needed to enable the installation of efficiency measures.

# 17 Q. Please describe the timing for expenditure of investments.

A. PSE&G will spend and commit over the 30-month period. Additionally, investments may be expended beyond the 30-month period due to the long lead time for certain programs and to enable the program to begin projects through the end of the second program cycle without disruptions but will not be completed until a future period. A commitment is created when a program participant has received a notice or a signed agreement from PSE&G or its designee/agent to pursue a project or pay a rebate for a measure to be installed. The committed investments are inclusive of on-bill

- repayments that stem from a commitment at the end of the program cycle. It also represents money
- 2 owed to a contractor who has completed work but has yet to be paid. Furthermore, PSE&G may
- 3 incur program costs prior to January 1, 2025, subsequent to BPU approval of CEF-EE II, in order to
- 4 prepare for programs going into effect on January 1, 2025.
- How will PSE&G ensure that projects that are started in Triennium 1, but not yet completed at the end of Triennium 1, will have adequate funding for completion?
- 7 A. Funding is reserved in the CEF-EE first triennium budget for projects committed or enrolled
- 8 but not yet completed at the end of Triennium 1.
- 9 Q. What would happen in the event that the amount reserved is insufficient to complete the project?
- 11 A. In the event that projects require funding that exceeds the amount that was reserved in
- 12 Triennium 1, PSE&G is proposing that these projects be able to utilize Triennium 2 funding under
- the first triennium program design.
- O. Do you have anything else to add regarding the budget?
- 15 A. CEF-EE II will expand upon the success of CEF- EE in order to install more comprehensive
- measures that produce deeper savings for more participants. This will help ensure that PSE&G
- customers have access to programs and offerings and will increase the number of customers who are
- able to benefit from the program. Specific benefits are discussed extensively above, but include:
- Lower energy bills for PSE&G customers who participate in the Program
- Reduced emission of greenhouse gasses and other air pollution
- Increased economic activity and job creation
- Improved health outcomes, especially for LMI residents
- Significant progress towards State's energy policy goals

### VI. PROGRAM DETAILS

- 2 Q. Please provide an overview of major changes being proposed for CEF-EE II.
- 3 A. PSE&G views CEF-EE II as an opportunity to build on the foundation of successful efficiency
- 4 programs created during CEF-EE, incorporate lessons learned, and ramp up in order to achieve
- 5 increasing savings targets. As such, the proposed CEF-EE II plan contains several updates in program
- 6 offerings and program design. By sector, these include:

## 7 Residential:

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- Eliminating the standalone Quick Home Energy Checkup ("QHEC") Program and
- 9 integrating measures currently offered in QHEC into assessments that are focused on
- identifying deeper measures through the Whole Home and Income Qualified Programs.
- Integrating and streamlining the approach to existing homes at all income levels, including
- low income (Comfort Partners), and providing one-stop shopping to make it easier for
- residential customers to participate in the comprehensive programs with higher incentives,
- as appropriated based on income qualification.
  - Increasing support for health and safety measures, especially for LMI households.

### 16 Commercial & Industrial:

- Expanding and enhancing account management for large commercial customers and
- expanding the types of incentives and services offered to make sure the program is
- 19 positioned to help with all energy-related needs, including building decarbonization.
- Streamlining the Direct Install Program, and increasing the size cap for participation.
- Ensuring programs can easily be utilized by public entities, per Framework Order
- 22 guidance.

- 1 Multifamily:
- Revising the Multifamily Program to better provide holistic services that serve tenants
- and building owners under a single program.
- 4 Cross-Sector/Additional Utility-Led Initiatives:
- Providing demand response and building decarbonization programs as required by the
   Framework Order.
- Offering support for building decarbonization, with a focus on streamlining the customer experience and integrating building decarbonization measures with efficiency offerings.
- Adding programs to make sure that New Jersey stays in front of changes in efficiency
   technologies and the adoption of other emerging technologies through the Next Generation
   Savings program.
- 12 Q. What overarching principles were used to guide the program design?
- 13 A. The CEF-EE II Program strives to lower customer barriers to efficiency program
- participation and increase savings per participant. Specific approaches that support these goals
- 15 include:

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- 16 1) Alignment with other NJ utilities on Core Programs
  - PSE&G worked closely with the other NJ utilities to develop coordinated core programs that will ensure that similar energy efficiency services are available to all utility customers throughout the state. Each utility will be responsible for implementing the programs in their service territory, including providing dual fuel measures and comprehensive programs to customers. The alignment on core programs means that customers will have access to consistent pathways and

- 1 levels of service, including opportunities for incentives and similar incentivized measures,
- 2 regardless of where they live or operate their business. Customers will also receive similar
- 3 incentives for measures installed, however some flexibility remains for each utility to administer
- 4 the program and adapt to variations based on service territory, including changes in market
- 5 conditions, demographics and building stock, or contractor, and customer needs.

- Additionally, as part of the CEF-EE II Program, PSE&G proposes to continue providing both gas and electric measures to PSE&G gas customers who are also customers of Butler. PSE&G is in the process of working with Board Staff and Staff's consultants to leverage State Energy Program ("SEP") funds for participants in the Existing Homes and Small Business Direct Install programs who are municipal electric customers, and PSE&G is the gas utility. These efforts will further increase the availability of core energy efficiency programs to as many NJ residents as possible.
- 2) Single point of entry and one-stop shopping for residential programs
- CEF-EE II will see a streamlining of offerings, processes, and marketing aimed at promoting efficiency measures in existing residential homes and multi-family buildings. PSE&G will move towards a single point of entry for whole house projects of all income levels and move any necessary income verification as far downstream in the participation process as possible. These actions should significantly reduce customer confusion and allow residential customers, regardless of what incentive level they qualify for based on income, to apply via the same portal and the same application and receive comprehensive services. It will also streamline many of the administrative requirements, both for the PSE&G implementation team and trade allies. The revised Multifamily

- program will promote an approach that allows upgrades to tenant and building owner measures
- 2 through a single program.

#### 3) *Integrate offerings*

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While there are typically valid administrative reasons to track and report on different programs separately, customers do not understand or appreciate why, for example, replacing existing heating equipment with a heat pump would need to go through a separate program with a separate application and a separate process than upgrading insulation. Further, customer acquisition is a significant expense, so having narrowly focused programs leaves opportunities on the table and raises expenses in the long-term by creating a need to re-acquire the same customer later. In CEF-EE II, PSE&G will move towards presenting incentives and offerings in an integrated way to customers, even if they are treated as separate programs behind the scenes. For example, on the residential side, the Existing Homes Program will flag homes with good opportunities for heating decarbonization (such as oil or propane baseline) to promote additional incentives through the building decarbonization program, and the Efficient Products program will promote additional incentives for demand response programs as a customer is ordering a smart thermostat through the marketplace. On the commercial side, account managers will work with large accounts on an ongoing basis, and be equipped to help guide them towards the program best suited to meet their needs.

#### 4) *Increase comprehensiveness of projects*

As goals get more challenging, net to gross adjustments are incorporated, and lighting and other low-cost measures disappear as opportunities, the efficiency programs will need to focus on a more expensive and comprehensive set of measures. In CEF-EE II, PSE&G will structure

- 1 programs with an eye towards maximizing the savings from potential participants. This entails,
- 2 where appropriate, increasing or eliminating caps on project size, structuring incentives to
- 3 encourage more comprehensive projects, enhanced technical assistance for C&I customers,
- 4 empowering C&I account manager with more tools to pursue savings, and marketing materials
- 5 emphasizing the benefits of comprehensive measures and offerings.

# 6 Q. Will on-bill repayments be offered as part of CEF-EE II?

- 7 A. Yes, as is done currently in CEF-EE, 0% interest on-bill repayments ("OBR") will be
- 8 offered to eligible customers for all programs and measures where there is a significant customer
- 9 contribution. Programs with OBR available may include Whole Home, Energy Efficient Products,
- 10 Energy Solutions, Prescriptive & Custom, Direct Install, Multifamily, Building Decarbonization,
- and Demand Response (specifically the Virtual Power Plant Demonstration).

#### 12 Q. Please describe PSE&G's approach to the Core EE Programs.

- 13 A. As outlined in the Program Plan (Schedule KR-CEF-EE II-2), PSE&G and the other New
- 14 Jersey utilities are filing consistent core program designs. As discussed above, the utilities have
- 15 collaborated to design programs that provide similar levels of service and availability of measures
- and incentives throughout the state, while retaining the flexibility needed to adapt to changing
- market conditions and variations in building stock, demographics, and customer needs. For core
- programs and additional utility-led initiatives, PSE&G's goals and focus for CEF-EE II program
- design and delivery is on continuing to streamline customer access to programs and increase

- accessibility for all customer segments. These objectives are discussed above and reflected
- 2 throughout the detailed Program Plan (Schedule KR-CEF-EE II-2).

#### 3 VII. NEW PROGRAMS

- 4 Q. Is PSE&G proposing any new programs as part of CEF-EE II that are not part of PSE&G's existing CEF-EE Program?
- 6 A. Yes. PSE&G is proposing new programs as part of the CEF-EE II portfolio. The new
- 7 programs include a Demand Response Program and a Building Decarbonization Program, both in
- 8 response to the BPU's Framework Orders, as well as a Next Generation Savings Program.
- 9 Q. Please explain the Next Generation Savings Program.
- 10 A. The Next Generation Savings Program, which is being filed in coordination with the other
- NJ utilities will provide a pathway for the adoption of technologies into the energy efficiency
- programs that have been proven effective and are ready for broader adoption but need support,
- such as through field testing, enhanced contractor training, customer incentives, or other support
- in order to gain market traction. The Next Generation Savings program will help ensure that
- 15 utilities and the State are able to continue to achieve the increasing energy savings targets,
- particularly as new technologies develop and some measures are lost from the portfolio due to
- increases in codes and standards.
- 18 Q. Please describe PSE&G's approach to the Building Decarbonization program.
- 19 A. As mandated by the Framework Orders, no more than 7%, 8%, and 9% of the total
- budget in program years 4, 5, and 6, respectively, will be allocated to the Building

- 1 Decarbonization ("BD") measures that convert oil, propane, gasoline or gas equipment to high
- 2 efficiency electric equipment.

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Approximately seventy percent of the total BD budget will be allocated to the residential sector, consistent with the BPU's guidance that no more than 30% of a utility's BD program budget is targeted to the commercial and/or industrial sector. <sup>13</sup> As discussed above, PSE&G will integrate the residential offerings within the Building Decarbonization Program as much as possible with the Whole Home and Income Qualified Programs, to encourage building envelope improvements concurrently with decarbonization measures where cost effective for customers. However, standalone offerings will be available to homeowners who want to install heat pumps without full participation in the comprehensive programs through the Energy Efficient Products Program. Initial marketing efforts for the BD program will target homeowners with existing oil and propane heating equipment, as heat pumps provide clear operating savings compared to these heat sources. Given spending and participation targets, PSE&G will need to target customers with natural gas systems as well. PSE&G will provide hybrid and full replacement options, with PSE&G providing higher incentives for projects that decommission the existing heating system. Hybrid options will include the replacement of air conditioning equipment with or without the replacement of a natural gas heating system for heat pumps. If the natural gas heating system is replaced, it must be with high efficiency equipment. The Company will also offer BD incentives for space and water heat pumps to customers who currently have electric resistance heating for those applications. Since these conversions would not constitute a fuel switch, the associated incentives and savings will be budgeted and tracked under the appropriate energy efficiency program. Finally, oil or propane to

<sup>&</sup>lt;sup>13</sup> "Staff recommends that BD Programs for commercial and/or industrial customers may comprise up to 30% of a utility's BD Program budget.", July 26, 2023 Framework Order, at page 14.

gas conversions will also be budgeted and tracked under the appropriate energy efficiency program and will credit the full MMBtu savings towards the applicable targets.

PSE&G will also offer incentives for customers to purchase electric lawn equipment as an alternative to traditional gasoline powered equipment. Gasoline powered lawn equipment is among the most polluting equipment on the market on a MMBTU basis, so incentivizing this much cleaner alternative is consistent with the goals of the BD program. Energy savings algorithms for this equipment are not currently included in the Technical Resource Manual, therefore the Company has included them in Appendix J: Building Decarbonization Measures of the Program Plan (Schedule KR-CEF-EE II-2), consistent with the Framework guidelines on adding new measures.

In addition to the residential offerings described above, up to thirty percent of the BD Program budget will be allocated to the commercial and industrial sector. While commercial decarbonization technologies are not as established as those aimed at the residential sector, there are many exciting opportunities that PSE&G's program team will explore during CEF-EE II. The commercial decarbonization offering will provide incentives and financing for commercial customers to convert to heat pumps for space and water heating, and process heating as well. Prescriptive incentives for small heat pumps will also be available. Custom incentives for complex decarbonization processes will also be available and could support feasibility and engineering studies in addition to offsetting actual installation costs. Similar to the residential program, electric resistance to heat pump technologies and oil to gas conversions and their energy savings will be tracked under the appropriate energy efficiency program.

PSE&G also is submitting a utility-owned Networked Geothermal Demonstration, and a PSE&G Facility Decarbonization Demonstration for CEF-EE II as part of the BD Program. Further

- details on all of the BD offerings can be found in the program description within the Program Plan
- 2 (Schedule KR-CEF-EE II-2).
- Building Decarbonization expenditures will be allocated to electric customers, with the
- 4 exception of the Networked Geothermal Demonstration, which will be allocated to gas customers.
- 5 Q. Please describe PSE&G's approach to the Demand Response Program.
- 6 A. PSE&G's Demand Response program will include offerings for both residential and
- 7 commercial customers designed to encourage customers to reduce usage during times of high
- 8 demand. The demand response program will have several different offerings designed to take full
- 9 advantage of the advanced metering infrastructure ("AMI") currently being rolled out, test the full
- stack of potential value from demand response resources, and prepare PSE&G for a future of
- increased smart devices and intermittent energy sources. Specific offerings envisioned for the
- demand response program may potentially include electric Direct Load Control, electric Pay-for-
- 13 Performance, a natural gas Direct Load Control Demonstration, an electric Fixed Bill
- 14 Demonstration, and a Virtual Power Plant Demonstration. These are described in further detail in
- the Program Plan (Schedule KR-CEF-EE II-2). The Company will also seek to enroll customers
- who have participated in the Building Decarbonization program into Demand Response programs
- 17 for both summer and winter seasons.

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#### VIII. COMFORT PARTNERS

- 19 Q. Please describe PSE&G's plans for the Comfort Partners Program and how it will benefit customers.
- 21 A. PSE&G, along with the other NJ utilities, proposes to assume administration and
- 22 implementation responsibility for Comfort Partners from the BPU's Division of Clean Energy. The

- 1 Comfort Partners program is currently "co-managed", with responsibilities split between the BPU
- 2 and the utilities. This change will provide customers at all income brackets with a single point of
- 3 entry into programs for existing homes, thereby reducing customer confusion, streamlining program
- 4 delivery and allowing more unified marketing and outreach efforts. Delivery of the new Income
- 5 Eligible program will be coordinated among the Joint Utilities, and will provide consistent services
- 6 statewide.

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- 7 Q. Please provide an overview of PSE&G's proposed approach to serving the low income sector.
  - A. PSE&G is proposing to integrate the current Comfort Partners program into a streamlined Income Qualified Program, which will provide comprehensive energy efficiency opportunities for LMI customers, with incentive pathways for both moderate income and low income customers and a single point of entry to avoid market confusion (which will also be the same point of entry as the market-rate Whole Home program) While the new Income Qualified Program approach will be similar to Comfort Partners, unifying the implementation with the rest of the CEF-EE II programs will streamline program deliver and provide numerous benefits including:
    - Ability to integrate the low income program with other CEF-EE II offerings
    - Ability to provide a single point of entry for all residential existing homes offerings, so
      that customers can apply for an energy assessment without having to determine which
      program pathway they should be using, and so that marketing and outreach materials can
      be streamlined.
    - Increased flexibility in efficiency and health and safety caps
    - The low and moderate income programs have many of the same benefits, and both provide incentives covering the full cost of the measures. The main difference between low and moderate income offerings relate to the guidance on average spend per home on high efficiency equipment

and weatherization measures. See Schedule KR-CEF-EE II-2 for more details on the Income Eligible

2 Program.

# **Q.** Will PSE&G's administration of the Comfort Partners program allow better integration with other CEF-EE II offerings?

A. Yes, PSE&G's delivery of Comfort Partners will also allow the Company to provide integrated decarbonization measures through the Income Qualified Program, in conjunction with Building Decarbonization Program, to the low income sector. This approach will streamline access to clean energy upgrades for one of the hardest-to-reach customer segments. In the Company's plan for the streamlined program, heat pumps could be installed concurrently with weatherization upgrades, where the building is appropriate for decarbonization and the energy costs to low income customers will not increase. The weatherization and decarbonization measures will be much easier to combine when the same entity is administering both programs. PSE&G intends to take a similar approach to integrating decarbonization offerings through the other energy efficiency programs, but the low income sector could have less access to these programs if the utilities do not take over the administration of Comfort Partners. As part of CEF-EE II, PSE&G can leverage the initial audits to identify homes with very high heating costs – particularly those with oil or propane heat – and assist those customers in consider the Building Decarbonization Program as part of a single, streamlined engagement with the customer.

Further, having the low-income program under the same roof as the moderate income and market rate offerings will enable PSE&G to offer a single point of entry to customers for all CEF-EE II Programs focused on existing residential homes. Currently, there are separate websites, applications, and requirements for the low-income program and the moderate-income program, as well as for the market rate program. This introduces significant confusion in the marketplace – both administratively and, more importantly, among potential participants and the contractor base. In

addition, it is the Company's experience that formal documentation of income-qualifying status is a noticeable barrier to participation. PSE&G urges the Board to continue to focus on removing barriers to participation for LMI customers, in particular as they relate to the determination of income eligibility through census tract and OBC census block. PSE&G continues to hear from contractors and customers that income verification, including the need for self-certification, is a barrier to program participation. By allowing all residential customers interested in comprehensive EE measures to apply to the same program, PSE&G can more effectively intake those customers without income verification and, after an energy audit is provided and contractors have engaged with the customers, determine eligibility for incentives. PSE&G may also implement methods of prequalifying participants as low income without requiring extensive documentation, such as automatic eligibility for those residing in overburdened communities, if allowed by the Board of Public Utilities.

# Q. What are the additional benefits of offering Comfort Partners as a part of CEF-EE II?

A. By directly delivering the Comfort Partners program PSE&G and its customers will directly benefit from the entire infrastructure and marketing efforts of PSE&G's comprehensive portfolio of EE and DR services. This will create economies of scale, as well as allow for coordination across the entire range of services offered to income qualified customers and the supporting community-based organizations and trade allies. In addition, PSE&G is in a better position to conduct marketing and outreach most effectively to income-qualified customers.

Additionally, integration of Comfort Partners into the CEF-EE II portfolio will allow PSE&G more flexibility to modify program parameters and delivery approaches in order to ensure that this customer segment's needs are met and fully served. Most importantly, it is the Company's experience that many projects that go through Comfort Partners do not proceed due to significant

1 health and safety barriers such as asbestos, mold, knob and tube wiring, pests, and mildew. A 2 Connecticut study indicates that almost 25% of homes may be ineligible for weatherization due to the presence of one or more health and safety barriers. 14 Not only do these issues prevent 3 4 weatherization measures from being installed, but they also cause many negative health outcomes for the residents. A 2014 ACEEE study, for example, found a 12% decrease in emergency 5 6 department asthma-related visits, and a 48% decline in poor health among adults who have received weatherization services 15. However, while these issues have serious negative consequences and 7 8 often prevent major efficiency upgrades, they are expensive to address – the above referenced 9 Connecticut study found an average cost of \$20,000 per home among homes with one or more health 10 and safety barrier present. While the current Comfort Partners program does have some ability to address health and safety, it is not sufficient for a large number of low-income households – often 11 12 the very households that can most benefit from efficiency. The utilities' proposal for Comfort Partners is to significantly increase the health and safety incentives available. 13

# IX. QUANTITATIVE PERFORMANCE INDICATORS

- 15 Q. How will this portfolio of programs achieve the annual savings targets mandated in the Framework Order?
- 17 A. Table 6, below, shows the projected electric and gas savings as a percent of load for the three
- 18 years of CEF-EE II, as well as the savings targets from the Framework Order. As seen below, electric
- and gas savings are projected to meet the targets for all three years.

<sup>&</sup>lt;sup>14</sup> Faesy, Richard. Energize CT. Overcoming Weatherization Barriers. November 18, 2020. https://e4thefuture.org/wp-content/uploads/2021/01/EFG-CT-Weatherization-Barriers.pdf

<sup>15</sup> https://www.aceee.org/research-report/h1801

## 1 Table 6: Projected Electric and Gas Savings

	Projected/Target in Net Annual Site Savings	PY 4	PY 5	PY 6
Electric	CEF-EE II Projected	252,088	612,155	598,220
(MWh)	Target	252,075	612,139	598,182
	% of Target	100%	100%	100%
Gas	CEF-EE II Projected	836,970	1,900,366	1,962,612
(MMBtu)	Target	836,938	1,900,257	1,962,512
	% of Target	100%	100%	100%

# Q. Please provide the details of the quantitative performance indicators ("QPIs") you expect to produce from CEF-EE II.

- 4 A. See Table 7 below for the QPI values from the Company's CEF-EE II modeling. PSE&G has
- 5 developed combined electric and natural gas QPIs for Triennium 2. Where applicable, the values
- 6 below were converted from site energy consumption to source MMBtus to satisfy the requirements
- 7 set forth in the BPU's Framework Orders.

# 8 Table 7: Proposed QPI Values for CEF-EE II

	Net Annual Energy Savings (Source MMBtu)	Net Annual Demand Savings (Peak MW)	Net Annual Demand Savings (Peak- day therm)	Net Lifetime Energy Savings (Source MMBtu)	LMI and OBC Net Lifetime Energy Savings (Source MMBtu)	Small Business Net Lifetime Energy Savings (Source MMBtu)	Cost to Achieve (\$/ Lifetime Source MMBtu)	Net Annuual Demand Savings (Electric and Gas Wtd)
Program Year 4	2,906,890	43	47,794	24,248,621	1,735,788	7,593,129	\$ 13.29	24,795
Program Year 5	6,817,407	96	88,487	62,264,254	5,876,516	15,964,606	\$ 12.10	46,566
Program Year 6	6,744,683	91	90,517	63,333,037	6,858,784	13,971,449	\$ 13.00	49,008
Portfolio Total	16,468,979	229	226,798	149,845,911	14,471,088	37,529,184	\$ 12.67	120,369

# 9 Q. Please describe how the LMI & Overburdened Communities ("OBC") QPI was developed.

- 11 A. The LMI and OBC Lifetime Savings QPI was established based on the Company's modeling of its
- 12 CEF-EE II Program, including the mix of programs, measures and costs that impact the portfolio. PSE&G

1 estimates that approximately 19% of its retail sales come from LMI customers and residential customers residing in OBCs. The filed QPI reflected above represents about 10% of PSE&G's projected energy 2 3 savings for Triennium 2, which is lower than the proportion of retail sales coming from LMI and OBC 4 customers, based on the BPU's Framework Order guidance. The CEF-EE II program plan anticipates fully 5 serving LMI and OBC customers, and aggressively targeting these customers. The CEF-EE II program 6 seeks to provide a balanced, cost-effective portfolio that will reach all eligible customers, taking into 7 consideration the higher costs of savings for this customer segment and the higher costs of customer 8 aquisition. PSE&G has proposed streamlined residential programs that will make it easier for customers to 9 participate in comprehensive energy efficiency, building decarbonization and demand response programs 10 and remove barriers to participation.

#### 11 Q. Please describe how the Small Business QPI was developed.

The small business OPI has also been established based on the Company's modeling of its CEF-A. EE II Program, including the mix of programs, measures and costs that impact the portfolio. PSE&G estimates that approximately 25% of its retail sales come from small business customers. The OPI metric reflected above represents about 25% of PSE&G's projected energy savings for Triennium 2, which is in 16 line with the proportion of PSE&G's retail sales coming from small business customers, per the BPU's Framework Order guidance.

#### X. **EVALUATION AND REPORTING**

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- Please describe the Company's evaluation, measurement and verification 19 Q. ("EM&V") and reporting plans for CEF-EE II. 20
- PSE&G will continue to work closely with the Statewide Evaluator ("SWE") and the 21 A. 22 BPU's EM&V Working Group on EM&V and reporting issues. PSE&G's EM&V plans will 23 comply with the guidelines set forth by the BPU and the EM&V Working Group and will engage
- in ongoing discussions about planned evaluations, including collaborating with the other utilities 24

- where practical, in order to gain cost efficiencies on research topics. PSE&G supports the BPU's
- 2 evaluation of the energy efficiency, demand response, and building decarbonization programs.

#### 3 XI. EQUITY

- 4 Q. How will CEF-EE II improve equity in New Jersey?
- 5 A. During CEF-EE II, PSE&G will maintain a strong focus on equity and on ensuring
- 6 underserved customer segments participate in the program. This is particularly important for
- 7 PSE&G, as over 50% of the Company's residential customer qualify as low or moderate income.
- 8 While we will continuously evaluate the program to determine how to better reach and serve these
- 9 hard-to-reach market segments, specific planned activities include:
- Full integration of Comfort Partners into the other CEF-EE II Programs to ensure that
   low-income customers get easy access to all programs
- 100% cost-coverage for LMI households
- Generous allowances for health and safety measures to address things like lead, asbestos,
   mold, and knob and tube wiring, that disproportionately impact lower income residents.
- Targeted multi-lingual and multi-channel marketing campaigns, including working with
   Community Action Agencies
- Targeted effort to replace expensive oil and propane heat with cold climate heat pumps
- Identify and target low-income programs based on indications from billing records, such
   as those that participate in the Low Income Home Energy Assistance Program

- 1 ("LIHEAP"), have experienced payment difficulties, participate in PSE&G payment
- 2 plans, or are currently in arrears
- Experiment with easier ways to qualify for low-income program, such as residence in an
- 4 overburdened community or use of LIHEAP
- Continued co-promotion of both the energy efficiency program offerings, as well as new
- 6 building decarbonization and demand response programs, and the opportunities available
- 7 through the Clean Energy Jobs program at industry events
- 8 PSE&G will also strive to promote equity in the commercial sector by significantly expanding and
- 9 streamlining the Direct Install Program and striving to identify and package offerings aimed at
- subsectors that have disproportionately low program participation.

## XII. CLEAN ENERGY JOBS PROGRAM

- 12 Q. Please describe the successes of the PSE&G Clean Energy Jobs Program to date.
- 13 A. The Clean Energy Jobs program has supported the ambitious targets set by the CEA and has:
- Hired more than 2,400 individuals through October 2023 with 100% of Clean Energy Future
- program objective achieved ahead of schedule. According to the recently released U.S.
- Energy and Employment Jobs Report<sup>16</sup>, New Jersey's energy jobs grew 4.0% from 2021 to
- 17 2022, making the energy sector in the state 3.4% of total state employment. The PSE&G
- 18 Clean Energy Jobs Program aided in that increase.
- Participated in more than 100 recruitment events from January 2022 August 2023.
- On-boarded strategic community organizations that resulted in an increase in diverse hiring.

<sup>&</sup>lt;sup>16</sup> https://www.energy.gov/sites/default/files/2023-06/2023%20USEER%20REPORT-v2.pdf

1	•	Established Clean Energy Jobs Program platform in February 2022 for general public to
2		apply to positions, which as of November, 2023 has more than 60 job openings from over 25
3		job suppliers.

- Prioritized inclusivity and accessibility during outreach events; outreach events are staffed
  with a team capable of providing a comprehensive walkthrough of our user-friendly online
  platform.
- Completed four cohorts of its On-the-Job Training Program since inception. Cohort 1 completed with a graduation ceremony in May 2022 fostering 4 candidates, cohort 2 with 20 candidates that graduated in August 2022, and cohort 3 with 16 candidates that graduated in July 2023. As of September 2023, PSE&G completed graduation for cohort 4 with 19 candidates.
  - Sponsored and coordinated masterclass business training with the African American
     Chamber of Commerce of NJ and Statewide Hispanic Chamber of Commerce of NJ to
     sponsor and coordinate masterclass business training for more than 100 companies.
  - Trained over 600 energy efficiency program employees through monthly training offerings.
  - Provided supportive services as an integral aspect of the program; with a catalog of more than 55 wraparound services offered via a network of community partners. Over 300 individuals have utilized these services.
- The Clean Energy Jobs Program has additionally won the following awards:
  - Smart Energy Consumer Collaborative (SECC): Best Practices Award Winner,
     Clean Energy Jobs Program, 2022
  - Association of Energy Service Professionals (AESP): AESP Energy Awards –
     Winner, Clean Energy Jobs Program selected as DEI Award Winner, 2023

Smart Energy Decisions: DEI Impact Award for Partnership

Winner, Clean Energy
 Jobs Program, 2023

# 3 Q. How does the continuation of the PSE&G Clean Energy Jobs Program advance the State's goals?

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The Clean Energy Jobs Program will continue to demonstrate its significance as a powerful A. endeavor in achieving the State's ambitious clean energy goals. As such, it is imperative that the program continues providing the impactful benefits within the three main areas of focus: job recruitment, training and development, and diversity. PSE&G plans to continue to utilize the Clean Energy Jobs Program technology platform to post employment opportunities, simplifying the process for potential candidates to connect with clean energy job suppliers. The platform also helps PSE&G strengthen partnerships with existing clean energy companies and forge new collaborations to expand job recruitment initiatives. The Company will continue to expand the program to offer important opportunities for candidates from Overburdened Communities to create successful careers in the clean energy industry and is planning to sponsor three to six cohorts of the On-the-Job Training Program during Triennium 2. PSE&G is aiming to facilitate the expansion of EE training offerings and plans to incorporate other technologies such as DR and BD. PSE&G will also continue to work with relevant state agencies, including the BPU and the Department of Labor, to explore using the Inflation Reduction Act and the Infrastructure Investment and Jobs Act funds to enhance the value of the Triennium 2 energy efficiency programs. PSE&G hopes to foster continued collaboration with diversity-focused organizations and associations to broaden support for underrepresented individuals pursuing clean energy careers. Additionally, PSE&G will increase its efforts to advocate for diversity and inclusion practices within clean energy companies to foster diverse work environments and ensure inclusive growth within the sector. PSE&G looks forward to continuing to bolster the state's

- economy by developing a qualified workforce and providing jobs that will be critical to New Jersey's
- 2 clean energy future.

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### XIII. INFORMATION TECHNOLOGY ("IT")

# 4 Q. Will CEF-EE II require IT upgrades?

- 5 A. Yes. CEF-EE II introduces new programs such as Demand Response andBuilding
- 6 Decarbonization, along with upgrades to existing programs that were deployed during CEF-EE,
- 7 which will require IT upgrades. The proposed IT investments will provide systems that support
- 8 these programs. For example a new platform will be deployed to support the DR program to
- 9 manage load control events and the associated operations. Also, systems such as the Energy
- 10 Efficiency Tracking System, the tracking and reporting system of record for energy efficiency
- programs, will be enhanced to manage changes to programs, measures, and necessary reporting.
- 12 As required, software integrations will be developed to exchange information between IT systems
- in order to achieve business objectives; this includes the external Statewide Coordinator (SWC)
- 14 system which exchanges information with other utilities for dual fuel customers.
- 15 Analytics/reporting will be developed to support program management and operations. In addition,
- 16 PSE&G may provide solutions in support of the Virtual Power Plant ("VPP") demonstration
- proposed as part of the DR program in this filing.

#### 18 Q. Please explain the costs associated with these system upgrades.

- 19 A. The costs are a combination of external fees to outside vendors providing solutions as well
- as the internal and external labor costs associated with making the software changes to in-house
- 21 supported platforms. PSE&G will follow project management methodology to deliver these

- 1 upgrades. Any contracts that are required will leverage PSE&G's competitive procurement
- 2 policies. Please refer to Table 8 for a detailed breakdown of IT costs.

#### 3 Q. What is the timeframe for the planned upgrades?

- 4 A. PSE&G will deploy solutions in a phased manner in support of launch of energy efficiency
- 5 programs and to support ongoing program changes. There will be multiple deployments for each of
- 6 the platforms/systems throughout the program period with timeframes ranging from 6 months to 18
- 7 months from program start date.

# 8 Q. How do the planned IT upgrades relate to those undertaken during the first program cycle (comprised of the CEF-EE and CEF-EE Ext Programs)?

- 10 A. CEF-EE and CEF-EE Ext deployed foundational platforms/systems that are specific to
- meeting energy programs requirements of the first program cycle. As part of CEF-EE II, PSE&G
- will extend these solutions to enable the new programs included in this filing, as well as enhance
- 13 the solutions, as discussed in Table 8, below. In addition, PSE&G will deploy new
- platforms/systems for distinct programs, such as to support the Demand Response Program. Further
- details regarding CEF-EE assets are being upgraded can be found in Table 8.

## 16 Q. Please elaborate on the planned IT upgrades, including estimated budgets, for CEF-17 EE II.

- 18 A. The CEF-EE II programs will benefit from leveraging and extending existing enterprise
- 19 platforms previously enhanced during the CEF-EE Program. PSE&G's IT investment strategy
- 20 includes expansion of current capabilities to new energy efficiency programs while enhancing the
- 21 customer experience and streamlining processes and reporting capabilities.
- Where possible, PSE&G will be able to deliver required functionality more rapidly and at
- 23 a lower cost by leveraging existing platforms as opposed to procuring, implementing and

- integrating entirely new platforms to deliver the same functionality. Both the capital investment
- 2 and program administrative expenditures on existing platforms are budgeted to develop and
- 3 incorporate new functionality into existing platforms that will exclusively support the energy
- 4 efficiency, demand response and building decarbonization programs.
- Additionally, to provide cost-effective programs that meet customers' needs and regulatory
- 6 requirements, PSE&G has systems and platforms specifically dedicated for managing and
- 7 reporting on energy efficiency programs. However, to include new programs such as demand
- 8 response and building decarbonization, and to modify other existing energy efficiency programs,
- 9 enabling technologies must be built, acquired, or expanded upon.

## **Table 8: Capital investments**

Existing		Investment
Platform	Description	Proposal
Extension		(\$M)*
Salesforce	Enterprise platform for customer relationship management used to manage customer interactions, call center operations, work management and other customer facing solutions. Under the CEF-EE filing, Salesforce was enhanced to include customer engagement capabilities for energy efficiency program recommendations, case management, and tracking customer participation and interaction with EE programs and implementation contractors. During CEF-EE II, PSE&G will expand current Salesforce functionality to provide additional energy efficiency program relevant information to call center agents. New functionality will include sharing information for programs such as the new demand response and building decarbonization programs and modified energy efficiency programs through updated customer 360 views and knowledge articles for call center agents.	2.7
Online Integration & Digital channels	Web and mobile app based customer self-service portals used for customer engagement, billing, payments, appointments and other useful self-service functions. The Company extended these platforms during CEF-EE to support programs. PSE&G will expand the capabilities for customers to learn about and enroll in new and updated energy efficiency programs and products. The Company will also develop/update necessary interfaces to exchange information securely using middleware tools such as Mulesoft with implementation contractors and 3 <sup>rd</sup> party vendors.	8.4

Existing Platform	Description	Investment Proposal
Extension		(\$M)*
Energy Efficiency Tracking System	EE Tracking System is the Company's system of record and central platform for tracking EE program investments, energy savings, enrollments and customer participation. The tracking system also manages program execution, trade allies, and overall program and BPU reporting requirements. This system integrates with the Statewide Coordinator System that will help ensure consistent program delivery across the state. The system was implemented as part of CEF-EE and is currently used to manage programs. In CEF-EE II, PSE&G will expand the tracking system to support new and updated energy efficiency programs, such as the demand response and building decarbonization programs, along with additional enhancements to streamline the annual measure process updates, processing project pipeline data, and additional integrations to increase usability while retaining robust data validations, including exchanging of new and updated program information with Statewide Coordinator System.	7.1
Analytics	During CEF-EE, the Company established a big data analytics platform that is utilized across the entire portfolio to support the delivery of PSE&G's energy efficiency programs. This platform is used to provide insights into program participation, energy savings and overall program effectiveness, leveraging data lakes and advanced algorithms. PSE&G will enhance this platform to support reporting needs of new and updated programs by developing additional data pipelines, such as one for demand response, and building decarbonization program information. The Company will develop advanced reporting for customer leads to improve customer participation of EE programs and will also develop additional reporting utilizing AMI data for customer segmentation and update existing reporting.	5.5
Demand Response (New)	The Demand Response (DR) platform is a new system that will manage all aspects of the DR program from customer engagement, data collection and validation, to device management and control. The platform will be the centralized system for managing all DR events and will integrate with PSE&G's billing system for incentive payments to customers participating in the program. It will also integrate with PSE&G's EE Tracking System to capture data for reporting on financial and energy savings data. Also it will integrate with our customer relationship management (Salesforce) for call center agents to address any customer inquiries.  The DR program also includes a Virtual Power Plant (VPP) demonstration, which will require IT upgrades:  The VPP demonstration will integrate and aggregate distributed energy resources in order to optimize performance, flexibility, and reliability for	8.1

Existing Platform	Description	Investment Proposal
Extension	Description	(\$M)*
	the power grid. The system will facilitate financial incentives and rebates for the connected energy resources and provide support for managing customer enrollment to the program. As part of the IT implementation, PSE&G will provide the necessary system integrations to enable this program.	
Customer Leads Portal (New)	The Customer Leads Portal is a comprehensive platform for capturing, managing, and centralizing all program leads in a way that benefits customers, PSE&G's implementation contractors, trade allies and program managers. This platform will track projects from initial project lead through implementation. The platform will provide insights into how customers are engaging with energy efficiency, demand response, building decarbonization, and other programs and will assist in increasing customer adoption of EE programs.	5.2
TOTAL		37.0

- 1 \*Note: values rounded to the nearest \$0.1M
- Note: The cost breakdown above is based on program scope as documented in this filing. PSE&G
- 3 will have flexibility to move the dollars among the platforms within the total budget of \$37M.

# 4 XIV. <u>BUTLER POWER AND LIGHT ENERGY EFFICIENCY AND PEAK DEMAND</u>

# 5 <u>REDUCTION PROGRAMS</u>

- Q. Why is PSE&G providing a proposal regarding the provision of energy efficiency services to the customers of Butler Power and Light?
- 8 A. Ahead of the CEF-EE Extension, Board Staff requested that PSE&G develop a solution that
- 9 would support Butler's efforts to comply with its obligations under the CEA. PSE&G is in the unique

- position that its gas service territory overlaps with Butler's electric service territory; a subset of Butler
- 2 customers are PSE&G customers.

18

programs.

- As part of the Stipulation of Settlement related to the CEF-EE Ext, PSE&G is providing EE
- 4 programs to those Butler customers that are also PSE&G gas utility customers ("Butler EE
- 5 Customers"). The Company proposes to continue doing so during CEF-EE II.

# 6 Q. What is PSE&G proposing with regard to providing energy efficiency services to customers of Butler Power and Light?

- 8 A. PSE&G proposes to continue to provide incentives for electric energy efficiency measures to 9 those Butler customers that are also PSE&G gas utility customers ("Butler EE Customers"). Under 10 this proposal, these customers would be eligible for the same electric energy efficiency programs, with 11 the exception of the Behavioral program, and some demand response and building decarbonization offerings that are available to PSE&G electric customers. PSE&G would deliver these programs for 12 13 the duration of the CEF-EE II Program and retain the resulting electric savings for purposes of cost-14 effectiveness testing but transfer these electric savings to Butler for the purposes of measuring its 15 progress towards achieving Clean Energy Act energy savings targets. This proposal would leverage 16 PSE&G's energy efficiency programs and administrative infrastructure to deliver the benefits of 17 energy efficiency to Butler EE Customers who currently do not have access to energy efficiency
- 19 Q. What specific programs will be available to Butler EE Customers?
- 20 A. PSE&G will provide all core programs to Butler EE Customers, with the exception of the
- 21 Behavioral program. PSE&G is unable to provide the Behavioral program to Butler customers because
- 22 PSE&G does not have electric consumption data for Butler customers. PSE&G gas customers who
- 23 live in Butler's electric territory may already be enrolled in PSE&G's Behavioral program, but would

- be receiving treatment as gas-only PSE&G customers. Similarly, because of data limitations, Butler
- 2 customers will not be able to participate in the electric demand response offerings, however may be
- 3 able to participate in gas demand response offerings, as PSE&G gas customers. Additionally, Butler
- 4 EE Customers will be able to participate in the building decarbonization offerings for measures that
- 5 are offered through the core programs. As described above, PSE&G is seeking to streamline access to
- 6 programs and will integrate energy efficiency and building decarbonization offerings. However, Butler
- 7 EE Customers may be excluded from building decarbonization program evaluation because of data
- 8 limitations.

# 9 Q. Is PSE&G requesting additional funding to make the programs accessible to Butler EE Customers?

- 11 A. No. The Company intends to make programs available to Butler EE Customers through the
- budget detailed above and without any additional, specific funding dedicated to Butler EE Customers.

## 13 XV. OTHER ISSUES

- 14 Q. How does the Company propose to integrate any available funds provided through the Inflation Reduction Act ("IRA")?
- 16 A. To the extent federal funding is made available through the IRA for the existing Energy
- 17 Efficiency and Building Decarbonization programs, PSE&G will make best efforts to work with BPU
- staff, the other utilities, and other stakeholders to identify and secure such funds which may
- complement CEF-EE II. PSE&G looks forward to working with BPU Staff and other stakeholders as
- 20 Staff develops its required implementation plan, and will work to make any needed revisions to the

- existing programs to ensure they can take full advantage of the IRA funds available to New Jersey
- 2 customers.

# 3 Q. How will the Company utilize revenue from PJM and other sources to offset costs to customers?

- 5 A. The eligibility and performance rules for the PJM capacity market ("Reliability Pricing Model"
- or "RPM") continue to evolve and may change over the life of this filing. Given current performance
- 7 rules and the performance risk to customers, the Company has not assumed any capacity revenues
- 8 with respect to the CEF-EE II Program. The Company will offer resources consistent with guidelines
- 9 reflected in the Framework Orders. All net auction proceeds will be credited to customers.
- 10 Furthermore, any other net revenues generated by the CEF-EE II programs will also be credited to
- customers. For example, in CEF-EE, the marketplace generated revenues based on a percentage of
- marketplace sales and those revenues were credited to customers.

# 13 XVI. <u>CONCLUSION</u>

#### 14 O. Do you have any concluding statements?

- 15 A. CEF-EE II was developed with close attention to the State's clean energy goals and to cost-
- effectively and equitably achieving the energy use reduction targets established by the CEA and the
- 17 BPU. The Company is well-positioned to build upon the successes of CEF-EE and expand the energy
- efficiency offerings, as well as integrate new demand response and building decarbonization offerings
- 19 for all customer types. CEF-EE II is also expected to provide significant economic and job creation

- benefits to the State of NewJersey. PSE&G looks forward to continuing to partner with the State to
- 2 achieve New Jersey's Clean Energy Future.
- 3 Q. Does this conclude your testimony at this time?
- 4 A. Yes.

#### **CREDENTIALS**

OF

#### KAREN REIF

VICE PRESIDENT RENEWABLES AND ENERGY SOLUTIONS

My name is Karen Reif, and I am employed by Public Service Electric and Gas Company ("PSE&G", "the Company") as the Vice President of Renewables and Energy Solutions. In this role, I have primary management and oversight responsibility for the market strategy, development and implementation of the Company's solar, electric vehicle, energy storage, and energy efficiency programs.

#### EDUCATIONAL BACKGROUND

I have a Bachelor of Arts degree in International Studies from Emory University, and a Master of Business Administration in Finance and Strategy from Carnegie Melon University.

#### WORK EXPERIENCE

I have worked for PSE&G and its affiliate PSEG Services Corporation for 28 years in various positions. I have also worked for ScottMadden Management Consultants as a consultant. I joined PSEG in 1995. I have held multiple positions across the organization including various roles in trading, deregulated subsidiaries, information technology and most recently, continuous improvement. I spent 14 years in the Information Technology Department, holding several leadership roles including system implementation, business relationship management and project management/quality support. Prior to becoming Vice President of Renewables and Energy Solutions, I served as the Senior Director of Continuous Improvement for PSEG Services Corporation. I established this function for PSEG, which is responsible for developing sustainable and quantifiable business improvements based on industry best practices. In July of 2018, I was named Vice President of Renewables and Energy Solutions. My professional experience includes

finance, strategy, business relationships, application implementation, quality assurance, process management and program management.

I have the following certifications: Project Management Professional, Lean Six Sigma, and Information Technology Infrastructure Library Foundation. I was named a 2023 Return on Information New Jersey ("ROI-NJ") Woman in Business Influencer, a 2023 ROI-NJ Energy & Utilities Influencer, a MOVES Power Woman 2022 (New York Moves Magazine), and won the Tribute to Women in NJ ("TWIN") Award in 2015. I am also a board member of the Boys & Girls Club in New Jersey, the Children's Specialized Hospital Foundation, and the Rutgers Business School Advisory Board.

# Clean Energy Future -Energy Efficiency II Program Plan

PSE&G

12/1/2023

### 1. Table of Contents:

2. Introduction:	4
3. Program Descriptions	6
3a. Core Programs	6
3a.i Residential Sector	6
3a.i.1 Whole Home Program	7
3a.i.2 Income Qualified Program	10
3a.i.3 Energy Efficient Products Program	12
3a.i.4 Behavioral Program	16
3.a.ii Commercial & Industrial Sector	18
3.a.ii.1 Energy Solutions Program	19
3a.ii.2 Prescriptive & Custom Program	28
3a.ii.3 Direct Install Program	32
3a.iii Multifamily Sector	36
3a.iii.1 Multifamily Program	37
3b. Additional Utility-Led Initiatives	40
3b.i Next Generation Savings Program	41
3b.ii Building Decarbonization Program	46
3b.iii Demand Response Program	50
4. Portfolio Information	56
4a. Quality Control and Customer Complaint Resolution	57
4b. Workforce Development and Job Training	60
4c. Customer Access to Usage Data	64
4d. Marketing Plan	65
4e. Evaluation, Measurement and Verification	68
4f. Reporting Plan	70
4g. Overburdened Community Standardization	71
4h. Financing/ On-Bill Repayments Description	72
5. Consistent Delivery in Overlapping Territories	73
6. Appendices	76
6a. Appendix A: Program Participants, Energy Savings, By Year for EE, BD, and	DR77
6b. Appendix B: Program Budgets and Costs, By Year for All Programs	78
6c. Appendix C: Total Budget Summary, Including Annual Budget Summary and Partner Utilities	<u> </u>
6d. Appendix D: Forecasted Average Costs to Achieve Each Unit of Energy Savin	gs in Each Sector. 82

#### Attachment 1 Schedule KR-CEF-EE II-2

6e. Appendix E: Benefit Cost Analysis	83
6f. Appendix F: Quantitative Performance Indicators	84
6g. Appendix G: Additional Utility-Led Initiatives	85
6h. Appendix H: Incentive Ranges	90
6i. Appendix I: Comfort Partners Transition Plan	107
6j. Appendix J: Building Decarbonization Measures	112

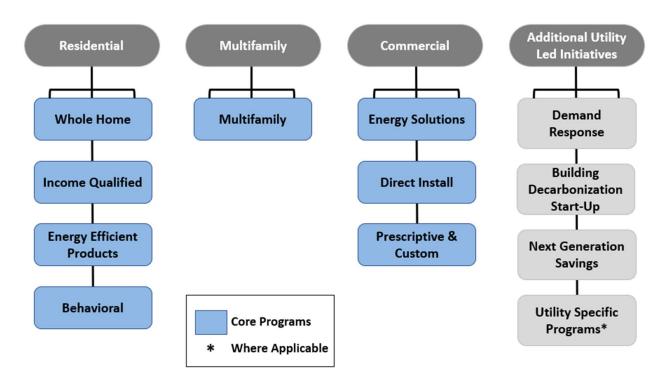
### 2. Introduction:

This Program Plan was developed to address PSE&G's plan for the delivery of Energy Efficiency, Building Decarbonization Start-up and Demand Response programs that PSE&G proposes to offer for Triennium Two which will cover the thirty-month period from January 1, 2025 to June 30, 2027.

Due to the coordinated nature of the core energy efficiency programs, PSE&G, along with the other New Jersey investor-owned utilities, have developed consistent Program Descriptions (MFR II.) that cover the program-specific MFRs (MFR II.a.i - II.a.vi) for all of the core programs. Accordingly, all of the information presented in Section 3a (Core Programs) is consistent information across all of the utility filings. Utility specific information regarding those programs, which aligns with the requirements of MFRs II.a.vii - II.a.x, is presented in the associated supporting Appendices, which match in format, but provide different information for each utility.

The program templates for the Additional Utility Led Initiatives (Section 3b of this program plan) follow a consistent format but contain utility specific proposals, with the exception of the Next Generation Savings program which also provides consistent information across the utilities (in addition to a consistent format).

The graphic below demonstrates the organization of the programs. As discussed above, all programs noted in blue as core have consistent Program Descriptions within each utility's program plan. The Next Generation Savings program also has a consistent Program Description. The descriptions for all other programs are utility-specific.



In addition, some information contained in the Portfolio Information section (Section 4) is consistent, while the remaining subsections are utility specific. The following subsections contain consistent information across all of the utilities:

- 4e: Evaluation, Measurement and Verification (MFR VI.)
- 4f: Reporting Plan (MFR VIII.)
- 4g: Overburdened Community Standardization

Sections 4a-4d and Section 4h each present information specific to each utility. If provided, additional sections within Section 4 are utility specific.

Additionally, Section 5: Consistent Delivery in Overlapping Territories (MFR II.c.) is consistent among the utilities.

As noted above, all of the appendices are formatted similarly and in the same order, but present utility-specific information, with the exception of Appendix I: Comfort Partners Transition Plan which are consistent for all utilities. Appendix H: Incentive Ranges is formatted similarly, but has some variation due to differences in utility specific program proposals.

### 3. Program Descriptions

### 3a. Core Programs

As discussed in the introduction, all core Program Descriptions (covering MFR II.a.i - II.a.vi) are consistent among each utility's Program Plan.

### 3a.i Residential Sector

The core Residential sector programs are described below and include:

- Whole Home
- Income Qualified
- Energy Efficient Products
- Behavioral

#### **3a.i.1 Whole Home Program**

#### **Program Description (MFR II.a.i)**

The Whole Home Program consists of two main components:

- 1. A home energy assessment
- 2. Incentives and financing options to encourage the customer to pursue the recommended upgrades

The home energy assessment is intended to provide residential customers with an understanding of opportunities to save energy. The home energy assessment will serve as a comprehensive review and may combine the direct installation of standard energy saving measures with the identification of a full-range of potential additional opportunities. The assessment may include various diagnostic testing such as blower door testing and provide the option to have assessors install a smart thermostat during the visit.

The home energy assessment may be in person or may leverage videoconferencing software and therefore be virtual or hybrid. The home energy assessments may also target the identification of specific opportunities that may align with other utility programs, including those measures identified in Additional Utility-Led Initiatives.

All assessors will have the necessary qualifications, although these may vary based on the technical needs of the assessment type.

Utilities will strive to prescreen interested customers to determine if they appear to be eligible for the Income Qualified Program which can provide substantial energy efficiency improvements at no additional cost to participants. Customers that are identified as eligible for the Income Qualified program will be served directly through that program. However, the utilities recognize that this income eligibility may be determined at a later point and will work to ensure those customers move to treatment under that program to access the no-cost benefits.

During the visit, the assessor will perform a walk-through of the customer's home with the customer to identify opportunities to save energy. The assessors may identify health and safety issues observed and may perform more detailed diagnostic tests on the home. Other opportunities for energy savings may also be offered including making referrals to other energy efficiency programs and for program opportunities based on the needs for that premise and the customer's interest in pursuing additional upgrades. This may also include directly proceeding to address weatherization needs and other opportunities, referring to trade allies who are able to support measures offered in other programs, including Additional Utility-Led Initiatives, or sharing information about the products and incentives available under other programs.

Although the program may provide a variety of types of assessment options and additional opportunities in order to best suit the varying needs of its customers, it will promote a holistic approach for customers to explore and invest in the efficiency and comfort of their homes. All

participants in this program must have an initial home energy assessment. To ensure the upgrades are accessible to customers, there will be financing available to eligible customers through either an On-Bill Repayment ("OBR") or access to financing with similar terms.

This program is designed to review the entire status of a home, including equipment and building envelope to achieve deeper energy savings.

#### Target Market or Segment (MFR II.a.ii)

The Whole Home program will be available to all single-family and single-family attached (1 to 4 unit properties)<sup>1</sup> electric and/or natural gas customers served by at least one of the participating investor-owned utilities in New Jersey. Standard energy efficiency measures installed during that visit may include but not be limited to LED bulbs, energy and water saving showerheads, kitchen faucet aerators, bathroom faucet aerators, gaskets, power strips and other energy saving measures. All participants will receive a report that outlines the findings during the appointment and summarizes the measures received, the recommendations made, and the incentives available.

In addition, some utilities may implement an online portal for contractors for cases where the assessments do not directly identify a specific scope of work. Should the customer choose, their assessment can be posted on their lead utility's contractor portal. This portal allows contractors to view customers' assessments and provide an estimate on recommended upgrades and provides customers easy access to participating contractors.

Potential measures incentivized through this program include but are not limited to insulation, air sealing, smart thermostats, HVAC, and water heating. If the customer proceeds with follow-up work within this Whole Home program, the scope of work is required to include air sealing and any necessary building envelope improvements (e.g. insulation) and any required health and safety repairs.

#### Existing and Proposed Incentive Ranges (MFR.II.a.iii and MFR II.a.iv)

The utilities will provide the home energy assessment to their interested customers; utilities may provide the home energy assessment at no additional cost or for a fee, which may be discounted for certain customers or for promotional periods to drive activity. The home energy assessment may include the direct installation of standard energy efficiency measures that are appropriate for their home. Participating customers may also benefit from receiving energy efficiency conservation tips, recommendations for additional opportunities and referrals to other energy efficiency programs based upon the opportunities identified for their home.

Utilities will provide incentives to encourage customers to implement the measures recommended during their assessment. Incentives will be designed to optimize participation through the program and facilitate an easy participation process. The utilities may also provide incentives to contractors related to job completion.

<sup>&</sup>lt;sup>1</sup> Properties larger than 4 units will be referred for consideration in the Multifamily Program.

Refer to Appendix H for the Summary of the Existing and Proposed Incentive Ranges for this program. The utilities and/or third-party implementation contractors will strive to complete consumer or contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of program requirements such as necessary field inspections (if required).

#### **Customer Financing Options (MFR II.a.v)**

There is no need for a financing component for the home energy assessment. OBR or access to financing with similar terms will be available to eligible customers for recommended measures installed.

Refer to Section 4h of this Program Plan for the Summary of Proposed Financing for the comprehensive solutions pursued under this program.

#### Contractor Requirements & Role (MFR II.a.vi)

The utilities will administer and oversee this program and may select a third-party implementation contractor to manage delivery of this program. Customers who are already working with an approved Whole Home contractor can have the home energy assessment performed directly by that contractor.

The utilities' staff and/or their implementers will oversee all aspects of the program, including training, engagement, and QA/QC. There will be a significant focus on developing, training and growing a qualified trade ally network. This will include trade ally training sessions, workshops, opportunities to become approved contractors and participate in Utility-led workforce development initiatives.

Trade allies will consist of companies employing trained professionals to complete whole home and a wide range of energy-saving projects. In order to facilitate trade ally access to participants, utilities or the third-party implementation contractor will maintain a list of companies and professional services where customers can find local trade allies based on geography and other criteria.

The utilities will encourage all participating trade allies to also look for opportunities to promote measures from the Residential Efficient Products program, such as home appliances (e.g., clothes washers) to increase energy savings and leverage those incentives.

#### Projected Participants (MFR II.a.vii) and Energy Savings Relative to QPIs (MFR II.a.viii)

Refer to Appendix A, for the information on these MFRs.

# <u>Program budget, by year (MFR II.a.ix) and Projected program costs, by year, broken down into the specified categories (MFR II.a.x)</u>

Refer to Appendix B, for the information on these MFRs.

#### 3a.i.2 Income Qualified Program

#### **Program Description (MFR II.a.i)**

The Income-Qualified Program provides an opportunity for low and moderate-income customers to receive energy efficiency measures and upgrades at no cost to participate. This program would condense the Moderate-Income Weatherization programs currently run as Additional Utility Led Program with the Comfort Partners program, currently run as a Co-Managed Program through New Jersey's Clean Energy Program. For the first six-months of the 2nd Triennium, Comfort Partners would continue to operate under the existing structure but be included under utility budgets as a Clean Energy Act Program and the Utilities would refine detailed plans for a transition to be effective in FY26. See Appendix I for more information on the proposed Plan for the transition.<sup>2</sup> For ease of review, this template will address the plans for the condensed Income Qualified program.

As a part of this program, eligible customers will have a comprehensive energy assessment of their home, which may include direct install measures (such as showerheads, faucet aerators, LED bulbs, power strips, etc.) and/or weatherization measures (insulation, air sealing and duct sealing), and energy education. Customers may also be eligible to receive installation, repairs or replacement of water heating, heating and/or cooling systems. Health and safety measures may also be addressed to enable energy efficiency improvements.

During the assessment, in addition to the installation of measures, the program will offer energy education to better understand participants' usage patterns and practices, along with behavioral suggestions to improve the way they use energy in their home. The assessment may include various diagnostic testing such as blower door testing. Based on the assessment recommendations, the participant may also be given the opportunity for additional building envelope measures (such as air sealing and building insulation) to be installed.

The home energy assessment may also target the identification of specific opportunities that may align with other utility programs, including those measures identified in Additional Utility-Led Initiatives.

#### Target Market or Segment (MFR II.a.ii)

The Income-Qualified Program will be available to income-qualified customers served by at least one investor-owned utility in New Jersey. Eligibility for these enhanced incentives may be determined based on screening an individual customer, categorical eligibility (which may vary for low- and moderate-income customers), or special screening if the physical location is within the boundaries of a low-income or moderate-income census tract, an Overburdened Community ("OBC"), or any other agreed upon designation by the Board. Please refer to Section 4g of this Program Plan for more information on special treatment for OBC customers. Qualifying guidelines may be adjusted based on updates to federal or state guidelines.

<sup>&</sup>lt;sup>2</sup> Note that the transition timeline is subject to adjustment to allow for a timely and effective process.

In addition to single family dwellings, the Income Qualified Program can serve multifamily buildings between 2-8 units. Furthermore, all 9 unit or larger multifamily buildings will be directed to the Utilities' multifamily program.

#### Existing and Proposed Incentive Ranges (MFR.II.a.iii and MFR II.a.iv)

The customer may receive no-cost energy efficiency measures and upgrades with a per project guideline and health and safety expense protocol. The program will be designed to provide a greater level of benefits for low-income customers. Refer to Appendix H for the Summary of Proposed Incentive Ranges for this program.

The utilities and/or the third-party implementation contractors will strive to complete contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of program requirements, such as necessary field inspections (if required).

#### **Customer Financing Options (MFR II.a.v)**

All services provided under this program are at no cost to the customer to participate, so financing is not relevant.

#### **Contractor Requirements & Role (MFR II.a.vi)**

Utility staff and/or third-party implementation contractors will oversee all aspects of the program, including contractor training and engagement, quality assurance and fulfillment of program services. The home energy assessment and efficiency improvements will be conducted by utility staff, third- party implementation contractors and/or program contractors. The utilities and/or third-party implementation contractors will oversee their staff and subcontractors and engage contractors to educate them on the program benefits to reliably complete the home assessments and install energy efficient equipment and improvements for participating customers. The utilities and/or third-party implementation contractors will also verify the eligibility of customers and will maintain a close relationship with contractors to ensure a consistent program delivery experience.

Contractors will consist of companies employing qualified professionals who are able to complete assessments and energy-saving projects.

#### Projected Participants (MFR II.a.vii) and Energy Savings Relative to QPIs (MFR II.a.viii)

Refer to Appendix A, for the information on these MFRs.

# Program budget, by year (MFR II.a.ix) and Projected program costs, by year, broken down into the specified categories (MFR II.a.x)

Refer to Appendix B, for the information on these MFRs.

#### **3a.i.3 Energy Efficient Products Program**

#### **Program Description (MFR II.a.i)**

This program will promote the installation/replacement of energy efficient electric and natural gas equipment by residential customers by offering a broad range of energy efficient equipment and appliances through a variety of channels, which may include an online marketplace, downstream rebates to customers (including but not limited to in-store or online), up-front rebates, reduced point of sale costs, a midstream or upstream component and a network of trade allies. These sales channels may also be leveraged to promote Additional Utility- Led Initiatives. May provide incentives for energy efficient heating and cooling equipment, water heating equipment, appliances, smart thermostats, as well as other energy efficiency products and for appliance recycling. On-bill repayment or access to financing with similar terms will be available for select products.

#### The program may:

- Provide incentives for products that reduce energy use in the home and information about other programs that encourage the installation of high efficiency equipment. Provide upstream and/or midstream incentives to retailers and/or distributors.
- Continue to support and/or provide downstream approaches for certain measures.
- Provide online or other channels for customers that include but are not limited to online and in-store eligibility options to acquire select energy efficient products.
- Ensure the participation process is clear, easy to understand and simple for the customer and contractor.
- Recognize unique barriers that income-qualified customers face and employ strategies to address those barriers, including no cost measures and/or enhanced incentives where appropriate.
- Encourage customers to recycle inefficient appliances.

This program will increase adoption of energy efficient equipment and products by harnessing the unique utility-customer relationship to positively impact the entire sales process surrounding efficient equipment, from education and awareness of customers, engagement with trade ally contractors and equipment distributors and retailers, to on-bill repayment or access to financing with similar terms for select products.

Utility staff and/or a third-party implementation contractor(s) may assist with the administration, oversight and delivery of the program. Activities may include efforts to raise awareness of the program, ongoing refinements to the list of eligible measures, validating customer eligibility and processing incentives and conducting outreach to and securing partnerships with retailers, wholesalers, distributors, manufacturers and trade allies to ensure all customers are able to easily purchase energy efficient products and equipment through the program. Customer engagement and sales channels may include:

- **Post-Purchase (Downstream) Rebates**: Rebates made available to customers after they have made their purchase. Applications may be available online or in stores to submit either electronically or in hard copy with proof-of-purchase.
- Midstream or Upstream Rebates: The utilities may pursue a midstream or upstream rebate component to encourage the purchase of certain efficient equipment. The utilities may work with retail partners (such as Home Depot, Lowes, etc.), distributors or manufacturers to ensure that measures are available throughout the state.
- **Point of Sale Rebates**: Prescriptive rebates made available at the point of sale for select products.
- Online Marketplace: The online marketplace is an easy-to-use source for the purchase of efficient products and services. Participants can browse energy efficient equipment and appliances and purchase through the marketplace which will offer instant rebates. The marketplace may also include non-incentivized items that can help drive traffic, increase uptake in incentivized measures, and expose customers to other utility and/or state offered clean energy programs.
- Appliance Recycling: Rebates will be provided to customers for recycling qualifying, inefficient, operating appliances<sup>3</sup>. Offering an incentive for the drop off or pick-up and removal of an appliance prevents the appliance from being maintained as a second unit or transferred to another customer. In addition, periodic events may be offered at centralized drop off locations where customers can drop off qualified inefficient operating appliances. The program may also target appliance retailers for participation or offer bulk appliance recycling.
- Trade Allies: A network of trade allies created to promote the program. The trade ally network may consist of qualified installation contractors, plumbers, electricians and other trade service professionals who meet all applicable statewide requirements for performing the respective service (e.g., HVAC license, insurance requirements). Trade allies will be able to leverage the program and offer customers rebates through their normal course of business
- Efficient Product Kits: Kits to introduce and promote energy efficiency technologies that can be easily installed in a customers' home. Similar to the Online Marketplace, the kits can act as a gateway to other programs by including energy efficiency and conservation education and promotional materials for other program opportunities. Where appropriate, the utilities may partner with foodbanks, schools, community organizations, and new customers, and participate in energy assistance outreach events to deliver the kits.

Regardless of the delivery mechanism, the utilities will take steps to ensure customers are made aware of utility engagement in helping to offset upfront costs of the efficient products.

#### Target Market or Segment (MFR II.a.ii)

The target market for this program will be all electric and/or natural gas customers served by at least one investor-owned utility in New Jersey. The program is focused on promoting the sale and

<sup>&</sup>lt;sup>3</sup> Currently, this is only anticipated to be pursued by the Electric Utilities based upon the assumed products in this channel.

installation of efficient electric and natural gas equipment across all major residential end-use categories, and can be easily promoted to program allies, trade allies and customers via rebates. Examples of technologies incentivized through this program include heating/cooling equipment, water heating equipment, electronics, appliances, smart thermostats, water saving measures, weatherization items, pre-packaged kits, and other efficient products. The program will also promote the retirement, recycling and replacement of old refrigerators, freezers, and other inefficient appliances.

The utilities may offer enhanced incentives for Low-to-Moderate income ("LMI") customers. Eligibility for these enhanced incentives may be determined based on screening an individual customer, categorical eligibility (which may vary for low- and moderate-income customers), or special screening if the physical location is within the boundaries of a low-income or moderate-income census tract, an Overburdened Community ("OBC"), or any other agreed upon designation by the Board. Please refer to Section 4g of this Program Plan, for more information on special treatment for OBC customers. Qualifying guidelines may be adjusted based on updates to federal or state guidelines.

#### Existing and Proposed Incentive Ranges (MFR.II.a.iii and MFR II.a.iv)

The utilities propose to provide a range of incentives depending on the measure, subject to changes based upon customer response and marketplace changes over the plan period. Incentives will vary depending on the specific product, the incremental cost of the high-efficiency technology and the product maturity in the marketplace. Refer to Appendix H, for the Summary of Existing and Proposed Incentive Ranges for this program.

Incentives will be available in several ways. Strategies may include:

- Mail-in applications available from the retailer, the program website, or directly from contractors;
- Online rebate forms;
- Point of Sale, Marketplace or In-store at the time of purchase;
- Special sale events in retail stores;
- Manufacturer buy down to retailer;
- Midstream or upstream incentives to retailers, distributors or manufacturers; and
- Partnerships with community groups, schools, and/or non-profit organizations.

In instances where incentives are not immediate, the utilities will strive to complete consumer or contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of program requirements, such as necessary field inspections (if required).

#### **Customer Financing Options (MFR II.a.v)**

On-Bill Repayment ("OBR") or access to financing with similar terms will be available to eligible customers for select measures.

Refer to Section 4h of this Program Plan, for the Summary of Proposed Financing for this program.

#### Contractor Requirements & Role (MFR II.a.vi)

The utilities and/or third-party implementation contractors will be responsible for identifying and engaging retail and wholesale entities dealing in energy efficient equipment to on-board them with the program vision, eligible efficient products, rebates, and ways to participate. Additionally, the utility and/or third-party implementation contractors may engage trade allies, including local HVAC, electrical, plumbing and other contractors to educate them on program benefits and build a trade ally network which will install energy efficient equipment for participating customers. The electric utility and/or third-party implementation contractors may engage with transportation services to pick-up and provide recycling services for old, working appliances. The utility and/or third-party implementation contractors will also monitor participation to assess the effectiveness of outreach efforts, incentive levels, delivery methods and both program ally and trade ally availability. The utility and/or third-party implementation contractors will be responsible for the management of the online marketplace.

By allowing participants to select a trade ally they are comfortable with for select products, the program reduces barriers to entry related to knowledge of energy efficiency confidence in assessments and measure installation. The utilities will perform customer satisfaction and other quality assurance and quality control activities to monitor, ensure program and verify quality standards are met.

#### Projected Participants (MFR II.a.vii) and Energy Savings Relative to QPIs (MFR II.a.viii)

Refer to Appendix A, for the information on these MFRs.

# <u>Program budget, by year (MFR II.a.ix) and Projected program costs, by year, broken down</u> into the specified categories (MFR II.a.x)

Refer to Appendix B, for the information on these MFRs.

#### 3a.i.4 Behavioral Program

#### **Program Description (MFR II.a.i)**

The Residential Behavioral program educates and provides customers with easy-to-understand information about their energy use, the usage of their peers and suggested actionable steps to generate awareness and motivate customers to achieve energy savings through behavioral changes and engagement with other energy efficiency programs. Direct mailed and/or electronic home energy reports ("HERs" and "eHERs" collectively) will be the cornerstone of the program and will provide participants with customized, easy to implement action steps and recommendations to reduce energy consumption and support behavior modification for improved energy efficiency. The HERs will present participants with a view of their historical energy consumption compared to peer group customers. Depending upon the availability of metering data and their program design, the utilities may issue usage and/or other bill alerts by email or other means.

The program may also offer an internet-based home energy self-audit to all residential customers. This audit assists customers to better understand their energy usage and opportunities for energy savings.

An online portal may be used to provide customers with usage information, recommendations, tips and links to other available energy-efficiency programs. The utilities may utilize the information gathered from various program offerings to not only gain a better understanding of the residential customer base, but also assist in making smart decisions moving forward with the energy-efficiency programs.

The utilities may share other energy efficiency program participation information with their respective Behavioral vendor. Incorporating participation feedback into the program on a prospective basis can improve the customer experience and potentially lead to higher engagement (e.g., build higher confidence in relevance of energy saving advice) and participation in other energy saving programs.

#### Target Market or Segment (MFR II.a.ii)

The program will provide HERs to residential customers to whom sufficient usage data is available and the vendor can cost effectively provide the service and maintain an appropriate control group. This number will be reviewed periodically and may be modified to enhance cost-effective energy savings. The online energy audit may be available to all residential customers per utility. The HERs and online audit may offer tailored recommendations to reduce their energy consumption.

The program targets residential customers potentially including market rate, low and moderate income, and multifamily customers. These customers receive customized energy saving tips and other program opportunities available to them including income-qualified programs.

#### Existing and Proposed Incentive Ranges (MFR.II.a.iii and MFR II.a.iv)

There is no cost to participate for customers. Customer incentives to increase engagement may be explored by some utilities.

#### **Customer Financing Options (MFR II.a.v)**

Since there is no cost for participating customers, there is no need for a financing component.

#### Contractor Requirements & Roles (MFR II.a.vi)

The utilities will utilize a third-party provider and/or utility staff to provide the services under this program. The utilities' HER vendors will distribute HERs to residential customers at no charge to the participant. Customers will also have access to online functionality provided under the program that all customers can easily utilize to update their profile, see additional tips on how to save energy, complete the online audit tool, and review their usage over a period of time.

#### Projected Participants (MFR II.a.vii) and Energy Savings Relative to QPIs (MFR II.a.viii)

Refer to Appendix A, for the information on these MFRs.

### <u>Program budget, by year (MFR II.a.ix) and Projected program costs, by year, broken down</u> into the specified categories (MFR II.a.x)

Refer to Appendix B, for the information on these MFRs.

### 3.a.ii Commercial & Industrial Sector

The core Commercial & Industrial sector programs are described below and include:

- Energy Solutions
- Prescriptive & Custom
- Direct Install

#### 3.a.ii.1 Energy Solutions Program

#### **Program Description (MFR II.a.i)**

The Energy Solutions program is designed to address the needs of commercial or industrial customers that are interested in comprehensive energy efficiency solutions. This program recognizes that a broad range of approaches is needed to help commercial and industrial customers identify, develop and complete multiple measures to comprehensive projects to save energy and meet other business objectives based on their unique circumstances. Accordingly, this program will include three distinct pathways to help the customers assess their opportunities, provide financial incentives, and provide technical assistance services to encourage and support them to take actions. These three pathways include:

1. Engineered Solutions Tier 1 will provide tailored comprehensive energy-efficiency support on projects that require significant auditing, technical support and engineering work. Incentives will be offered to encourage these customers to invest in energy efficiency. Engineered Solutions Tier 1 will provide guided consultative service throughout delivery to support customers in identifying and undertaking large energy-efficiency projects, while requiring no up-front funding from the customer.

Through Tier 1, 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. 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 a repayment plan. Through this pathway, larger participants in market segments that have typically been underserved, such as but not limited to Municipal, University, School, and Hospital ("MUSH") customers, are able to achieve greater energy savings.

2. The Engineered Solutions Tier 2 pathway will provide tailored energy-efficiency assistance to commercial and industrial customers in identifying and undertaking larger energy-efficiency projects.

Through Tier 2, customers may be provided with an in-depth audit of their facilities to identify cost effective energy-efficiency measures that could be economically installed. Customers would also have the option of using contractors who are familiar with the facilities to initiate projects. Under Tier 2, customers have the option to utilize their own engineering & installation contractors. This program will also be open to approved trade allies that meet the program participation requirements. Utilities or their implementor will complete a detailed review of the project to ensure it meets program requirements. 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 a repayment plan.

Tailored assistance services may include audits and additional technical support which will be made available and included in the project cost on an as needed basis.

3. The Energy Management pathway will target energy savings for existing commercial and industrial facilities by providing a holistic approach to improving building energy performance through maintenance, tune-up, retro-commissioning, monitoring based commissioning, and virtual commissioning services and through the implementation of energy savings measures and strategies that improve the overall operation and energy performance of buildings and building systems. Strategic energy management engagement may be utilized to establish on-going relationships with customers that can be leveraged to introduce other applicable energy efficiency programs in order to achieve more energy savings for the customer. This pathway complements the Prescriptive and Custom program and the other pathways within this program which targets capital equipment replacement or process improvement investments by improving the energy performance of a building through maintenance, tune-up, adjustment and optimization of the systems within the building and the implementation of complementary energy savings measures. This pathway supports ongoing building energy performance by using retro-commissioning and strategic energy management strategies, which supports continued energy performance. By implementing these measures, customers also receive ancillary benefits, including improved occupant comfort, lower maintenance costs and extended equipment life. This pathway includes focus on specific energy efficiency measures and management practices that can be categorized as follows:

#### **Building Operations**

Building Operations measures provide multiple services for a customer to implement building tune-up and maintenance services. These measures are designed to focus on midsize commercial and industrial customers and include the following:

- <u>HVAC Tune-Up:</u> Provides for a tune-up of HVAC systems and includes but not limited to the following services;
  - Refrigeration charge correction (if needed);
  - Cleaning evaporator and condenser coils;
  - o Filter changes;
  - o Boiler Tune-Up
  - o Furnace Tune-Up
  - o Verification of proper operation of fans and motors; and
  - Other minor repairs to refrigerant lines and coils.
- <u>Building Tune-Up:</u> Provides a path for customers to implement a Building Tune-Up that will focus on the adjustment and calibration of building systems and controls, diagnostic testing and the installation of other complimentary measures that enhance building energy performance and

savings. Also includes application of controls to optimize operation of building systems, and building operation training for applicable personnel.

#### **Retro-Commissioning**

Retro-Commissioning ("RCx") measures provide a comprehensive assessment of a customer's commercial/industrial building by using a prescribed planning process that includes a building audit, development of an action plan for the building and development of a Measurement and Verification ("M&V") plan to ensure the optimum ongoing performance of the building and building systems. A comprehensive assessment of a commercial/industrial building using a prescribed planning and implementation process, including:

- 1. Audit Phase Customer confirms intent to participate in the pathway and registers with one of the utilities. Customer and/or the customer's consultant completes the required level of an American Society of Heating, Refrigerating, and Air Conditioning Engineers ("ASHRAE") audit based on the complexity of the facility, develops a retro-commissioning implementation plan, including project timelines and plan to implement audit-identified operation and maintenance measures. There may be opportunities to complete this phase without a full ASHRAE-level audit.
- 2. Setup Phase Contracted services to implement the plan are verified, long-term monitoring and reporting is developed and initiated, and a project plan is implemented by the customer.
- 3. M&V Phase Savings verification and rebate payment from implementation of the plan is completed.

Typical RCx services include, but are not limited to:

- Optimizing chiller and boiler operations to better match building load conditions;
- Reducing ventilation in over-ventilated areas;
- Fixing ventilation dampers that are open when they should be closed or vice versa;
- Decreasing supply air pressure setpoint and system rebalancing;
- Aligning zone temperature setpoints to match the building's actual operating schedule; and

#### **Monitoring Based Commissioning ("MBCx")**

Monitoring-Based Commissioning ("MBCx") offers monitoring software paired with a building's energy management system to identify energy savings opportunities and optimize building performance and energy efficiency. Contracted services will alert the customer when equipment is not operating as expected using fault parameters and will work with the customer to correct ongoing issues and make improvements wherever possible. Planning and implementation typically includes, but is not limited to;

- 1. Assessment and qualification of a building energy management system. Assess utility bills and facility to recognize potential for energy savings.
- 2. Customer agrees to have contracted services utilize eligible software with diagnostics and other functionality through a monitoring service contract.
- 3. Monitoring-based Commissioning ("MBCx") is designed to:
  - Maximize potential incentives with a deeper dive into a building's overall performance
  - Monitor and identify cost savings opportunities
  - Benefit from a continuous process to improve comfort and optimize energy usage
  - Maximize the operational efficiency of buildings

#### Virtual Commissioning ("VCx")

VCx provides eligible customers with an initial analysis of their building's energy performance by using interval meter and or advanced metering infrastructure ("AMI") usage data, and modeling to identify and recommend potential energy efficiency measures and behavioral and/or operational changes to improve a building's overall energy performance. A unique benefit of VCx is the ability to perform analytical prospecting, and target customers remotely using data driven analysis, modelling and/or artificial intelligence ("AI"). Targeted customers are engaged, and individually reviewed to verify the opportunity, develop customized recommendations, and quantify savings potential. The analysis can also foster participation in the utility's other programs by identifying and encouraging customers to implement other energy efficiency opportunities. The VCx process can also utilize benchmarking and peer comparison metrics to help determine energy performance to identify facilities that are underperforming. This offering uses continuous engagement, monitoring, reporting and periodic reviews of customer's energy usage to ensure that implemented measures or changes have been successfully completed.

#### **Strategic Energy Management**

The Strategic Energy Management ("SEM") component of this program is designed to optimize energy consumption for larger C&I customers through long-term management of major energy using systems. SEM provides a holistic approach that is focused on management of existing systems and processes (including behavior), as well as tracking and benchmarking performance to identify and evaluate energy optimization efforts. SEM is a long-term effort typically focused on developing and executing an energy management strategy. This strategy is formulated through a series of site and/or remote visits and interviews with building owners and staff to specifically develop a Strategic Energy Management Plan ("SEMP") for the customer's facility. The SEMP will be reviewed with the customer by the utility and/or its third-party implementation contractor on a scheduled basis. This plan may include:

- Revisions or improvements to an existing Building Automation System or the addition and initiation of the use of a Building Automation System to monitor and control the buildings components and systems. The implementation or improvements to a system or the review of an existing system can include the proper training for building operators to achieve maximum efficiency.
- Development of a maintenance plan for existing building components and/or systems to identify best practices in building performance and an interactive monitoring of system components by both staff and sponsoring utilities.
- Ongoing engagement to track energy usage and performance, assist with planning energy efficiency projects and interact with facility personnel to adopt energy efficiency strategies and behaviors.
- Utilizing other program offerings, including Prescriptive/Custom measures, Building Operations, RCx and VCx.
- Using building modeling and benchmarking to compare customer's usage and performance to cohort of similar facilities and VCx to track energy usage and performance over time.
- Application of whole building energy modeling tools that can model buildings for both operational and capital improvements.
- Scheduling of attendance of customer personnel to attend educational workshops, webinars and group/individual training sessions with cohorts of facility managers (e.g. Building operations training).

Customers can participate by application to the program or may be contacted directly by program personnel. Customers can participate individually or in a cohort with other customers in the same industry. The cohort would allow customers to share best practices amongst each other as each customer goes through the SEM program lifecycle. A customer would still be treated as an individual unique project within the cohort. The program will retrieve customer demographics and obtain customer agreement for the services to be provided and facilitate ongoing customer engagement. The utilities and/or a third-party implementation contractor will develop application forms for this program that will guide applicants through eligibility guidelines, terms and conditions, and general program information requirements. In addition, the program will provide applications in web-ready formats to ensure participants and potential customers have easy access to the forms.

The Utilities recognize that public entities have unique procurement requirements which could result in barriers to participation. The Utilities will work with the State to develop and implement an approach that may offer a streamlined experience for these entities that meets their unique requirements.

#### Target Market or Segment (MFR II.a.ii)

C&I customers who are seeking comprehensive advisory, operational, technical and data analysis engagement-based energy solutions located within the utilities' service territories are eligible to participate in this program. The measures included in this program may include, but are not limited

to, HVAC, building envelope, lighting, controls and other building systems, energy efficiency and energy consuming equipment.

Engineered Solutions, Tier 1 and 2 targets customers who need tailored energy-efficiency support to help identify, develop and undertake energy-efficiency projects.

Regarding the Energy Management pathway, these strategies are generally appropriate for specific segments as described below:

- Building Operations and VCx measures target existing commercial buildings and may be
  particularly relevant for small to medium building types that utilize traditional building
  systems and controls.
- RCx and MBCx target existing commercial buildings and are particularly relevant for medium to large building types utilizing a building energy management system.
- SEM targets existing large to very large commercial and industrial customers and building types and is particularly relevant to customers with significant energy use who commit to on-going participation and engagement across the organization including various levels of management and decision making.

#### Existing and Proposed Incentive Ranges (MFR.II.a.iii and MFR II.a.iv)

Incentives for the Engineered Solutions Tier 1 pathway will provide a 100% incentive for an upfront audit, the specific audit level will be determined on a project-by-project basis based on the complexity of the facility and the potential energy efficiency measures. In addition, the utilities 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 program with participants repaying the balance of the project costs through a repayment plan.

Incentives for the Engineered Solutions Tier 2 pathway will provide incentives for both technical assistance services and other project costs determined on a project-by-project basis using a cost effectiveness tool up to 60% of project cost.

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 a repayment plan.

Tailored assistance support services may include Design, Construction Administration, Commissioning, and M&V and other technical support which will be made available and included in the project cost on an as needed basis.

Incentives for the Energy Management pathway are structured around the measure categories that focus on specific energy efficiency measures and management practices as follows:

- **HVAC Tune-Up:** Fixed incentives for the implementation of the tune-up measures based on the size of the HVAC units.
- **Building Tune-Up:** Incentives that cover up to 80% of the project cost and up to 70% of the cost to attend qualified BOC training up to \$1000 per person.

- **Retro-Commissioning:** Incentives to cover up to 100% of the initial cost to perform the required ASHRAE level audit. The total project incentive will be capped at up to 70% of the project cost. The customer may also be paid a custom incentive for the implementation of the energy efficiency measures determined through the audit.
- Monitoring-based Commissioning, Virtual Commissioning: Incentives to cover up to 100% of the cost of integration of third-party hardware and software. Utilities may also implement a performance-based model with an implementation contractor where the utility only pays for delivered and verified energy savings.
- Strategic Energy Management: The utility or third-party implementation contractor may perform an engineering assessment of the customer's facility to develop a SEMP or the customer may choose to utilize a consultant of their choosing to perform an engineering assessment to develop the SEMP. Customers who utilize a consultant will receive an incentive to cover up to 100% of the initial cost of the engineering assessment. A tiered incentive structure for customer engineering assessment may be utilized based upon square footage of a customer's facility. The SEMP will identify short, medium and long-term goals for the customer and will set identifiable metrics for mapping to the plan. For the implementation of the energy efficiency measures determined by the SEMP, the customer will be paid an incentive that is commensurate with the applicable Commercial & Industrial Program offering that the measures are attributed.

Refer to Appendix H, for the Summary of the Existing and Proposed Incentive Ranges for this program.

The utilities will strive to complete customer contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of program requirements, such as necessary field inspections (if required).

#### **Customer Repayment Options (MFR II.a.v)**

Refer to Section 4h of this Program Plan, for the Summary of Proposed Repayment for this program.

#### Contractor Requirements & Role (MFR II.a.vi)

The utilities will administer the Energy Solutions program and may also choose to select a third-party to manage delivery of this program. The utilities will oversee and coordinate on the program offering. The utilities may utilize qualified trade allies and/or contractors to undertake the services required to deliver this program. The utilities may also utilize the qualified trade allies to assist in the outreach, marketing and trade ally coordination. Participants may contract with the installation trade allies selected through a competitive solicitation process, or their own preferred contractors if allowed by the pathway, to provide program services.

The Engineered Solutions pathway delivery will typically occur in the following steps (the Engineered Solutions Tier 2 pathway may provide selected services, but not all, as determined on a project-by-project basis):

• Audit: The utilities shall assess the required level of an 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 utilities will then select a program trade ally to perform the appropriate level energy audit and prepare a customized audit report that includes a list of recommended energy efficiency upgrades. The lead utility will then review the recommended energy efficiency upgrades with the customer to determine whether to proceed with a project.

- Engineering Analysis of Project: Based on the audit results and customer feedback, an engineering analysis may be required. The lead utility will conduct a screening of the payback and project cost effectiveness and recommend the selected energy-efficiency measures for the project. The lead utility will review the project with the customer for customer agreement on the approved project and coordinate as necessary.
- Engineering Design and Bid Package preparation: The engineering trade ally hired by the lead utility will initiate the design of the selected energy-efficiency measures for the approved project. In addition, this trade ally will also prepare a Scope of Work and bid package documents which the customer could use to put out a Request for Proposal ("RFP") to obtain installation cost estimates for the approved project.
- Scope of Work/Contractor Bids: The customer will issue a Scope of Work and the bid package documents to obtain competitive bids to install selected energy-efficiency measures for the approved project. The lead utility, the program engineering trade ally and the customer will review and evaluate the bids/costs received, and the customer will make the final decision on bid selection. Following bid selection, the proposed project is again screened for cost effectiveness.
- Measures Installation and Inspections: The partnering utilities and the program engineering trade ally, acting as construction administration agent, will monitor project progress and will release project funds based on the following payment structure:
- Stage 1: Project Contracting Stage The first progress payment of up to 30% of the installation cost can be issued to the customer to initiate the project.
- Stage 2: Construction Stage A pre-defined series of monthly progress payments totaling up to 50% of total project commitment can be issued.
- Stage 3: Project Completion and Commissioning When the project is 100% complete, a final inspection and final project true-up will be performed; remaining progress payments will be issued.

The final payment based on the results of project true-up is determined and issued only if the final inspection is successfully completed and approved. If the final costs are less than the estimated project commitment, the final payment will be adjusted down to reflect the actual costs. If the final costs are greater than the estimated project commitment, the final payment will not be adjusted and will be paid according to the executed agreements and contracts specifying original costs.

The progress payment schedule described above is designed to ensure that customers can pay their installation contractors on a timely basis. Project progress and the project cash flow will be monitored and verified by the lead utility and the trade ally engineering firm with updates to the partner utility as appropriate.

The utilities will select qualified program trade allies to undertake all services associated with the program. The utilities will also monitor participation to assess the effectiveness of outreach efforts, incentive levels, delivery methods, and program trade ally and installation contractor availability and provide suggestions for improvement. The installation contractor(s) will adhere to the project

specifications recommended by the utilities and the program engineering trade ally and set forth between the installation contractor and the customer.

For Energy Management, the utilities will perform overall administration and oversight of the pathway and may also choose to select third-party implementation contractors to manage delivery of this pathway. The utilities' staff and/or third-party implementation contractors will oversee all aspects of the pathway. The utilities and/or third-party implementation contractors will be responsible to administer, promote and provide the pathway to customers including staffing, processes ensuring quality and other controls supporting successful program implementation. The utilities' staff and/or third-party implementation contractors will conduct the marketing, management and implementation aspects of this pathway.

The utilities' staff and/or third-party implementation contractors will select qualified program trade ally and/or contractors to undertake program services, as required. Installation and maintenance trade allies must adhere to the project specifications developed by the utility and/or third-party implementation contractors. The utilities will leverage their existing and/or develop a network of engaged trade allies, including local construction, electrical, plumbing and other contractors, to educate them on program benefits and assist with building an approved trade ally network which will reliably maintain and install energy-efficient equipment for participating customers.

The utilities' staff and/or third-party implementation contractors will also monitor participation to assess the effectiveness of outreach efforts, incentive levels, delivery methods and program trade ally availability and provide suggestions for improvement.

#### Projected Participants (MFR II.a.vii) and Energy Savings Relative to QPIs (MFR II.a.viii)

Refer to Appendix A, for the information on these MFRs.

# <u>Program budget, by year (MFR II.a.ix) and Projected program costs, by year, broken down into the specified categories (MFR II.a.x)</u>

Refer to Appendix B, for the information on these MFRs.

#### 3a.ii.2 Prescriptive & Custom Program

#### **Program Description (MFR II.a.i)**

The Prescriptive and Custom Measures program will promote the installation of high-efficiency electric and/or natural gas equipment by the utilities' C&I customers, either via the installation of prescriptive or custom measures or projects. The program provides prescriptive-based incentives to commercial and industrial customers to purchase and install energy efficient products. The program will continue to support and/or provide downstream approaches to ensure the market is properly supported. The program may also provide midstream or upstream incentives or buydowns and support to manufacturers, distributors, contractors and retailers that sell select energy efficient products. These measures will incentivize energy efficient lighting, appliances, heating and cooling equipment and food service equipment, among other efficiency measures. Type and value of incentive provided will range and will include electric and/or natural gas technologies that improve energy efficiency. Up-front rebates will be offered to reduce initial costs and some purchases may qualify for a repayment plan to further reduce upfront costs. Prescriptive measures are designed to provide easy and cost-effective access to energy efficient measures through customers' preferred channels.

Prescriptive rebates are designed to:

- Provide incentives to facility owners and operators for the installation of high efficiency equipment and controls;
- Promote the marketing of high efficiency measures by trade allies such as electrical contractors, mechanical contractors, and their distributors to increase market demand; and
- Ensure the participation process is clear and simple.

Prescriptive incentives will increase adoption of energy efficient equipment by harnessing the utilities' unique customer relationships to positively impact the entire sales process surrounding efficient equipment. The process includes education and awareness with customers, engagement with trade ally contractors and equipment distributors, and repayment plan opportunities for the high efficiency equipment.

The program also includes custom measures that provide calculated or performance-based incentives for electric and/or natural gas efficiency opportunities for commercial, industrial and other non-residential customers that are non-standard, variable or not captured by prescriptive incentives. Calculated or performance-based incentives are designed to reduce the customer's capital investment for qualifying energy efficient equipment to retrofit or upgrade specialized processes and applications and/or to implement qualifying high efficiency building shell or systems improvements. Typical custom measures that are eligible for incentives are either less common measures or efficiency opportunities in variable or specialized applications that may include manufacturing or industry-specific processes, or non-traditional use cases. In many cases, custom efficiency measures are more variable or complex than prescriptive equipment.

Potential participants may be required to submit an application for pre-approval to confirm measure or project eligibility and reserve funding. The utilities and/or implementation contractors will develop electronic rebate application forms that will guide applicants through eligibility

guidelines, program requirements, terms and conditions and general information. In addition, the utilities and/or implementation contractors will provide applications in web-ready formats to ensure participants have easy access to the forms. The pre-approval process provides for the review of the customer's proposed project to confirm measure eligibility and incentive budget availability. This also supports the utilities' program management because it communicates projects that are in the pipeline. If accepted and pre-approved by the utilities, a timeline is established for project completion to qualify for a rebate. The typical lead time for completing a custom project is 90 to 120 days but can be longer depending on the complexity of the project. Large projects, or subsets of projects, may be required to undergo pre-and post-inspection to validate energy savings. Approved measures or projects may also be eligible for a repayment plan.

#### Target Market or Segment (MFR II.a.ii)

The Prescriptive and Custom Measures program will be available to all commercial, industrial and other non-residential customers located within the utilities' service territories. This program is focused on promoting the sale and installation of efficient electric and/or natural gas equipment across all major end-use categories and can be easily promoted to trade allies and customers via straightforward prescriptive rebates or more complex custom rebates. Potential technologies incentivized through prescriptive measures include energy efficient lighting, appliances, heating and cooling equipment and food service equipment, among other efficiency measures. Customers pursuing custom incentives will generally be customers with more complex needs and non-standard or variable efficiency opportunities and typically include building types such as light/heavy industrial, manufacturing, data centers and distribution centers, among others.

#### Existing and Proposed Incentive Ranges (MFR.II.a.iii) (MFR II.a.iv)

The utilities propose to provide a range of incentives depending on the measure type, subject to changes based upon customer response and economic and market conditions over the plan period. Incentives will vary depending on factors including but not limited to the specific product, the incremental cost of the high-efficiency technology and the product maturity in the marketplace.

Refer to Appendix H, for the Summary of the Existing and Proposed Incentive Ranges for this program.

In instances where incentives are not immediate, the utilities will strive to complete consumer or contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork and completion of program requirements such as necessary field inspections (if required).

#### **Customer Repayment Options (MFR II.a.v)**

The participating customer will repay the balance not covered through the incentive either in a lump sum or through a repayment plan. Refer to Section 4h of this Program Plan, for the Summary of Proposed Repayment for this program.

#### **Contractor Requirements & Role (MFR II.a.vi)**

The utilities may outsource some, or all, of the implementation of this program to an implementation contractor who would be responsible for defined functions, which could include administration, marketing, application processing and documentation regarding purchased products and processing incentives and rebates. The utilities will perform overall administration and oversight of the program. To maximize customer participation and streamline the customer experience, the utilities will use their strong customer and marketplace relationships to support multiple implementation strategies to achieve program goals.

- Trade Allies: The utilities and/or the implementation contractor will target trade allies to promote the energy efficiency opportunities and incentives to their clients. Preserving this downstream approach will ensure that customers and trade allies are properly supported. Trade allies will be able to leverage the program and offer customers rebates through their normal course of business. By developing relationships with trade allies, the program will develop a broad reach across the marketplace and solicit feedback to ensure incentives and measures are impacting the market as designed. Examples of targeted trade ally firms may include:
  - o Design, engineering, and controls firms;
  - o Building energy managers
  - o HVAC distributors, contractors, and retail providers;
  - o Food service retailers and service providers;
  - o Commercial lighting retailers, distributors and wholesalers; and
  - Electricians and Electrical contractors
- Retail: The utilities' program staff and/or the implementation contractor field representatives may work with retailers and distributors that directly target C&I customers to inform them of the participation process and available equipment incentives. The utilities and/or implementation contractor may also provide support and assistance to retailers or distributors to support identification and promotion of qualifying energy efficient products. This may also include training and instruction to participating retailers and distributors about the utilities' application forms.
  - The utilities may provide opportunities for commercial customers to purchase energy efficient equipment through an online marketplace.
- Midstream: The utilities and/or the implementation contractors may promote a midstream component for specific equipment types to encourage purchase of efficient equipment via directly marking down the cost of the efficient equipment at the point of sale. Midstream rebates encourage market transformation and wider availability of efficient equipment. The utilities anticipate offering midstream point of sale discounts across numerous equipment types, which may include, but not limited to LED lighting, HVAC and food service equipment. Efficient products that are rebated via a midstream approach will not be eligible for incentives in any other utility energy efficiency program. The utilities and/or implementation contractor will also provide support and assistance to distributors to support identification and promotion of qualifying energy efficient products. This will also include training and instruction to participating distributors, as well as enrollment of distributors to participate in midstream program offerings.

- **Digital:** The program will be marketed directly to C&I customers on the utilities' websites where customers will have easy access to information regarding eligible equipment and savings opportunities, how to participate, rebate applications and incentives across all efficient equipment types and end-uses. The utility may also offer the direct purchase of eligible equipment through their website or an online marketplace.
- Targeted Customer Outreach: Utility staff may choose to reach out directly to large business and commercial customers to develop relationships with energy and facilities managers, operations staff and procurement personnel. Program staff can help facilitate completion of rebate applications and serve as a direct resource to these customers, providing technical support and assisting customers in identifying efficiency opportunities.
- Technical Customer Assistance: An important element of the Prescriptive and Custom program is the availability of technical support. The utilities and/or implementation contractor will provide technical support to customers on the application of the energy efficiency measures and technologies included in this program, including supporting measure or project identification, developing energy savings calculations and assessing measure or project economics as required.

Measurement & Verification ("M&V") for measures or projects that do not have reliable information to accurately forecast energy savings may require energy monitoring before and after measure or project implementation to determine savings and incentive amounts.

A comprehensive contractor agreement, containing information about equipment certification (such as DLC lighting, etc.), licensing, insurance requirements, etc. will be developed and provided to all participating contractors.

#### Projected Participants (MFR II.a.vii) and Energy Savings Relative to QPIs (MFR II.a.viii)

Refer to Appendix A, for the information on these MFRs.

# <u>Program budget, by year (MFR II.a.ix) and Projected program costs, by year, broken down into the specified categories (MFR II.a.x)</u>

Refer to Appendix B, for the information on these MFRs.

#### 3a.ii.3 Direct Install Program

#### **Program Description (MFR II.a.i)**

The Direct Install Program is focused on providing the installation of efficiency measures for small to medium sized businesses, non-profit organizations, municipalities, schools and faith-based organizations ("eligible customers") that typically lack the time, knowledge or financial resources necessary to investigate and pursue energy efficiency. The program is designed to provide eligible customers with easy investment decisions for the direct installation of multiple measures to comprehensive energy efficiency projects. The program will pay a percentage of the up-front cost to install the recommended energy efficiency measures, with the participating customer contributing the balance of the project not covered by the incentive. The program will also provide a repayment plan to the customer. The no-cost energy assessment mitigates the time constraints and knowledge barriers while the reduced project costs and repayment options mitigate cost barriers and assist participants in making decisions, which otherwise would be time-consuming and potentially difficult to justify. The Direct Install program plays an important role in the marketplace because private providers of energy efficiency services typically do not target smaller customers due to the lower overall profit for their services when compared with larger nonresidential customers. For these reasons, small to medium sized businesses, non-profit organizations, municipalities, schools and faith-based organizations are often underserved, and the program fills an important gap by targeting, promoting and delivering efficiency services to these customers directly.

The energy assessment will be provided to customers free of charge and will offer recommendations on energy efficiency measures to reduce the customer's energy usage and costs. Standard energy savings measures may also be provided or installed at no cost at the time of the energy assessment to support customer engagement, participation and energy savings.

The program will also focus on the smaller customers within the eligible customer segments. The utilities anticipate portions of the program to be directed at restaurants, small offices, convenience stores and other small independent businesses that often are left behind in energy efficiency programs. Through a number of delivery mechanisms, the utilities will ensure that all eligible business types are able to participate in this program.

The Utilities recognize that public entities have unique procurement requirements which could result in barriers to participation. The Utilities will work with the State to develop and implement an approach that may offer a streamlined experience for these entities that meets their unique requirements.

#### Target Market or Segment (MFR II.a.ii)

The utilities will seek to address the most cost-effective measures but will also address all measure retrofits that would comprise a cost-effective project. Examples of end-use categories covered by the program include lighting, HVAC, controls, refrigeration, food service, motors, low-flow devices, building envelope improvements, pipe wrap and domestic hot water equipment. The program will be divided into three tiers of eligibility, determined by the customer's individual facility peak electrical demand over the last 12 months.

#### • Tier 1

 Will serve the smallest of the eligible customer base: all customers with an average annual individual facility peak electrical demand of up to 100 kW and an average annual natural gas load of up to 5,000 therms;

#### • Tier 2

- All customers with an average annual individual facility peak demand of up to 300 kW or average annual natural gas load of 40,000 therms that are located within an Urban Enterprise Zone ("UEZ"), Opportunity Zone, Overburdened Community ("OBC"); or
- All customers with an average annual individual facility peak demand of up to 300 kW or an average annual natural gas load of 40,000 therms that are owned or operated by a local government, K-12 public schools, or that are non-profits categorized as 501(c)3

#### Tier 3

 All customers with an average annual individual facility peak electrical demand of 101 - 300 kW or an average annual natural gas load of 5,001 therms to 40,000 therms.

The eligibility requirements listed above may be adjusted in coordination among the utilities to improve customer access, participation and program performance based on economic and market conditions.

#### Existing and Proposed Incentive Ranges (MFR.II.a.iii and MFR II.a.iv)

Each tier of the program will encompass many of the same benefits, including a turnkey solution for eligible customers, which requires no up-front investment. The initial site visit, energy assessment and installation of recommended energy efficiency measures are provided at no initial cost to participants. The utilities propose to provide an incentive level of up to 80% of the project costs to promote the completion of comprehensive projects while maintaining overall program cost effectiveness.

For Tier 1 customers the program will offer to pay up to 80% of the project cost to install the recommended energy efficiency measures with the participating customer (and/or landlord) repaying the balance not covered through the incentive either in a lump sum or through a repayment plan.

For Tier 2 customers, program will offer to pay up to 80% of the project cost to install the recommended energy efficiency measures with the participating customer (and/or landlord) repaying the balance not covered through the incentive either in a lump sum or through a repayment plan. Customers located in an Urban Enterprise Zone ("UEZ"), Opportunity Zone, Overburdened Community ("OBC"), or other geographic area as designated by the Board of Public

Utilities may also qualify, as will those owned or operated by a local government or K-12 public schools, or non-profits categorized as 501(c)3 or 501(c)19.

Tier 3 will serve the larger segment of eligible customers, with an individual facility average annual peak electrical demand of 101 - 300 kW or 5,001 therms to 40,000 therms over the past 12 months. Incentives up to 70% of the total project cost will be offered with the participating customer repaying the balance not covered through the incentive either in a lump sum or through a repayment plan.

Utilities may impose a dollar cap on the incentives for all tiers.

Refer to Appendix H, for the Summary of Existing and Proposed Incentives for this program.

### **Customer Repayment Options (MFR II.a.v)**

The participating customer will repay the balance not covered through the incentive either in a lump sum or through a repayment plan.

Refer to Section 4h of this Program Plan, for the Summary of Proposed Repayment for this program.

#### Contractor Requirements & Role (MFR II.a.vi)

The Direct Install Program interfaces with customers via either direct solicitation or upon customer request. All participants receive a site visit, including a free on-site energy assessment to identify energy efficiency retrofit opportunities. Standard energy savings measures may also be installed at no cost at the time of the energy assessment for eligible Tier 1 customers, to support customer engagement, participation and energy savings. Following the energy assessment, participants are provided with a report assessing the site and recommending additional measures that could further improve the energy efficiency of the facility.

Based on the results of the energy assessment report, the program will offer to pay a percentage of the project cost to install the recommended energy efficiency measures. The program may also provide a repayment plan, to the customer (and/or landlord) for their portion of the project cost. Utility staff and/or third-party implementation contractors will provide turnkey solutions to eligible customers with the initial site visit, energy assessment and installation of recommended efficiency measures at no initial cost to participants. The utility will ensure this completed on time and to specifications. This approach frees up the participant, who may not have the time or resources to dedicate to project identification, development and implementation. The distinction between Tier 1, 2, and 3 eligibility criteria will ensure that eligible customers, even those that are the smallest and often overlooked, receive ample focus.

The participating contractors will perform the energy assessments and installations, working with the utilities and/or the implementation contractors oversight to undertake all construction and installation work identified in the energy assessment process.

# Projected Participants (MFR II.a.vii) and Energy Savings Relative to QPIs (MFR II.a.viii)

Refer to Appendix A, for the information on these MFRs.

<u>Program budget, by year (MFR II.a.ix) and Projected program costs, by year, broken down into the specified categories (MFR II.a.x)</u>

Refer to Appendix B, for the information on these MFRs.

# 3a.iii Multifamily Sector

The core Multifamily sector program is described below and includes:

• Multifamily

# 3a.iii.1 Multifamily Program

## **Program Description (MFR II.a.i)**

This program addresses multifamily structures with three or more units. As such, there can be significant variation in the types of structures served under this program ranging from residential type dwellings with three units to large garden apartment complexes to multi-story high rise buildings. To meet the specific needs of each customer, the Multifamily Program will provide, in conjunction with the customer, a structured screening review to identify and develop the project plan for the customer. Potential program services include customer engagement with energy efficiency education through energy assessments and a suite of efficiency and building decarbonization offerings ranging from simple to deep energy retrofits targeting all end uses. In addition, the Multifamily Program may provide On-Bill Repayment ("OBR") or access to financing with similar terms and enhanced incentives for income-qualified customers and affordable housing properties.

The Multifamily Program will seek to work with each customer to determine and package the best energy savings opportunities based on the needs and interests of the customer, with an emphasis to encourage more comprehensive projects wherever possible. Customers will begin participation in the Multifamily Program with a screening to identify and develop a project plan. The initial screening may include an energy assessment and installation of standard energy savings measures where possible to help encourage program participation. The assessment will also identify additional energy savings opportunities and develop the project plan that is the best fit for each specific customer and building.

Applications to this program will be reviewed to determine the project plan depending on the type of housing stock and ownership structure. The screening process will consider various factors to create a project plan that will deliver a high level of energy savings in a cost-effective manner. Examples of these factors include, but are not limited to:

- Building size;
- Number of units;
- If the facility is being served by a central plant;
- If there are individual heating and cooling units;
- If there are building envelope/weatherization opportunities;
- Application review with a potential virtual site inspection or telephone interview with property management; and
- An on-site pre-scoping audit may be performed.

Depending upon the screening results and the customer's interests, a customer's project plan could include direct installation of standard and comprehensive energy saving measures, comprehensive building wide efficiency, and other possible measures. The measures within the project plan may align with the terms and conditions of the utilities' respective applicable residential and/or commercial and industrial program offerings, where appropriate, and may include multifamily-specific terms, conditions, incentives and offerings. Therefore, the project plan can include prescriptive measures with set energy-savings and/or custom projects with savings on a project basis. The incentives for the measures may not match the incentives in other programs, as the

multifamily sector has higher barriers to overcome. Discussions with customers may also target the identification of specific opportunities that may align with other utility programs, including measures provided in Additional Utility-Led Initiatives.

## Target Market or Segment (MFR II.a.ii)

All multifamily buildings with three or more units that are served by at least one investor-owned utility are eligible to participate. The program targets multifamily property owners, property managers, and residents, who, because of the building owner – tenant relationship, have always had difficulty investing in energy efficiency equipment. The utilities will also target outreach to income-qualified occupants and owners of multifamily buildings who are eligible for enhanced incentives.

Eligibility for these enhanced incentives can be automatic based upon the type of property that can be identified as serving income-qualified customers, such as those with an affordable housing designation (e.g., New Jersey Housing and Mortgage Financing Agency qualified, Housing Authorities) or identifiable by a physical location (e.g. census tract, Overburdened Communities with a low-income characteristic). The utilities reserve the right to align with categorical eligibility of federal and state energy efficiency programs for income eligibility. The program may refer prospective customers to income-qualified program(s) as appropriate.

#### Existing and Proposed Incentive Ranges (MFR.II.a.iii and MFR II.a.iv)

The measures of the Multifamily Program are a comprehensive combination of potential program components. Depending on the needs of the customer, different program components may be provided to them. Incentives for some measures may align with the existing incentive offerings for other program offerings, however the program has the flexibility to offer different incentive levels.

See Appendix H for existing and proposed incentive ranges for each of the potential program components that utilities may offer as part of their Multifamily program.

#### **Customer Financing Options (MFR II.a.vi)**

Refer to Section 4h of this Program Plan, for the Summary of Proposed Financing.

The Multifamily Program may provide On-Bill Repayment ("OBR") or access to financing with similar terms and enhanced incentives for income-qualified customers and affordable housing properties.

#### Contractor Requirements & Roles (MFR II.a.vi)

The Multifamily Program will be delivered in coordination between both the Lead Utility and the Partner Utility (where applicable) and/or qualified third-party implementation contractor(s) with experience delivering similar programs. Because of the unique and varied nature of the multifamily market program representatives will build relationships with property management companies, owners, associations and their members to recruit participation in the program. The program will assist customers as necessary to coordinate scheduling of the Energy Assessment and direct

installations and will provide program and technical support to complete program and rebate application requirements.

Delivery of energy-saving measures will be dependent on the project plan and may include direct installation of standard and comprehensive energy savings measures, installation of prescriptive measures, and/or custom projects. It may be necessary to schedule appointments for the installation of energy saving measures in the individual living units and common areas. In-unit HVAC tuneups may also be offered to the property owner or tenant. The installation crews are trained on the technical and educational aspects of the measures installed and leave educational materials in each unit describing the work performed and explaining the energy-saving benefits.

### Projected Participants (MFR II.a.vii) and Energy Savings Relative to QPIs (MFR II.a.viii)

Refer to Appendix A, for the information on these MFRs.

# <u>Program budget, by year (MFR II.a.ix.) and Projected program costs, by year, broken down into the specified categories (MFR II.a.x)</u>

Refer to Appendix B, for the information on these MFRs.

# 3b. Additional Utility-Led Initiatives

As discussed in the Introduction, Additional Utility-Led Initiatives follow a consistent format but contain utility specific proposals, with the exception of Next Generation Savings, which provides consistent information across the Utilities.

The Additional Utility-Led Initiatives are described below and include:

- Next Generation Savings
- Building Decarbonization
- Demand Response

# **3b.i Next Generation Savings Program**

# **Program Description (MFR II.a.i)**

The Next Generation Savings ("NGS") Program will develop critical insights that can help the State with longer term strategies for reaching its clean energy and climate related goals. This program is a key step to gain technical and market understanding on installation, performance, economic and other considerations for new customer energy-efficiency solutions. NGS will support new technologies and approaches that are ready for broader adoption, but need enhanced contractor training, customer incentives, or other key elements to help the marketplace understand the value proposition and implement the measure. It is critical to establish a program like this to ensure utilities and the state will be in a better position to achieve escalating energy savings targets and get new resources to market in a timely fashion.

Since the NGS will be focused on technologies and approaches that have proven potential, this companion effort will focus on the extra support needed to get those proven technologies and approaches into the marketplace to help New Jersey reach its clean energy and climate-related goals, introduce new solutions for customers, and support the development of a clean energy economy. Individual utility interest in supporting particular technologies and approaches may vary due to their fuel source, service territory demographics, or other unique characteristics. Therefore, the NGS would be an optional Additional Utility Led Initiative but would be conducted in a collaborative manner to ensure insights are shared across utilities and with the state and other stakeholders. Progress updates will be shared periodically with the Utility Working Group and publicly through the EE Stakeholder meetings to ensure all stakeholders can benefit from the knowledge developed by this program.

#### Primary objectives of NGS:

- Identify promising technologies or approaches that are ready to be integrated into energy efficiency offerings for New Jersey, including proposing savings calculations for the Technical Resource Manual and elements to be included in Evaluation, Measurement and Verification plans
- Identify and engage market actors and customers interested in being early adopters of new technologies or approaches
- Provide support, including training and potential incentives, to program and/or trade allies willing to start promoting the technology and approaches
- Support the successful deployment of new technologies or approaches through case studies, marketing materials, training events, recruitment and other activities
- Identify and address other potential market barriers
- Provide results and knowledge to Utility Working Group and stakeholders

Due to the supporting role it will play in energy-efficiency efforts, the individual technologies and approaches tested will vary from year to year with a goal to support continuous innovation and increase energy savings. NGS supported technologies or approaches are expected to eventually be

layered into existing approved energy efficiency programs without the need for supplemental NGS program support.

## NGS activities may include:

- Implementing outreach to program and/or trade allies, such as but not limited to, through dedicated workshops on the technologies or approaches, including installation instructions, requirements and operations and maintenance procedures; participation in industry conferences related to these technologies; close work with trade ally associations
- Developing curriculum and training courses for use in technical schools or higher education. Will coordinate with other utility Workforce Development initiatives as applicable. However, it is important to note that this training would be targeted to enhance the skill set of the existing workforce with specific new technologies or approaches
- Providing incentives for program and/or trade allies that may need special software, diagnostics tools or other materials to support the purchase, installation and/or maintenance of these new technologies or approaches
- Conducting market research including surveys, focus groups, interviews, and due diligence reviews to understand the attractiveness, costs and suitability of the new technology or service for customers, program and/or trade allies, and other New Jersey stakeholders
- Conducting pilots where the technologies or service delivery innovations are offered to select groups of customers to measure performance on a wider scale, in preparation for a full offering in other EE programs
- Offering attractive incentives for customers and/or trade allies who are early adopters
- Educating market actors and other stakeholders by conducting on-line or in-person training events, and preparing marketing materials such as case studies, brochures and frequently-asked-question ("FAQ") documents
- Initiating other efforts to increase market acceptance of proven technologies and approaches
- Providing incentives based on expected energy savings or project cost, similar to custom calculated measures
- Direct funding to a manufacturer, distributor, contractor, retailer or host site to offset technology equipment or installation cost
- In-kind support, such as use of monitoring equipment, technical or administrative support for data collection and analysis, report preparation and promotion, etc.

Due to the intensive level of support contemplated for initiating broader market adoption and uncertainty regarding market participation, it is not feasible to accurately estimate the costs and benefits at this time. Accordingly, NGS should be exempt from the requirements set forth in MFR Part V. As technologies and approaches are ready to graduate from the NGS they will be subject to a review of their costs and benefits prior to adoption with traditional EE programs.

When a technology or approach is ready to "graduate" from the NGS program, participating

utilities will complete a summary of the efforts conducted under this program, which may include the following, as appropriate:

- Participation and performance metrics
- Customer and program and/or trade ally feedback
- Identification of market barriers/unforeseen challenges with proposed remedies
- Training metrics participation and feedback and identification of on-going training needs
- Updates on customer/program and/or trade ally recruitment
- Marketing and outreach plan

## Target Market or Segment/Efficiency Targeted (MFR II.a.ii)

The program will support new technologies and approaches that are ready for broader adoption but need enhanced training, customer incentives, or other key elements to help the marketplace understand the value proposition and implement the measure. These new technologies may be targeted to the residential, multifamily, or C&I sectors.

Participating utilities will include periodic updates on NGS program activities as part of Utility Working Group and EE Stakeholder Meetings. However, potential examples within NGS include:

- Advanced duct sealing technology
- Air-to-Water Heat Pump systems
- Heat pumps for industrial applications
- Thermal imaging mapping
- Natural gas heat pumps

Technologies under NGS don't necessarily require further testing to prove their technical energy savings potential, but they do need considerable work to identify and address barriers to adoption in the marketplace. NGS will enhance stakeholder understanding of these barriers to market deployment and to develop strategies including training to address them.

# **Delivery Method**

Participating utilities will utilize staff and/or third-party vendors to support technologies or approaches under this program, follow industry trends and research, assist in securing customers and program and/or trade allies interested in exploring new technologies or approaches, and support the coordination efforts.

# Existing and Proposed Incentive Ranges (MFR.II.a.iii and MFR II.a.iv)

Incentives may be developed for customers who are early adopters or may be provided at a midstream or upstream level. Supply Chain incentives for manufacturers or distributors may be an important strategy for some technologies.

Incentives are also anticipated to help support program and/or trade ally commitment to the technologies and approaches within this program.

Program and/or trade allies and customers who are the beneficiaries of incentives under this

program will be required to share energy and pricing data, complete required surveys and support independent evaluation efforts.

## **Customer Financing Options (MFR II.a.v)**

The program may include a financing component to support the growth of developing technologies and commercialization of new energy saving technologies.

# Contractor Requirements & Roles (MFR II.a.vi)

Contractors and other program and/or trades allies, with an interest in expanding their knowledge and broadening the range of solutions they can offer customers, will benefit from this program. They will have the opportunity for training, potential funding for software, diagnostic tools or other materials, potential special incentives to offer program vendors and/or trade allies and customers who are early adopters, supporting marketing materials and other resources to help address market barriers.

#### Marketing Approach

NGS will begin to develop and implement customer outreach approaches, but this may not take on a traditional marketing approach. As a result, the program may provide targeted marketing efforts for customers, niche markets, identified through NGS and may include:

- Work with identified program and/or trade allies to develop relevant collateral
- Collaborate with technical and marketing staff to develop and syndicate white papers
- Develop tailored proposal and presentation kits
- Analyze and remarket to leads from other utility programs
- Engage business and trade organizations
- Identify potential customer demographics for targeted outreach campaigns
- Work with utility outreach staff/liaisons to identify existing customers with needs that can be addressed by the featured technologies or approaches

#### **Market Barriers**

In addition to the market barriers identified in the utility marketing plans, this program would overcome several additional market barriers and lead to increased uptake of new technologies and approaches:

- Program and Trade Allies Not Trained on Installation and Operations and Maintenance: Many contractors and program and/or other trade allies may not be familiar with emerging technologies or new approaches and have limited resources to participate in industry courses. Lack of knowledge limits the range of solutions they can offer to customers and may also lead to the potential to dissuade a customer from trying new technologies or approaches. NGS will address this barrier through extensive training offerings, outreach to industry associations, funding for certain software, equipment or tools and supporting customer materials.
- Integration with state and local building codes: New technologies can often be

introduced to the market before code officials have considered how to review the proper installation practices and/or have not been given accurate guidance. NGS intends to address this barrier through coordination with the N.J. Department of Community Affairs and outreach to local code officials where applicable.

- Supply Chain Challenges: Emerging technologies are often unavailable, due to retailer/distributor failure to stock and service the new products. NGS will raise awareness and engage the New Jersey marketplace with information and case studies about the new technologies that are proven, by deployment test studies, to be high value additions to the energy efficiency programs. NGS will invest resources to familiarize program and/or trade ally partners of all types with the advantages of embracing and promoting new technologies to customers and may consider supply chain incentives.
- Customer Acceptance of New Technologies or Approaches: Due to the unique nature of these technologies or approaches and because the utilities will likely not market to a broad base of customers, we do not anticipate traditional marketing channels or campaigns. Potential customers will consist of knowledgeable buyers (often teams) who will analyze products in terms of user benefits. Participating utilities will develop specific customized materials for deployed technologies or approaches including:
  - Technical specifications
  - Benefits
  - Best practices
  - Industry case studies

# Projected Participants (MFR II.a.vii) and Energy Savings Relative to QPIs (MFR II.a.viii)

Refer to Appendix A for the information on these MFRs.

<u>Program budget, by year (MFR II.a.ix) and Projected program costs, by year, broken down into the specified categories (MFR II.a.x)</u>

Refer to Appendix B of the Program Plan for information on these MFRs.

# **3b.ii Building Decarbonization Program**

# **Building Decarbonization Program (MFR IIa.i)**

The Building Decarbonization ("BD") Program will provide incentives, technical support, and other support for customer to switch fossil fuel equipment to electric equipment. The program may include various decarbonization pathways, such as Residential Building Decarbonization, Commercial & Industrial Building Decarbonization, and Multifamily Building Decarbonization. The program may also include more novel decarbonization approaches such as a Utility owned networked geothermal demonstration project, and a PSE&G Facility Decarbonization Demonstration.

#### **Residential Building Decarbonization**

The Residential BD pathway will provide incentives and other support for decarbonization measures in existing homes, with a focus on replacing fossil fuel space and water heating equipment with electric heat pumps. The program may also include incentives for measures such as induction stoves, heat pump dryers, and electric lawn equipment. The Residential BD Program will be integrated into the other residential programs, rather than a stand-alone program. Measures may be provided individually through the Efficient Products Program, or as part of a larger Whole Home Program or Income Qualified Program project for low-to-moderate income ("LMI") customers/overburdened communities ("OBC") or non LMI/OBC customers. In particular, energy assessments in the Whole Home Program will identify homes that are good candidates for decarbonization, and promote heat pumps and other BD program measures at the same time as envelope improvements. The program may implement a tiered incentive structure for heat pumps, with higher incentives for customers that decommission their existing heating system, and will include air source and ground source heat pumps. Lower incentives may be provided for customers who install hybrid configurations that allow for gas equipment to be used on cold days. Hybrid configurations can include the new addition of a heat pump or the replacement of central air conditioning systems either with or without the replacement of heating systems, and will require proper thermostat controls. Incentives for heat pump water heaters and other equipment may be based on size or fixed incentives. The program will also provide incentives – both for full heating replacements and hybrid incentives – directed at multi-family buildings, and will explore ways to target this market and mitigate the split incentive barrier. This will likely include focused outreach and enhanced incentives for multi-family, but the program may also explore additional approaches. The program may provide incentives to make the property electric-ready for heat pumps by ensuring there is proper panel space and capacity, and internal wiring for measures like a heat pump or heat pump water heater.

The program may also seek to leverage the Inflation Reduction Act ("IRA") rebate programs to defray the initial cost of decarbonization. The IRA tax credits may also be promoted through the program to help reduce the cost of these measures. Utilizing these outside resources will assist the program to increase its reach and the participation, while lowering the rate-payer impact of the program. Details of IRA funds integration will be established in collaboration with BPU staff and the implementation plan approved by the U.S. Department of Energy.

The BD program will additionally prioritize service to low— and moderate-income customers, up to providing incentives for the full cost of heat pump installation. Tools may be developed to

estimate bill savings to these customers prior to installations, so customers can make informed decisions on equipment options. A particular focus on decarbonizing affordable multifamily housing will help ensure that low- to moderate-income renters, a particularly vulnerable group, are appropriately served and not left with the burden of fossil fuels and aging fossil fuel systems.

The BD program will also offer space and water heat pumps to customers who currently have electric resistance heating for those applications, but since this change in technology is not a fuel switch, those incentives and savings will be delivered and tracked under the appropriate Energy Efficiency program. Finally, decarbonization resulting from oil or propane to natural gas fuel conversions will also be tracked under the appropriate Energy Efficiency program and will apply the full MMBtu savings from that fuel switch towards the applicable targets.

### **Commercial Building Decarbonization**

This pathway is focused on providing incentives for customers in commercial and industrial facilities to decarbonize existing buildings through installation of high efficiency electric HVAC equipment and other process equipment. The pathway will offer prescriptive incentives for relatively well known decarbonization technologies in smaller commercial facilities – i.e. ductless minisplits, variable refrigerant flow systems, and heat pump water heaters, but may also include a custom component that large customers can draw on to help them implement more complex decarbonization projects. The pathway will also consider providing enhanced incentives for projects that displace the entire heating load, as well as incentives to support circuit breaker upgrades and other "electrification-ready" projects. Finally, the program will also provide incentives for commercial grade electric lawn equipment and electric forklifts.

The BD program will also offer space and water heat pumps to customers who currently have electric resistance heating for those applications, but since this change in technology is not a fuel switch, those incentives and savings will be tracked under the appropriate Energy Efficiency program. Finally, decarbonization resulting from oil or propane to natural gas fuel conversions will also be delivered under the appropriate Energy Efficiency program and will apply the full MMBtu savings from that fuel switch towards the applicable targets.

#### **Networked Geothermal Demonstration**

The Networked Geothermal Demonstration seeks to develop, install, own, and operate one or more shared geothermal loops that will serve multiple customers over a 10-year period. Participating customers will have a heat pump installed to provide heating and cooling. Domestic hot water may be integrated into the system where it's beneficial for the performance of the ambient loop or where gas service can otherwise be removed from the customers premise. The geothermal heat pump is expected to be more efficient than an air source heat pump, particularly in cold weather, since the ground temperature surrounding the shared loop will not vary with outside air temperature. Connected customers will pay a fixed monthly fee for the thermal energy, based on their estimated bill savings for the 10-year period. The fixed fee collected from participants will be credited as an offset to program revenue requirements. The Networked District Geothermal Demonstration will require significant effort when identifying the projects' locations and the customers involved, which may include stakeholder engagement to promote the value of the project and assist with

obtaining customers to participate. PSE&G would seek to leverage learnings from existing and ongoing networked district geothermal projects from peer utilities in the northeast.

#### **PSE&G Facility Decarbonization Demonstration**

In the PSE&G Facility Decarbonization offering, PSE&G will seek to electrify one of its own buildings, the Elizabeth Electric Distribution facility. This will be an important opportunity for PSE&G to lead by example, better understand the complexities and challenges of large commercial decarbonization projects and inform case studies and marketing materials to encourage other large commercial customers to electrify as well.

# Target Market or Segment (MFR II.a.ii)

The overall BD program targets PSE&G's entire customer base; however, different pathways target specific market segments. The Residential Building Decarbonization pathway targets residential and LMI customers, including multi-family, but a primary focus of targeting will be customers who have oil or propane. The Commercial Building Decarbonization pathway targets all commercial and industrial customers, and will also focus on customers with oil or propane. The Networked Geothermal Demonstration target all customers in a specific area, whether residential or commercial. Finally, the PSE&G Facility Decarbonization pathway applies only to PSE&G's Elizabeth Electric Distribution Facility.

#### Existing and Proposed Incentive Ranges (MFR.II.a.iii) (MFR II.a.iv)

There are no existing Building Decarbonization incentives. The Residential Building Decarbonization and C&I Building Decarbonization pathways will provide incentives for measures that electrify fossil fuel equipment. Incentives will be higher for full heating replacement, but incentives for partial replacement and hybrid configurations will be provided, and enhanced incentives will be provided for LMI and/or multifamily customers. On-bill repayment ("OBR") will be offered to cover the portion of the project costs not covered by the upfront incentive. Refer to Section 6h: Appendix H of this Program Plan, for the Summary of the Proposed Incentive Ranges. The timeframe for incentive payments will align with the timeframe for such payments in the core program(s) in which the BD incentive(s) are integrated.

The Networked Geothermal Project will be developed at no additional cost to the customer. Customers using the loop will be charged a monthly charge for access, at an amount designed to ensure equivalent total energy bills. There are no incentives needed for the PSE&G Facility Decarbonization.

# **Customer Financing Options (MFR II.a.v)**

Refer to Section 4h of the Program Plan, for the Summary of Proposed Financing for this program. Customers that install decarbonization equipment who incur costs above any incentives will generally be eligible for financing in line with the financing offerings for the program in which the BD measure(s) are integrated.

#### Contractor Roles & Requirements (MFR II.a.vi)

PSE&G may select a third-party implementation contractor to manage delivery of this program or specific elements of the program, or may support this work with in-house staff. Direct engineering services may also be solicited from a third-party contractor(s).

PSE&G's staff and/or implementers will oversee all aspects of the program, including customer engagement, identifying suitable locations for district geothermal, conducting stakeholder feedback sessions, if needed, providing technical assistance, and completing installation. Utility staff and/or implementers will ensure a consistent program delivery experience, including working with individual customers who may require high-touch engagement. Utility staff and/or implementers will also be responsible for customer support as needed and conducting post-project verification and assessment of customer experience. Third-parties may be engaged to provide independent verification of project elements associated with other utility programs, as well as to evaluate overall project economics and identify process improvement opportunities for future projects.

# <u>Projected Participants (MFR II.a.vii) and Energy Savings Relative to OPIs (MFR II.a.viii)</u>

Refer to Appendix A and Appendix G for the information on these MFRs.

Section 6j: Appendix J of this Program Plan proposes TRM calculations for building decarbonization measures not already included in the TRM.

### **Data Transparency (MFR VI.b.1-3.)**

PSE&G will provide requested data in a timely manner and delivered using an appropriate and secure delivery system. PSE&G will also comply with Staff's required reporting related to data requests and their fulfillment status.

# 3b.iii Demand Response Program

# <u>Program Description/Design and Target Market or Segment (MFR II.a.i.1 and II.b.i.1 and MFR II.a.v and MFR II.b.i.8)</u>

The Demand Response ("DR") Program is designed to encourage PSE&G customers to reduce energy usage during times of high demand. The DR program may have several different offerings designed to take full advantage of the advanced metering infrastructure ("AMI") currently being rolled out, test the full stack of potential value from DR resources, and prepare PSE&G for a future of increasing numbers of "smart" energy equipment and more intermittency in the electric supply. In addition, PSE&G will strive to integrate DR marketing as much as possible into efficiency programs, for example by encouraging people who buy smart thermostats via the online marketplace to enroll in DR at the time of purchase.

The Demand Response program may include a residential electric Direct Load Control ("DLC") pathway, and a Small Commercial DLC pathway, a residential electric Pay-for-Performance pathway, a Virtual Power Plant Demonstration, and/or an electric Fixed Bill Demonstration. In addition, a limited number of customers participating in the electric direct load control program will also be leveraged for a gas DLC pilot. Each of these pathways are described further below. In addition, PSE&G intends to easily allow the customer to provide AMI data access to other entities, in order to ensure portability of the demand response programs. The Company will continue to adhere to rules regarding release of customer data, which require customers to authorize PSE&G to release customer data to third parties. The exact set of data fields, access rules, and technology standards will be determined closer to implementation, in conjunction with the selected implementation contractor.

The Demand Response program will align with the BPU's guiding principles because it:

- Integrates AMI, DRMS, and other technologies needed to send event signals and accurately measure the results
- Ensures that customers with AMI have the option to grant data access to third parties for potential additional DR programs
- Uses different price signals, potentially including a peak-time rebate to be bid into PJM's Price Responsive Demand program, that make customer prices more accurately reflect the market rate for electricity.
- Has robust M&V, aligning with PJM requirements, to measure the actual demand reduction resulting from peak events

A detailed plan with timelines and planning priorities will be developed as PSE&G gets closer to selecting an implementation contractor and launching the program. Projected kW therm goals are shown in the table below.

	Peak kW			Participants		
Pathway	PY 4	PY 5	PY 6	PY 4	PY 5	PY 6
VPP	44	132	176	6	17	22
DLC - Res	4,868	12,315	17,943	8,250	20,873	30,411
DLC - C&I	468	2,310	4,649	412	2,033	4,091
P4P	24,462	58,709	73,387	108,721	260,930	326,163
TOTAL	29,842	73,446	96,154	117,389	283,852	360,668

#### **Residential Direct Load Control**

The DLC offering will provide annual or per event incentives for customers who agree to allow PSE&G to remotely control energy using equipment in their homes, within pre-defined parameters that include the types of allowable control strategies (i.e. how many degrees a smart thermostat can be set back), the length of each event, and the maximum number of times an event can be called. The customer can opt out of specific events if they desire; however, too many opt-outs will result in a reduction or elimination of the available incentive and eventually being dropped from the program. It is envisioned that this program will initially be focused on smart thermostats but may expand to include other smart devices such as electric water heaters and electric vehicles.

## **Gas Demand Response Demonstration**

The gas DR offering will be similar to the electric DLC program and will likely leverage electric DR participation to also enroll a limited number of customers in a gas demonstration program focusing on wi-fi thermostats. As on the electric side, customers will be given an incentive to reduce gas usage during peak gas demand events. However, peak gas demand events are typically measured by day, not by hour, making sustainable demand reductions more challenging. For this reason, PSE&G is offering this as a Demonstration and not estimating specific values for peak day therm reduction. PSE&G will test different demand reduction strategies with participating customers to determine if daylong savings can be achieved. PSE&G will primarily control smart thermostats during the heating season for this demonstration program. Specific release clauses for customers who discontinue program participation will be developed during program implementation, but will likely include a requirement to reimburse any annual incentives if there was not a minimum amount of participation.

#### **Small Commercial Direct Load Control**

The Small Commercial DLC offering is similar to the residential offering, but aimed towards small C&I customers. As in the residential offering, it is envisioned that this program will initially be focused on smart thermostats and water heaters, but that it will likely expand to include other connected devices. Whenever possible, PSE&G will strive to integrate incentives for this program with incentives available via its efficiency programs. Note also that this program is focused on small commercial customers with residential-style equipment, as a significant number of large C&I customers already participate in demand response directly through Curtailment Service Providers.

#### Pay-for-Performance

Pay-for-Performance is a separate offering from direct load control, designed to take full advantage of PSE&G's AMI, and explore the value available from PJM's Price Responsive Demand opportunity. Pay-for-Performance will be available to residential PSE&G customers with an AMI meter. PSE&G will notify eligible residential customers in advance of a peak event, explaining the program and available incentives. Notifications will be sent to all eligible customers, advising them of the price credit they will receive for each kWh they save during the event. A customer can participate in the program by simply using less energy during the peak period than they typically use during similar periods on other days. After each event, PSE&G will analyze AMI usage data of all customers on the day of the event and compare that usage the usage on similar recent days with no event to determine the energy reduction during the event, if any, for the set of eligible customers A bill credit will be provided to these customers on the next electric bill, based on the

amount of measured energy reduction during the peak period. If a customer takes no action, their next electric bill will simply have no credits applied.

#### **Virtual Power Plant**

The Virtual Power Plant ("VPP") offering will explore how networked behind-the-meter storage can unlock additional value to the grid. Demand management using storage has the ability to respond quicker and be used more frequently than traditional demand response (i.e. direct load control). It can also potentially be used for other markets such as energy and ancillary services. This offering will seek to understand the potential benefits of this type of resource by providing upfront incentives and financing for a limited number of residential customers to install batteries in their home, in exchange for allowing their use as part of a virtual power plant. Demand Response resources and Electric Vehicles with connected home charging equipment may also be utilized for this offering.

#### **Fixed Bill Demonstration**

The fixed bill offering allows PSE&G customers to ensure a predictable monthly electric bill, with no annual adjustment as is typically done in budget billing. To partly offset PSE&G's risk that the customer will use more energy than projected, the customer will also agree to remote energy use optimization from thermostats or other smart devices. Beyond bill predictability for the customer, this will lead to demand benefits for PSE&G and the electric grid.

#### Target Market or Segment (MFR II.a.i.2 and MFR II.b.i.2)

The Commercial DLC offering is targeted towards small commercial customers. The Residential DLC offering, both for electric and gas, is targeted to all PSE&G residential electric customers and gas customers respectively. The Pay-For-Performance offering program will require AMI to participate; otherwise, all residential customers will be eligible to participate. Program eligibility requirements will be set in a way that avoids any double counting of demand reduction from one offering to another. Any geotargeted offerings will be focused on specific areas with transmission and/or distribution system constraints, in order to potentially reduce the need for future transmission and distribution investments.

The measures promoted for each Demand Response offering are listed below:

- DLC will focus initially on enrolling customers with smart thermostats. However, other measures such as connected water heaters and smart EV chargers may be explored. This applies to all DLC offerings (electric and gas residential and electric commercial)
- Pay for Performance is agnostic on to the specific strategies and measures customers use to reduce demand; incentives are provided based on measured reductions.
- Virtual Power Plants will focus on behind the meter battery storage.

# Proposed Incentive Ranges (MFR II.a.i.3, MFR II.a.i.6, MFR II.a.i.8.a, MFR II.b.i.3.c. and MFR II.b.i.4.a)

See below for proposed and max incentives by measure and pathway. The measures below

represent what is currently envisioned for the program. However, PSE&G may add more measures during implementation, depending on program success and available budget. Specific timelines and processes to deliver the incentives will be defined during program implementation – all incentives will be disbursed reasonably promptly.

Offering	Measure	Proposed	Max
Residential Electric DLC	Thermostat enrollment	\$50	\$100
Residential Electric DLC	Thermostat annual	\$25	\$100
Residential Gas DLC	Thermostat enrollment	\$25	\$50
Residential Gas DLC	Thermostat annual	\$50	\$200
Commercial DLC	Thermostat enrollment	\$50	\$150
Commercial DLC	Thermostat annual	\$50	\$200
Commercial DLC	Water heater enrollment	\$50	\$150
Commercial DLC	Water heater actual	\$50	\$200
Pay-for-Performance	per kWh reduction	\$1.25	\$2.00
Virtual Power Plants	8 kW Storage system	\$8,000	\$16,000

#### Demand Response Performance Measurement (MFR II.a.i.4 and MFR II.b.i.3.a)

PSE&G will work with its evaluator and implementation contractor to ensure that measurement and verification of demand events is done in accordance with best practices and, where applicable, with PJM requirements.

#### Rebound Effects (MFR II.a.i.5 and MFR II.b.i.3.b)

While some rebound effect after turndown events is inevitable, PSE&G will do what it can do minimize this impact. This is especially applicable for the gas offering, since the reduction is needed over a 24-hour period. A focus of evaluation on this demonstration will be on how and whether thermostat turndown is able to overcome impact of rebound events. Strategies that may be utilized to minimize this impact include:

- Pre-heating spaces before peak events
- Staggering periods of turndown for different customer groups
- Modifying program parameters, including number of degrees the thermostat is lowered and the length of the event.

#### Data and Communication Protocols (MFR II.a.i.8.b and MFR II.b.i.4.b)

The specific data and communication standards to be used will be determined during program implementation.

# Capital Investments (MFR II.a.ii and MFR II.b.i.5)

The IT investments needed for Demand Response are included in the overall IT estimates for CEF-EE II. See Section XIII. Information Technology ("IT") of the Direct Testimony of Karen Reif for more detail.

# Customer Financing Options (MFR II.a.iii and MFR II.b.i.6)

In the Virtual Power Plant Demonstration, battery costs above what the incentive covers will be eligible for on-bill repayment. Financing is not needed for any of the other pathways described.

#### Contractor Roles & Requirements (MFR II.a.iv and MFR II.b.i.7)

Utility staff will oversee all aspects of the program, including marketing, customer acquisition, implementing necessary software solutions, and providing demand reduction signals. Utility staff and/or third-party contractors may be used to implement programs, operate DR events, test and verify the demand resources available, and verify savings. Verification protocols will be done in accordance with EM&V best practices and PJM standards.

# Relation to OPIs (MFR II.a.vi and MFR II.b.i.9)

Peak reduction from demand response programs are not included in any of the quantitative performance indicators in CEF II.

#### Program Budget (MFR II.a.vii, MFR II.a.ix, MFR II.b.i.10-11. MFR II.c.v)

See Appendix B for the demand response budget by category and year. PSE&G does not envision any specific Demand Response costs related to workforce development, health and safety, or outreach to community-based organizations.

#### Participant Exit/Transition Financial Impacts (MFR II.a. viii)

Any differences in projected costs, including administrative updates for documentation and database management, reduced incentives from higher than expected program attrition, asset purchase revenues from sold equipment, and participant exit fees, will serve to change the program budget and thus impact the amount to be collected via amortization.

#### **Ouality Assurance and Control Standards (MFR II.c.i)**

Prior to program launch, PSE&G will work with the selected implementation contractor to ensure that detailed QA/QC procedures in place, including processes for tracking and resolving any customer complaints.

#### Workforce Development Plan (MFR II.c.ii)

See Section 4b of this Program Plan regarding the Company's workforce development plan, which includes support for the Demand Response Program. The workforce development program includes activities to support minority, women, and veteran owned businesses.

#### Data Transparency and Customer Access to Data (MFR II.c.iii and MFR II.c.iv)

PSE&G will strive to provide any data requested by the Statewide Evaluator within 4 weeks of the request. If this is not possible, PSE&G will hold a meeting with the Statewide Evaluator to identify any possible substitutes, and/or request a time extension for the request. All data will be delivered using secure transfer systems. PSE&G will provide quarterly reports on any data requests from the Statewide Evaluator and their fulfilment status. All entities seeking access to customer data must pass the Company's security protocols.

As discussed above, customers will have access to their data via an online portal. They will be able

to authorize release of this data to third-party entities that may offer their own Demand Response Programs. The specific data fields, access rules, and technology standards will be defined during implementation.

The program will access prior EE program participation information as a means of lead generation.

#### Benefit-Cost Analysis and Cost-to-Achieve (MFR II.c.vii and MFR.II.c.vii)

See Appendix E for the results of the Benefit Cost Analysis for CEF-EE II, which includes the Demand Response Program. See Appendix D for the projected spending and kW Savings of the Demand Response Program. PSE&G does not project significant energy savings for this program.

## Marketing Plan (MFR II.c.viii)

See Section 4d of this Program Plan for a description of the marketing plan for CEF-EE II, which includes the Demand Response Program.

# Plan for Overlapping Territories (MFR II.c.ix)

The Demand Response Program is mostly aimed at electric customers, so there are no issues with overlapping jurisdictions with other utilities. For the Gas Direct Load Control Demonstration, PSE&G will only target homes that are both electric and gas customers.

# Filing Information Applicable only to DR Programs Integrated with Renewable Energy (MFR II)

PSE&G is not proposing any DR programs that are integrated with renewable energy for CEF-II.

# **Benefit-Cost Analysis (MFR IV)**

See Appendix E for Benefit-Cost Analysis for all CEF-EE II Programs.

#### Evaluation, Measurement and Verification (MFR V)

See Section 4e of this Program Plan for a discussion of EM&V in CEF-EE II, which includes the Demand Response Program.

# Reporting Plan (MFR VI)

As defined in the BPU Order, Demand Response Programs are excluded from the Key Performance Indicators for CEF-EE II. PSE&G will track and report on, at a minimum, the following metrics for the Demand Response Program, for each offering:

- Dollars spent per participant
- Dollars spent per enrolled kW
- kWh and CO2 reduced during each peak event
- Portion of customers responding to each control request

Additionally, refer to Appendix G for more information on these MFRs.

# 4. Portfolio Information

As discussed above, some information contained in the Portfolio Information section (Section 4) is consistent, while the remaining subsections are utility specific. The following subsections contain consistent information across all of the utilities:

- 4e: Evaluation, Measurement and Verification (MFR VI.)
- 4f: Reporting Plan (MFR VIII.)
- 4g: Overburdened Community Standardization

Sections 4a-4d and Section 4h each present information specific to each utility. If provided, additional sections within Section 4 are utility specific.

# 4a. Quality Control and Customer Complaint Resolution

# Quality Assurance and Control Standards and Remediation Policies (MFR II.b.i)

PSE&G is committed to ensuring that high-quality programs are provided to customers in a consistent and fair manner. PSE&G has a multifaceted approach to quality assurance and quality control ("QA/QC"). The approach consists of the following three key components: (i) a separate and dedicated QA/QC Team; (ii) PSE&G program management QA/QC processes and procedures and (iii) Contractor QA/QC process and procedures. PSE&G plans to continue and build upon the approach outlined below during CEF-EE II.

### **Dedicated Quality Assurance/Quality Control Team**

The QA/QC Team at PSE&G leads QA/QC efforts by working with the program management and implementation teams to develop, implement, and maintain comprehensive QA plans for energy efficiency, demand response, building decarbonization and other programs (collectively "CEF-EE II programs").

The objective of the QA/QC Team is to support the PSE&G Program Management Teams to help ensure all CEF-EE II programs are operated with a high level of prudency and efficiency. The QA/QC Team aims to support PSE&G in continuing to deliver high-quality programs to customers; improving both customer and vendor experiences with PSE&G.

On a day-to-day basis, the QA/QC Team is responsible for quality assurance ("QA"). QA involves systematic checks to ensure that CEF-EE II activities are in alignment with program design and adhere to governing processes and procedures, inclusive of program management and implementation teams as well as implementation contractors. When process/procedure deviations are identified, the QA/QC team reports its findings and provides recommended corrective actions. Additionally, the QA/QC Team responsibilities include tracking problems and successes over time; recording how problems are addressed, and sharing recommendations and lessons learned with stakeholders.

The QA/QC Team is also focused on the quality control ("QC") function. Through QC, the QA/QC Team supports the program management teams in reviewing ongoing, program-specific, tasks that are typically program manager/implementation contractor responsibilities. This may include tracking and documenting program activities, including invoice review; eligibility review; incentive level verifications; energy savings reviews; onsite inspections and project details. In order to achieve the team's goals, the QA/QC Team has a strong field presence – separate from Program Management, third-party inspectors and/or program evaluators.

The team also completes periodic checks of post-implementation program documentation, including receipts, inspection reports, and equipment nameplate data, and works with the program management team to resolve concerns. This may include a root cause analysis that is shared with the program management team. The QA/QC Team helps to identify and correct project and program issues early. Additionally, the QA/QC Team will oversee the implementation of action items stemming from internal audit recommendations, internal risk assessments, and other control improvements identified by management.

The QA/QC Team is also responsible for maintaining and updating internal process and procedure documents. Process and procedure documents are needed to ensure all parties working on the CEF-EE II programs know and understand how work is to be performed. The QA/QC Team also pays special attention to cyber protections, as cyber security risk are becoming more prevalent and bad actors are becoming more sophisticated. The QA/QC Team works to ensure that both the Company and its vendors remain vigilant. When challenges with any of the above are identified, the QA/QC Team also steps in to support the program teams in mitigating any issues and evaluating the root cause of these issues so that they can be prevented in future.

#### PSE&G Program Management QA/QC

PSE&G program management works with each contractor to ensure contractors have robust QA/QC plans, processes and procedures for the work they perform. This includes, but is not limited to, the establishment of a Quality Assurance Plan for the programs they manage. As part of the Company's competitive procurement process, potential contractors are required to include their proposed QA/QC Plan in their Request for Proposal ("RFP") bid responses. Once under contract, these plans are living documents and are modified on an on-going basis to help ensure practices are aligned with current CEF-EE II program rules.

PSE&G may also independently perform inspections. Inspections may be a combination of random and focused selections. Quality Controls may include safety, quality, accuracy, incentives, measures, missed opportunities, non-working equipment, functional testing, and observations of whether Implementation Contractors ("IC") inspectors are following PSE&G protocols, including wearing proper safety equipment, carrying out best practices.

Additionally, the program teams perform a detailed invoice review of services rendered to ensure all billed services from IC and third party vendors are verified before the payment is processed. These validations may consist of incentives verifications, energy savings calculations and quality calls to customers to verify incentives were received.

The QA/QC Team supports the program management teams in establishing the QA/QC processes described above for each program and in addressing issues that arise during the QA/QC process.

#### **Contractor QA/QC**

Implementation contractors and third-party inspectors for all PSE&G programs are required to conduct QA/QC to ensure compliance, accuracy, and continuous improvement.

Contractor QA/QC is primarily focused on site inspections to ensure that measures are installed as billed, and in accordance with program rules. Prior to inspection, the inspector may review project specifics to gain a sense of the scope of the project. Components of this review may include the following:

- Equipment quantity
- Energy savings calculations
- Photographic documentation for unusual technologies or larger projects
- Area descriptions
- Safety

The QA/QC inspection contractor prepares a QC inspection report for each project that is chosen for inspection. The report includes inspection findings such as missed energy savings opportunities, installed energy efficiency measures requiring remediation. The report also includes photos of the project/inspection site.

The QA/QC inspection contractor may also conduct customer satisfaction surveys for each inspection. The PSE&G program management team will review surveys to see if there are any glaring issues or customer complaints that need to be addressed.

#### **Customer Inquiries/ Complaints**

PSE&G tracks and monitors customer inquiries and complaints received relating to the design, delivery, or administration of PSE&G programs. Customer inquiries/complaints come through various channels but are received through the implementation contractor and/or third party vendors/ customers to the PSE&G program team. Priority is given to resolving and/or responding to customer issues. Resolution of these customer issues can be led by implementation contractors with direction from a program liaison within PSE&G, or solely by the PSE&G program teams. The QA/QC Team may also act as a liaison and assist the program team in resolving customer complaints. PSE&G will drive resolutions to ensure customer satisfaction is upheld with the CEF-EE II programs. The team will analyze complaint root causes, lessons learned, and trends to develop process improvements that will lead to increased customer satisfaction.

# 4b. Workforce Development and Job Training

# Workforce Development Plan (MFR II.b.ii)

PSE&G's Clean Energy Jobs Program supports the ambitious targets set by the Clean Energy Act of 2018 ("CEA") by developing a qualified workforce that will be critical to achieving New Jersey's clean energy future. In Triennium 1, PSE&G's Clean Energy ("CE") Jobs Program sought to create economic opportunities and supported the hiring of more than 2,400 individuals. Through the CE Jobs Program, PSE&G plans to continue working to develop and prepare candidates, especially those from underserved communities, for long-term careers in clean energy. PSE&G is exploring efforts to potentially collaborate with other utilities across the state with the objective of enhancing and expanding the Company's workforce development efforts in clean energy. PSE&G may also work with the Department of Labor and/ or non-governmental organizations to leverage funds made available from the Inflation Reduction Act and the Infrastructure Investment and Jobs Act.

PSE&G's Jobs Program has several facets that aim to train under-qualified workers or those who are looking to switch industries for new jobs in clean energy and to develop a qualified workforce that will enable NJ's clean energy transformation. PSE&G's Jobs Program focuses on job recruitment, training, and promoting diversity within the clean energy industry.

The PSE&G CE Jobs Program has three main areas of focus that support the goals outlined above:

#### I. Job Recruitment

In the next triennium, PSE&G will continue to strengthen partnerships with existing clean energy companies and forge new collaborations to expand job recruitment initiatives, particularly in underserved communities. Plans are also underway to: establish closer ties with statewide employment agencies and community organizations to ensure a seamless process for identifying new target communities; leverage success stories of individuals who have benefited from the program to inspire and attract additional NJ residents from diverse backgrounds; and utilize the Clean Energy Jobs Program technology platform to post employment opportunities, simplifying the process for potential candidates to connect with clean energy job suppliers.

Supportive wraparound services are offered to job candidates in order to help individuals overcome barriers to employment. These services are particularly essential for individuals from disadvantaged backgrounds or those with unique challenges that might impede their ability to successfully participate in training or attain gainful employment in the clean energy sector. PSE&G will continue to provide these services as they are an integral aspect of the program; with a catalog of more than 55 wraparound services offered via a network of community partners. Wraparound services may include transportation services, childcare & elder care services, housing assistance, career counseling, resume writing – all aimed at providing the necessary offerings to assist unemployed, underemployed, low and moderate income NJ residents with long-term employment in clean energy.

The Clean Energy Jobs Program has made substantial strides in marketing and outreach efforts

aimed at creating awareness, fostering engagement, and inspiring action towards sustainable and equitable clean energy employment. Outreach events will continue to serve as crucial platforms for engaging with diverse communities, showcasing the opportunities within the clean energy sector, and providing practical tools and resources for potential program participants.

Additionally, the program will continue distributing the marketing materials that shows diverse representation (e.g., program flyers in the Spanish language that display female/Hispanic representation; workshops that increase awareness of availability of wrap-around services between Community Partners to cater to female and Latino/Hispanic demographic (e.g., English language learners, childcare & transportation) and doing statewide outreach focusing in urban areas.

PSE&G has prioritized inclusivity and accessibility at each event. As such, every outreach event is staffed with a team capable of providing a comprehensive walkthrough of our user-friendly online portal. This hands-on approach has proven instrumental in helping potential participants understand the process of uploading their resume and exploring the entry level job opportunities available on our portal.

# II. Technical Training and Development

PSE&G recognizes the demand for clean energy training in the state has grown significantly, surpassing the capacity of current training providers to adequately meet the industry's needs. As a result, PSE&G is actively exploring opportunities to support the expansion of training opportunities and aims to evaluate opportunities for investments and advocacy at the state level.

The Clean Energy Jobs Program will continue to work with employers to develop the technical skills of individuals currently in the clean energy, or related industries, by providing necessary training offerings to current employees and new hires and tracks candidates' progress throughout the program. PSE&G has hired industry experts to teach candidates the skills and competencies most needed by New Jersey employers that supply energy efficiency ("EE") services. Training courses offered through the PSE&G Clean Energy Jobs Program are designed to take people in entry level positions and progress their skills to the next level; thereby creating additional opportunities for entry-level candidates to enter in the workforce.

The Clean Energy Jobs Program will continue to offer certifications from Building Performance Institute ("BPI"), or similar industry certifications. Initially, the BPI training courses will include Building Analyst, Air Leakage Control Installer, and Heating Professional certifications and others. These certifications are recognized industry-wide and will equip candidates with essential skills in energy auditing, weatherization, and HVAC systems, aligning with the growing demand for energy-efficient and sustainable building practices.

Focus on Building Decarbonization ("BD"): For the second triennium, in addition to BPI training courses, the program will expand its offerings to include technical training to support the State's building decarbonization goals. For example, a specialized curriculum for heat pumps will be developed to support the need for qualified contractors and other courses will be integrated as the demand for additional topics become known. The Company will partner with heat pump manufacturers to build the knowledge base on heat pumps with contractors in order to build market capacity to scale building decarbonization. This effort will include not just technical training, but

sales training as well, allowing contractors to gain knowledge on how to identify, develop and deliver building decarbonization solutions. These courses will address the needs of rapidly evolving clean energy sectors, ensuring that candidates are equipped with the expertise needed to excel in their respective roles and increasing the availability of qualified contractors able to perform much-needed work in the clean energy sector.

PSE&G is particularly focused on training courses for entry-level employees, ensuring a skilled and capable workforce that can contribute to the EE and BD sector and support New Jersey's clean energy objectives. This proactive approach is a key aspect of PSE&G's commitment to fostering a sustainable and thriving clean energy workforce in the State.

Additionally, a key aspect of PSE&G's Clean Energy Jobs Program is the On-The-Job Training Program ("OJT"). The OJT Program is an educational training pathway to develop a qualified clean energy workforce. PSE&G will continue to collaborate with energy efficiency vendors to identify job openings and community partners and stakeholders to identify candidates from overburdened or low-income communities interested in pursuing clean energy careers. The OJT program will provide candidates with a living wage during their training period to ensure their financial stability while preparing for gainful employment.

PSE&G has completed four cohorts of the OJT program since inception and will continue to expand the program to offer important opportunities for candidates from overburdened communities to create successful careers in the clean energy industry and is planning to sponsor three to six cohorts during Triennium 2. PSE&G will also facilitate diversity equity and inclusion ("DE&I") training for the trade allies who participate in OJT, to create a more inclusive and diverse employer pool for hiring within the EE field.

### III. Diversity:

PSE&G understands the importance of providing DE&I training not only to the existing workforce, but also to employers within the EE field. Recognizing the significance of DE&I training in both contexts, PSE&G is committed to promoting an inclusive work environment and ensuring employers in the energy efficiency sector are equipped with the necessary training to foster DE&I within their organizations. PSE&G will collaborate with diversity-focused organizations and associations to broaden support for underrepresented individuals pursuing clean energy careers. Additionally, there will be an increase in efforts to advocate for DEI practices within clean energy companies to foster diverse work environments and ensure inclusive growth within the sector. Targeted measures will be implemented to increase representation from underrepresented groups in clean energy job recruitment and hiring practices.

The Clean Energy Jobs Program, under CEF-EE II, will continue to be a driving force in supporting New Jersey's clean energy vision while cultivating a qualified, diverse, and inclusive workforce. PSE&G has partnered with the Statewide Hispanic Chamber of Commerce ("SHCCNJ") and the African American Chamber of Commerce ("AACCNJ") to hold master classes and provide one-on-one coaching to diverse small businesses in New Jersey with the goal of helping them to acquire their Minority, Women, Veteran Business-Enterprise ("MWVBE") certification; to gain an understanding of the PSE&G procurement process and small business best practices. AACCNJ

and SHCCNJ successfully completed four (4) cohorts through this partnership and certified more than 100 organizations. PSE&G will continue to facilitate MWVBE certifications across the state within the small business sector and identify additional opportunities to support the growth of small businesses within New Jersey.

The Clean Energy Jobs Program will continue to demonstrate its significance as a powerful endeavor in achieving our state's ambitious clean energy goals. From a review of the achievements, outcomes, and the far-reaching implications of the program, it is evident that investing in New Jersey's workforce is tantamount to securing the state's sustainable future.

The benefits derived from the program extend beyond mere job creation. The program has been a conduit for skill development, a catalyst for clean energy innovation, and an avenue for inclusivity, ensuring that all segments of NJ society can participate in and benefit from the clean energy revolution. By fostering a skilled and diverse workforce, New Jersey stands poised at the forefront of the clean energy transition, not just as a participant, but as an industry leader.

# 4c. Customer Access to Usage Data

# Customer Access to Current and Historic Energy Usage Data (MFR II.b.iii)

PSE&G customers have the ability to register for MyAccount, an online customer portal that allows customers to conveniently manage their utility account online. Through this portal customers can perform various tasks, such as make payments, view bills and usage, and report outages. Customers can access and view the previous 13 months of historical past bills, which provides customers with historical electric and/or gas usage data reflecting their actual energy consumption. Through the MyAccount platform, customers are able to see trends in their energy usage, which are calculated using the usage data from their bills. Customers are able to see how much energy they used in the current month compared to the same month last year, as well as their average daily usage and average daily cost.

As Advanced Metering Infrastructure ("AMI") is deployed, customers will have access to more granular energy usage data through the new MyMeter platform. After the installation of their AMI meter, customers will have access to MyMeter through their existing MyAccount portal and login. MyMeter will show customer usage data in 15-minute, 30-minute, 60-minute, daily, and weekly intervals. Customers can compare their energy usage, at any interval, to the average temperature, precipitation, humidity, energy challenge, the last week, and review the bill period average usage. Customers are able to download this data in a variety of formats, such as, through a drop down menu.

Additionally, as part of the Energy Efficiency portfolio, all residential PSE&G customers currently have access to energy usage data and analytics through the MyEnergy portal that is part of PSE&G's Behavioral Program. Customers can access the MyEnergy portal through MyAccount, using the same log in. Customers are able to see the previous 13 months of data for electric and/or gas use, as well as get personalized savings tips, comparison to other similar homes' energy usage, and other educational information about saving energy. When viewing usage data, customers have the option to download the data in CSV format, by clicking on the "download my data" link. Customers can also engage with Energy Experts, participate in Energy Challenges, and update their Home Energy Profile in order to make their Home Energy Reports ("HERs") more accurate through the MyEnergy portal. During Triennium 2 the platforms in which customers access their data may be improved upon and/ or updated to allow for a better customer experience.

# 4d. Marketing Plan

# PSE&G Marketing Plan (MFR II.b.vii)

PSE&G will continue to implement a multi-pronged direct and indirect marketing campaign to promote the residential and non-residential energy efficiency programs, as well as the Demand Response and Building Decarbonization programs, to all eligible customers across PSE&G electric and/or gas territory. The plan will include broad-based energy efficiency awareness campaigns, web-based engagement and information, digital advertising, email, direct mail, and hard-copy materials to promote awareness of the programs, as well as tie-ins with other PSE&G programs. The messaging strategy will emphasize the energy and cost savings advantages associated with program involvement, highlighting the positive attributes of using less energy and reducing customer bill costs. Additionally, PSE&G will work closely with retailers, wholesalers, and trade allies in order to have them assist in local promotion of the programs, especially as they work closely with potential participants. Point-of-purchase signage will be placed near discounted/rebated products in participating retail stores to make customers aware of the available incentives on retail products.

PSE&G will also continue to engage community partners, chambers of commerce, and other local organizations including those comprised of underrepresented and socially or economically disadvantaged communities and individuals to assist in raising awareness to customers regarding the program offerings, particularly those available to residential and small business customers. Educating building owners and operators about the benefits of energy efficiency improvements and improved systems performance, including educational brochures, customer and market provider seminars, program promotional materials, and website content will also be key to promoting the commercial & industrial ("C&I") and multi-family programs. PSE&G will also leverage existing relationships with municipalities, universities, schools, and other public agencies to promote programs relevant to those facilities.

PSE&G's programs are designed to lower barriers to participation, including addressing issues of customer awareness, split incentives resulting from landlord/tenant arrangements, the availability of energy-efficient products, the upfront costs of energy efficiency upgrades, and health and safety barriers, among others. The marketing efforts will further attempt to overcome participation barriers by specifically marketing programs in a way that addresses a variety of known market barriers. The program implementation teams and the marketing team will work closely to identify, anticipate, and address those barriers to participation on an ongoing basis in order to align marketing strategies to identified market barriers and encourage and increase access to customers in all sectors. This may include strategies such as:

#### Residential:

• Customer awareness and engagement: Initiate targeted marketing campaigns, as well as distribute marketing materials in Spanish and consider translation to other languages on an ongoing and as needed basis

Prioritization will be placed on a customer-friendly approach to communicating information, while ensuring that incentives are easily accessible and understandable.

Customers will be equipped with educational resources and tools, such as intuitive web and appointment scheduling features

- Upfront costs of efficient equipment: Advertise incentives and on-bill repayment options as a way to reduce concerns about upfront costs
- **Availability of efficient products:** Promote the marked down cost of efficient equipment at the point of sale. Partner with retail and wholesale entities to advertise offerings
- Landlord/tenant arrangements: Segment outreach to both landlords and tenants with tailored and applicable messaging
- And additional tactics as needed

#### C&I:

- Customer awareness and engagement: Initiate targeted marketing campaigns with a
  focus on the business and operational benefits of improving energy efficiency. Market
  materials in Spanish and provide consideration to translation in other languages.
  Prioritize a customer-friendly approach to communicating information, while ensuring
  that incentives are easily accessible and understandable. Conduct outreach and
  communicate to trade allies as a means to increase awareness and knowledge of program
  developments and offerings
- **Upfront costs of efficient investments:** Advertise incentives and on-bill repayment options as a way to reduce concerns about upfront project costs
- Availability of efficient equipment: Promote midstream incentives for specific equipment types to encourage participation via energy-efficient equipment directly marked down at the point of sale
- Landlord/tenant arrangements: Segment outreach to both landlords and tenants with tailored and applicable messaging
- And additional tactics as needed

#### **Multifamily:**

- **Split Incentives:** In addition to program designs targeted to multi-family facilities meant to combat the challenges of split incentives, PSE&G will focus efforts on engagement with multi-family building owners and managers and educate them regarding the Company's program offerings and the benefits of participation
- Strategies outlined for both the residential and C&I sectors will be employed

Additionally, the marketing approach will support increasing access to programs by conducting outreach to a wide variety of potentially eligible customers and by building awareness of programs and the value of such energy savings opportunities. PSE&G is committed to overcoming barriers to program access through applying best practices in program design, delivery, outreach, and marketing/advertising.

PSE&G'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. PSE&G's communication channels include bill inserts, bill messages, a customer-facing website, social media and e-newsletters, as well as cross-promotion through the PSE&G Marketplace and the MyEnergy energy efficiency program. PSE&G will continue to engage with the BPU Marketing Group and the Joint Utilities to coordinate on evolving approaches to marketing and to employ best practices and consistent messaging, where practicable. To the extent possible, PSE&G will cross-promote programs to spread awareness of the range of efficiency opportunities proposed in this plan and lower barriers to participation.

PSE&G will also continue the efforts initiated in its first triennium program to promote program awareness to all customer segments, and in particular underserved customers, through various community partnerships, community canvassing, outreach events and sponsorships.

# 4e. Evaluation, Measurement and Verification

#### **Evaluation, Measurement & Verification (MFR VI.a)**

The utilities recognize the importance of incorporating Evaluation, Measurement and Verification ("EM&V") into the energy efficiency, demand response, building decarbonization start-up, and other programs. EM&V can help assess whether program objectives are being achieved, document energy and non-energy benefits and inform both future program modifications and development. PJM Interconnection, L.L.C. ("PJM") specific EM&V will also be needed to support utility EE Offers into PJM's Capacity Market.<sup>4</sup>

The utilities will continue to work with the State-Wide Evaluator ("SWE") and contribute to the EM&V working group. Evaluation activities, products and processes will be completed consistent with the New Jersey Energy Efficiency Triennium 2 Evaluation Framework and subsequent guidance documents by Staff and the SWE. Further, each Company has included funding to support the anticipated evaluation work within their respective filings. Proposed budgets for evaluation are reflected in Appendix B.

# Common Definitions and Objectives

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

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

That same guide provides the following standard categories of evaluations:

• Impact evaluations: assessments that determine and document the direct and indirect benefits of an energy efficiency program. Impact evaluation involves real-time and/or retrospective assessments of the performance and implementation of an efficiency program or portfolio of programs. Program benefits, or impacts, can include energy and demand savings and non-energy benefits (sometimes called co-benefits or non-energy impacts, with examples being avoided emissions, and water savings). Impact evaluations can also include cost-effectiveness analyses aimed at identifying relative program costs and benefits of EE as compared to other energy resources, including both demand- and supply-side options.

<sup>&</sup>lt;sup>4</sup> Does not apply to GDCs.

- **Process evaluations:** formative, systematic assessments of an EE program from both a customer and program administrator viewpoint. Process evaluations document program operations and identify and recommend improvements that are likely to increase the program's efficiency or effectiveness for acquiring EE resources and improve the customer experience with the program.
- Market evaluations: assessments of structure or functioning of a market, the behavior of market participants, and/or market changes that result from one or more program efforts. Market evaluation studies may include estimates of the current market role of energy-efficiency (market baselines), as well as the potential role of efficiency in a local, state, regional, or national market (potential studies). Market evaluation studies indicate how the overall supply chain and market for EE products works and how they have been affected by a program(s). These evaluations can also include assessments of other societal, customer, or utility benefits of EE programs, such as the economic and job creation impacts of the programs, health benefits to society, or T&D benefits to utilities. And finally, these studies can also be used to inform changes to the portfolio of efficiency measures to be offered to customers, or the savings achieved by the measures.

#### Monitoring and Improving Program and Portfolio Performance

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

### Budget Considerations for EM&V Work

As noted, proposed budgets for EM&V are reflected in Appendix B. These budgets were established at or below the industry standard for this type of work<sup>5</sup>, excluding the cost of financing and any anticipated costs associated with additional studies performed at direction of the BPU Staff or the EM&V Working Group.

#### **TRM Considerations**

The utilities will utilize the TRM applicable to determining CEA savings compliance at the time when a project is committed to calculate energy savings for that project, regardless of when the project is complete.

<sup>&</sup>lt;sup>5</sup> https://www.aceee.org/toolkit/2017/06/evaluation-measurement-verification

# 4f. Reporting Plan

## **Reporting (MFR VIII.)**

The utilities will continue to comply with the reporting requirements for energy efficiency, demand response and building decarbonization programs as outlined in the BPU's May 24 and July 26 Energy Efficiency Framework Orders, as well as related guidance by Staff and the Board of Public Utilities.

If the impact of interactive effects would cause a utility to miss a QPI target due to a change in the measure mix implemented by customers when compared to Plan assumptions, the utility should not be penalized. If the overall QPI would result in an ROE penalty under this scenario, the utility reserves the right to remove negative savings in order to avoid incurring a penalty.

# 4g. Overburdened Community Standardization

Utilities will focus their efforts to provide equitable access to energy efficiency for residential customers residing in an Overburdened Community ("OBC") that is defined by a low-income designation. In accordance with treatment during the First Triennial and guidance from BPU Staff, only customers in the following OBC categories, as defined by the New Jersey Department of Environmental Protection1 ("DEP") will be tracked and reported:

- Low Income
- Low Income & Limited English
- Low Income & Minority
- Low Income, Minority, & Limited English

Additionally, in order to ensure consistent reporting across the utilities and throughout Triennium 2, the utilities will utilize the dataset available 8/31/2023 on the NJ Department of Environmental Protection website (data created and last updated on 4/10/23) to track and report OBC participating in the programs, including for the purposes of establishing and evaluating the quantitative performance indicators ("QPIs").

Consistent with Triennium 1, Utilities will deploy approaches to target market or pre-screen customers based on the location of their primary residence within the boundaries of census tracts Federally recognized as low or moderate income and a self-attestation for income qualified programs or enhanced incentives under other programs (E.g. Energy Efficient Products program).

Utilities plan to report actual performance of low and moderate income ("LMI") customers and customers within OBCs, as defined above, and are committed to strengthening the infrastructure to support enhancements for customer screening for LMI customers and reporting equity metrics for both LMI and OBC customers.

As noted in the New Jersey Utilities Association ("NJUA") comments filed in response to the Straw Proposals within this docket, the Utilities continue to believe there is an opportunity to further streamline administration and eliminate a barrier to participation by allowing any applicant from a qualifying OBC community to access the enhanced level of benefits. The Utilities recognize that the May 24th Board Order called for continued self-attestation in those areas but believe this decision is worth reconsideration within these cases.

# 4h. Financing/ On-Bill Repayments Description

## **Customer Financing Options (MFR II.b.V)**

PSE&G offers on-bill repayment ("OBR") with 0% interest to eligible customers for most energy efficiency programs. Programs with the OBR option include Whole Home, Energy Efficient Products, Energy Solutions, Prescriptive & Custom, Direct Install, Multifamily, Building Decarbonization, and Demand Response (specifically the Virtual Power Plant Demonstration).

# 5. Consistent Delivery in Overlapping Territories

Section 5: Consistent Delivery in Overlapping Territories (MFR II.c.) is consistent among the utilities.

In response to the New Jersey Board of Public Utilities' Framework Orders<sup>6</sup> directing each electric public utility and gas public utility in the State of New Jersey to establish energy efficiency ("EE") and peak demand reduction ("PDR") programs for the second triennium of programs implemented pursuant to the Clean Energy Act of 2018, the New Jersey investor-owned electric and gas utilities are collaborating in order to implement programs in a consistent manner and develop supportive processes, procedures, requirements, and forms.

#### **Coordinated Program Offerings**

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

## Core Offerings<sup>7</sup>

- Whole Home
- Income Qualified<sup>8</sup>
- Energy Efficient Products
- Energy Solutions
- Direct Install
- Prescriptive & Custom
- Multifamily

#### **Additional Utility-Led Offerings**

• Next Generation Savings (depending upon the project/technology)

#### **Interconnected Tracking Systems**

To support consistency across the state and to align the above coordinated program offerings, the utilities will continue to utilize a single third-party entity to serve as a Statewide Coordinator ("SWC") for measures and costs that impact more than one utility in situations where gas and

<sup>&</sup>lt;sup>6</sup> See June 10, 2020 Order, BPU Docket Nos. QO19010040, QO19060748, and QO17091004; May 24, 2023 Order, BPU Docket Nos. QO19010040, QO23030150 & QO17091004; and July 26, 2023 Order, BPU Docket Nos. QO19010040, QO23030150 & QO17091004

<sup>&</sup>lt;sup>7</sup> The Behavioral Program is not included in this list because there are no shared savings and therefore no need to coordinate across utilities.

<sup>&</sup>lt;sup>8</sup> Income Qualified represents the proposed combination of the current Moderate Income Weatherization program with Comfort Partners. As noted in the Comfort Partner Transition Plan (Appendix I of this Program Plan), Comfort Partners projects would continue to be coordinated through existing information systems for the initial year of 2<sup>nd</sup> Triennial.

electric service territories overlap. This entity provides a software platform to validate the local gas and electric company serving the customer and perform independent allocations of energy savings and costs for coordinated program offerings.

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

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

#### **Statewide Coordinator System Responsibilities**

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

#### **Utility Responsibilities**

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

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

#### **Coordinated Program Elements**

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

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

### **Program Assumptions**

The utilities have standing sector specific committees (Residential, Commercial and Industrial), as well as specialized committees (e.g., Evaluation, Measurement & Verification), which have been active since early 2020. They routinely meet to address coordination issues, share feedback regarding program activity, and plan for future modifications/enhancements. As part of planning for this filing, the utilities have reviewed assumptions on average project size and related energy efficiency measures but did not mandate identical assumptions. Comparisons have shown that there can be variations in market activity across service territories. The flexibility in the approach to offer incentives within approved incentive ranges enables utilities to remain responsive to the market conditions within their respective service territories.

#### **Budgeting**

The Utilities recognize the importance of creating a solution that allows a Lead Utility to pursue their approved program portfolio to ensure they are able to meet their Clean Energy Act obligations and to be in a position to support any shared or cross-fuel energy savings from their Partner Utility. It is critical that such a structure minimizes the potential for any disruption to the market and provides customers with equitable access to the programs, regardless of their geographic location. Given the fact that it is impossible to predict where the energy savings will occur within a utility's service territory, it is not practical to determine what a utility's potential budget obligation could be from specific overlapping utilities. The utilities have proposed an approach that will minimize the potential for cross-subsidization that exists under the existing mechanism. Under this approach, the customers of each utility would support the costs specific to the fuel that utility provides. As a result, the utilities have developed a proposed budget adjustment mechanism, which is outlined in each utility's Petition.

# **6. Appendices**

As noted in the Introduction, all of the appendices are formatted similarly and in the same order, but present utility-specific information, with the exception of Appendix I: Comfort Partners Transition Plan which are consistent for all utilities. Appendix H: Incentive Ranges is formatted similarly, but has some variation due to differences in utility specific program proposals.

6a. Appendix A: Program Participants, Energy Savings, By Year for EE, BD, and DR

				<b></b>	<u> </u>	
Program	PY4 Participants	PY4 Net Annual Energy Savings (kwh)	PY4 Net Annual Energy Savings (therms)	PY5 Participants	PY5 Net Annual Energy Savings (kwh)	PY5 Net Annual Energy Savings (therms)
Whole Home	9,375	5,501,715	407,796	15,024	17,477,701	1,269,519
Income Qualified	3,109	2,395,377	208,643	7,222	10,170,716	875,523
<b>Energy Efficient Products</b>	163,543	13,798,482	1,987,023	253,449	27,264,832	2,445,176
Behavioral	617,125	30,189,170	3,026,996	1,241,840	62,417,170	6,218,517
<b>Energy Solutions</b>	-	-	-	393	76,112,171	2,022,274
Prescriptive & Custom	456,519	136,900,461	605,462	1,006,707	283,879,994	1,463,318
Direct Install	-	-	-	951	76,179,332	2,679,320
Multifamily	1	433,953	700	128	5,084,492	684,124
Next Generation Savings	1	-	-	1	-	-
<b>Building Decarbonization</b>	2,325	(3,314,085)	172,002	6,517	(8,907,658)	499,406
Demand Response	117,352	(1,631)	-	283,668	(4,892)	-
	·					
Portfolio Total	1,369,349	185,903,441	6,408,622	2,815,900	549,673,857	18,157,178

Program	PY6 Participants	PY6 Net Annual Energy Savings (kwh)	PY6 Net Annual Energy Savings (therms)	Total Participants	Total Net Annual Energy Savings (kwh)	Total Net Annual Energy Savings (therms)
Whole Home	27,735	27,143,484	1,985,957	52,134	50,122,900	3,663,273
Income Qualified	8,856	12,307,143	1,058,279	19,187	24,873,235	2,142,445
<b>Energy Efficient Products</b>	198,951	22,906,027	1,591,164	615,942	63,969,340	6,023,363
Behavioral	1,220,999	63,150,133	6,234,696	3,079,964	155,756,473	15,480,209
Energy Solutions	646	117,658,157	3,136,048	1,039	193,770,327	5,158,323
Prescriptive & Custom	892,785	230,104,580	1,447,905	2,356,012	650,885,035	3,516,685
Direct Install	949	86,392,090	1,997,831	1,900	162,571,422	4,677,151
Multifamily	180	6,796,382	859,825	309	12,314,827	1,544,649
Next Generation Savings	1	-	-	3	-	-
<b>Building Decarbonization</b>	6,274	(9,047,099)	664,297	15,116	(21,268,842)	1,335,704
Demand Response	360,316	(6,522)	-	761,335	(13,045)	-
Portfolio Total	2,717,692	557,404,374	18,976,001	6,902,940	1,292,981,673	43,541,801

<sup>\*</sup> Excludes any impacts beyond PY6.

<sup>\*\*</sup> Net annual energy savings presented at site-level includes both electric and natural gas savings for coordinated programs delivered by the lead utility

6b. Appendix B: Program Budgets and Costs, By Year for All Programs

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TOTAL Program Years 4-7+	Capital Cost	Utility Administration	Marketing and Outreach	Outside Services	Incentives - Rebates and Loans	Inspections and QC	Evaluation	Health & Safety	Workforce Development	Outreach to Community- Based Organizations	Total Budget
Whole Home	-	1,220,759	5,245,856	34,801,873	288,313,678	1,175,529	3,133,247	67,793,144			401,684,087
Income Qualified	-	1,260,382	36,654,768	92,293,426	137,657,259	4,520,600	5,881,981	56,823,082			335,091,497
Energy Efficient Products	-	4,097,544	8,051,720	69,129,962	199,491,310	1,906,915	3,687,162				286,364,613
Behavioral	-	3,150,673	-	15,457,205	24,424,828	390,993	880,958				44,304,656
Energy Solutions	-	6,635,515	6,406,110	34,546,522	731,107,983	11,154,704	9,242,926				799,093,758
Prescriptive & Custom	-	5,469,638	19,343,174	96,257,158	496,997,288	8,483,528	12,560,940				639,111,726
Direct Install	-	4,208,281	5,286,472	32,957,544	263,526,309	5,933,480	6,247,932				318,160,018
Multifamily	-	345,563	23,311,959	56,224,713	135,377,023	4,939,115	3,917,924				224,116,297
Next Generation Savings	-	2,500,000	-	25,000,000	3	-	-				27,500,003
Building Decarbonization	73,541,431	17,046,046	3,514,783	7,367,992	116,891,218	422,182	3,081,798				221,865,450
Demand Response	-	2,492,567	13,739	15,962,574	8,939,646	9,711	13,976				27,432,213
Other Portfolio Costs	37,000,000	17,521,000	-	-	-	-	-		42,965,600	-	97,486,600
Portfolio Total	110,541,431	65,947,967	107,828,581	479,998,968	2,402,726,545	38,936,756	48,648,844	124,616,226	42,965,600	-	3,422,210,918
Program Year 4	Capital Cost	Utility Admin- istration	Marketing and Outreach	Outside Services	Incentives - Rebates and Loans	Inspections and QC	Evaluation	Health & Safety	Workforce Development	Outreach to Community- Based Organizations	Total Budget
Whole Home	-	244,152	1,097,693	7,062,090	27,508,311	240,934	653,152	9,275,820			46,082,152
Income Qualified	-	252,076	7,062,699	17,907,863	11,594,718	875,379	1,135,571	8,141,557			46,969,865
Energy Efficient Products	-	819,509	2,148,572	15,225,863	37,374,986	422,875	930,504				56,922,309
Behavioral	-	609,216	-	2,988,814	4,722,799	75,603	170,343				8,566,774
Energy Solutions	-	1,327,103	3,847,163	12,532,393	ı	6,564,162	5,188,422				29,459,243
Prescriptive & Custom	-	1,093,928	4,543,395	21,289,118	86,619,034	1,942,760	2,892,465				118,380,699
Direct Install	-	841,656	1,131,374	6,755,013	1	1,239,056	1,324,948				11,292,047
Multifamily	-	69,113	7,157,436	16,967,477	305,349	1,456,415	1,197,565				27,153,355
Next Generation Savings	-	250,000	-	2,500,000	1	-	-				2,750,001
Building Decarbonization	4,300,647	3,917,812	657,869	1,379,082	15,581,336	79,021	499,134				26,414,900
Demand Response	-	462,394	1,003	3,197,269	1,424,962	709	1,020				5,087,356
Other Portfolio Costs	19,668,475	3,464,000	-	-	-	-	-		10,741,400	-	33,873,875
Portfolio Total	23,969,122	13,350,959	27,647,203	107,804,981	185,131,496	12,896,914	13,993,123	17,417,376	10,741,400	-	412,952,574

Program Year 5	Capital Cost	Utility Admin- istration	Marketing and Outreach	Outside Services	Incentives - Rebates and Loans	Inspections and QC	Evaluation	Health & Safety	Workforce Development	Outreach to Community- Based Organizations	Total Budget
Whole Home	-	488,304	1,556,045	12,783,939	86,114,993	405,073	957,096	19,154,455			121,459,906
Income Qualified	-	504,153	13,153,886	33,820,869	49,397,143	1,646,672	2,123,292	21,384,905			122,030,919
Energy Efficient Products	-	1,639,018	3,336,362	27,952,840	84,069,327	771,683	1,516,359				119,285,590
Behavioral	-	1,262,701	-	6,194,814	9,788,786	156,699	353,063				17,756,064
Energy Solutions	-	2,654,206	987,395	10,366,995	112,960,685	1,802,025	1,647,082				130,418,389
Prescriptive & Custom	-	2,187,855	7,684,553	38,343,666	197,563,804	3,374,188	4,994,666				254,148,733
Direct Install	-	1,683,312	2,080,634	13,108,073	103,702,220	2,349,392	2,464,630				125,388,261
Multifamily	-	138,225	6,712,071	16,497,472	38,976,613	1,484,954	1,133,666				64,943,001
Next Generation Savings	-	875,000	-	8,750,000	1	-	-				9,625,001
<b>Building Decarbonization</b>	22,717,138	5,189,426	1,168,343	2,449,182	43,671,798	140,337	1,046,435				76,382,660
Demand Response	-	971,462	4,616	6,387,427	3,319,317	3,262	4,695				10,690,779
Other Portfolio Costs	17,331,525	6,545,000	-	-	-	-	-		15,037,960	-	38,914,485
Portfolio Total	40,048,663	24,138,662	36,683,905	176,655,277	729,564,689	12,134,286	16,240,985	40,539,361	15,037,960	-	1,091,043,788
Program Year 6	Capital Cost	Utility Admin- istration	Marketing and Outreach	Outside Services	Incentives - Rebates and Loans	Inspections and QC	Evaluation	Health & Safety	Workforce Development	Outreach to Community- Based Organizations	Total Budget
Whole Home	-	488,304	2,592,118	14,955,844	139,648,167	529,522	1,522,999	39,362,869			199,099,823
Income Qualified	-	504,153	16,438,183	40,564,694	61,736,519	1,998,549	2,623,118	27,296,620			151,161,835
Energy Efficient Products	-	1,639,018	2,566,786	25,951,259	64,392,735	712,356	1,240,299				96,502,452
Behavioral	-	1,278,756	-	6,273,576	9,913,242	158,691	357,552				17,981,817
Energy Solutions	-	2,654,206	1,571,551	11,647,134	184,019,060	2,788,516	2,407,421				205,087,889
Prescriptive & Custom	-	2,187,855	7,115,226	36,624,374	182,487,184	3,166,580	4,673,809				236,255,029
Direct Install	-	1,683,312	2,074,465	13,094,458	103,393,125	2,345,032	2,458,354				125,048,746
Multifamily	-	138,225	9,442,452	22,759,764	54,834,206	1,997,745	1,586,693				90,759,085
Next Generation Savings	-	1,375,000	-	13,750,000	1	-	-				15,125,001
Building Decarbonization	44,570,382	7,938,808	1,688,571	3,539,729	42,411,182	202,825	1,536,229				101,887,724
Demand Response	-	1,058,711	8,120	6,377,879	4,195,368	5,740	8,261				11,654,078
Other Portfolio Costs	-	7,512,000				-			17,186,240	-	24,698,240
Portfolio Total	44,570,382	28,458,347	43,497,472	195,538,710	847,030,788	13,905,557	18,414,735	66,659,489	17,186,240	_	1,275,261,719

Program Year 7+	Capital Cost	Utility Admin- istration	Marketing and Outreach	Outside Services	Incentives - Rebates and Loans	Inspections and QC	Evaluation	Health & Safety	Workforce Development	Outreach to Community- Based Organizations	Total Budget
Whole Home	-	-	-	-	35,042,206	-	-	1			35,042,206
Income Qualified	-	-	-	-	14,928,878	-	-	1			14,928,878
<b>Energy Efficient Products</b>	-	-	-	-	13,654,262	-	-				13,654,262
Behavioral	-	-	-	-	-	-	-				-
Energy Solutions	-	-	-	-	434,128,238	-	-				434,128,238
Prescriptive & Custom	-	-	-	-	30,327,265	-	-				30,327,265
Direct Install	-	-	-	-	56,430,964	-	-				56,430,964
Multifamily	-	-	-	-	41,260,856	-	-				41,260,856
Next Generation Savings	-	-	-	-	-	-	-				=
Building Decarbonization	1,953,264	-	-	-	15,226,902	-	-				17,180,166
Demand Response	-	-	-	-	-	-	-				-
					•						
Other Portfolio Costs	-	-	-	-	_	-	-		-	-	-
Portfolio Total	1,953,264	-	-	-	640,999,571	-	-	-	-	-	642,952,836

<sup>\*</sup> Expenses are shown in the year the project is completed, not when the funds are committed.

# 6c. Appendix C: Total Budget Summary, Including Annual Budget Summary and Joint Budgets with Partner Utilities

Program Year	Total Budget Summary	Lead Program Budget <sub>1,2</sub>
Program Year 4	412,952,574	336,259,669
Program Year 5	1,091,043,788	937,674,799
Program Year 6	1,275,261,719	1,103,914,859
Program Year 7+	642,952,836	625,772,670
Portfolio Total	3,422,210,918	3,003,621,996

<sup>\*</sup> Expenses are shown in the year the project is completed, not when the funds are committed

<sup>\*\*</sup> Total includes investment & administrative costs

<sup>1</sup> The Lead Program Budget includes only the budgets for coordinated programs in which costs are shared. Shared programs: Whole Home, Income Qualified, EE Products, Energy Solutions, Direct Install, Prescriptive & Custom, Multifamily

<sup>2</sup> Please refer to Section 5 of the plan for more information regarding the approach to budgeting; Per the budget adjustment mechanism described in Section 5 of this Program Plan, the utilities are providing the lead program budget which represents funding to be spent on joint projects.

# 6d. Appendix D: Forecasted Average Costs to Achieve Each Unit of Energy Savings in Each Sector

	Energy Effici	ency Programs	Demand Response Program	Building Decarbonization Program
Sector	Total \$/ Lifetime kWh	Total \$/ Lifetime Therms	Total \$/ Lifetime kW	Total \$/ Lifetime MMBtu
Residential	\$ 0.16	\$ 1.63		
C&I	\$ 0.09	\$ 0.66		
Multifamily	\$ 0.68	\$ 0.91		
<b>Building Decarbonization</b>				\$ 43.13
Demand Response			\$ 135.38	

<sup>\*</sup> Only include lead fuel budgets and savings.

<sup>\*\*</sup> Cost to Achieve include health & safety costs; excludes financing principal, Next Generation Savings

6e. Appendix E: Benefit Cost Analysis

ist Test		Total Residential		Fotal Cross- Sector Programs 1		C&I Existing	C&I Prescriptive			&I Building F	Residential	Low/Moderate E	tesidential Efficient F Products F	tesidential	Residential Demand Management	Residential Building Decarbonization		Street Lights	Next Gener
t Test Resource Costs Tests (TRC)		Programs	Programs :	Sector Programs 1	otal Portfolio E	Buildings	& Custom	Install I	Management D	ecarbonization E	xisting Homes	Income F	roducts E	lehavioral	Management	Decarbonization I	Multifamily	Street Lights	Savings
Lifetime Avoided Wholesale Electric Energy and Ancillary Costs		\$48,259,431	\$282,790,443	\$4,903,488	\$335,953,362	\$109,740,392	\$129,885,928	\$43,164,123	\$0	-\$815,612	\$20,900,070	\$9,939,444	\$11,706,845	\$5,716,302	-\$3,229	-\$8,541,519	\$4,903,48	36 5/	Ó
Lifetime Avoided Wholesale Electric Capacity Costs		\$10,589,786	\$37.897.014	\$926.878	\$49,413,677	\$7.654.793	\$21,171,645	\$8,889,065	\$181.511	\$507,752	\$3,003,977	\$1,332,776	\$1,550,462	SC	\$4,702,570	\$4,452,938	\$926.87	78 S/	ó
Lifetime Avoided Wholesale Natural Gas Costs		\$58,107,661	\$62,696,923	\$8,179,974	\$128,984,558	\$44,958,819	\$1,372,475	\$16,365,630	\$0	\$1,552,451	\$21.836.667	\$12,513,260	\$17,888,703	\$5,869,031	SO	\$4,451,561	\$8,179,97	74 5/	ó
Lifetime DRIPE Benefits (E&G)		\$5,788,226	\$18,811,298	\$694,304	\$25,293,828	\$7,983,474	\$7,452,947	\$3,365,801	\$9.076	\$63,056	\$2,262,103	\$1,177,183	\$1,541,980	\$571,989	\$234,971	\$26,948	\$694,30	M 5/	
Lifetime Avoided RPS REC Purchase Costs		\$6,957,325	\$41.010.731	\$550.317	\$48,518,373	\$11.184.522	\$23,530,457	\$6,295,753	\$0	-\$59,650	\$2,107,256	\$1.041.149	\$2,143,977	\$1,665,407	-\$465	-\$773.862	\$550.31		à
Lifetime Avoided Wholesale Volatility Costs (E&G)		\$16,469,294	\$62,073,239	\$1,515,670	\$80,058,204	\$17,120,271	\$36,256,064	\$8,599,945	\$96,959	\$87,249	\$5,366,664	\$2,792,904	\$4,125,373	\$1,143,979	\$3,040,374	-\$1,134,278			ó
Lifetime Avoided T&D Costs (E&G)		\$94,322,828	\$246,242,908	\$7,187,922	\$347,753,657	\$39,268,311	\$146,520,400	\$59,080,829	\$1,373,367	\$1,470,273	\$31,772,162	\$15,153,370	\$18,863,760	\$5,419,735	\$23,113,801	\$11,914,949	\$7,187,92		i -
Lifetime Avoided Delivered Fuels Costs		\$15.102.332	\$240,242,508	\$523.325	\$15.625.657	\$35,200,511	\$140,320,400	\$39,080,829	\$1,373,367	\$1,470,275	\$9,582,663	\$5,519,669	\$10,003,700	33,415,733	\$25,115,001	\$64,442,469	\$523.32		1
		\$255,596,883	\$751.522.557	\$24,481,878	\$1.031.601.318	\$237.910.582	\$366.189.916		\$1,660,913	\$2.805.519	\$96.831.561	\$49,469,755	\$57.821.100	\$20,386,444	404 000 000				
Lifetime Incremental Costs	Total Benefit	\$255,596,883	\$751,522,557	\$24,481,878	\$1,031,601,318	\$237,910,582			\$420,584	\$40,673,565	\$167.113.630	\$49,469,755	\$7,821,100 \$70.052.176	\$17.628.341	\$31,088,023				
Lifetime Administration Costs		\$239,423,668	\$205,750,322	\$115,823,483	\$560,997,474	\$53,699,517	\$109,846,383	\$42,106,068	\$98,354	\$3,075,949	\$34,975,822	\$107,810,159	\$67,209,453	\$15,292,723	\$14,135,511	\$20,977,817	\$68,827,19		
	Total Costs	\$588,138,482	\$947,586,934	\$200,134,771	\$1,735,860,187	\$285,913,943	\$462,741,309	\$198,412,745	\$518,937	\$43,749,514	\$202,089,452	\$197,630,026	\$137,261,629	\$32,921,064	\$18,236,310	\$118,973,072	\$153,138,48	86 \$0	0 \$20
	Benefit-Cost Ratio	0.4	0.8	0.1	0.6	0.8	0.8	0.7	3.2	0.1	0.5	0.3	0.4	0.6	1.7	0.6	0.	2 0.0	0
icipant Cost Test (PCT)					-														
Lifetime Avoided Retail Electric Costs		\$246,578,715	\$931,451,408	\$22,535,509	\$1,200,565,631	\$283,159,367	\$478,703,101	\$167,700,733	\$1,888,207	\$2,242,393	\$106,458,805	\$51,671,377	\$62,131,311	\$26,334,544	-\$17,323	-\$36,439,431	\$22,535,50	19 \$0	ė.
Lifetime Avoided Retail Natural Gas Costs		\$122,861,430	\$107,330,093	\$18,288,523	\$248,480,046	\$68,484,304	\$3,681,148	\$35,164,642	\$0	\$2,588,288	\$44,103,240	\$25,547,755	\$40,262,789	\$12,947,646	\$0	\$9,816,063	\$18,288,52	23 \$6	o .
Lifetime Program Incentive Costs		\$290,150,856	\$706.158.665	\$67.911.715	\$1.064,221,236	\$230,747,152	\$312.287.163	\$162,688,676	\$435,675	\$39,417,709	\$84,259,916	\$102,706,977	\$78,011,409	\$18,789,002	\$6,383,552	\$56,946,800	\$67.911.71	15 50	o .
Lifetime Time-Value of Loan Repayments		\$56,664,075	\$94 269 692	\$8,416,155	\$159,349,922	573 994 644	\$13,941,391	\$6,333,657	\$0	\$1,365,877	\$35,315,040	Sr.	\$21,349,036	Sr.	\$r		\$8,416,15		
Lifetine fille-value of Loan Repayments		\$716,255,075	\$1,839,209,858	\$117,151,902	\$2,672,616,835	\$656,385,467	\$808,612,802	\$371,887,708	\$2,323,882	\$45,614,267	\$270,137,001	\$179,926,109	\$201,754,544	\$58,071,192	40 000 000	9 \$41,550,049			
Lifetime Participant Costs	Total Benefit														\$6,366,229				
		\$348,714,813 \$348,714,813	\$741,836,612 \$741.836,612	\$84,311,288 \$84,311,288	\$1,174,862,714	\$232,214,426 \$232,214,426	\$352,894,926 \$352,894,926	\$156,306,677 \$156,306,677	\$420,584 \$420,584	\$40,673,565 \$40,673,565	\$167,113,630 \$167,113,630	\$89,819,868 \$89,819,868	\$70,052,176 \$70,052,176	\$17,628,341 \$17,628,341	\$4,100,798	\$97,995,255			0
	Total Costs Benefit-Cost Ratio	\$348,714,813	\$741,836,612	\$84,311,288 1.4	\$1,174,862,714 2.3	\$232,214,426	\$352,894,926	\$156,306,677	\$420,584 5.5	\$40,673,565	1.6	\$89,819,868	\$70,052,176	\$17,628,341	\$4,100,798	s \$97,995,255 i 0.4	\$84,311,28	.4 0.6	0
							==												
ram Administrator Cost Test (PAC) Lifetime Avoided Wholesale Electric Energy and Ancillary Costs		\$48.259.431	\$282,790,443	\$4.903.488	\$335,953,362	\$109.740.392	\$129.885.928	\$43.164.123	sn.	-\$815.612	\$20,900,070	\$9.939.444	\$11.706.845	\$5,716,302	-\$3,229	-\$8.541.519	\$4,903.48	RS: SI	
Lifetime Avoided Wholesale Electric Capacity Costs		\$10,589,786	\$37,897,014	\$926,878	\$49,413,677	\$7,654,793	\$21,171,645	\$8,889,065	\$181,511	\$507,752	\$3,003,977	\$1,332,776	\$1,550,462	\$0	\$4,702,570				9
Lifetime Avoided Wholesale Natural Gas Costs		\$58,107,661	\$62,696,923	\$8,179,974	\$128,984,558	\$44,958,819	\$1,372,475	\$16,365,630	\$0	\$1,552,451	\$21,836,667	\$12,513,260	\$17,888,703	\$5,869,031	\$0	\$4,451,561			0
Lifetime DRIPE Benefits (E&G)		\$5,788,226	\$18,811,298	\$694,304	\$25,293,828	\$7,983,474	\$7,452,947	\$3,365,801	\$9,076	\$63,056	\$2,262,103	\$1,177,183	\$1,541,980	\$571,989	\$234,971	\$26,948			
Lifetime Avoided RPS REC Purchase Costs		\$6,957,325	\$41,010,731	\$550,317	\$48,518,373	\$11,184,522	\$23,530,457	\$6,295,753	\$0	-\$59,650	\$2,107,256	\$1,041,149	\$2,143,977	\$1,665,407	-\$465	-\$773,862			
Lifetime Avoided Wholesale Volatility Costs		\$16,469,294	\$62,073,239	\$1,515,670	\$80,058,204	\$17,120,271	\$36,256,064	\$8,599,945	\$96,959	\$87,249	\$5,366,664	\$2,792,904	\$4,125,373	\$1,143,979	\$3,040,374	-\$1,134,278		70 \$0	Ó
Lifetime Avoided T&D Costs		\$94,322,828	\$246,242,908	\$7,187,922	\$347,753,657	\$39,268,311	\$146,520,400	\$59,080,829	\$1,373,367	\$1,470,273	\$31,772,162	\$15,153,370	\$18,863,760	\$5,419,735	\$23,113,801	\$11,914,949	\$7,187,92	22 \$0	ó
	Total Benefit	\$240,494,551	\$751,522,557	\$23,958,553	\$1,015,975,661	\$237,910,582	\$366,189,916	\$145,761,146	\$1,660,913	\$2,805,519	\$87,248,898	\$43,950,087	\$57,821,100	\$20,386,444	\$31,088,023	\$10,396,737	7 \$23,958,55	53 \$0	n
Lifetime Administration Costs		\$239,423,668	\$205,750,322	\$115,823,483	\$560,997,474	\$53,699,517	\$109,846,383	\$42,106,068	\$98,354	\$3,075,949	\$34,975,822	\$107,810,159	\$67,209,453	\$15,292,723	\$14,135,511	\$20,977,817			
Lifetime Program Investment Costs		\$290,150,856	\$706.158.665	\$67.911.715	\$1.064.221.236	\$230.747.152	\$312.287.163	\$162,688,676	\$435.675	\$39,417,709	\$84,259,916	\$102,706,977	\$78,011,409	\$18,789,002	\$6,383,552	\$56,946,800			320,
Lifetime Time-Value of Loan Repayments		\$56,664,075	\$94.269.692	\$8,416,155	\$159,349,922	\$73,994,644	\$13,941,391	\$6,333,657	\$433,673	\$1,365,877	\$35,315,040	\$102,700,977	\$21,349,036	310,705,002	\$6,585,552	\$11,226,61	\$8,416,15		
Liretime Time-value or Loan Repayments		\$586,238,599	\$1.006.178.679	\$192,151,353	\$159,349,922	\$73,994,644		\$5,333,657	\$534,028	\$1,365,877	\$154,550,777		\$166,569,898	54	\$20,519,064				0 \$20
	Total Costs Benefit-Cost Ratio	\$586,238,599	\$1,006,178,679	\$192,151,353 0.1	\$1,784,568,631	\$358,441,313	\$436,074,936 0.8	\$211,128,401 0.7	\$534,028 3.1	\$43,859,535 0.1	\$154,550,777	\$210,517,136 0.2	\$166,569,898 0.3	\$34,081,725 0.6	\$20,519,064	\$ \$89,151,235 0.1			
		-	-					-	-	-									
epayer Impact Measure Test (RIM)																			
Lifetime Avoided Wholesale Electric Energy and Ancillary Costs		\$48,259,431	\$282,790,443	\$4,903,488	\$335,953,362	\$109,740,392	\$129,885,928	\$43,164,123	\$0	-\$815,612	\$20,900,070	\$9,939,444	\$11,706,845	\$5,716,302	-\$3,225	-\$8,541,519			0
Lifetime Avoided Wholesale Electric Capacity Costs		\$10,589,786	\$37,897,014	\$926,878	\$49,413,677	\$7,654,793	\$21,171,645	\$8,889,065	\$181,511	\$507,752	\$3,003,977	\$1,332,776	\$1,550,462	\$0	\$4,702,570				0
Lifetime Avoided Wholesale Natural Gas Costs		\$58,107,661	\$62,696,923	\$8,179,974	\$128,984,558	\$44,958,819	\$1,372,475	\$16,365,630	\$0	\$1,552,451	\$21,836,667	\$12,513,260	\$17,888,703	\$5,869,031	\$0	\$4,451,561	\$8,179,97	74 \$(	0
Lifetime DRIPE Benefits (E&G)		\$5,788,226	\$18,811,298	\$694,304	\$25,293,828	\$7,983,474	\$7,452,947	\$3,365,801	\$9,076	\$63,056	\$2,262,103	\$1,177,183	\$1,541,980	\$571,989	\$234,971	\$26,948	\$694,30	04) \$(	ė .
Lifetime Avoided RPS REC Purchase Costs		\$6,957,325	\$41.010.731	\$550.317	\$48,518,373	\$11.184.522	\$23,530,457	\$6,295,753	\$0	-\$59,650	\$2,107,256	\$1.041.149	\$2,143,977	\$1,665,407	-\$465	-\$773.862	\$550.31	17 5	0
Lifetime Avoided Wholesale Volatility Costs		\$16,469,294	\$62,073,239	\$1,515,670	\$80,058,204	\$17,120,271	\$36,256,064	\$8,599,945	\$96,959	\$87.249	\$5,366,664	\$2,792,904	\$4,125,373	\$1,143,979	\$3,040,374	-\$1,134,278	\$1,515,67	70 St	ó
Lifetime Avoided T&D Costs		\$94 322 828	\$246 242 908	\$7 187 922	\$347 753 657	539 268 311	\$146 520 400	\$59,080,829	\$1 373 367	\$1,470,273	\$31,772,162	\$15,153,370	\$18.863.760	\$5,419,735	\$23 113 801	\$11 914 949	\$7 187 92	22 5/	ó
	Total Benefit	\$240,494,551	\$751,522,557	\$23,958,553	\$1,015,975,661	\$237,910,582	\$366,189,916	\$145,761,146	\$1,660,913	\$2,805,519	\$87,248,898	\$43,950,087	\$57,821,100	\$20,386,444	\$31,088,023	\$10,396,737	7 \$23,958,55	53 \$0	0
Lifetime Administration Costs	10101 DESIGN	\$239,423,668	\$205,750,322	\$115,823,483	\$560,997,474	\$53,699,517	\$109,846,383	\$42,106,068	\$98,354	\$3,075,949	\$34,975,822	\$107,810,159	\$67,209,453	\$15,292,723	\$14,135,511	\$20,977,817			
Lifetime Program Investment Costs																			320
		\$290,150,856	\$706,158,665	\$67,911,715	\$1,064,221,236	\$230,747,152	\$312,287,163	\$162,688,676	\$435,675	\$39,417,709	\$84,259,916	\$102,706,977	\$78,011,409	\$18,789,002	\$6,383,552	\$56,946,800			0
Lifetime Re-Allocated Distribution Costs		\$72,174,717	\$197,466,215	\$6,229,185	\$275,870,117	\$51,745,100	\$105,419,377	\$39,764,533	\$537,204	-\$799,632	\$31,130,657	\$15,249,261	\$18,175,673	\$7,624,067	-\$4,941	-\$8,973,739			0
Lifetime Time-Value of Loan Repayments		\$56,664,075	\$94,269,692	\$8,416,155	\$159,349,922	\$73,994,644	\$13,941,391	\$6,333,657	\$0	\$1,365,877	\$35,315,040	\$0	\$21,349,03€	\$0	\$0	\$11,226,617	\$8,416,15		0
	Total Costs		\$1,203,644,894	\$198,380,538	\$2,060,438,748	\$410,186,413	\$541,494,314	\$250,892,935	\$1,071,233	\$43,059,903	\$185,681,434	\$225,766,397	\$184,745,571	\$41,705,792	\$20,514,123				0 \$20
1	Benefit-Cost Ratio	0.4	0.6	0.1	0.5	0.6	0.7	0.6	1.6	0.1	0.5	0.2	0.3	0.5	1.5	0.1	0.	.2 0.0	
Lifetime Avoided Wholesale Electric Energy and Ancillary Costs		\$64,789,827	\$361,858,291	\$6,730,779	\$433,378,897	\$151,151,169	\$156,712,491	\$53,994,631	\$0	-\$1,161,010	\$29,938,491	\$14,195,148	\$14,402,035	\$6,258,253	-\$4,100		\$6,730,77		0
		\$64,789,827 \$13,584,419	\$361,858,291 \$47,924,766	\$6,730,779 \$1,312,013	\$433,378,897 \$62,821,199	\$151,151,169 \$10,539,548	\$156,712,491 \$25,931,751	\$53,994,631 \$11,251,223	\$0 \$202,244	-\$1,161,010 \$728,413	\$29,938,491 \$4,407,985	\$14,195,148 \$1,951,943	\$14,402,035 \$2,010,516	\$6,258,253	-\$4,100 \$5,213,975	-\$11,781,879 \$6,338,445	\$6,730,77		0
Lifetime Avoided Wholesale Electric Energy and Ancillary Costs																\$6,338,445	\$6,730,77 \$1,312,01	18 \$0	
Lifetime Avoided Wholesale Electric Energy and Ancillary Costs Lifetime Avoided Wholesale Electric Capacity Costs		\$13,584,419	\$47,924,766	\$1,312,013	\$62,821,199	\$10,539,548	\$25,931,751	\$11,251,223	\$202,244	\$728,413	\$4,407,985	\$1,951,943	\$2,010,516	\$0	\$5,213,975	\$6,338,445	\$6,730,77 \$1,312,01 \$11,350,01	18 \$0 18 \$0	0
Lifetime Avoided Wholesale Electric Energy and Ancillary Costs Lifetime Avoided Wholesale Electric Capacity Costs Lifetime Avoided Wholesale Natural Gas Costs Lifetime DRIPE Benefits (E&G)		\$13,584,419 \$83,161,609 \$7,996,898	\$47,924,766 \$94,041,157 \$24,733,969	\$1,312,013 \$11,350,018 \$961,113	\$62,821,199 \$188,552,785	\$10,539,548 \$64,014,413 \$11,100,539	\$25,931,751 \$4,591,842 \$9,158,303	\$11,251,223 \$25,434,902 \$4,465,016	\$202,244 \$0	\$728,413 \$2,192,229	\$4,407,985 \$34,039,901 \$3,383,540	\$1,951,943 \$19,381,308 \$1,759,126	\$2,010,516 \$23,298,215 \$1,966,677	\$6,442,185 \$6,27,055	\$5,213,975 \$0 \$260,495	\$6,338,445 \$6,005,345 \$40,21	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11	18 \$6 18 \$6 19 \$6	0
Lifetime Avoided Wholesale Electric Energy and Ancillary Costs Lifetime Avoided Wholesale Electric Capacity Costs Lifetime Avoided Wholesale Natural Gas Costs Lifetime DRIPE Benefits (E&G) Lifetime Avoided RPS REC Purchase Costs		\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690	\$1,312,013 \$11,350,018 \$961,113 \$686,237	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657	\$202,244 \$0 \$10,112	\$728,413 \$2,192,229 \$89,159 -\$77,500	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000	\$6,442,185 \$6,27,055 \$1,816,078	\$5,213,975 \$6 \$260,495 -\$555	\$6,338,445 \$6,005,345 \$40,21 \$963,678	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23	13 50 16 50 13 50 37 50	0
Ufetime Avoided Wholesale Electric Energy and Ancillary Costs Ufetime Avoided Wholesale Electric Capacity Costs Ufetime Avoided Wholesale Natural Gas Costs Ufetime Pacific Pa		\$13,584,419 \$83,161,609 \$7,996,898	\$47,924,766 \$94,041,157 \$24,733,969	\$1,312,013 \$11,350,018 \$961,113	\$62,821,199 \$188,552,785 \$33,691,980	\$10,539,548 \$64,014,413 \$11,100,539	\$25,931,751 \$4,591,842 \$9,158,303	\$11,251,223 \$25,434,902 \$4,465,016	\$202,244 \$0 \$10,112 \$0 \$112,582	\$728,413 \$2,192,229 \$89,159	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252	\$2,010,516 \$23,298,215 \$1,966,677	\$6,442,185 \$6,27,055 \$1,816,078 \$1,254,111	\$5,213,975 \$0 \$260,495	\$6,338,44! \$6,005,34! \$40,21 \$963,678 \$1,595,86	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02	15 S( 16 S( 11 S( 37 S( 21 S(	0
Lifetime Avoided Wholesale Electric Energy and Ancillary Costs Lifetime Avoided Wholesale Electric Capacity Costs Lifetime Avoided Wholesale Natural Cass Costs Lifetime DRIPE Benefits (E&G) Lifetime Avoided MPS REC Purchase Costs Lifetime Avoided Wholesale Volatility Costs Lifetime Avoided Tab Costs		\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,336,193 \$123,248,630	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949	\$728,413 \$2,192,229 \$89,159 -\$77,500 \$123,669 \$2,067,341	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401	\$6,442,185 \$6,27,055 \$1,816,078 \$1,254,111 \$5,937,130	\$5,213,97! \$6 \$260,49! -\$55! \$3,526,26! \$25,555,30!	\$6,338,445 \$6,005,345 \$40,21 \$963,678 \$1,595,865 \$16,546,110	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$9,969,41	1	0
Lifetime Avoided Who lesiale Electric Capacity Costs Lifetime Avoided Who lesiale Natural Gas Costs Lifetime Avoided Who lesiale Natural Gas Costs Lifetime Avoided RPS REC Purchase Costs Lifetime Avoided Who lesiale Volatility Costs Lifetime Avoided T&D Costs Lifetime Avoided T&D Costs Lifetime Avoided of Tission So Damages		\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,336,193 \$123,248,630 \$262,184,062	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0	\$728,413 \$2,192,229 \$89,159 -\$77,500 \$123,669 \$2,067,341 \$576,951	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,413	\$6,442,185 \$627,055 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,055	\$5,213,97! \$6 \$260,49! -\$55! \$3,526,26! \$25,555,30! -\$8,17;	\$6,338,445 \$6,005,349 \$40,21 \$963,678 \$1,595,86 \$16,546,110 \$1,694,16	\$6,730,77 \$1,312,01 \$11,350,01 \$961,13 \$686,23 \$2,108,02 \$9,969,41 \$30,924,54	1: 9(1) 9(1) 1: 9(1) 9(1) 9(1) 9(1) 9(1) 9(1) 9(1) 9(1)	0
Uletime Avoided Wholesale Excitor (pergy and Avoiding Costs) Uletime Avoided Wholesale Excitor (people) Costs Uletime Avoided Wholesale Natural Gas Costs Uletime Avoided Wholesale Natural Gas Costs Uletime Avoided SPS (EX Pour Lasse Costs) Uletime Avoided SPS (EX Pour Lasse Costs) Uletime Avoided SPS (EX Pour Lasse Costs) Uletime Avoided Taß Costs Uletime Avoided Finissions Damages Job and Savings Multiplet Benefits		\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,336,193 \$123,248,630 \$562,184,062 \$190,837,444	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$515,140,640	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,399,000	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044	\$728,413 \$2,192,229 \$89,159 -\$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315 \$41,267,862	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,413 \$77,549,027	\$6,442,185 \$627,055 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,055 \$34,196,865	\$5,213,975 \$0 \$260,495 -\$555 \$3,526,266 \$25,555,308 -\$8,177 \$5,507,990	\$6,338,445 \$6,005,349 \$40,21 \$963,678 \$1,595,865 \$16,546,110 \$1,694,165 \$22,361,416	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$9,969,41 \$30,924,54 \$19,785,92	1: 9(1) 10: 9(1) 11: 9(1) 11: 9(1) 12: 9(1) 12: 9(1) 12: 9(1) 13: 9(1) 14: 9(1) 15: 9(1) 15: 9(1) 16: 9(1) 17: 9(1) 18:	0
Uletime Avoided Wholesale Excitor Congry and Avoidings Costs Uletime Avoided Wholesale Excitor Cogneyir Costs Uletime Avoided Wholesale Restrict Cogneyir Costs Uletime Avoided Wholesale Validation Costs Uletime Avoided Restrict (EAG) Uletime Avoided Restrict (EAG) Non-Energy Benefit Adder		\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,336,193 \$123,248,630 \$262,184,062 \$190,837,444 \$25,491,514	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104 \$67,013,193	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$2,795,327	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$11,775,144,702 \$515,140,640 \$95,300,034	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,399,000 \$23,585,145	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0	\$728,413 \$2,192,229 \$89,159 -\$77,500 \$123,669 \$2,067,341 \$576,951	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,855	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,413 \$77,549,027 \$5,598,454	\$6,442,185 \$627,055 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,055 \$34,196,865 \$1,881,166	\$5,213,97! \$6 \$260,49! -\$55! \$3,526,26! \$25,555,30! -\$8,17;	\$6,338,445 \$6,005,349 \$40,217 \$963,678 \$1,595,86 \$16,546,110 \$1,694,163 \$22,361,416 \$12,509,130	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$9,969,41 \$30,924,54 \$19,785,92 \$2,795,32	15 Si	0
Uletime Avoided Wholesale Electric Georgy and Avoidings Costs Uletime Avoided Wholesale Electric Georges and Avoidings Costs Uletime Avoided Wholesale Rost Status Gosts Uletime Avoided Breinfer (E&G) Uletime Avoided Visionale Volatific Costs Uletime Avoided Visionale Volatific Costs United Breinfer Avoided (E&G) Non-Energy Bereinfe Adder User Income Adder		\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,336,193 \$123,248,630 \$262,184,062 \$190,837,444 \$25,491,514 \$7,998,343	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$2,795,327 \$1,900,822	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$515,140,640 \$95,300,034 \$9,899,166	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,399,000	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0	\$728,413 \$2,192,229 \$89,159 -\$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634 \$586,982	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,859 \$6,272,859	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,413 \$77,549,027	\$6,442,185 \$627,055 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,055 \$34,196,865	\$5,213,975 \$0 \$260,495 -\$555 \$3,526,266 \$25,555,308 -\$8,177 \$5,507,990	\$6,338,44 \$6,005,349 \$40,217 \$963,676 \$1,595,862 \$16,546,110 \$1,694,163 \$22,361,416 \$12,509,130 \$2,669,978	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$9,969,41 \$30,924,54 \$1,9785,92 \$2,795,32 \$1,900,82	15 S( S1	0
Uletime Avoided Wholesale Electric Georgy and Avoidings Costs Uletime Avoided Wholesale Electric George (PC costs Uletime Avoided Wholesale Restric George Uletime Avoided Wholesale Valentia (EC costs Uletime Avoided Restric (EG Cost Uletime Avoided Restric (EG Costs Uletime Avoided Restric (EG Costs Uletime Avoided Restrict (EG Costs Uletime Avoided Restrict (EG Costs Uletime Avoided Restrict (EG Costs Uletime Avoided Restrict (EG Costs Underna Avoided Restrict (EG Costs Underna Avoided Restrict (EG Costs Underna Avoided Restrict (EG Costs Uletime Avoided Restrict (EG Costs Uletime Avoided Restrict (EG Costs Uletime Avoided Rodder Uletime Avoided Delevered Fuels Costs		\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,336,193 \$123,248,630 \$262,184,062 \$190,837,444 \$25,491,514 \$7,998,343 \$23,589,884	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104 \$67,013,193 \$0	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$2,795,32 \$1,900,822 \$725,266	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$515,140,640 \$95,300,034 \$9,899,166 \$24,315,151	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542 \$31,720,685 \$0	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,399,000 \$23,585,145 \$0	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$0	\$728,413 \$2,192,229 \$89,159 \$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634 \$586,982 \$15,001,405	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,859 \$6,272,859 \$8,588,476	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,413 \$77,549,027 \$5,598,454 \$1,119,691	\$6,442,181 \$627,055 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,055 \$34,196,861 \$1881,166 \$18,812	\$5,213,975 \$60,495 \$260,495 \$5,526,265 \$25,555,306 \$8,177 \$5,507,990 \$5,507,990	\$6,338,44 \$6,005,340 \$40,217 \$963,678 \$1,595,860 \$16,546,110 \$1,694,160 \$22,361,416 \$12,509,130 \$2,669,975 \$88,928,315	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$30,924,54 \$30,924,54 \$19,785,92 \$2,795,22 \$1,900,82 \$725,26	15 S( 18 S) S( 18 S) S( 19 S)	0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Wholesale Electric George and Avoidings Costs Uletime Avoided Wholesale Electric Georges (Avoided Wholesale Electric Georges) Uletime Avoided Wholesale Router (See Good Uletime Avoided Wholesale Volatility Costs Uletime Avoided See SEC Purchase Costs Uletime Avoided Wholesale Volatility Costs Uletime Avoided Wholesale Volatility Costs Uletime Avoided Faio Costs Uletime Avoided Faio Costs Urberna Avoided Faio Costs Urberna Avoided Faio Costs Urberna Avoided Faio Costs Urberna Avoided Faio Costs Uletime Avoided Delivered Fuels Costs Uletime Avoided Delivered Fuels Costs	Total Benefit	\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,336,193 \$123,248,630 \$262,184,062 \$190,837,444 \$25,491,514 \$7,998,243 \$23,589,884 \$833,504,396	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104 \$67,013,193 \$0 \$2,195,332,278	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$775,327 \$1,900,822 \$715,266 \$113,226,654	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$515,140,640 \$95,300,034 \$9,899,166 \$24,315,151 \$3,142,063,328	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542 \$31,720,685 \$0 \$913,959,656	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,399,000 \$23,585,145 \$0 \$856,584,146	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0 \$422,774,546	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$0 \$2,013,930	\$728,413 \$2,192,229 \$89,159 \$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0 \$9,737,184	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634 \$586,982 \$15,001,405 \$313,337,934	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,896 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,859 \$6,272,859 \$5,588,476 \$178,141,317	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,413 \$77,549,027 \$5,598,454 \$1,119,691 \$6	\$6,442,185 \$627,055 \$1,816,075 \$1,254,111 \$5,937,136 \$21,008,055 \$34,196,865 \$1,881,166 \$18,812 \$5	\$5,213,975 \$1,000,495 \$260,495 \$35,26,266 \$25,555,300 \$8,177 \$5,507,990 \$5,507,990 \$40,050,610	\$6,338,44 \$6,005,346 \$40,21 \$963,676 \$1,595,86 \$16,546,110 \$12,509,130 \$22,361,416 \$12,509,130 \$2,669,973 \$88,928,313	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$9,969,41 \$30,924,54 \$15,9785,92 \$1,900,82 \$1,900,82 \$725,26	15 S( 16 S) 18 S( 17 S) 19 S( 17 S) 17 S( 17 S) 20 S( 20 S) 20 S( 20 S) 21 S( 20 S) 22 S( 20 S) 23 S( 24 S) 25 S( 26 S)	0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Wholesale Extertic Dengy and Avoiding Costs Uletime Avoided Wholesale Extertic Gaptivity Costs Uletime Avoided Wholesale Restrict Gaptivity Costs Uletime DRIFE Benefits (E&G) Uletime Avoided RMS SEC Purchase Costs Uletime Avoided RMS SEC Purchase Costs Uletime Avoided RMS SEC Purchase Costs Uletime Avoided Time Sinos Damages Job and Savings Multiplier Benefits Noon Energy Benefit Adder Low-income Adder Uletime Avoided Time Adder	Total Benefit	\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,336,193 \$123,248,630 \$262,184,062 \$190,837,444 \$25,491,514 \$7,998,343 \$23,589,884	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104 \$67,013,193 \$0	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$2,795,32 \$1,900,822 \$725,266	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$515,140,640 \$95,300,034 \$9,899,166 \$24,315,151	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542 \$31,720,685 \$0	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,399,000 \$23,585,145 \$0	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0 \$422,774,546	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$0	\$728,413 \$2,192,229 \$89,159 \$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634 \$586,982 \$15,001,405	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,859 \$6,272,859 \$8,588,476	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,413 \$77,549,027 \$5,598,454 \$1,119,691	\$6,442,181 \$627,055 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,055 \$34,196,861 \$1881,166 \$18,812	\$5,213,975 \$60,495 \$260,495 \$5,526,265 \$25,555,306 \$8,177 \$5,507,990 \$5,507,990	\$6,338,44 \$6,005,346 \$40,21 \$963,676 \$1,595,86 \$16,546,110 \$22,361,416 \$12,509,130 \$2,669,975 \$88,928,315 \$139,363,369	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$9,969,41 \$30,924,54 \$15,9785,92 \$1,900,82 \$1,900,82 \$725,26	15 S( 16 S) 18 S( 17 S) 19 S( 17 S) 17 S( 17 S) 20 S( 20 S) 20 S( 20 S) 21 S( 20 S) 22 S( 20 S) 23 S( 24 S) 25 S( 26 S)	0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Wholesale Electric George and Avoiding Costs Uletime Avoided Wholesale Electric George and Avoiding Costs Uletime Avoided Wholesale Electric George Uletime Avoided Wholesale Natural Gas Costs Uletime Avoided 898 REC Purchasa Costs Uletime Avoided 988 REC Purchasa Costs Uletime Avoided 980 REC Purchasa Costs Uletime Avoided 180 Costs Uletime Avoided 180 Costs Uletime Avoided 180 Costs Uletime Avoided 180 Costs Underna Avoided Tensisono Stamages Irob and Savings Multiplier Benefits Low Income Avoided 180 Costs Uletime Avoided Delivered Fuels Costs	Total Bengfit	\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,336,193 \$123,248,630 \$262,184,062 \$190,837,444 \$25,491,514 \$7,998,243 \$23,589,884 \$833,504,396	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104 \$67,013,193 \$0 \$2,195,332,278	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$775,327 \$1,900,822 \$715,266 \$113,226,654	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$515,140,640 \$95,300,034 \$9,899,166 \$24,315,151 \$3,142,063,328	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542 \$31,720,685 \$0 \$913,959,656	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,399,000 \$23,585,145 \$0 \$856,584,146	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0 \$422,774,546	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$0 \$2,013,930	\$728,413 \$2,192,229 \$89,159 \$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0 \$9,737,184	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634 \$586,982 \$15,001,405 \$313,337,934	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,859 \$6,272,859 \$5,588,476 \$178,141,317	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,413 \$77,549,027 \$5,598,454 \$1,119,691 \$6	\$6,442,185 \$627,055 \$1,816,075 \$1,254,111 \$5,937,136 \$21,008,055 \$34,196,865 \$1,881,166 \$18,812 \$5	\$5,213,975 \$1,000,495 \$260,495 \$35,26,266 \$25,555,300 \$8,177 \$5,507,990 \$5,507,990 \$40,050,610	\$6,338,44 \$6,005,346 \$40,217 \$963,678 \$1,595,865 \$16,546,110 \$1,694,163 \$22,361,416 \$12,509,130 \$2,669,973 \$88,928,313 \$139,363,369 \$108,569,286	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$9,969,41 \$30,924,54 \$19,785,92 \$1,900,82 \$725,26 \$98,249,48 \$98,249,48	15 St	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Wholesale Electric George and Anollian Coss Uletime Avoided Wholesale Electric Georgethy Costs Uletime Avoided Wholesale Electric Georgethy Costs Uletime Avoided Wholesale Roberts (Electric Georgethy) Costs Uletime Avoided Roberts (Electric Avoided Roberts (Electric Avoided Roberts (Electric Avoided Roberts (Electric Avoided Roberts) Costs Uletime Avoided Tab Costs Uletime Avoided Costs Uletime Avoide	Total Benefit  Total Costs	\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,336,193 \$123,248,630 \$262,184,062 \$190,837,444 \$25,491,514 \$7,998,343 \$23,589,884 \$23,589,884 \$833,504,396 \$386,873,834	\$47,924,766 594,041,157 \$24,733,696 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104 \$67,013,193 \$0 \$2,195,332,278 \$829,475,949	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$2,795,327 \$1,900,822 \$775,266 \$113,226,654 \$95,121,823	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$95,300,034 \$98,899,166 \$24,315,151 \$31,420,663,328 \$1,311,471,606	\$10,539,548 564,014,413 \$11,100,539 514,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542 \$31,720,685 \$0 \$0 \$13,959,656 \$265,720,560	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,399,000 \$23,585,145 \$0 \$85,584,146 \$388,531,181	\$11,251,223 \$25,434,902 \$4,465,016 \$7,927,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0 \$2,774,546 \$12,177,418 \$46,294,534	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$0 \$2,013,930 \$466,789	\$728,413 \$2,192,229 \$89,159 \$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0 \$9,737,184 \$45,355,429	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634 \$586,982 \$15,001,409 \$313,337,934 \$186,121,164	\$1,951,943 \$19,381,305 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,859 \$6,272,859 \$5,588,476 \$178,141,317 \$99,880,252	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,413 \$77,549,027 \$5,598,454 \$1,119,691 \$0 \$222,534,823 \$76,957,796	\$6,442,185 \$627,055 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,055 \$34,196,865 \$1,881,166 \$18,811 \$579,439,713 \$19,385,396	\$5,213,975 \$260,495 \$250,495 \$3,526,265 \$3,526,265 \$25,555,308 \$5,507,990 \$5,507,990 \$40,050,610 \$44,529,226	\$6,338,44\$ \$6,005,340 \$40,211 \$963,678 \$1,595,86; \$1,595,86; \$2,361,416 \$12,361,416 \$12,509,130 \$2,669,979 \$88,928,31 \$183,963,289 \$23,118,299	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$30,924,54 \$19,785,92 \$2,795,22 \$1,900,82 \$725,26 \$89,249,48 \$755,26 \$755,26	16	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lifetime Avoided Wholesale Electric Energy and Ancillary Costs Lifetime Avoided Wholesale Electric Capitry Costs (Lifetime Avoided Wholesale Routard Gas Costs Lifetime Avoided Wholesale Routard Gas Costs Lifetime Avoided MFS REC Purchase Costs (Lifetime Avoided FS REC Purchase Costs Lifetime Avoided FS ADC Costs (Lifetime Avoided Finissions Damages Job and Savings Ahliquite Benefits Non-Energy Benefit Adder Lifetime Avoided Costs Lifetime Avoided Costs Lifetime Avoided Costs Lifetime Avoided Costs Lifetime Administration Costs Utferime Administration Costs Lifetime Administration Costs		\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$123,248,630 \$262,184,062 \$190,837,444 \$25,491,514 \$7,998,343 \$23,589,884 \$833,504,396 \$386,873,384	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104 \$67,013,193 \$0 \$2,195,332,278 \$22,175,949 \$225,556,124	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$2,795,327 \$1,900,827 \$1,300,827 \$	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$11,75,144,702 \$515,140,640 \$95,300,034 \$9,899,166 \$24,315,151 \$3,142,063,228 \$1,311,471,606	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$20,299,647 \$404,110,559 \$150,496,542 \$31,720,680 \$0 \$913,959,656 \$265,720,560 \$58,508,055	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,399,000 \$23,585,145 \$0 \$856,584,146 \$388,531,181 \$120,644,261	\$11,251,223 \$25,434,902 \$4,465,016 \$7,927,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0 \$2,774,546 \$12,177,418 \$46,294,534	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$0 \$2,013,930 \$466,789 \$109,274	\$728,413 \$2,192,229 \$89,159 \$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0 \$0 \$9,737,184 \$43,355,429 \$3,395,979	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,059,166 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634 \$586,982 \$15,001,405 \$313,337,934 \$186,121,164 \$38,514,687	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,942,452 \$32,315,703 \$6,272,855 \$6,272,855 \$6,272,855 \$6,272,855 \$6,272,855 \$6,272,855 \$6,272,855 \$6,272,855 \$1,141,317 \$99,880,252 \$118,757,562	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,412 \$77,549,027 \$5,598,454 \$1,119,691 \$0 \$222,534,823 \$76,957,796 \$73,791,786	\$6,442,185 \$627,055 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,055 \$34,196,865 \$18,81,166 \$18,81,166 \$18,81,165 \$79,439,713 \$19,385,396 \$16,825,578	\$5,213,97: \$0: \$260,499: \$5555,553,526,266: \$25,555,307: \$5,507,990: \$556 \$40,050,610: \$4,579,210: \$15,547,921:	\$6,338,44\$ \$6,005,340 \$40,211 \$963,678 \$1,595,86; \$1,595,86; \$2,361,416 \$12,361,416 \$12,509,130 \$2,669,979 \$88,928,31 \$183,963,289 \$23,118,299	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$30,924,54 \$19,785,92 \$2,795,22 \$1,900,82 \$725,26 \$89,249,48 \$755,26 \$755,26	16	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Urfetime Avoided Wholesale Electric Energy and Anollism Costs Urfetime Avoided Wholesale Electric Capitry Costs Urfetime Avoided Wholesale Robust Gasts Urfetime Robit Berdieris (E&G) Urfetime Avoided Wholesale Votatifies Costs Urfetime Avoided Wholesale Votatifies Costs Urfetime Avoided Wholesale Votatifies Costs Urfetime Avoided Unificial Votatifies Urfetime Avoided Unificial Votatifies Non-Energy Benefit Adder Urfetime Avoided Delivered Tuels Costs Urfetime Avoided Delivered Tuels Costs Urfetime Avoided Delivered Tuels Costs Urfetime Administration Costs Urfetime Administration Costs	Total Costs	\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$123,248,630 \$123,248,630 \$262,184,062 \$190,837,444 \$25,491,514 \$7,998,343 \$23,589,884 \$33,504,396 \$386,873,834 \$263,437,532 \$550,311,366	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$882,036,091 \$67,013,193 \$0 \$20,540,104 \$67,013,193 \$0 \$225,556,124 \$1,055,032,073	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$2,795,327 \$1,900,827 \$1,300,827 \$	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$11,75,144,702 \$515,140,640 \$95,300,034 \$9,899,166 \$24,315,151 \$3,142,063,228 \$1,311,471,606	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$20,299,647 \$404,110,559 \$150,496,542 \$31,720,680 \$0 \$913,959,656 \$265,720,560 \$58,508,055	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,399,000 \$23,585,145 \$0 \$856,584,146 \$388,531,181 \$120,644,261	\$11,251,223 \$25,434,902 \$4,465,016 \$7,927,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0 \$2,774,546 \$12,177,418 \$46,294,534	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$0 \$2,013,930 \$466,788 \$109,274 \$576,063	\$728,413 \$2,192,229 \$89,159 \$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0 \$9,737,184 \$45,355,429 \$3,395,795 \$48,751,408	\$4,407,985 \$34,039,901 \$3,383,540 \$2,666,150 \$8,059,166 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634 \$586,982 \$15,001,405 \$313,337,934 \$186,121,164 \$38,514,687	\$1,951,943 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,942,452 \$32,315,703 \$6,272,855 \$6,272,855 \$6,272,855 \$6,272,855 \$6,272,855 \$6,272,855 \$6,272,855 \$6,272,855 \$1,141,317 \$99,880,252 \$118,757,562	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,412 \$77,549,027 \$5,598,454 \$1,119,691 \$0 \$222,534,823 \$76,957,796 \$73,791,786	\$6,442,185 \$627,055 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,055 \$34,196,865 \$1,881,166 \$18,811 \$5 \$79,439,713 \$19,385,396 \$16,825,578 \$36,225,578 \$36,210,974	\$5,213,97: \$0: \$260,499: \$5555,553,526,266: \$25,555,307: \$5,507,990: \$556 \$40,050,610: \$4,579,210: \$15,547,921:	\$6,338,445 \$6,005,346 \$40,217 \$963,670 \$1,595,86 \$16,546,110 \$12,509,130 \$22,361,416 \$12,509,130 \$22,669,975 \$88,928,315 \$139,363,369 \$108,569,280 \$131,859,280 \$131,859,280	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$686,23 \$2,108,02 \$30,924,54 \$19,785,92 \$2,795,22 \$1,900,82 \$725,26 \$89,249,48 \$755,26 \$755,26	16	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Unterne Avoided Wholesale Electric Georgy and Avoiding Costs Unterne Avoided Wholesale Electric Capetry (Youts Unterne Avoided Wholesale Natural Gas Costs Unterne DRPE Benefits (B&G) Unterne DRPE Benefits (B&G) Unterne Avoided Brokesale Volastiny Costs Unterne Avoided Trainsors Damages Job and Savings Multiplier Benefits None Tengy Benefit Adder Low-Income Adder Unterne Avoided Train Adder Unterne Avoided Train Adder University Costs Unterne Avoided Train Adder University Costs Unterne Avoided Train Adder University Costs Unterne Avoided Train Adder Unterne Avoided Train Adder Unterne Avoided Delivered Fuels Costs Unterne Avoided Delivered Fuels Costs Unterne Avoided Train Costs	Total Costs Benefit-Cost Ratio	\$13,584,419 \$33,161,509 \$7,996,898 \$8,285,573 \$22,386,573 \$123,248,630 \$526,218,630 \$262,184,630 \$262,184,630 \$262,184,630 \$262,184,630 \$262,184,630 \$254,913,145 \$79,998,343 \$23,598,343	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104 \$67,013,193 \$0 \$2,195,332,278 \$229,475,949 \$225,556,124 \$1,055,032,073 2.1	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$2,795,327 \$1,900,822 \$725,266 \$13,226,654 \$95,121,823 \$125,068,408 \$220,190,231 0.5	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$515,140,640 \$95,300,034 \$53,891,4064,665 \$24,315,151 \$3,142,063,228 \$1,311,471,606 \$614,062,064 \$1,925,533,674	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542 \$31,720,685 \$0 \$91,359,565 \$265,720,560 \$58,508,055 \$324,228,616 2.8	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,045 \$178,228,707 \$315,738,253 \$69,399,000 \$23,585,145 \$0 \$85,584,146 \$388,531,181 \$120,644,261 \$509,175,442 1.7	\$11,251,222 \$25,2434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0 \$422,774,546 \$174,757,418 \$46,294,534 \$221,051,952	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$2,013,930 \$466,789 \$109,274 \$576,063	\$728,413 \$2,192,229 \$89,159 -\$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0 \$9,737,184 \$45,355,429 \$3,395,979 \$48,751,408	\$4,407,985 \$3,403,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315 \$41,1267,862 \$11,739,634 \$586,982 \$15,001,409 \$313,337,934 \$186,121,164 \$38,514,687 \$124,635,850	\$1,951,943 \$19,381,305 \$1,759,126 \$1,311,896 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,855 \$6,272,855 \$6,272,855 \$5,588,476 \$75,75,62 \$118,757,562 \$218,637,814 \$0.8	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,399 \$23,675,401 \$65,100,412 \$77,549,027 \$5,598,454 \$1,119,691 \$222,534,822 \$76,957,796 \$73,791,786 \$150,749,582 \$150,749,582	\$6,442,185 \$627,055 \$1,816,076 \$1,254,111 \$5,937,130 \$21,008,056 \$34,196,865 \$1,881,166 \$18,811 \$79,439,713 \$19,385,396 \$16,825,576 \$36,210,974	\$5,213,975 \$260,495 \$555 \$3,526,265 \$25,555,305 \$5,507,991 \$5,507,991 \$40,050,610 \$4,529,226 \$15,547,921 \$20,077,147	\$6,338,445 \$6,005,346 \$40,217 \$963,676 \$1,595,665 \$16,546,110 \$12,361,416 \$12,261,416 \$12,269,330 \$22,361,416 \$12,509,330 \$20,689,288 \$23,118,299 \$180,569,288	\$6,730,77 \$1,312,01 \$13,130,01 \$961,11 \$666,23 \$2,108,02 \$2,108,02 \$1,008,02	15 St 16 St	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Windessale Electric Energy and Ancillary Costs Uletime Avoided Windessale Electric Energy and Ancillary Costs Uletime Avoided Windessale Restrate Gas Costs Uletime Rowled Electric Elect	Total Costs Benefit-Cost Ratio	\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,573 \$22,236,939 \$123,248,630 \$562,3146,630 \$5762,3146,630 \$5762,3146,630 \$5762,3146,630 \$5762,3146,630 \$5762,3146,630 \$5762,3146,630 \$5763,314,640 \$5763,314,630 \$583,014,630 \$583,014,630 \$583,014,630 \$583,014,630 \$584,789,827	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,270 \$306,569,745 \$882,036,091 \$280,540,104 \$67,013,193 \$0 \$2,195,332,278 \$29,475,556,124 \$1,055,032,073 2.1	\$1,312,013 \$11,350,018 \$961,113 \$886,237 \$2,108,021 \$9,963,417 \$30,924,549 \$43,763,092 \$43,763,092 \$2,795,327 \$1,900,822 \$725,2654 \$95,121,823 \$125,068,408 \$220,190,231 0.5	\$62,821,199 \$188,552,785 \$33,691,980 \$57,995,501 \$105,634,483 \$440,187,792 \$51,175,144,702 \$51,175,144,702 \$51,10,640 \$9,899,160 \$24,315,151 \$3,142,063,514,063 \$13,142,163,614 \$1,925,533,670 \$1,925,533,670	\$10,539,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542 \$31,720,685 \$0 \$913,959,656 \$265,720,565 \$58,508,055 \$324,228,616 2.8	\$25,931,751 \$4,591,842 \$9,158,303 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,253 \$69,339,000 \$23,585,145 \$0 \$86,584,146 \$388,531,181 \$120,644,261 \$509,175,442 \$1,77	\$11,251,223 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0 \$422,774,546 \$174,757,418 \$46,294,534 \$221,051,952 \$1,994,631	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$2,013,930 \$466,789 \$109,274 \$576,063	\$728,413 \$2,197,229 \$89,159 \$77,500 \$123,669 \$2,067,341 \$576,951 \$158,215 \$0 \$9,737,184 \$45,355,429 \$45,355,429 \$45,355,429 \$48,751,408 \$42,415,415 \$43,415,415 \$43,415 \$44,415 \$45,41	\$4,407,985 \$3,403,901 \$3,383,540 \$2,666,150 \$8,050,166 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634 \$586,982 \$15,001,406 \$313,337,934 \$186,121,164 \$38,514,687 \$32,514,687 \$24,635,850	\$1,951,942 \$19,381,305 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,855 \$6,272,855 \$5,278,857 \$5,588,476 \$178,141,317 \$99,880,252 \$118,757,562 \$218,637,814 \$6,878,814 \$1,195,145	\$2,010,516 \$22,298,215 \$1,966,677 \$2,492,000 \$55,322,395 \$23,675,401 \$65,100,413 \$77,549,027 \$5,598,454 \$1,119,691 \$65,77,796 \$73,791,786 \$130,749,582 \$150,749,582 \$150,749,582	\$6,442,185 \$627,055 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,055 \$34,196,865 \$1,881,166 \$18,811 \$5 \$79,439,713 \$19,385,396 \$16,825,578 \$36,225,578 \$36,210,974	\$5,213,975 \$260,499 \$555,536;555,360;555,360;555,579;95 \$5,579;99 \$5,507,990;55,507,990;	\$6,338,445 \$6,005,340 \$40,217 \$963,673 \$1,995,860 \$16,546,110 \$12,236,1416 \$12,236,1416 \$12,236,1416 \$12,236,1416 \$12,236,1416 \$12,236,1416 \$13,236,	\$6,730,77 \$1,312,01 \$13,139,01 \$961,11 \$961,11 \$9961,11 \$9969,41 \$1,900,82 \$	15 St	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lifetime Anoded Windesale Electric Energy and Anolliany Costs Lifetime Anoded Windesale Electric Capitally Costs Lifetime Anoded Windesale Ratural Gas Costs Lifetime Anoded Windesale Ratural Gas Costs Lifetime Anoded Mindesale Ratural Gas Costs Lifetime Anoded Energia Electric Costs Lifetime Anoded Energia Costs Lifetime Anoded Energia Costs Lifetime Anoded Energia Costs Lifetime Anoded Costs	Total Costs Benefit-Cost Ratio	\$13,584,419 \$283,161,690 \$7,996,898 \$8,285,573 \$22,386,573 \$123,248,630 \$762,138,630 \$762,138,630 \$252,913,444 \$252,991,444 \$17,998,343 \$23,598,344 \$23,598,344 \$2	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,690 \$81,190,27 \$306,969,745 \$82,036,091 \$280,540,104 \$67,013,193 \$0 \$22,195,332,278 \$229,475,949 \$225,556,124 \$1,055,032,073 \$47,924,766	\$1,312,013 \$11,350,018 \$561,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,549 \$43,763,092 \$2,795,327 \$1,900,822 \$725,266 \$13,226,654 \$13,226,654,008 \$220,190,231 \$6,730,779 \$1,312,013	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$515,140,640 \$53,300,034 \$9,899,166 \$24,315,151 \$3,482,633,670 \$1,925,533,670 \$1,925,533,670 \$433,378,897 \$62,821,199	\$10,339,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542 \$31,720,685 \$0 \$13,959,656 \$265,720,560 \$58,508,055 \$324,228,616 \$2,8	\$25,931,751 \$4,591,842 \$9,158,203 \$27,369,850 \$45,868,850 \$178,228,707 \$315,738,253 \$69,399,000 \$23,585,145 \$0 \$0 \$5 \$5,585,341,161 \$388,531,181 \$120,644,261 \$509,175,442 \$1,77	\$11,251,222 \$25,434,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0 \$22,774,546 \$174,757,418 \$46,294,534 \$221,051,952 \$1,994,531 \$13,994,631 \$13,12,512,223	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$0 \$0 \$0 \$2,013,930 \$466,789 \$109,274 \$576,063 \$5	\$7.78,413 \$2,192,229 \$89,195 \$77,500 \$77,500 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0 \$9,737,184 \$45,355,429 \$3,395,979 \$48,751,408	\$4,07,985 \$34,039,901 \$2,666,150 \$2,666,150 \$4,031,031 \$41,0315 \$41,27,36,54 \$41,267,365 \$11,739,634 \$586,932 \$15,001,405 \$586,932 \$15,001,405 \$586,932 \$15,001,405 \$586,932 \$15,001,405 \$586,932 \$15,001,405 \$586,932 \$15,001,405 \$586,932 \$15,001,405 \$586,932 \$15,001,405 \$586,932 \$15,001,405 \$586,932 \$15,001,405 \$586,932 \$15,001,405 \$13,337,934 \$15,001,405 \$13,337,934 \$15,001,405 \$13,337,934 \$15,001,405 \$13,337,934 \$15,001,405 \$15,001,40	\$1,951,942 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,855 \$6,277,855 \$6,277,855 \$5,588,476 \$79,880,252 \$118,757,562 \$218,637,814,317 \$93,880,252 \$118,757,562 \$218,637,814,317 \$14,195,148 \$1,951,942	\$2,010,516 \$23,298,215 \$1,966,677 \$2,492,000 \$5,322,395 \$23,675,401 \$65,100,413 \$77,549,027 \$5,598,454 \$1,119,691 \$0 \$222,534,823 \$76,957,796 \$73,791,786 \$150,749,582 \$150,749,582 \$14,402,035 \$2,010,516	\$6,442,181 \$627,052 \$1,816,076 \$1,284,111 \$21,008,056 \$34,196,861 \$18,81,16 \$19,81,16 \$19,82,539 \$19,385,396 \$16,825,575 \$36,210,974	\$5,213,975 \$260,495 \$555 \$3,526,265 \$25,555,305 \$5,507,991 \$5,507,991 \$40,050,610 \$4,529,226 \$15,547,921 \$20,077,147	\$6,338,445 \$6,005,346 \$40,217 \$963,676 \$1,595,676 \$16,546,110 \$12,361,416 \$12,2509,130 \$22,361,416 \$12,2509,130 \$22,361,416 \$12,509,130 \$22,692,815 \$23,118,299 \$133,663,589 \$133,663,589 \$131,687,587 \$1,1781,879 \$6,338,445	\$6,730,77 \$11,350,01 \$11,350,01 \$961,11 \$961,11 \$961,11 \$9,969,41 \$30,924,54 \$1,785,92	15 St	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Wholesale Electric Sergy and Ancillary Costs Uletime Avoided Wholesale Electric Sergistry Costs Uletime Avoided Wholesale Electric Sepacity Costs Uletime Avoided Wholesale Restrict Sepacity Costs Uletime Avoided Restrict (E&G) Uletime Avoided Restrict (E&G) Uletime Avoided Restrict (E&G) Uletime Avoided Restricts Costs Uletime Avoided Delivered Fuels Costs Uletime Avoided Delivered Fuels Costs Uletime Avoided Costs Uletime Avoided Costs Uletime Avoided Costs Uletime Avoided Noviceale Electric Energy and Ancillary Costs Uletime Avoided Wholesale Electric Energy and Avoidary Costs Uletime Avoided Wholesale	Total Costs Benefit-Cost Ratio	\$13,584,419 \$33,161,500 \$7,996,898 \$8,28,757 \$72,236,193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$13,544,419 \$13,544,419 \$13,544,419	\$47,924,766 \$94,041,157 \$24,733,669 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104 \$67,013,193 \$0 \$2,195,332,78 \$229,475,949 \$225,556,124 \$1,055,032,073 \$21 \$47,924,766 \$94,041,157	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,547 \$43,763,092 \$2,795,327 \$1,300,822 \$725,266 \$113,226,654 \$95,121,823 \$125,068,008 \$125,068,0779 \$1,312,013 \$11,312,013 \$11,312,013 \$11,312,013	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$515,140,640 \$95,300,940 \$95,300,940 \$95,300,940 \$1,925,533,670 \$14,062,064 \$1,925,533,670 \$433,378,897 \$62,821,199 \$188,552,785	\$10,339,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542 \$31,720,685 \$0 \$913,959,656 \$265,720,560 \$28,508,505 \$324,228,616 \$151,151,169 \$10,339,548 \$64,014,413	\$25,931,751 \$4,591,842 \$9,158,203 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,235 \$69,399,000 \$23,585,145 \$38,531,181 \$120,644,261 \$120,644,261 \$120,644,261 \$120,644,261 \$120,644,261 \$156,712,491 \$4,591,845 \$4,591,751	\$11,251,222 \$25,434,902 \$4,665,016 \$7,527,657 \$11,419,518 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0,822,518 \$11,707,363 \$422,774,546 \$174,757,418 \$46,294,534 \$221,051,952 \$1,99 \$53,994,631 \$11,251,223 \$25,343,902	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$2,013,930 \$466,783 \$109,274 \$576,063 3.5	\$718,413 \$2,192,229 \$89,119 \$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0 \$9,737,184 \$43,355,429 \$43,355,429 \$43,355,429 \$43,455,429 \$43	\$4,407,985 \$34,039,901 \$13,883,546 \$2,666,150 \$46,115,439 \$116,140,315 \$41,267,862 \$11,739,634 \$11,739,634 \$11,739,634 \$11,739,634 \$15,001,405 \$333,337,934 \$15,001,405 \$333,337,934 \$15,001,405 \$15,0	\$1,951,942 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,855 \$6,272,855 \$6,272,855 \$3,588,476 \$178,141,317 \$99,880,252 \$118,757,562 \$218,637,814 \$19,511,945 \$19,381,308	\$2,00,516 \$23,28,215 \$1,966,677 \$2,492,000 \$5,322,398 \$23,675,401 \$65,100,411 \$77,549,027 \$5,598,454 \$1,119,699 \$22,254,823 \$77,949,027 \$73,791,786 \$11,00,749,582 \$14,402,035 \$20,00516 \$21,328,92,116	\$6,442,18! \$6,77,03 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,058 \$3,41,96,86! \$1,881,166 \$19,813 \$19,385,396 \$16,825,576 \$36,210,974 \$2,22 \$4,22 \$5,23	\$5,213,975 \$6,269,495 \$55,55,505 \$51,555,306 \$81,775 \$5,507,991 \$6,559,215 \$40,050,610 \$40,559,225 \$15,547,921 \$20,077,147 \$2,0	\$6,338,445 \$6,005,340 \$40,217 \$963,673 \$1,595,865 \$16,546,110 \$12,509,130 \$12,509,130 \$12,509,130 \$12,509,130 \$139,363,369 \$130,569,280 \$23,118,781,587 \$131,687,587	\$6,730,77 \$1,312,01 \$11,350,01 \$961,11 \$566,23 \$1,186,02	110 St 11	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lifetime Anoded Windesale Electric Energy and Anolliany Costs Lifetime Anoded Windesale Electric Capitally Costs Lifetime Anoded Windesale Ratural Gas Costs Lifetime Anoded Windesale Ratural Gas Costs Lifetime Anoded Electric (EEG) Lifetime Anoded Electric Electric Costs Lifetime Anoded Costs	Total Costs Benefit-Cost Ratio	\$13,584,419 \$31,616,009 \$7,996,898 \$8,28,73,73 \$22,236,193 \$122,236,193 \$122,236,193 \$122,236,193 \$122,236,193 \$122,236,193 \$122,236,193 \$122,236,193 \$123,236,193 \$123,236,193 \$123,236,193 \$123,236,193 \$123,236,193 \$123,236,193 \$123,236,193 \$123,236,193 \$123,236,193 \$13,266,193 \$13	\$47,924,766 \$94,041,157 \$24,733,969 \$49,024,699 \$81,190,270 \$306,969,745 \$882,036,691,745 \$882,036,991 \$280,540,104 \$7,013,193 \$0 \$2,195,332,278 \$22,9475,949 \$225,556,124 \$1,055,032,073 \$47,924,766 \$94,041,157 \$24,733,945	\$1,12,013 \$11,36,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$9,969,417 \$3,032,45,62 \$43,763,092 \$2,795,327 \$1,900,822 \$775,266 \$113,226,640 \$220,190,231 \$220,190,231 \$220,190,231 \$13,0018 \$20,019,019 \$13,0018 \$20,019 \$13,0018 \$56,113,0018 \$56,113,0018	\$62,821,199 \$188,552,785 \$32,691,980 \$57,995,501 \$105,634,483 \$440,187,795 \$51,175,144,702 \$515,140,640 \$95,300,303 \$95,300,303 \$54,3415,140,640 \$54,3415,140,640 \$1,925,533,674 \$1,925,534	\$10,395,488 \$64,014,413 \$11,100,539 \$14,127,183 \$123,789,371 \$52,909,647 \$5404,110,559 \$150,496,542 \$31,720,685 \$0 \$913,959,656 \$265,720,560 \$324,228,516 \$151,511,169 \$10,539,548 \$64,014,413 \$11,00,539,548	\$25,931,751 \$4,918,42 \$9,158,403 \$27,369,80 \$27,369,80 \$158,228,707 \$315,738,25 \$69,399,000 \$23,585,145 \$0 \$365,588,46 \$388,531,181 \$120,644,261 \$509,175,449 \$156,712,491 \$4593,472 \$4593,472	\$11,251,22 \$25,343,902 \$4,465,016 \$7,527,657 \$11,419,514 \$74,304,442 \$162,187,279 \$60,682,518 \$0,682,518 \$174,757,418 \$46,294,534 \$221,051,952 \$112,512,22 \$25,343,902 \$4,666,016	\$202,244 \$0 \$0,012,526 \$112,526 \$112,526,949 \$1,526,949 \$0 \$0 \$0 \$0 \$2,013,390 \$466,789 \$109,274 \$576,633 \$576,633 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50	\$7.78,413 \$2,192,229 \$89,195 \$77,500 \$2,067,341 \$576,931 \$5,039,718 \$158,215 \$0 \$9,737,138 \$48,325,429 \$3,335,979 \$48,751,408 \$728,413 \$2,192,28 \$80,159 \$80,159	\$4,07,985 \$34,039,901 \$2,666,150 \$2,666,150 \$46,115,499 \$116,140,315 \$41,267,862 \$11,798,634 \$586,992 \$15,001,406 \$38,712,164 \$38,714,687 \$38,714,687 \$224,635,850 \$12,938,491 \$4,07,985 \$34,07,985 \$34,07,985 \$34,07,985 \$34,07,985	\$1,951,942 \$13,981,305 \$1,759,126 \$1,311,896 \$4,183,251 \$21,965,291 \$52,9943,420 \$32,315,703 \$6,272,856 \$6,272,856 \$5,272,856 \$132,874,751 \$98,880,250 \$118,757,861 \$118,757,861 \$118,757,861 \$13,951,941 \$13,951,941 \$13,951,941	\$2,000.516 \$23,288.215 \$1,966,677 \$24,492,000 \$5,322,398 \$23,675,401 \$55,100,411 \$77,549,021 \$5,588,454 \$1,119,691 \$73,791,786 \$150,749,582 \$150,749	\$6,422,185 \$6,422,185 \$18,186,078 \$1,1254,111 \$5,937,130 \$12,1008,055 \$34,196,865 \$18,811,66 \$18,811,66 \$18,811,66 \$18,811,56 \$15,25,576 \$36,210,372 \$36,210,372 \$36,210,372 \$56,242,185 \$62,710,572	\$5,213,975 \$6 \$26,949 \$555,53,966 \$555,53,966 \$555,53,966 \$55,53,966 \$55,53,966 \$55,53,966 \$55,53,967 \$20,777,47 \$20,777,47 \$20,777,47 \$20,777,47 \$20,777,47	\$6,338,441 \$6,005,344 \$40,217 \$963,676 \$1,595,266 \$1,6546,110 \$12,509,130 \$12,509,130 \$12,509,130 \$130,509,73 \$130,509,73 \$130,509,73 \$131,687,587 \$131,781,879 \$131,687,587 \$131,687,587 \$131,687,587 \$131,687,587 \$131,687,587	\$6,730,77 \$11,350,01 \$11,350,01 \$961,11 \$961,11 \$964,11 \$3,9964,16 \$3,9924,54 \$1,785,92 \$1,785,9	116 95 11	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Wholesale Electric Sergy and Ancillary Costs Uletime Avoided Wholesale Electric Sergistry Costs Uletime Avoided Wholesale Electric Sepacity Costs Uletime Avoided Wholesale Restrict Sepacity Costs Uletime Avoided Restrict (E&G) Uletime Avoided Restrict (E&G) Uletime Avoided Restrict (E&G) Uletime Avoided Restricts Costs Uletime Avoided Delivered Fuels Costs Uletime Avoided Delivered Fuels Costs Uletime Avoided Costs Uletime Avoided Costs Uletime Avoided Costs Uletime Avoided Noviceale Electric Energy and Ancillary Costs Uletime Avoided Wholesale Electric Energy and Avoidary Costs Uletime Avoided Wholesale	Total Costs Benefit-Cost Ratio	\$13,584,419 \$33,161,500 \$7,996,898 \$8,28,757 \$72,236,193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$12,234,6193 \$13,544,419 \$13,544,419 \$13,544,419	\$47,924,766 \$94,041,157 \$24,733,669 \$49,024,690 \$81,190,270 \$306,969,745 \$882,036,091 \$280,540,104 \$67,013,193 \$0 \$2,195,332,78 \$229,475,949 \$225,556,124 \$1,055,032,073 \$21 \$47,924,766 \$94,041,157	\$1,312,013 \$11,350,018 \$961,113 \$686,237 \$2,108,021 \$9,969,417 \$30,924,547 \$43,763,092 \$2,795,327 \$1,300,822 \$725,266 \$113,226,654 \$95,121,823 \$125,068,008 \$125,068,0779 \$1,312,013 \$11,312,013 \$11,312,013 \$11,312,013	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,634,483 \$440,187,792 \$1,175,144,702 \$515,140,640 \$95,300,940 \$95,300,940 \$95,300,940 \$1,925,533,670 \$14,062,064 \$1,925,533,670 \$433,378,897 \$62,821,199 \$188,552,785	\$10,339,548 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,909,647 \$404,110,559 \$150,496,542 \$31,720,685 \$0 \$913,959,656 \$265,720,560 \$28,508,505 \$324,228,616 \$151,151,169 \$10,339,548 \$64,014,413	\$25,931,751 \$4,591,842 \$9,158,203 \$27,369,850 \$45,868,804 \$178,228,707 \$315,738,235 \$69,399,000 \$23,585,145 \$38,531,181 \$120,644,261 \$120,644,261 \$120,644,261 \$120,644,261 \$120,644,261 \$156,712,491 \$4,591,845 \$4,591,751	\$11,251,222 \$25,434,902 \$4,665,016 \$7,527,657 \$11,419,518 \$74,304,442 \$162,187,279 \$60,482,518 \$11,707,363 \$0,822,518 \$11,707,363 \$422,774,546 \$174,757,418 \$46,294,534 \$221,051,952 \$1,99 \$53,994,631 \$11,251,223 \$25,343,902	\$202,244 \$0 \$10,112 \$0 \$112,582 \$1,526,949 \$0 \$162,044 \$0 \$0 \$2,013,930 \$466,789 \$109,274 \$576,063 3.5	\$718,413 \$2,192,229 \$89,119 \$77,500 \$123,669 \$2,067,341 \$576,951 \$5,039,718 \$158,215 \$0 \$9,737,184 \$43,355,429 \$43,355,429 \$43,355,429 \$43,455,429 \$43	\$4,407,985 \$34,039,901 \$13,883,546 \$2,666,150 \$46,115,439 \$116,140,315 \$41,267,862 \$11,739,634 \$11,739,634 \$11,739,634 \$11,739,634 \$15,001,405 \$333,337,934 \$15,001,405 \$333,337,934 \$15,001,405 \$15,0	\$1,951,942 \$19,381,308 \$1,759,126 \$1,311,899 \$4,183,252 \$21,965,291 \$59,943,452 \$32,315,703 \$6,272,855 \$6,272,855 \$6,272,855 \$3,588,476 \$178,141,317 \$99,880,252 \$118,757,562 \$218,637,814 \$19,511,945 \$19,381,308	\$2,00,516 \$23,28,215 \$1,966,677 \$2,492,000 \$5,322,398 \$23,675,401 \$65,100,411 \$77,549,027 \$5,598,454 \$1,119,699 \$22,254,823 \$77,949,027 \$73,791,786 \$11,00,749,582 \$14,402,035 \$20,00516 \$21,328,92,116	\$6,442,18! \$6,77,03 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,058 \$3,41,96,86! \$1,881,166 \$19,813 \$19,385,396 \$16,825,576 \$36,210,974 \$2,22 \$4,22 \$5,23	\$5,213,975 \$6,269,495 \$55,55,505 \$51,555,306 \$81,775 \$5,507,991 \$6,559,215 \$40,050,610 \$40,559,225 \$15,547,921 \$20,077,147 \$2,0	\$6,338,445 \$6,005,340 \$40,217 \$963,673 \$1,595,865 \$16,546,110 \$12,509,130 \$12,509,130 \$12,509,130 \$12,509,130 \$139,363,369 \$130,569,280 \$23,118,781,587 \$131,687,587	\$6,730,77 \$11,350,01 \$11,350,01 \$961,11 \$961,11 \$964,11 \$3,9964,16 \$3,9924,54 \$1,785,92 \$1,785,9	116 95 11	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Novided Windesale Electric George and Anollian Coss Uletime Novided Windesale Electric George and Anollian Coss Uletime Novided Windesale Restrate George Costs Uletime Novided Windesale Natural Geo Costs Uletime Novided Windesale Volatilian Costs Uletime Novided Windesale Volatilian Coss Uletime Novided Tessions Dismages Uletime Novided Tessions Dismages Uletime Novided Tessions Costs Uletime Novided Windesale Electric Costs Uletime Novided Univolated Novided Windesale Electric Costs Uletime Novided Windesale Electric Costs Ule	Total Costs Benefit-Cost Ratio	\$13,584,419 \$33,161,500 \$7,996,898 \$8,282,735 \$72,236,199 \$123,246,199 \$123,246,199 \$123,246,199 \$123,246,199 \$123,246,199 \$133,244,396 \$133,204,396 \$138,267,337,512 \$64,789,827 \$13,584,419 \$83,161,699 \$13,186,499 \$13,186,	547,924,766 594,041,157 524,733,969 599,024,690 581,199,270 5306,696,745 582,036,091 5220,540,104 567,013,133 50 5219,532,278 5221,555,521 5221,533,528 5221,555,521 5221,533,528 5221,533,538 5221,533,528 5221,533,528 5221,533,528 5221,533,528 5221,	\$1,12,013 \$11,350,018 \$951,113 \$686,237 \$2,108,021 \$9,969,417 \$3,909,42 \$43,763,092 \$2,795,327 \$1,900,822 \$27,795,327 \$1,900,822 \$113,226,665 \$113,226,665 \$113,226,665 \$113,226,665 \$113,226,613 \$113,201 \$113,201 \$113,201 \$113,201 \$113,201 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$56,730,779 \$1,112,013 \$56,730,779 \$1,112,013 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$113,500,188 \$56,730,779 \$1,112,013 \$56,730,779 \$56,730,779 \$1,112,013 \$56,730,779 \$56,730,779 \$1,112,013 \$56,730,779 \$	\$62,821,199 \$188,552,785 \$33,691,980 \$57,996,501 \$105,624,483 \$440,187,792 \$1,175,144,702 \$515,140,640 \$95,300,034 \$95,300,034 \$9,899,160 \$24,315,151 \$3,142,063,225 \$1,311,471,600 \$614,062,064 \$1,925,533,670 \$1,925,533,670 \$18,552,785 \$33,691,980 \$26,220,182	\$10,395,488 \$64,014,413 \$11,100,539 \$14,127,183 \$23,789,371 \$52,090,647 \$404,110,539 \$150,496,542 \$31,720,540 \$0 \$913,959,656 \$255,720,540 \$258,530,955 \$324,228,516 \$151,151,169 \$10,395,688 \$10,395,688 \$10,395,688 \$11,100,539 \$41,143,339 \$11,100,539	525,931,751 54,591,842 59,158,303 527,369,850 545,868,860 5178,228,707 5315,738,253 566,399,000 523,585,145 50 538,531,181 5120,642,61 520,175,442 515,6712,491 515,6712,491 515,931,751 54,593,843 59,158,303 5113,533,840	\$11,251,228 \$25,434,65,016 \$75,27,857 \$11,419,514 \$74,304,442 \$162,187,297 \$60,482,518 \$11,707,418 \$0,082,518 \$11,707,418 \$46,294,538 \$221,051,952 \$151,512,23 \$151,512,512,512 \$151,512	\$202,244 \$0,01 \$10,112 \$1,526,949 \$1,526,949 \$0,00 \$162,044 \$0,00 \$2,013,930 \$466,789 \$109,274 \$576,063 \$0,00	\$7.78,412 \$2,192,229 \$99,159 \$77,500 \$1,23,660 \$2,067,341 \$576,951 \$5,039,718 \$43,355,429 \$43,420 \$43,	\$4,07.98\$ \$34,039.901 \$3,383.54 \$2,666,150 \$46,115,498 \$116,140,315 \$41,27.862 \$11,739,541 \$11,739,541 \$13,07.862 \$13,001,406 \$13,327,941 \$13,514,637 \$13,514,637 \$13,514,637 \$13,514,637 \$13,514,637 \$14,07.985 \$14,07.985 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$13,403.9901 \$14,407.985	\$1,951,942 \$1,759,12,00 \$1,375,92,100 \$1,311,898 \$4,183,251 \$21,965,291 \$21,965,291 \$23,215,702 \$4,272,856 \$6,272,856 \$6,272,856 \$6,272,856 \$5,272,856 \$1,784,412,175 \$93,800,752 \$118,757,500 \$118,757,	\$2,00,516 \$23,288,215 \$1,966,677 \$2,492,000 \$3,322,396 \$23,675,401 \$55,302,396 \$55,100,415 \$77,549,027 \$55,598,45 \$1,119,691 \$77,549,027 \$73,791,786 \$150,749,582	\$6,422,185 \$6,422,185 \$18,186,078 \$1,1254,111 \$5,937,130 \$12,1008,055 \$34,196,865 \$18,811,66 \$18,811,66 \$18,811,66 \$18,811,56 \$15,25,576 \$36,210,372 \$36,210,372 \$36,210,372 \$56,242,185 \$62,710,572	\$5,213,975 \$260,499 \$35,52,62,63 \$25,53,00 \$5,53,70 \$5,53,70 \$5,53,70 \$5,50,70 \$6,50 \$4,57,9,72 \$20,977,147 \$2,0 \$5,21,977 \$5,21,977 \$2,0 \$2,0,00 \$2,00 \$3,00 \$4,00 \$5,21,977 \$2,0 \$5,21,977 \$2,0 \$2,0,00 \$2,00 \$3	\$6,338,444 \$6,005,444 \$6,005,444 \$6,005,444 \$1,595,861 \$1,595,861 \$1,594,163 \$12,509,310 \$12,509,310 \$12,509,310 \$13,569,978 \$133,118,799 \$131,587,587 \$111,781,870 \$6,005,384,444 \$6,005,384,444 \$60,005,484 \$60,	\$6,730,77 \$1,335,01 \$1,350,01 \$961,11 \$5,966,41 \$30,924,54 \$1,978,92 \$1,978,	110 S	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lifetime Avoided Windesale Electric Energy and Ancillary Costs Lifetime Avoided Windesale Electric Capital Costs Lifetime Avoided Windesale Ratural Cas Costs Lifetime Avoided Windesale Ratural Cas Costs Lifetime Avoided Windesale Vosatime Costs Lifetime Avoided Windesale Electric Energy and Ancillary Costs Lifetime Avoided Windesale Electric Energy Costs Lifetime Avoided Electric Energy Costs Lifetime El	Total Costs Benefit-Cost Ratio	\$13,584,419 \$31,616,009 \$7,996,898 \$8,28,573 \$22,336,193 \$123,36,193 \$123,246,002 \$500,327,404 \$25,491,514 \$25,491	547,924,766 549,041,157 524,733,969 549,024,690 5306,965,765 5306,965,765 582,026,010 50 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50,050,765 50 50 50 50 50 50 50 50 50 5	\$1.12.013 \$11.250,018 \$961,113 \$666,237 \$9.96,0417 \$9.969,417 \$9.30,924,549 \$43,763,092 \$19.96,417 \$19.00,822 \$75,266 \$113,226,654 \$95,121,823 \$15,068,408 \$220,190,231 \$15,068,408 \$20,190,231 \$15,068,408 \$20,190,231 \$56,133,50,18 \$56,730,779 \$1,312,013 \$56,730,779 \$56,7	562.821,199 5188.552,785 533.691.980 557.996.501 5105.694.483 544.0187.792 5515.140.640 599.166 51.925.533.672 53.131.471.6060 5614.062.064 51.925.533.672 581.302.064	\$10,39,548 \$54,01,413 \$11,100,539 \$44,17,183 \$23,789,377 \$52,909,647 \$404,110,559 \$1150,496,542 \$31,720,685 \$31,7	\$15,931,751 \$4,931,842 \$9,158,203 \$27,369,850 \$45,868,864 \$118,228,707 \$50,331,738,135 \$69,399,000 \$0 \$35,858,51,86 \$23,885,31,81 \$120,644,261 \$509,175,842 \$156,712,491 \$4,939,842 \$155,931,753 \$4,939,842 \$155,931,843 \$113,533,849 \$41,533,849 \$41,533,849 \$41,533,849	\$11,251,228 \$25,444,90,0 \$4,465,016 \$73,27,657 \$11,419,514 \$74,004,42 \$102,187,27 \$60,482,518 \$11,707,345 \$11,707,345 \$42,774,546 \$11,707,345 \$11,251,23 \$21,251,352 \$11,257,354 \$11,251,23	\$202,244 \$10,112 \$0 \$112,582 \$1,526,949 \$1,526,949 \$0 \$0 \$2,013,390 \$2,013,390 \$466,783 \$109,274 \$576,065 \$0 \$0 \$0 \$10,274 \$10,274 \$0 \$10,274 \$0 \$10,274 \$0 \$10,274 \$0 \$10,274 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$7.18,4.13 \$2,19,2.29 \$89,195 \$77,500 \$2,067,341 \$576,931 \$5,099,718 \$158,215 \$0 \$9,737,184 \$43,355,429 \$3,355,429 \$43,355,429 \$43,355,429 \$43,355,429 \$43,355,429 \$43,255,420 \$43,255,420 \$43,255,420 \$43,255,420 \$43,255,420 \$43,255,420	\$4,07,985 \$34,039,901 \$2,666,150 \$2,666,150 \$46,115,499 \$116,140,315 \$41,267,862 \$11,739,634 \$15,001,406 \$313,337,936 \$15,001,406 \$313,337,936 \$15,001,406 \$313,337,936 \$15,012,168 \$38,514,687 \$224,635,850 \$224,635,850 \$34,039,901 \$34,039,901 \$34,039,901 \$166,125,387 \$34,039,901 \$164,25,387 \$134,25,387	\$1,951,941 \$19,981,300 \$1,759,126 \$1,311,895 \$4,182,251 \$21,965,291 \$22,1965,291 \$32,315,701 \$6,272,385 \$6,272,385 \$6,272,385 \$6,272,385 \$6,272,385 \$138,41,317 \$99,880,252 \$18,858,476 \$18,195,148 \$19,981,306 \$19,981,306 \$19,981,306 \$19,981,306 \$19,981,306 \$19,981,306 \$19,981,306 \$1,759,126 \$1,759	\$2,010.516 \$23.289.211 \$1,966.677 \$24.99.021 \$5,322.396 \$23.677.401 \$55.322.396 \$55.322.396 \$55.322.534.823 \$77.549.027 \$57.549.027 \$72.534.823 \$72.534 \$72.534.823 \$72.534.82	\$6,422,185 \$6,422,185 \$1,816,078 \$1,816,078 \$1,254,111 \$5,937,130 \$21,008,059 \$34,196,861 \$1,881,166 \$1,881,166 \$15,935,390 \$16,285,579 \$36,210,974 \$36,210,974 \$56,255,255 \$6,242,185 \$627,035 \$62,00	\$5,213,975 \$260,496 \$352,626,496 \$352,626,636 \$3,520,626 \$45,555,300 \$5,500,990 \$5,500,9	56.338,445, 56.003.40 540.217 540.217 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.528 540.548 540.548 540.548 540.548 540.548 540.548	\$6,730,77 \$1,1350,01 \$961,11 \$961,11 \$964,11 \$1,978,97 \$1,100,02 \$1,978,92 \$1,900,82 \$	111 9 9 11 11 11 11 11 11 11 11 11 11 11	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Urletime Avoided Wholesale Electric Energy and Avoillary Costs Urletime Avoided Wholesale Electric Capetryl Costs Urletime Avoided Wholesale Rehated Capetryl Costs Urletime Avoided Wholesale Robated Capetryl Costs Urletime Avoided Wholesale Volatified Costs Urletime Avoided Movelage Volatified Costs Urletime Avoided Movelage Volatified Costs Urletime Avoided Movelage Volatified Costs Urletime Avoided Robated Volatified Costs Urletime Avoided Robated Volatified Costs Urletime Avoided Robated Costs Urletime Avoided Volatified Costs Urletime Avoided Volatified Costs Urletime Avoided Wholesale Electric Energy and Avoillary Costs Urletime Avoided Wholesale Electric Capetryl Costs Urletime Avoided Wholesale Electric Capetryl Costs Urletime Avoided Wholesale Electric Capetryl Costs Urletime Avoided Wholesale Electric Costs Urletime Avoided South Costs Utletime Avoided South Costs U	Total Costs Benefit-Cost Ratio	\$13,584,419 \$31,616,909 \$7,996,898 \$82,825,73 \$22,236,193 \$722,236,193 \$722,236,193 \$722,236,193 \$722,236,193 \$722,236,193 \$729,824,194 \$725,491,514 \$729,824 \$729,824 \$729,824 \$729,824 \$729,824 \$729,824 \$729,824 \$729,824 \$729,824 \$729,825 \$720,243,725 \$729,824 \$729,825 \$720,243,725 \$729,826 \$729,826 \$729,826 \$729,826 \$729,826 \$729,826 \$729,826 \$729,826	\$47,924,766 \$49,041,617 \$24,781,869 \$49,024,600 \$81,196,270 \$81,196,270 \$806,969,745 \$882,064,010 \$0 \$0 \$1,195,331,278 \$215,556,124 \$215,566,124 \$21	\$1,12,013 \$11,350,018 \$951,113 \$686,237 \$2,108,021 \$9,969,417 \$3,909,427 \$43,763,092 \$2,795,327 \$1,900,822 \$72,766 \$113,226,654 \$95,121,823 \$125,068,408 \$220,190,231 \$5,712,62	562.21.199 513.61.56 53.361.56 53.796.501 510.562.481 557.965.501 510.562.481 557.965.501 510.562.481 557.965.501 510.562.481 557.300.214 557.300.214 557.300.214 557.300.214 557.300.214 557.300.216	\$10,39,548 \$64,014,413 \$11,00,539 \$14,127,188 \$23,789,371 \$52,399,571 \$404,110,539 \$150,496,542 \$0 \$150,496,542 \$0 \$150,496,542 \$0 \$150,496,542 \$0 \$25,720,560 \$35,800,055 \$324,226,68 \$151,151,169 \$10,339,548 \$41,442,339 \$11,00,539 \$41,442,339 \$11,466,307 \$41,442,339 \$11,466,307 \$404,110,559	915.931,751 54.591,82,1 59.153,303 59.153,303 545.686,804 545.686,804 545.686,804 547,822,87 507 53115,782,237 50 535,585,146 5368,5146	\$11,251,228 \$25,434,900 \$4,465,016 \$7,522,567 \$11,195,14 \$14,195,14 \$14,195,14 \$14,195,14 \$14,195,14 \$14,195,14 \$14,195,14 \$14,195,14 \$11,197,14 \$46,194,534 \$211,1651,825 \$21,1651,825 \$24,459,40 \$4,465,016 \$4,465,016 \$4,475,41,91 \$26,790,251 \$26,790,251	\$200,244 \$10,112 \$111,582 \$1,526,949 \$112,582 \$1,526,949 \$0 \$0 \$2,013,930 \$2,013,930 \$466,783 \$109,274 \$576,663 \$576,663 \$0 \$10,112 \$967,607 \$559,342	\$718,412 \$2,19,228 \$89,159 \$77,500 \$132,669 \$2,067,341 \$576,951 \$5,039,718 \$43,355,429 \$43,420 \$43	\$4,07.985 \$34,039.901 \$3,383,546 \$2,666,150 \$46,115,499 \$116,140,315 \$41,277,862 \$11,739,631 \$11,739,631 \$15,001,405 \$313,327,345 \$186,127,164 \$331,327,345 \$224,635,850 \$4,407,980 \$34,40	\$1.951.941 \$1.93.81.00 \$1.759.126 \$1.311.880 \$4.182.25 \$2.1965.291 \$59.962.452 \$32.315.705 \$6.277.255 \$6.277.255 \$6.277.255 \$6.277.255 \$128.41.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.341 \$1.951.942 \$1.951.942 \$1.951.942 \$1.951.942 \$1.951.942 \$1.951.943 \$	\$2,00,516 \$23,289,211 \$23,289,211 \$24,92,000 \$3,322,391 \$23,675,401 \$55,302,391 \$77,549,027 \$55,589,455 \$11,19,691 \$75,598,455 \$11,19,691 \$122,534,823 \$75,957,796 \$150,749,582 \$150,749,58	\$6,442,182 \$6,442,182 \$6,27,055 \$1,816,078 \$1,254,111 \$5,937,130 \$51,080,055 \$34,196,865 \$18,81,166 \$18,81,165 \$19,815,390 \$16,225,575 \$36,210,974 \$56,258,255 \$627,055 \$56,242,182 \$627,055 \$55,937,130	\$5,213,975 \$260,496 \$355,255,300 \$45,557,206 \$4,050,610 \$4,559,276 \$20,077,147 \$2,0 \$4,100 \$4,100 \$4,500,410 \$5,213,975 \$5,213,975 \$5,213,975 \$5,213,975 \$5,213,975 \$5,213,975	56.338,445 56.003,369 540.217 545.958,676	\$6,730,77 \$1,330,01 \$961,11 \$9861,11 \$986,21 \$2,108,02 \$1,9786,21 \$1,9785,22 \$725,26 \$1,9785,22 \$1,908,27	111 S 11 S 111 S 11 S 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Novided Wholesale Electric Energy and Ancillary Cost Uletime Novided Wholesale Electric Energy and Ancillary Cost Uletime Novided Wholesale Restrict Energy India Uletime Novided Wholesale National Costs Uletime Novided Wholesale Vasatility Costs Uletime Novided Wholesale Selectric Energy and Ancillary Costs Uletime Novided Wholesale Electric Energy and Ancillary Costs Uletime Novided Wholesale Electric Energy and Ancillary Costs Uletime Novided Wholesale Electric Energy Costs Uletime Novided Energy Costs Uletime Nov	Total Costs Benefit-Cost Ratio	\$13,584,419 \$83,161,609 \$7,996,898 \$8,285,73 \$22,236,193 \$122,246,193 \$122,246,193 \$122,246,193 \$122,246,193 \$122,246,193 \$122,246,193 \$122,246,193 \$122,246,193 \$122,246,193 \$122,246,193 \$122,246,193 \$122,246,193 \$122,246,193 \$123,246,193	\$47,924,766 \$49,041,157 \$24,733,869 \$49,024,660 \$306,969,745 \$882,036,091 \$200,940,104 \$7,701,193 \$7,701,193 \$200,940,104 \$1,950,104	\$1,12,013 \$11,35,018 \$\$61,113 \$2,108,021 \$3,989,417 \$3,03,024,549 \$43,78,3,092 \$13,0324,549 \$13,226,654 \$13,226,65	562.21.199 513.651.960 513.651.960 510.564.481 540.187.95 511.75.144.702 515.15.164.702 595.200.034 595.200.034 595.300.034 595.300.034 594.317.167 594.317.1660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660 51.97.31.171.660	\$10,39,548 \$54,01,413 \$11,100,539 \$44,17,183 \$23,789,377 \$52,909,647 \$404,110,559 \$1150,496,542 \$31,720,685 \$31,7	925.931,751 54.931,821 59.153,203 54.586,824 59.153,203 54.5865,804 5172,225,707 510,732,733 500,939,000 50 50 525.686,146 523.885,31,181 512.0,644,261 512.0,644,261 512.0,644,261 515.0,715,449 515.59,175,342 515.59,175,342 515.59,182 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846	\$11,251,228 \$25,444,900 \$4,465,016 \$7,327,657 \$74,304,442 \$74,304,442 \$102,187,279 \$60,482,518 \$11,707,348 \$46,274,546 \$221,074,546 \$11,2	\$202,244 \$10,112 \$0 \$112,582 \$1,576,949 \$1,576,949 \$0 \$0 \$2,013,390 \$2,013,390 \$466,788 \$109,274 \$576,063 \$0 \$0 \$0 \$0 \$2,02,244 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$728,413 \$21,19,228 \$89,159 \$77,560 \$1,72,660 \$2,067,241 \$576,951 \$5,039,718 \$158,215 \$2,039,718 \$48,751,408 \$2,43,554,25 \$48,751,408 \$2,122,228 \$48,254,25 \$48,25	\$4,07,985 \$4,039,901 \$3,282,540 \$2,666,155 \$46,115,495 \$41,15,495 \$41,267,862 \$11,29,643 \$15,001,406 \$33,337,934 \$15,001,406 \$33,337,934 \$15,001,406 \$33,337,934 \$16,07,985 \$34,	\$1,951,942 \$19,381,300 \$1,759,126 \$1,311,896 \$4,182,25 \$21,965,291 \$52,943,452 \$6,272,856 \$6,272,856 \$6,272,856 \$6,272,856 \$6,272,856 \$138,41,317 \$99,880,25 \$188,575,562 \$218,637,844 \$1,951,944 \$1,9	\$2,010,516 \$23,289,211 \$1,966,677 \$2,492,000 \$5,522,549 \$216,677,401 \$55,102,411 \$77,549,027 \$55,588,454 \$11,19,691 \$73,791,786 \$73,791,786 \$150,749,532 \$150,749,542 \$150,749	\$6,421,188 \$627,055 \$1,816,077 \$1,254,111 \$5,937,136 \$34,196,861 \$18,81,106 \$18,81,106 \$18,81,106 \$19,385,39 \$16,825,572 \$36,210,374 \$2,20 \$6,242,181 \$627,033 \$5,537,135 \$6,253,25 \$6,253	\$5,213,975 \$260,496 \$352,0496 \$352,0496 \$352,0496 \$352,0496 \$553,000 \$5540,050,040 \$45,050,040 \$45,050,040 \$54,050,040 \$55,040,040 \$55,040,040 \$55,040,040 \$55,040,040 \$55,040	56.338,445 56.003,409 540,217 540,527 540,527 541,598,862 515,545,110 512,506,130 512,506,130 512,506,130 512,506,130 512,506,130 513,506,280 5131,629,527 5131,629,527 5131,629,527 5131,629,527 5131,629,527 5131,629,527 5131,629,527 5131,629,527 5131,629,527 5131,629,527 5131,629,527 5131,629,527 5131,629,527 51,761,761,629 540,723,737,77	\$6,730,77 \$131,000 \$11,350,01 \$11,350,01 \$11,350,01 \$15,14350,01 \$15,14350,01 \$15,14350,01 \$15,145,02 \$15,145,	110 S 10	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lifetime Anoded Windesale Electric Energy and Anolliany Costs Lifetime Anoded Windesale Electric Capitaly Costs Lifetime Anoded Windesale Rathral Gas Costs Lifetime Anoded Windesale Rathral Gas Costs Lifetime Anoded Electric Electric Lifetime Capital Electric Electric Lifetime Anoded Electric Electric Lifetime Anoded Electric Costs Lifetime Anoded Electric Electric Lifetime Anoded Electric Lifetime Anoded Close and Swipp Electric Anoded Electric Lifetime Anoded Close Lifetime Anoded Electric Electric Electric Lifetime Anoded Electric Lifetime Anoded Electric Electric Electric Lifetime Anoded Electric Electric Electric Lifetime Anoded Windesale Electric Capitaly Costs Lifetime Anoded Electric Transmission Costs Lifetime Anoded Electric Electric Electric Electric Lifetime Anoded Windesale Electric Capitaly Costs Lifetime Anoded Electric Transmission Costs Lifetime Anoded Electric Elec	Total Costs Benefit-Cost Ratio	\$13,584,419 \$31,616,009 \$7,996,898 \$8,28,55,795 \$22,336,193 \$123,246,193 \$123,246,193 \$150,327,444 \$150,327,444 \$150,327,444 \$150,327,444 \$150,327,444 \$150,327,444 \$151,334,37,532 \$460,437,532 \$460,437,532 \$540,437,532 \$540,437,532 \$540,437,532 \$550,505,505,505,505,505,505,505,505,505	\$47,924,766 \$49,041,617 \$24,781,869 \$49,024,600 \$81,196,270 \$81,196,270 \$806,969,745 \$882,064,010 \$0 \$0 \$1,195,331,278 \$215,556,124 \$215,566,124 \$21	\$1,12,013 \$11,350,018 \$951,113 \$686,237 \$2,108,021 \$9,969,417 \$3,909,427 \$43,763,092 \$2,795,327 \$1,900,822 \$72,766 \$113,226,654 \$95,121,823 \$125,068,408 \$220,190,231 \$5,712,62	562.21.199 513.61.56 53.361.56 53.796.501 510.562.481 557.965.501 510.562.481 557.965.501 510.562.481 557.965.501 510.562.481 557.300.214 557.300.214 557.300.214 557.300.214 557.300.214 557.300.216	\$10,39,548 \$64,014,413 \$11,00,539 \$14,127,188 \$23,789,371 \$52,399,571 \$404,110,539 \$150,496,542 \$0 \$150,496,542 \$0 \$150,496,542 \$0 \$150,496,542 \$0 \$25,720,560 \$35,800,055 \$324,226,68 \$151,151,169 \$10,339,548 \$41,442,339 \$11,00,539 \$41,442,339 \$11,466,307 \$41,442,339 \$11,466,307 \$404,110,559	915.931,751 54.591,82,1 59.153,303 59.153,303 545.686,804 545.686,804 545.686,804 547,822,87 507 53115,782,237 50 535,585,146 5368,5146	\$11,251,228 \$25,434,900 \$4,465,016 \$7,522,567 \$11,195,14 \$14,195,14 \$14,195,14 \$14,195,14 \$14,195,14 \$14,195,14 \$14,195,14 \$14,195,14 \$11,197,14 \$46,194,534 \$211,1651,825 \$21,1651,825 \$24,459,40 \$4,465,016 \$4,465,016 \$4,475,41,91 \$26,790,251 \$26,790,251	\$200,244 \$10,112 \$111,582 \$1,526,949 \$112,582 \$1,526,949 \$0 \$0 \$2,013,930 \$2,013,930 \$466,783 \$109,274 \$576,663 \$576,663 \$0 \$10,112 \$967,607 \$559,342	\$718,412 \$2,19,228 \$89,159 \$77,500 \$132,669 \$2,067,341 \$576,951 \$5,039,718 \$43,355,429 \$43,420 \$43	\$4,07.985 \$34,039.901 \$3,383,546 \$2,666,150 \$46,115,499 \$116,140,315 \$41,277,862 \$11,739,631 \$11,739,631 \$15,001,405 \$313,327,345 \$186,127,164 \$331,327,345 \$224,635,850 \$4,407,980 \$34,40	\$1.951.941 \$1.93.81.00 \$1.759.126 \$1.311.880 \$4.182.25 \$2.1965.291 \$59.962.452 \$32.315.705 \$6.277.255 \$6.277.255 \$6.277.255 \$6.277.255 \$128.41.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.337 \$218.637.841.341 \$1.951.942 \$1.951.942 \$1.951.942 \$1.951.942 \$1.951.942 \$1.951.943 \$	\$2,00,516 \$23,289,211 \$23,289,211 \$24,92,000 \$3,322,391 \$23,675,401 \$55,302,391 \$77,549,027 \$55,589,455 \$11,19,691 \$75,598,455 \$11,19,691 \$122,534,823 \$75,957,796 \$150,749,582 \$150,749,58	\$6,442,182 \$6,442,182 \$6,27,055 \$1,816,078 \$1,254,111 \$5,937,130 \$51,080,055 \$34,196,865 \$18,81,166 \$18,81,165 \$19,815,390 \$16,225,575 \$36,210,974 \$56,258,255 \$627,055 \$56,242,182 \$627,055 \$55,937,130	\$5,213,975 \$260,496 \$355,255,300 \$45,557,206 \$4,050,610 \$4,559,276 \$20,077,147 \$2,0 \$4,100 \$4,100 \$4,500,410 \$5,213,975 \$5,213,975 \$5,213,975 \$5,213,975 \$5,213,975 \$5,213,975	56.338,445 56.003,369 540.217 545.958,676	\$6,730,77 \$1,330,01 \$961,11 \$9861,11 \$986,21 \$2,108,02 \$1,9786,21 \$1,9785,22 \$725,26 \$1,9785,22 \$1,908,27	110 S 10	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Winokesale Electric Energy and Ancillary Costs Uletime Avoided Winokesale Electric Energy and Ancillary Costs Uletime Avoided Winokesale Restrict English Uletime Rowided Electric English Uletime Avoided Electric Electric Electric Uletime Avoided Winokesale Volastility Costs Uletime Avoided Electric El	Total Costs Benefit-Cost Ratio	\$13,584.19 \$31,016.00 \$7,964.89 \$2,85.73 \$21,248.63 \$12,248.63 \$12,248.63 \$12,248.63 \$13,018.63 \$13	547,24,766 594,041,157 524,733,969 581,190,270 581,190,270 581,190,270 581,190,270 581,280,690 581,280,690 581,280,690 581,280,690 581,280,690 581,280,690 581,280,690 581,280,690 581,280,690 581,281,281,281,281,281,281,281,281,281,2	\$1,12,013 \$11,35,018 \$\$61,113 \$2,108,021 \$3,989,417 \$3,03,024,549 \$43,78,3,092 \$13,0324,549 \$13,226,654 \$13,226,65	562.22.1.59 513.61.980 513.61.980 517.995.61 510.56.4.481 540.187.92 51.175.144.702 595.200.034 595.200.034 595.200.034 595.31.71.71.60 524.315.131 53.142.66.323 53.142.6	\$10,39,548 \$10,10,539 \$14,127,188 \$13,100,539 \$14,127,188 \$23,789,371 \$404,110,559 \$15,0495,545 \$25,700,540 \$255,700,540 \$255,700,540 \$255,700,540 \$255,700,540 \$255,700,540 \$255,700,540 \$255,700,540 \$255,1151,149 \$11,100,539 \$11,100,5	925.931.751 \$4.931,821 \$9.153,902 \$9.153,902 \$45.958,904 \$45.958,904 \$178,229,707 \$315,738,253 \$69.399,000 \$22,385,145 \$0 \$22,385,145 \$120,644,261 \$388,531,181 \$120,644,261 \$5509,175,442 \$156,712,491 \$156,712,491 \$156,712,491 \$155,913,842 \$155,913,	\$11,251,228 \$15,434,902 \$4,465,016 \$7,527,557 \$11,419,514 \$74,306,442 \$160,132,279 \$00,325,129 \$00,32	\$200,244 \$10,112 \$11,12,862 \$1,12,869 \$1,12,869 \$1,12,869 \$1,12,869 \$0 \$1,12,12,869 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$728,413 \$21,19,229 \$89,159 \$77,569 \$2,067,241 \$77,569 \$2,067,241 \$57,693 \$1,393,718 \$158,215 \$2,393,718 \$48,751,408 \$2,43,355,429 \$3,395,979 \$48,751,408 \$2,195,229 \$3,250,250 \$3,250	\$4,07,985 \$34,039,901 \$3,282,540 \$2,666,155 \$46,115,495 \$41,15,495 \$41,267,862 \$11,29,634 \$586,992 \$15,001,406 \$383,314,697 \$224,655,850 \$34,07,985 \$34,07	\$1,951,942 \$1,759,176 \$1,759,176 \$1,111,896 \$41,832,52 \$51,943,452 \$59,944,452 \$59,944,452 \$59,944,452 \$51,951,941 \$99,860,252 \$5118,757,562 \$5118,757,562 \$5118,757,662 \$51	\$2,010,516 \$12,389,211 \$1,966,677 \$1,492,000 \$5,312,398 \$23,467,000,411 \$75,599,454 \$1,119,691	\$6,421,185 \$627,055 \$1,816,077 \$1,254,111 \$5,937,136 \$34,196,861 \$18,81,106 \$18,81,106 \$18,81,106 \$19,255,77 \$36,210,705 \$6,225,577 \$36,210,705 \$6,225,577 \$36,210,705 \$6,225,577 \$36,210,705 \$6,225,251 \$6,225,2	\$5,213,975 \$260,496 \$260,496 \$35,250,260 \$31,250,250 \$	56338,445 56023,387 540217 540217 54159,862 5155,545107 51250,120	\$6,730,77 \$1,312,00 \$1,1350,01 \$1,1350,01 \$966,11 \$566,23 \$1,000,02 \$1,000,0	111 S 9 11 S 9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Wholesale Electric Energy and Avoillary Costs Uletime Avoided Wholesale Electric Energy and Avoillary Costs Uletime Avoided Wholesale Electric Energy Uletime Avoided Wholesale Valenting Electric Uletime Avoided Wholesale Valentify Costs Uletime Avoided Shoulsale Valentify Costs Uletime Avoided Wholesale Valentify Costs Uletime Avoided Wholesale Valentify Costs Uletime Avoided Valentify Electric Energy and Avoillary Costs Uletime Avoided Valentify Electric Energy and Avoillary Costs Uletime Avoided Wholesale Electric Energy Electric Uletime Avoided Valentify Electric Energy Electric Uletime Avoided Electric Electric Low-income Adder Uletime Electric	Total Costs Benefit-Cost Ratio	\$13,584,419 \$31,616,009 \$7,996,898 \$8,28,55,795 \$22,336,193 \$123,246,193 \$123,246,193 \$150,327,444 \$150,327,444 \$150,327,444 \$150,327,444 \$150,327,444 \$150,327,444 \$151,334,37,532 \$460,437,532 \$460,437,532 \$540,437,532 \$540,437,532 \$540,437,532 \$550,505,505,505,505,505,505,505,505,505	\$47,924,766 \$49,041,157 \$24,733,869 \$49,024,660 \$306,969,745 \$882,036,091 \$200,940,104 \$7,701,193 \$7,701,193 \$200,940,104 \$1,950,104	\$1.12.013 \$1.15.00,18 \$961.113 \$686.237 \$2,108.021 \$3.959.41,73 \$10.924.549 \$43,763.905 \$43,763.905 \$119,216,664 \$752,566 \$119,216,664 \$595,111,82,013 \$56,730,779 \$1,312,013 \$56,730,779 \$56,7	562.221.198 513.631.61.980 513.651.980 517.995.601 510.634.483 54-40.187.795 51.175.144.702 51.175.144.702 51.175.144.702 51.175.144.702 51.175.144.702 51.175.144.702 51.175.144.702 51.175.144.702 51.175.144.702 51.175.144.702 51.175.147.1502 51.175.1502 51.175.1502 51.175.1502 51.175.1502 51.175.1502 51.175.1502 51.175.1502 51.175.	\$10,39,548 \$64,014,413 \$11,00,539 \$14,127,188 \$23,789,371 \$52,399,571 \$404,110,539 \$150,496,542 \$0 \$150,496,542 \$0 \$150,496,542 \$0 \$150,496,542 \$0 \$25,720,560 \$35,800,055 \$324,226,68 \$151,151,169 \$10,339,548 \$41,442,339 \$11,00,539 \$41,442,339 \$11,466,307 \$41,442,339 \$11,466,307 \$404,110,559	925.931,751 54.931,821 59.153,203 54.586,824 59.153,203 54.5865,804 5172,225,707 510,732,733 500,939,000 50 50 525.686,146 523.885,31,181 512.0,644,261 512.0,644,261 512.0,644,261 515.0,715,449 515.59,175,342 515.59,175,342 515.59,182 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846 535.584,846	\$11,251,228 \$15,434,901 \$4,465,016 \$7,522,567 \$11,195,514 \$74,304,426 \$160,128,279 \$60,425,518 \$00 \$422,745,546 \$117,07,368 \$211,577,368 \$211,577,368 \$211,577,368 \$211,577,368 \$11,277,368 \$11,277,368 \$11,277,368 \$11,277,368	\$200,244 \$10,112 \$11,112,882 \$1,526,944 \$0 \$12,044 \$0 \$0 \$2,012,930 \$100,274 \$706,063	\$728,413 \$21,19,228 \$89,159 \$77,560 \$1,72,660 \$2,067,241 \$576,951 \$5,039,718 \$158,215 \$2,039,718 \$48,751,408 \$2,43,554,25 \$48,751,408 \$2,122,228 \$48,254,25 \$48,25	\$4,07,985 \$34,039,901 \$3,383,540 \$2,666,15,98 \$8,090,166 \$46,155,496 \$116,140,315 \$116,140,315 \$36,987 \$13,09,397 \$13,397,984 \$13,397,984 \$13,397,984 \$13,397,984 \$13,397,984 \$13,407,985 \$224,655,800 \$23,409,990 \$3,383,540 \$15,627,387 \$24,697,985 \$24,697,985 \$15,627,387	\$1,951,942 \$1,791,126 \$1,791,126 \$1,311,869 \$4,182,25 \$21,965,291 \$55,994,452 \$12,215,70 \$6,272,856 \$6,272,856 \$118,475,215 \$118,475,814 \$1,951,944 \$1,951	\$2,010,516 \$23,289,211 \$1,966,677 \$2,492,000 \$5,522,549 \$216,677,401 \$55,102,411 \$77,549,027 \$55,588,454 \$11,19,691 \$73,799,780 \$73,791,786 \$150,749,582 \$150,749	\$6,421,188 \$627,055 \$1,816,077 \$1,254,111 \$5,937,136 \$34,196,861 \$18,81,106 \$18,81,106 \$18,81,106 \$19,385,39 \$16,825,572 \$36,210,374 \$2,20 \$6,242,181 \$627,033 \$5,537,135 \$6,253,25 \$6,253	\$5,213,975 \$260,496 \$355,255,300 \$45,557,206 \$4,050,610 \$4,559,276 \$20,077,147 \$2,0 \$4,100 \$4,100 \$4,500,410 \$5,213,975 \$5,213,975 \$5,213,975 \$5,213,975 \$5,213,975 \$5,213,975	56.338,445 56.003,49 540,217 540,217 541,598,802 515,546,101 512,506,102 512,506,103 512,506,103 512,506,103 512,506,103 512,506,103 513,5	\$6,730,77 \$1,312,00 \$1,1350,01 \$1,1350,01 \$966,11 \$566,23 \$1,000,02 \$1,000,0	110 S 10	0 0 0 0 522
Uletime Avoided Wholesale Electric Coregy and Avoillary Costs Uletime Avoided Wholesale Electric Copies (Costs) Uletime Avoided Wholesale Electric Copies Uletime Avoided Wholesale Router (See See See See See See See See See Se	Total Costs Benefit-Cost Ratio	\$13,584.19 \$31,016.00 \$7,964.89 \$2,85.73 \$21,248.63 \$12,248.63 \$12,248.63 \$12,248.63 \$13,018.63 \$13	547,24,766 594,041,157 524,733,969 581,190,270 581,190,270 581,190,270 581,190,270 581,280,690 581,280,690 581,280,690 581,280,690 581,280,690 581,280,690 581,280,690 581,280,690 581,280,690 581,281,281,281,281,281,281,281,281,281,2	\$1.12,013 \$11.250,018 \$961.113 \$686.237 \$2,108,021 \$39,969,417 \$30,924,549 \$43,763,092 \$27,95,277 \$1900,822 \$757,566 \$112,266,540 \$520,190,231 \$6,730,779 \$1,310,032 \$5,130,032	562.22.1.59 513.61.980 513.61.980 517.995.61 510.56.4.481 540.187.92 51.175.144.702 595.200.034 595.200.034 595.200.034 595.31.71.71.60 524.315.131 53.142.66.323 53.142.6	\$10,39,548 \$10,10,539 \$14,127,188 \$13,100,539 \$14,127,188 \$23,789,371 \$404,110,559 \$15,0495,545 \$25,700,540 \$255,700,540 \$255,700,540 \$255,700,540 \$255,700,540 \$255,700,540 \$255,700,540 \$255,700,540 \$255,1151,149 \$11,100,539 \$11,100,5	925.931.751 \$4.931,821 \$9.153,902 \$9.153,902 \$45.958,904 \$45.958,904 \$178,229,707 \$315,738,253 \$69.399,000 \$22,385,145 \$0 \$22,385,145 \$120,644,261 \$388,531,181 \$120,644,261 \$5509,175,442 \$156,712,491 \$156,712,491 \$156,712,491 \$155,913,842 \$155,913,	\$11,251,228 \$25,434,900 \$4,465,016 \$7,327,657 \$11,419,514 \$162,127,279 \$102,127,279 \$11,707,408 \$212,773,408 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,418 \$221,051,952 \$11,477,478 \$11,478 \$11,477,478 \$11,477,478 \$11,477,478 \$11,477,478 \$11,4	\$200,244 \$10,112 \$11,12,862 \$1,12,869 \$1,12,869 \$1,12,869 \$1,12,869 \$0 \$1,12,12,869 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$728,413 \$21,19,229 \$89,159 \$77,569 \$2,067,241 \$77,569 \$2,067,241 \$57,693 \$1,393,718 \$158,215 \$2,393,718 \$48,751,408 \$2,43,355,429 \$3,395,979 \$48,751,408 \$2,195,229 \$3,250,250 \$3,250	\$4,07,985 \$34,039,901 \$3,282,540 \$2,666,155 \$46,115,495 \$41,15,495 \$41,267,862 \$11,29,634 \$586,992 \$15,001,406 \$383,314,697 \$224,655,850 \$34,07,985 \$34,07	\$1,951,942 \$1,759,176 \$1,759,176 \$1,111,896 \$41,832,52 \$51,943,452 \$59,944,452 \$59,944,452 \$59,944,452 \$51,951,941 \$99,860,252 \$5118,757,562 \$5118,757,562 \$5118,757,662 \$51	\$2,010,516 \$12,389,211 \$1,966,677 \$1,492,000 \$5,312,398 \$23,467,000,411 \$75,599,454 \$1,119,691	\$6,421,185 \$627,055 \$1,816,077 \$1,254,111 \$5,937,136 \$34,196,861 \$18,81,106 \$18,81,106 \$18,81,106 \$19,255,77 \$36,210,705 \$6,225,577 \$36,210,705 \$6,225,577 \$36,210,705 \$6,225,577 \$36,210,705 \$6,225,251 \$6,225,2	\$5,213,975 \$260,496 \$260,496 \$35,250,260 \$31,250,250 \$	56,338,445 56,003,349 540,217 550,576 515,546,110 516,546,110 512,506,130 512,266,136 512,506,130 512,	\$6,730,77.5 \$6,730,77.5 \$1,1350,01.5 \$1,1350	110 S 10	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Wholesale Electric Energy and Ancillary Costs Uletime Avoided Wholesale Electric Energy and Ancillary Costs Uletime Avoided Wholesale Electric Energy Uletime Avoided Electric Electric Electric Uletime Avoided Electric El	Total Costs Benefit-Cost Ratio	513.594.19 52.104.100 57.906.698 57.906.698 52.255.79 52.235.10 57.906.898 57.006.100 57.908.341 57.908.3	547,24,766 547,24,765 549,24,640 549,24,640 541,924,64	\$1.12.013 \$11.250.018 \$961.113 \$686.237 \$2.108.021 \$3.996.94.17 \$3.092.45.99 \$43,763.092 \$2.795.27 \$1.900.822 \$757.566 \$112.266,648 \$520.190.231 \$6,730.779 \$1.310.032 \$56,730.779 \$1.310.033 \$56,730.79 \$1.310.038 \$1.310.038 \$1.310.0	502.221.198 513.631.786 513.631.986 53.631.9	\$10,39,548 \$64,014,413 \$11,100,539 \$14,127,183 \$22,789,371 \$52,099,647 \$404,110,559 \$10,599,500 \$10,5	925.931.751 54.593.827 59.153.903 59.153.903 59.153.903 59.153.903 59.153.903 59.153.903 59.000 522.3585.145 50 50 58.565.939.000 522.3585.145 50 50 50 50 50 50 50 50 50 50 50 50 50	\$11,251,228 \$25,434,900 \$4,465,016 \$7,327,657 \$11,419,514 \$162,187,279 \$102,187,279 \$102,187,279 \$11,707,363 \$421,774,546 \$221,051,952 \$11,277,343 \$421,774,546 \$11,271,274,546 \$11,275,128 \$11,275,12	\$200,244 \$10,112 \$11,12,882 \$1,516,984 \$0,516,084 \$160,274 \$516,063 \$0,50 \$0,5	5728,413 571,912,729 589,159 589,159 577,500 5122,669 521,067,341 5576,951 558,215 50 59,727,184 543,355,429 53,385,979 548,751,408 62,215 541,61,010 5718,413 52,115,229 580,159 580,	5.4.07.985 5.34.039.901 53.383.540 58.090.166 58.090.166 546.115.498 5116.140.315 541.267.862 511.79.634 5186.121.166 538.93.93 518.512.11.66 538.53.83.53.63 538.53.83 538.53.83 538.53.83 538.53.83 538.53.83 538.53.83 538.53.83 538.5	\$1951,941 \$19,981,000 \$1,759,176 \$1,311,989 \$41,881,259 \$21,965,291 \$62,772,859 \$61,772,859 \$5,984,745 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,162 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,562 \$118,757,162 \$118,757,562 \$118,7	\$2,010,516 \$12,289,211 \$1,966,677 \$1,492,000 \$5,322,398 \$23,467,00,411 \$77,549,027 \$5,598,454 \$11,19,691 \$0 \$12,253,432 \$1,19,691 \$1,196,691 \$1,402,038 \$1,402,038 \$1,402,038 \$1,196,677 \$3,77,977 \$1,502,038 \$1,196,677 \$1,502,038 \$1,196,677 \$1,502,038 \$1,196,677 \$1,502,038 \$1,196,677 \$1,502,038 \$1,	\$6,421,285 \$6,421,285 \$6,421,285 \$1,816,075 \$1,254,111 \$21,008,059 \$3,811,06 \$1,881,166 \$18,811,06 \$18,81	\$5,213,975 \$20,499 \$20,499 \$3,556,766 \$45,557,506 \$5,557,557,506 \$5,557,973 \$5,507,999 \$5,507,997 \$5,507 \$5,507,997 \$5,507,997 \$5,507,997 \$5,507,997 \$5,507,997 \$5,507,997 \$5,507,997 \$5,507,997 \$5,507,997 \$5,507,997 \$5,507,997 \$5,507	56.338,445 56.003,367 540.217 540.578 540.578 516.546.110 516.546.110 512.506.137 512.506.137 512.506.137 512.506.137 511.781.870	\$6,730,77 \$1,312,00 \$1,1350,01 \$1,1350,01 \$966,11,1350,01 \$666,23 \$1,000,02	111 9 111 9 111 11 11 11 11 11 11 11 11	0 0 0 0 5: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Uletime Avoided Wholesale Electric Greegy and Ancillary Costs Uletime Avoided Wholesale Electric Greegy and Ancillary Costs Uletime Avoided Wholesale Electric Greegy Uletime Avoided Wholesale Electric Greegy Uletime Avoided Electric Electric Greegy Uletime Avoided Electric Greegy and Ancillary Costs Uletime Avoided Wholesale Electric Greegy and Ancillary Costs Uletime Avoided Electric Transmission Costs Uletime Electric Adder User Electric Adder User Electric Adder User Electric Adder User Electric Adder Uletime Electric Transmission Costs	Total Costs Benefit-Cost Ratio	\$13,584.19 \$13,164.09 \$7,966.59 \$2,825.73 \$23,385.79 \$23,385.79 \$23,385.79 \$23,385.79 \$23,385.79 \$23,385.79 \$23,589.	547,24,766 594,041,157 524,733,969 549,024,600 581,190,270 581,190,270 582,006,6091 587,011,193 50 52,280,540,104 567,011,193 50 52,215,556,124 531,553,227 547,73,269 557,034,73,269 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369 557,034,73,369	\$1,12,013 \$11,15,013 \$61,113 \$686,237 \$2,108,021 \$3,969,417 \$10,924,549 \$43,763,092 \$43,763,092 \$11,926,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$113,216,664 \$13,024,564 \$13,034,564 \$1	562.21.198 513.61.926 513.61.926 513.61.926 515.62.64.483 540.187.93 511.71.44.702 511.71.44.702 595.100.034 595.100.034 595.100.034 595.100.034 51.91.71.66 524.11.71.60 531.92.533.57 541.71.71.60 541.71.76.60 51.91.76.76 51.91.76.76 51.91.76.76 51.91.76.76 51.91.76.76 51.91.76.76 51.91.76.76	\$10,39,548 \$11,100,539 \$14,127,188 \$23,789,371 \$404,110,559 \$151,096,545 \$151,720,865 \$0 \$151,720,865 \$0 \$151,720,865 \$255,720,540 \$255,720,540 \$151,151,169 \$151,165 \$	\$25,931,751 \$4,931,847 \$9,153,903 \$51,588,904 \$45,888,904 \$3178,228,707 \$315,788,253 \$60,399,000 \$23,585,145 \$0 \$56,389,501 \$310,044,265 \$388,331,181 \$110,044,265 \$318,331,181 \$110,044,265 \$318,331,181 \$111,553,283 \$4,591,749 \$111,553,803 \$64,677,858 \$111,553,803 \$0 \$713,446,907 \$0 \$111,553,803 \$0 \$111,553,803 \$0 \$23,855,145 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$11,251,228 \$25,434,900 \$4,465,016 \$7,327,657 \$11,419,514 \$162,112,729 \$162,112,729 \$11,707,468 \$11,707,468 \$212,775,468 \$221,051,952 \$11,277,418 \$221,051,952 \$11,277,418 \$221,051,952 \$11,277,418 \$221,051,952 \$11,277,418 \$221,051,952 \$11,277,418 \$221,051,952 \$11,277,418 \$221,051,952 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418 \$11,277,418	\$200,244 \$10,112 \$0,00 \$1112,882 \$1,516,948 \$1,516,948 \$1,516,948 \$1,516,948 \$1,516,948 \$1,516,948 \$1,516,948 \$1,516,948 \$1,516,748 \$1,516,748 \$1,516,748 \$1,516,748 \$1,516,748 \$1,516,748 \$1,516,748 \$1,516,748 \$1,516,748 \$1,516,748 \$1,516,748 \$1,516,748 \$2,516,748 \$2,516,748 \$3,516,748	\$728,413 \$2,192,228 \$89,159 \$77,500 \$122,669 \$2,067,341 \$576,951 \$5,097,341 \$576,951 \$6,097,37,184 \$45,315,425 \$45,315,425 \$45,315,425 \$45,315,425 \$45,315,425 \$45,315,425 \$45,315,425 \$45,315,425 \$45,315,425 \$45,315,425 \$45,315,425 \$45,315,425 \$45,182,425 \$45	\$4,07,985 \$34,039,901 \$3,383,540 \$8,090,166 \$8,090,166 \$46,115,496 \$116,140,315 \$11,67,140,315 \$11,27,96,24 \$11,27,96,24 \$11,27,96,24 \$11,27,96,24 \$13,32,7,924 \$13,32,7,924 \$13,32,7,924 \$13,021,407,985 \$224,653,830 \$23,409,990,112 \$15,602,507 \$15	\$1,951,941 \$19,381,300 \$1,759,126 \$1,311,889 \$41,882,52 \$21,965,291 \$59,943,450 \$59,943,450 \$62,72,856 \$62,72,856 \$518,647,851 \$518,647,851 \$518,647,851 \$118,757,561 \$118,757,577,577,577,577,577,577,577,577,57	\$2,010,516 \$1,268,677 \$1,492,000 \$5,322,398 \$23,675,400 \$65,100,411 \$775,990,27 \$1,100,411 \$775,990,27 \$1,110,411 \$775,990,27 \$1,110,411 \$1,110	\$6,421,285 \$627,055 \$1,816,075 \$1,254,111 \$5,937,130 \$21,008,056 \$34,198,861 \$1,881,164 \$18,813 \$19,385,397 \$36,210,375 \$36,210,375 \$6,258,253 \$6,258,253 \$6,27,055 \$5,421,285 \$1,881,164 \$1,881,	\$5,21,975 \$20,496 \$200,496 \$3,506,266 \$3,506,266 \$45,507,506 \$5,177 \$5,079 \$40,500,610 \$4,507,210 \$5,11,977 \$20,071,477 \$5,21,977 \$5,21,977 \$5,21,977 \$5,21,977 \$5,21,977 \$5,21,977 \$5,21,977 \$5,21,977 \$5,21,977 \$5,21,977	56.338,445 56.003,40 540.217 550.05,70 510.546.117 51.959.627 51.959.627 51.959.627 51.959.627 51.959.627 51.959.637 51.959.637 51.959.637 51.959.638	\$6,730,77 \$1,312,00 \$1,1350,01 \$1,1350,01 \$961,11,350,01 \$9,968,23 \$1,968,23 \$1,969,24	111 9 111 9 111 11 9 11 11 11 11 11 11 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

# 6f. Appendix F: Quantitative Performance Indicators

					LMI and OBC Net	Small Business Net		
	Net Annual Energy		<b>Net Annual Demand</b>	Net Lifetime Energy	Lifetime Energy	Lifetime Energy	Cost to Achieve	Net Annuual Demand
	Savings (Source	Net Annual Demand	Savings (Peak-day	Savings (Source	Savings (Source	Savings (Source	(\$/ Lifetime Source	Savings (Electric and
	MMBtu)	Savings (Peak MW)	therm)	MMBtu)	MMBtu)	MMBtu)	MMBtu)	Gas Wtd)
Program Year 4	2,906,890	43	47,794	24,248,621	1,735,788	7,593,129	\$ 13.29	24,795
Program Year 5	6,817,407	96	88,487	62,264,254	5,876,516	15,964,606	\$ 12.10	46,566
Program Year 6	6,744,683	91	90,517	63,333,037	6,858,784	13,971,449	\$ 13.00	49,008
Portfolio Total	16,468,979	229	226,798	149,845,911	14,471,088	37,529,184	\$ 12.67	120,369

<sup>\*</sup>QPIs based only on lead fuel and include only energy efficiency

<sup>\*</sup>Legacy savings included in QPI savings, but legacy costs not included because they are accounted for in prior Triennia

# 6g. Appendix G: Additional Utility-Led Initiatives

Building Decarbonization Metrics												
		Site and source energy savings by fuel (MMBtu)										
	Elect	ric	Natural	Gas	Fuel (	Dil	Propai	ne				
	Site	Source	Site	Source	Site	Source	Site	Source				
Program Year 4	(11,308)	(27,930)	17,200	18,060	28,486	28,771	14,345	14,488				
Program Year 5	(30,393)	(74,311)	49,941	52,438	73,225	73,958	36,913	37,282				
Program Year 6	(30,869)	(74,702)	66,430	69,751	64,073	64,714	32,312	32,635				
Savings Beyond PY6	(9,244)	(22,139)	23,631	24,813	16,387	16,551	8,263	8,346				
Total	(81,813)	(199,082)	157,202	165,062	182,171	183,993	91,833	92,751				
			Site and sou	ce lifetime ene	rgy savings by	fuel (MMBtu)						
	Ele	ctric	Natur	al Gas	Fue	el Oil	Prop	ane				
	Site	Source	Site	Source	Site	Source	Site	Source				
Program Year 4	(168,245)	(384,735	) 230,080	241,584	430,226	434,528	216,607	218,773				
Program Year 5	(453,815)	(1,026,023	) 680,181	714,190	1,110,543	1,121,649	559,770	565,368				
Program Year 6	(458,263)	(1,024,306	897,542	942,419	975,290	985,043	491,821	496,740				
Savings Beyond PY6	(138,503)	(306,171	) 339,670	356,653	249,506	252,001	125,811	127,069				
Total	(1,218,825)	(2,741,236	) 2,147,472	2,254,845	2,765,565	2,793,221	1,394,010	1,407,950				

	Site and source annual emissions by fuel (CO2e MT)  Electric Natural Gas Fuel Oil Propane									
	Site	Source	Site	Source	Site	Source	Site	Source		
Program Year 4	(572)	(1,413)	910	956	2,112	2,133	902	911		
Program Year 5	(1,520)	(3,717)	2,642	2,775	5,429	5,483	2,321	2,344		
Program Year 6	(1,535)	(3,714)	3,515	3,691	4,750	4,798	2,032	2,052		
Savings Beyond PY6	(457)	(1,094)	1,250	1,313	1,215	1,227	520	525		
Total	(4,084)	(9,938)	8,318	8,734	13,506	13,641	5,775	5,832		
			Site and sou	urce lifetime en	nissions by fuel	(CO2e MT)				
	Elec	tric	Natur	al Gas	Fuel	Oil	Prop	pane		
	Site	Source	Site	Source	Site	Source	Site	Source		
Program Year 4	(7,976)	(18,242)	12,174	12,783	31,897	32,216	13,621	13,757		
Program Year 5	(21,298)	(48,160)	35,989	37,789	82,335	83,159	35,199	35,551		
Program Year 6	(21,288)	(47,591)	47,490	49,865	72,308	73,031	30,927	31,236		
Savings Beyond PY6	(6,368)	(14,080)	17,972	18,871	18,498	18,683	7,911	7,990		
Total	(56,931)	(128,074)	113,626	119,308	205,038	207,089	87,658	88,534		

	Net annual peak demand savings by fuel (electricity an natural gas only) (peak MW or peak-day therm)								
	Electric Natural Gas		Fuel Oil	Propane					
Program Year 4	2.1	2,824	N/A	N/A					
Program Year 5	5.9	8,735		N/A					
Program Year 6	5.8	9,168	-	N/A					
Savings Beyond PY6	2.1	4,958		N/A					
Total	16.0	25,685		N/A					
	CO2	emissions imp	acts by fuel (CO2	e MT)					
	Electric	Natural Ga	s Fuel Oil	Propane					
Program Year 4	(18,242	2) 12,78	3 32,216	13,757					
Program Year 5	(48,160	37,78	9 83,159	35,551					
Program Year 6	(47,591	.) 49,86	5 73,031	31,236					
Savings Beyond PY6	(14,080	)) 18,87	1 18,683	7,990					
Total	(128,074	119,30	8 207,089	88,534					

	Net CO2 emi impacts acros (CO2e M	ss fuels IT)	of CO the EU of t	ized cost per me 2e (costs leveliz IL or AUL, as app he measure or p ed by lifetime ne impacts)	ed over ropriate, roject	distrik contract	mber of outors and ors engaged e program		
	All Fuel (sum of pri column	ior 4							
Program Year 4		40,513	\$		652	*See No			
Program Year 5	•	108,339	\$		705	*See No			
Program Year 6		106,540	\$		956	*See No			
Savings Beyond PY6		31,465	\$		546	*See No			
Total		286,857	\$		773	*See No	ote		
	Number of pro	gram part		s and installation: MI	s, overall i	and for	Numbe	_	ographic location of llations
	Program P	articipant	s	Insta	llations		Number Installati		Geographic Location of Installations
	Overall	LMI Cust	omers	Overall	LMI Cus	tomers			
Program Year 4	2,325		478	2,325		478		2,325	**See Note
Program Year 5	6,517		1,085	6,517		1,085		6,517	**See Note
Program Year 6	6,274		839	6,274		839		6,274	**See Note
Savings Beyond PY6	2,638		212	2,638		212		2,638	**See Note
Total	17,755		2,613	17,755		2,613		17,755	**See Note

<sup>\*</sup>PSE&G anticipates working with a variety of distributors and contractors in the implementation of the Building Decarbonization and will be able to provide more details after program launch

<sup>\*\*</sup>All installations will be within PSE&G's service territory; precise locations will depend on customer demand

**Demand Response Metrics** 

Demand Response 1	Victires									d (kWhor CO2		
	(\$/\$	ars spent enrolled p articipan each prop	per\$ s t) by s	pent		Dollars spent enrolled (\$/k egment for ea progr	W) b	y each	proposed p utility shall, program desi specific cal	reent) for each rogram. The based on the ign, define the loulation to ensity impact;	Ratio of number responses to cor over number of co	trol requests
	Res	idential		mercial & fustrial	-1	Residential		nmercial & dustrial	Residential	Commercial & Industrial	Residential	Commercial & Industrial
Program Year 4	S	43	\$	139	\$	171	\$	111	117,495	1,872	70%	70%
Program Year 5	\$	37	\$	130	S	147	\$	104	284,624	9,240	70%	70%
Program Year 6	\$	31	\$	113	\$	123	\$	91	366,022	18,596	70%	70%
Total	Ś	35	\$	120	\$	139	\$	96	768,141	29,707	70%	70%

# 6h. Appendix H: Incentive Ranges

Continued on the next page.

	Residen	tial Sector Prescriptive Incentives	(not including repay	ment plans)	
Program	Measure <sup>1</sup>	Rebate Up To Value (\$) GDC/EDC Consensus Rebate Strategy <sup>2</sup>	Unit Basis	Multifamily Income-Eligible Rebate Up To Value (\$)	Existing Up To Value (\$ Rebate Strategy
	LED Fixtures	\$20	Per unit	Same	\$10
	Occupancy Sensors	\$80	Per unit	Same	\$7
	LED Holiday Lights	\$5	Per unit	Same	\$5
	Ceiling Fans	\$35	Per unit	Same	\$35
	LED Table/Desk Lamps	\$15	Per unit	Same	\$15
	Clothes Washer	\$200	Per unit	Same	\$100
	Electric Clothes Dryer	\$500	Per unit	Same	\$300
	Refrigerator	\$125	Per unit	Same	\$100
	Freezers	\$100	Per unit	Same	\$75
	Dishwasher	\$100	Per unit	Same	\$25
	Induction Cooktop Stove	\$150	Per unit	Same	\$25
	Air Purifier / Cleaner	\$75	Per unit	Same	\$50
	Room A/C Unit	\$60	Per unit	Same	\$30
	Dehumidifier	\$50	Per unit	Same	\$35
	Heat Pump Water Heater	\$2,500	Per unit	Up to a 50% incentive adder	\$1,000
	Smart Thermostats <sup>3</sup>	\$150	Per unit	Same	\$125
	Pool Pump	\$500	Per unit	Same	\$500
	Sound Bars	\$25	Per unit	Same	\$20
	Water Cooler	\$30	Per unit	Same	\$25
	Electric Vehicle Charger	\$80	Per unit	Same	\$50
	Monitors	\$25	Per unit	Same	\$25
	Computers	\$25	Per unit	Same	\$25
-cc :	Imaging	\$30	Per unit	Same	\$25
Efficient Products -	Smart Strip Plug Outlets	\$80	Per unit	Same	\$40
Electric	TVs	\$150	Per unit	Same	\$50
	Smart Home	Up to full incremental cost	Per unit	Same	\$10
	Refrigerator Recycling	\$175	Per unit	Same	\$100
	Freezer Recycling	\$175	Per unit	Same	\$100
	Room A/C Unit Recycling	\$50	Per unit	Same	\$35
	Dehumidifier Recycling	\$175	Per unit	Same	\$35
	EE Kits	\$75	Per unit	Same	\$60
	Central Air Conditioning	\$1,000	Per unit	Up to 100% incentive adder	\$500
	Air Source Heat Pump	\$3,500	Per unit	Up to 50% adder	\$1,000
	Geothermal Heat Pump	\$10,000	Per unit	Up to 50% adder	\$1,500
	Air-to-Water Heat Pumps	\$1600 per 10,000 BTUh	Per 10,000 BTUh	Up to 50% adder	New
	Ductless Mini-Split Heat Pump	\$3,500	Per unit	Up to 50% adder	\$400
	Ductless Mini Split A/C	\$500	Per unit	up to \$5,000 per 10,000 BTUh	\$500
	Furnace Fans (ECM)	\$125	Per unit	up to \$750	\$100
	PTAC - CEE Tier 2 - Multi Family	\$75	Per unit	up to 50% adder	\$50
	PTHP - CEE Tier 2- Multi Family	\$250	Per unit	Up to 50% adder	\$125
	Integrated Controls for heat pumps	\$1,500	Per unit	Same	New
	Circulating Pump	\$600	Per unit	Same	\$75

	Posidontial	Sector Prescriptive Incentives	(not including renay	mont plane)	
Program	Measure <sup>1</sup>	Rebate Up To Value (\$) GDC/EDC Consensus Rebate Strategy <sup>2</sup>	Unit Basis	Multifamily Income-Eligible Rebate Up To Value (\$)	Existing Up To Value (\$ Rebate Strategy
	Thermostatic Shower Valves	\$20	Per unit	Same	New
	Bathroom Fan	\$50	Per unit	Same	\$20
	HVAC Maintenance	\$250	Per unit	up to \$400	\$100
	HVAC Quality Install	\$500	Per unit	Same	\$450
	Supplemental incentive for LMI customers (limited to qualifying HVAC equipment)	\$300	per qualifying unit		\$200
	Clothes Dryer Gas	\$300	Per Unit	Same	\$300
	Smart Thermostats <sup>3</sup>	\$150	Per thermostat	Same	\$125
	Reset controls for boiler	\$250	Per control	30% Incentive Adder	\$125
H	HVAC Maintenance	\$250	Per furnace	30% Incentive Adder	\$250
	HVAC Quality Install	\$500	Per unit	Same	\$450
	Other Gas Heat >+97%	\$5,000	per unit	Up to 100% incentive adder	new
	Gas Furnace - Tier 2 ( >= 97%)5	\$1,500	Per furnace	Up to 100% incentive adder	\$1,500
	Gas Furnace - Tier 1 ( >= 95%)5	\$1,000	Per furnace	Up to 100% incentive adder	\$1,000
	Gas Combi Heat Tier 2(AFUE >= to 97%)	\$1,750	Per boiler	Up to 100% incentive adder	\$1,750
	Gas Combi Heat Tier 1(AFUE >= or equal to 95%)	\$1,300	Per boiler	Up to 100% incentive adder	\$1,300
	Gas Boiler (90-95% AFUE)5	\$1,000	Per boiler	Up to 100% incentive adder	\$1,000
fficient Products -	Gas Boiler (>=95% AFUE)5	\$1,200	Per boiler	Up to 100% incentive adder	\$1,200
Natural Gas	Furnace Fans (ECM motor install)	\$125	Per ECM motor	Same	N/A
	Tankless WH, UEF>=0.87	\$1,000	Per Water Heater	Up to full cost of measure	\$1,000
	Indirect - Fired Storage Tank Water Heater* (must be attached to at least a 90% AFUE Boiler)	\$400	Per Water Heater	Up to 100% of incremental cost, plus a 100% adder	\$250
	Gas Storage Tank Water Heater - Power Vented >55 gallons,UEF>.85 Medium Draw Pattern UEF ≥ 0.78 High Draw Pattern UEF ≥ 0.80	\$750	Per Water Heater	Up to 100% of incremental cost, plus a 100% adder	\$750
	Gas Storage Tank Water Heater - Power Vented <55 gallons,UEF>.64 Medium Draw Pattern UEF ≥ 0.64 High Draw Pattern UEF ≥ 0.68	\$500	Per Water Heater	up to 100% of incremental cost, plus a 100% adder	\$500
	Supplemental incentive for LMI customers (limited to qualifying HVAC equipment)	\$300	per qualifying unit		\$200
	Marketplace Products other than thermostat	Up to 50% discount	Per Unit		Up to 50% discount

	Schedule IXX-CE1 -EE 11-2								
	Residential Sector Prescriptive Incentives (not including repayment plans)								
Program	Measure <sup>1</sup>	Rebate Up To Value (\$) GDC/EDC Consensus Rebate Strategy <sup>2</sup>	Unit Basis	Multifamily Income-Eligible Rebate Up To Value (\$)	Existing Up To Value (\$) Rebate Strategy				
evaluation results in the	e the right to include additional measures he industry to ensure we include a broad r s and avoid market disruption.								
cost. Tiered rebate an	offered equal to or less than the "Up To" v mounts may be offered within the incentive or characteristics (e.g. size, features, etc.)								
3 - The total rebate va	alue for a smart thermostat will be up to \$1	50 total between both fuel utilities.							

	Comp	rehensive Residential Programs (not including repaym	ent plans)
Program	Subprogram	Description	Existing Rebate Strategy
	Home Energy Assessment	assessment may include the direct installation of	Under Quick Home Energy Checkup, no cost to customer for walk through audit with no cost or low cost measures installed at time of audit
Whole Home <sup>1</sup>	Whole House Projects	Option B: Customer incentive will be based on the measures installed:  Weatherization Measures -	Under Home Performance with Energy Star, customer must have a minimum savings percentage of 5% based on modeled reduction of consumption.  Rebate is \$2,000 + \$200 for each percentage point of savings above 5%, up to \$6,000.
	Contractor Incentive	Up to \$500	Up to \$500
Income-Qualified	Income-Qualified Projects	protocol. The program will be designed to provide a greater level of benefits for low-income customers.	Under Moderate-Income Weatherization, no up-front cost to customer for BPI-certified audit with up to \$6,000 of direct install and weatherization measures and up to \$1,500 on health and safety expenses.  Under Low-Income (Comfort Partners) customers may receive no-cost energy efficiency measures and upgrades within project spending guideline and health and safety expense protocol.
Notes 1 - Multifamily Whole	e Building is shown on the Multifamily Sch	nedule.	

	Schedule KR-CEF-EE 11-2							
Program	Commercial Sector Prescriptive  Prescriptive Measure   Lighting (Retrofit & New Construction)	e Incentives (not including repayn Rebate Up To Value (\$) EDC/GDC Consensus Rebate Strategy <sup>2</sup>	ent plans) Unit Basis	Multifamily Income-Eligible Rebate Up to Value (\$)	Existing Up to Rebate Values 4			
	LED TROFFER LUMINAIRES							
		\$100 I	Per Fixture	Same	1			
	New LED linear recessed troffer/panel for 2x2, 1x4 and 2x4 luminaires  1 x 4 LED new luminaire rated	\$100	Per Fixture	Same	-			
	2 x 2 LED new luminaire	\$100			<b>-</b> \$100			
			Per Fixture	Same	-			
	2 x 4 LED new luminaire	\$100	Per Fixture	Same	l .			
	LED LINEAR AMBIENT/STAIRWELL LUMINAIRES	0.100	5 5: /		1 000 ( )			
	New LED linear ambient luminaire	\$100	Per Fixture	Same	\$30 per foot			
	LED direct/indirect linear ambient 2 ft. new luminaire	\$100	Per Fixture	Same	\$30 per foot			
	LED direct/indirect linear ambient 3 ft. new luminaire	\$100	Per Fixture	Same	\$30 per foot			
	LED direct/indirect linear ambient 4 ft. new luminaire	\$100	Per Fixture	Same	\$30 per foot			
	LED direct/indirect linear ambient 6 ft. new luminaire	\$100	Per Fixture	Same	\$30 per foot			
	LED direct/indirect linear ambient 8 ft. new luminaire	\$100	Per Fixture	Same	\$30 per foot			
	New LED stairwell luminaire	\$100	Per Fixture	Same	\$100			
	LED INTERIOR DIRECTIONAL LUMINAIRES							
	New LED wall wash luminaire	\$60	Per Fixture	Same	\$30 per head			
	New LED track/mono-point luminaire Directional Lighting Fixtures	\$60	Per Head	Same	\$40 per foot			
	LED DISPLAY CASE LUMINAIRES							
	New LED display case luminaire, including refrigerator/freezer display	\$60	Per Fixture	Same	\$50			
	Refrigerated Case Lighting 4'	\$80	Per Fixture	Same	\$50			
	Refrigerated Case Lighting 5'	\$80	Per Fixture	Same	\$50			
	Refrigerated Case Lighting 6'	\$80	Per Fixture	Same	\$50			
	LED HIGH/LOW BAY LUMINAIRES	+=-			1 111			
	New LED High Bay	\$450	Per Fixture	Same	\$600			
Energy	New LED Low Bay	\$200	Per Fixture	Same	\$600			
Solutions for	New LED luminaire - wall packs, flood lights, canopy, landscape	\$200	1 et i ixture	Same	Ψ000			
Businesses-	LED Architectural Flood and Spot Luminaries	-						
Prescriptive		-						
Measures	LED Bollard Fixtures	-						
	LED Fuel Pump Canopy	-						
	LED Landscape/Accent Flood and Spot Luminaires	\$450	Per Fixture	Same	\$600			
	LED Large Outdoor Pole/Arm-Mounted Area and Roadway Retrofit	4						
	LED Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	4						
	LED Outdoor Pole/Arm-Mounted Decorative Luminaires	4						
	LED Outdoor Wall-Mounted Area Luminaires	1						
	LED Parking Garage Luminaires				1			
	LED RETROFIT KITS							
	LED linear tube retrofit kit for 2x2, 1x4 and 2x4 fixtures	\$50	Per Fixture	Same	\$45			
	1 x 4 LED retrofit kit	\$50	Per Kit	Same	\$45			
	2 x 2 LED retrofit kit	\$50	Per Kit	Same	\$45			
	2 x 4 LED retrofit kit	\$50	Per Kit	Same	\$45			
	LED integrated retrofit kit for 2x2, 1x4 and 2x4 fixtures	\$50	Per Kit	Same				
	1 x 4 LED integrated retrofit kit	\$50	Per Kit	Same	\$120			
	2 x 2 LED integrated retrofit kit	\$50	Per Kit	Same	\$120			
	2 x 4 LED integrated retrofit kit	\$50	Per Kit	Same	\$120			
	LED retrofit kit for linear ambient luminaire	\$50	Per Fixture	Same				
	LED direct linear ambient 2 ft. retrofit kit	\$50	Per Fixture	Same	\$15 per foot			
	LED direct linear ambient 4 ft. retrofit kit	\$50	Per Fixture	Same	\$15 per foot			
	LED direct linear ambient 8 ft	\$50	Per Fixture	Same	\$15 per foot			
	LED Retrofit kit for Low Bay	\$150	Per Fixture	Same	\$100			
	LED Retrofit kit for High Bay	\$300	Per Fixture	Same	\$100			
	LED retrofit kit for exterior luminaire Covered below by E39 HID lamps.	\$60	Per Fixture	Same	\$100			
	LED retrofit kit for recessed downlight	\$60	Per Fixture	Same	\$100			
	LED ENERGY STAR FIXTURES	<b>430</b>	1 OI I IAIUI C	1 Junio	1 \$100			
	New LED ENERGY STAR LED fixture - recessed downlight, specialty, cove, under cabinet, vent fan,	<del>                                     </del>		1	1			
	ceiling mount, etc.	\$75	Per Fixture	Same	\$100			
	Energy Star LED Fixture - Accent Light Line Voltage	\$75	Per Fixture	Same	\$100			
		\$75 \$75		Same	\$100			
	Energy Star LED Fixture - Bath Vanity		Per Fixture					
	Energy Star LED Fixture - Ceiling Mount	\$75	Per Fixture	Same	\$100			
	Energy Star LED Fixture - Close to Ceiling Mount	\$75	Per Fixture	Same	\$100			
	Energy Star LED Fixture - Cove Mount	\$75	Per Fixture	Same	\$100			
	Energy Star LED Fixture - Decorative Pendant	\$75	Per Fixture	Same	\$100			
	Energy Star LED Fixture - Downlight Pendant	\$75	Per Fixture	Same	\$100			

			Lr-LL II-2		
	Commercial Sector Prescriptive	Incentives (not including repay	ment plans)		
Program	1 1000 ipute medadio	Rebate Up To Value (\$) EDC/GDC Consensus Rebate Strategy <sup>2</sup>	Unit Basis	Multifamily Income-Eligible Rebate Up to Value (\$)	Existing Up to Rebate Values 4
	Energy Star LED Fixture - Downlight Surface Mount	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Linear Strip	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Other	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Outdoor (Various Types)	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Outdoor Pole-Mount	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Pendant	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Recessed Downlight	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Security	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Solid State Retrofit	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Torchiere	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Under Cabinet	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Wall Sconces	\$75	Per Fixture	Same	\$100
	Energy Star LED Fixture - Wrapped Lens	\$75	Per Fixture	Same	\$100
	LED REPLACEMENT LAMPS	Ψ, σ	1 of 1 ixturo		<b>\$100</b>
	LED mogul-screw base replacement for HID lamps and new external driver		Per Lamp		
	HID Replacement Lamp >250W	\$150	Per Lamp	Same	-
	HID Replacement Lamp ≤125W	\$100	Per Lamp	Same	\$100
					¢100
	HID Replacement Lamp>125W - ≤250W	\$125	Per Lamp	Same	\$100
	Vertically-Mounted Lamps	\$10	Per Lamp	Same	\$80
	Hortizontally-Mounted Lamps	\$10	Per Lamp	Same	\$80
	2G11 Base Lamps	\$10	Per Lamp	Same	\$80
Energy	LED Replacement Lamps 2' - 8' (Type A, B, C, AB)	\$10	Per Lamp	Same	\$80
Solutions for	LED SIGN LIGHTING				
Businesses-	Exterior/Dusk-to-Dawn, Interior and 24 hour application Covered Above by DLC Exterior Fixture types	\$4	Per Watt Reduced	Same	\$2 per watt reduced
Prescriptive	OTHER LIGHTING				
Measures	Exit Signs	\$25	Per Unit	Same	\$23
oaoa.oo	Street/Roadway and Area Lighting	\$700	Per Fixture	Same	\$500
		0.44		NI/A	<b>#</b> 600
	Horticultural Lighting (Controlled Environment Agriculture) Covered above by DLC Exterior fixture types	\$44	Per Fixture	N/A	\$600
	Lighting Controls				
	NETWORKED LIGHTING CONTROLS				
	Networked lighting control system controlling efficient luminaires	- \$0.60 per watt	Per Watt Controlled	Same	
	NLC - Tier 1, Interior, Mounting Height ≤ 12'	φο.ου per watt		Same	NLC System: \$0.60 per watt
	NLC - Tier 2, Interior, Mounting Height ≥ 12'				controlled
	NLC - Tier 3, Exterior, All Mounting Height				
	Networked lighting control - fixture level control LLLC	with local or cloud server: \$80/fixture with local or cloud server - lower wattage \$50/fixture no server required: \$60/fixture no server required - (lower wattage min controlled watts 20) \$20/fixture	Per Fixture	Same	\$60 per fixture
	DUAL DAYLIGHT/OCCUPANCY CONTROLS				
1	Dual daylight & occupancy sensor (DOS) Product types covered above under LLLC or NLC	\$100	Per Fixture	Same	\$100
	DAYLIGHT CONTROLS				
	Daylight continuous dimming control	\$100	Per Fixture	Same	\$100
	Exterior Lighting Control – Fixture with Integrated Controls	\$100	Per Fixture	Same	\$100
	OCCUPANCY/VACANCY CONTROLS				
	Vacancy or Occupancy control (Switch/Wall/External Mount)	\$100	Per Fixture	Same	\$100
	Vacancy or Occupancy control (Integrated)	\$100	Per Fixture	Same	\$100
	Occupancy/Vacancy Sensor – Wall Mounted (Integrated)	\$100	Per Fixture	Same	\$100
	Occupancy/Vacancy Sensor – Remote Mounted (Integrated)	\$100	Per Fixture	Same	\$100
	Occupancy Dimming Control (Integrated)	\$100	Per Fixture	Same	\$100
	Occupancy Sensor for Highbay – Remote Mounted (Integrated)	\$100	Per Fixture	Same	\$100
<del>                                     </del>	HVAC	ψιου	i di i ixture	Calle	I \$100
1					
	UNITARY - AIR CONDITIONERS & HEAT PUMPS				
	UNITARY - AIR CONDITIONERS & HEAT PUMPS  < 5.4 tons (65,000 BTU/hr)  Air Conditioning (AC) only - Split or Packaged		Per Ton		

	O annua analat O antan Bara antathan	I		Schedule RR CEI EE II 2		
Program	Commercial Sector Prescriptive  Prescriptive Measure 1	Rebate Up To Value (\$) EDC/GDC Consensus Rebate Strategy 2	Unit Basis	Multifamily Income-Eligible Rebate Up to Value (\$)	Existing Up to Rebate Values 4	
	Tier 1 SEER 16	i		i	i	
	Single Package Vertical Air Conditioner, <=5.4 Tons, Tier 1	\$300	Per Ton	Up to 30% incentive adder	1	
	Unitary HVAC Single Package System, <=5.4 Tons, Tier 1	\$300	Per Ton	Up to 30% incentive adder	1	
	Unitary HVAC Split System, <=5.4 Tons, Tier 1	\$300		Up to 30% incentive adder	-	
-		φ300	Per Ton	Up to 30% incentive adder	-	
-	Tier 2 SEER 18	#000			-	
	Single Package Vertical Air Conditioner, <=5.4 Tons, Tier 2	\$300	Per Ton	Up to 30% incentive adder	-	
	Unitary HVAC Single Package System, <=5.4 Tons, Tier 2	\$300	Per Ton	Up to 30% incentive adder	4	
	Unitary HVAC Split System, <=5.4 Tons, Tier 2	\$300	Per Ton	Up to 30% incentive adder	-	
-	Heat Pumps - Split or Packaged		Per Ton		4050	
	Tier 1 SEER 16 EER 13 HSPF 10				\$250	
	Air Source Heat Pump, Single Package, <=5.4 Tons, Tier 1	\$175	Per Ton	Up to 30% incentive adder	4	
	Air Source Heat Pump, Split System, <=5.4 Tons, Tier 1	\$175	Per Ton	Up to 30% incentive adder	4	
	Tier 2 SEER 18 EER 13 HSPF 10				_	
	Air Source Heat Pump, Single Package, <=5.4 Tons, Tier 2	\$300	Per Ton	Up to 30% incentive adder	_	
ļ	Air Source Heat Pump, Split System, <=5.4 Tons, Tier 2	\$300	Per Ton	Up to 30% incentive adder	_	
	>= 5.4 tons (65,000 BTU/hr)				1	
	Air Conditioning (AC) only - Split or Packaged		Per Ton		_	
[ <u> </u>	Unitary HVAC Single and Split Package System, >5.4 Tons & <=20 Tons	\$300	Per Ton	Up to 30% incentive adder		
	Heat Pumps - Air Source - Split or Packaged					
1	Air Source Heat Pump, Single Package or Split System, >5.4 Tons & <=20 Tons	\$300	Per Ton	Up to 30% incentive adder		
1	SINGLE PACKAGE VERTICAL					
	Single Package Vertical Air Conditioner - ALL SIZES					
1	Single Package Vertical Air Conditioner, >5.4 Tons & <=20 Tons	\$300	Per Ton	Up to 30% incentive adder	\$250	
	Single Package Vertical Heat Pump - ALL SIZES	·		· ·		
1	Single Package Vertical Heat Pump, <=11.25 Tons	\$300	Per Ton	Up to 30% incentive adder	\$250	
	CENTRAL DX AIR CONDITIONERS -				·	
Energy	Central DX Air Conditioner, >20 Tons	\$300	Per Ton	Up to 30% incentive adder	\$250	
	WATER-COOLED & EVAPORATIVE COOLING AIR CONDITIONERS - <5.4 to <11.25 tons		Per Ton		,	
	Water Source Heat Pump, <=11.25 Tons, Tier 1 -5% above baseline	\$300	Per Ton	Up to 30% incentive adder	\$250	
	Water Source Heat Pump, <=11.25 Tons, Tier 2 -12% above baseline	\$300	Per Ton	Up to 30% incentive adder	\$250	
	WATER-COOLED & EVAPORATIVE COOLING AIR CONDITIONERS - >11.25 to ≤63.3	\$300	Per Ton	Up to 30% incentive adder	\$250	
	GEOTHERMAL HEAT PUMPS -	4000	1 31 1 31	op to con moontave adder	<b>\$250</b>	
ľ	Geothermal Heat Pumps – (Ground Source/Ground Water Source)		Per Ton			
	Ground Source Heat Pump, <=11.25 Tons, Tier 1 -5% above baseline	\$500	Per Ton	Up to 30% incentive adder	\$500	
-	Ground Source Heat Pump, <=11.25 Tons, Tier 2 -12% above baseline	\$500	Per Ton	Up to 30% incentive adder	\$500	
-	Ground Water Source Heat Pump, <=11.25 Tons, Tier 1 -5% above baseline	\$500	Per Ton	Up to 30% incentive adder	\$500	
-	Ground Water Source Heat Pump, <=11.25 Tons, Tier 2 -12% above baseline	\$500	Per Ton	Up to 30% incentive adder	\$500	
Ī	DUCTLESS, MINI SPLIT AIR CONDITIONERS OR HEAT PUMPS - ALL SIZES	\$250	Per Ton	Up to 30% incentive adder	\$150	
	PACKAGED TERMINAL AIR CONDITIONERS OR HEAT PUMPS	ΨΕΟΟ	1 61 1611	op to 50 % meentive adder	<b>4100</b>	
	PTAC, All sizes	\$300	Per Ton	Up to 30% incentive adder	\$125	
-	PTHP, All sizes	\$300	Per Ton	Up to 30% incentive adder	\$125	
Ī	OTHER HVAC EQUIPMENT	φοσο	1 61 1611	Op to 50 % incentive adder	ψ123	
F	Smart Thermostat 3	\$150	Per Unit	Up to 30% incentive adder	\$125	
-	Occupancy Controlled Thermostat - Electric	\$125	1 Ci Oliit	Up to 30% incentive adder	\$125	
-	Dual Enthalpy Economizer Controls	Ψ123		Up to 30% incentive adder	ψ125	
-	< 5 tons Dual Enthalpy Economizer	\$350	Per Unit	Up to 30% incentive adder	\$250	
-	> 5 tons Single measure for DNV	\$350	rei Ollit	Up to 30% incentive adder	\$250	
ļ .	Chillers - Path A Constant Speed	φ35U		Op to 50% incentive adder	\$250	
	·	COE parton or Custom	Dan Tan	Lin to 200/ incombine adden	Custom	
-	Air-Cooled Chiller, Constant Speed <= 1000 tons  Water-Cooled Chiller, Screw Chiller - Positive Displacement, Constant Speed <= 600 tons	\$85 per ton or Custom \$185 per ton or Custom	Per Ton Per Ton	Up to 30% incentive adder Up to 30% incentive adder	Custom Custom	
-		\$85 per ton or Custom				
-	Water -Cooled Chiller, Centrifugal, Constant Speed <= 1000 tons		Per Ton	Up to 30% incentive adder	Custom	
[	All Constant Speed Chillers => 1000 tons	Custom	Custom	Up to 30% incentive adder	Custom	
	Performance Incentive: For each 0.1 EER point above or for each 0.01 kW below minimum efficiency Full Load or Integrated Part Load Value (IPLV).	\$10 per ton or Custom	Dor To-	Up to 30% incentive adder	N/A	
			Per Ton	<del>                                     </del>		
	Chillers - Path B Variable Speed (VFD)	\$200 === t==	Dec Ton	H- 4- 000/ : " - 1/	Our trans	
[	Air-Cooled Chiller, VFD Variable Speed <= 1000 tons	\$200 per ton or Custom	Per Ton	Up to 30% incentive adder	Custom	
]	Water-Cooled Chiller, Screw Chiller - Positive Displacement, VFD Variable Speed <= 600 tons	\$450 per ton or Custom	Per Ton	Up to 30% incentive adder	Custom	
]	Water -Cooled Chiller, Centrifugal, VFD Variable Speed <=1000 tons	\$20 per ton or Custom	Per Ton	Up to 30% incentive adder	Custom	
	All Variable Speed Chillers => 1000 tons	Custom	Custom	Up to 30% incentive adder	Custom	
	Performance Incentive: For each 0.1 EER point above or for each 0.01 kW below minimum efficiency	\$10 per ton or Custom			ļ	
	Full Load or Integrated Part Load Value (IPLV).	7.1. p. 1.1. 6. 0 date	Per Ton	Up to 30% incentive Adder	N/A	
	Refrigeration					

			Schedule KR-CEF-EE II-2				
	Commercial Sector Prescriptive	Incentives (not including repay					
Program	1 rescriptive measure	Rebate Up To Value (\$) EDC/GDC Consensus Rebate Strategy <sup>2</sup>	Unit Basis	Multifamily Income-Eligible Rebate Up to Value (\$)	Existing Up to Rebate Values		
	Anti-Fog Film	\$15	Per Sq. Ft.	Same	\$15		
	Anti-Sweat Heat Control	\$75	Per Door	Same	\$50		
	Anti-Sweat Heater Control/ Door Heater Control for Cooler/Medium Temp door	\$75	Per Door	Same	\$50		
	Anti-Sweat Heater Control/ Door Heater control for Freezer/Low Temp door	\$75	Per Door	Same	\$50		
	ECM Evaporator Fan Motor, <1 hp		Per Unit	Same	\$150		
	Reach-in Cooler/Freezer Electronically Commutated Motor Evaporator Fan Motor control	\$150	Per Unit	Same	\$150		
	Reach-in Cooler/Freezer Permanent Split Capacitor Motor Evaporator Fan Motor control	\$150	Per Unit	Same	\$150		
	Reach-in Cooler/Freezer Shaded Pole Motor Evaporator Fan Motor control	\$150	Per Unit	Same	\$150		
	Walk-in Cooler/Freezer Electronically Commutated Motor Evaporator Fan Motor control	\$150	Per Unit	Same	\$150		
	Walk-in Cooler/Freezer Shaded Pole Motor Evaporator Fan Motor control	\$150	Per Unit	Same	\$150		
	Walk-in Cooler/Freezer Permanent Split Capacitor Motor Evaporator Fan Motor control	\$150	Per Unit	Same	\$150		
	Evaporator/Compressor Controller	\$1,000	Per Cooler	Same	\$1,000		
	Evaporative Fan Controls	\$200	Per Control	Same	\$100		
	Floating-head Pressure Controls	\$200	Per Control	Same	\$150		
	Variable Speed Refrigeration Compressor	\$2,000	Per Unit	Same	\$2,000		
	Evaporator Fan Controller on Existing Shaded-Pole Motor DNV Coveted above in ECM category	\$200	Per Unit	Same	\$100		
	Night Cover - Low temp (-32°F to 0°F)	\$8	Per Linear Ft	Same	\$500 Per Case		
	Night Cover - High Temp case temperature (32°F to 55°F)	\$8	Per Linear Ft	Same	\$500 Per Case		
	Night Cover - Medium Temp, case temperature (0°F to 32°F)	\$8	Per Linear Ft	Same	\$500 Per Case		
	Night Covers - Open Reach-In Coolers	\$8	Per Linear Ft	Same	\$500 Per Case		
	Reach-In Door Closer	Ψΰ	Per Unit	Same	\$75		
	Automatic Door Closer - Cooler	\$150	Per Unit	Same	\$75		
	Automatic Door Closer - Freezer	\$150 \$150	Per Unit	Same	\$75		
	Automatio Bed, Gleech Treezor	\$50 per linear ft	Per Ln Ft.	Jame	Ψίδ		
	Refrigeration Display Case Doors on Open Display Case	\$600 per case	Per Case	Same	\$600 per case		
	Gaskets	\$7	Per Ln Ft.	Same	\$4		
Energy	Door Gasket - Cooler Reach-In/ Walk-in	\$7	Per Ln Ft.	Same	\$4		
Solutions for	Door Gasket - Freezer Reach-in/ Walk-in	\$7	Per Ln Ft.	Same	\$4		
Businesses-	Strip Curtains for Walk-In Coolers and Freezers	\$12	Per Sq. Ft.	Same	\$5		
Prescriptive	VFD - Variable Frequency Drives						
Measures	Horse Power  < 100 hp DNV has binned our VFD measures by the type load controlled per the TRM, not the HP of the motor	<= 10 HP - \$1000 per unit <= 50 HP - \$2500 per unit <= 100 HP - \$5000 per unit	Per Unit	Same	\$250		
	≥100 to ≤200 DNV has binned our VFD measures by the type load controlled per the TRM, not the HP of the motor	\$50	Per HP	Same	\$50		
	ECM Motors						
	EC Motors =<1 HP	\$150		Same	\$150		
	EC Motors - 1 mp	\$150	Per unit	Same	\$150		
	2 HP EC Motors - HVAC Blower Fan	\$500	Per unit	Same	\$175		
	3-5 HP EC Motors - Hydronic Pumps	\$500	Per unit	Same	\$250		
	6-10 HP	\$500	Per unit	Same	\$500		
	11+ HP	\$750	Per unit	Same	\$750		
	Commercial Kitchen Equipment						
	COMMERCIAL DISHWASHERS		Per Unit				
	Under Counter		Per Unit		1		
	Commercial Dishwasher - Under Counter LT Electric	\$300	Per Unit	Same	1		
		·	Per Unit	Same	1		
	Commercial Dishwasher - Under Counter HT Electric	\$2,500		Same	4		
	Door Type		Per Unit		1		
	Commercial Dishwasher - Door Type LT Electric	\$850	Per Unit	Same			
	Commercial Dishwasher - Door Type HT Electric	\$1,250	Per Unit	Same	\$1,500		
	Single Tank Conveyor	. ,	Per Unit		1		
		<b>#</b> 400		Somo.	-		
		\$400	Per Unit	Same	4		
	Commercial Dishwasher - Single Tank Conveyor LT Electric				1		
	Commercial Dishwasher - Single Tank Conveyor LT Electric  Commercial Dishwasher - Single Tank Conveyor HT Electric	\$2,500	Per Unit	Same			
			Per Unit Per Unit	Same	-		
	Commercial Dishwasher - Single Tank Conveyor HT Electric  Multi Tank Conveyor	\$2,500	Per Unit		- -		
	Commercial Dishwasher - Single Tank Conveyor HT Electric			Same Same	- - -		

				Schedule RR CEI EE II 2					
	Commercial Sector Prescriptive	e Incentives (not including repay	/ment plans)						
		Rebate Up To Value (\$)							
_		EDC/GDC Consensus Rebate		Multifamily Income-Eligible					
Program	Prescriptive Measure <sup>1</sup>		Unit Basis	Rebate Up to Value (\$)	Existing Up to Rebate Values 4				
		Strategy <sup>2</sup>		Repate of to value (\$)					
	Est Engage	l summing,	Dan Unit	C	l				
	Fat Fryers		Per Unit	Same					
	Vat Fryer - Electric (Standard)	\$600	Per Unit	Same	<b>#250</b>				
	Vat Fryer - Electric (Large Vat)	\$1,800	Per Unit	Same	\$250				
	, , , , , , , , , , , , , , , , , , , ,				#000				
	Griddles - Electric	\$600	Per Unit	Same	\$300				
	Insulated Holding Cabinets		Per Unit						
	Hot Food Holding Cabinets - Full Size	\$600	Per Unit	Same	7				
					\$400				
	Hot Food Holding Cabinets - 3/4 Size	\$600	Per Unit	Same					
	Hot Food Holding Cabinets - 1/2 Size	\$300	Per Unit	Same					
	Commercial Rack Oven	\$3,000	Per oven	Same					
	COMBINATION and CONVECTION OVENS	ψο,οσσ	7 57 57 57						
	Convection Ovens	\$600	Per Unit	Same	\$400				
	Commercial Combination Oven (Electric)	\$1,700	Per Oven/Steamer	Same	\$1,200				
	Commercial Conveyor Oven		Per Unit		N/A				
		\$1,700	Pei Uliit	Same	IN/A				
	STEAM COOKERS								
	Commercial Steam Cooker	\$150	Per Pan	Same	\$150				
		ψ100	1 of 1 dif	Cume	ψ100				
	OTHER FOOD SERVICE								
	Energy Star Beverage Vending Machine	\$150	Per Unit	Same	\$75				
Energy	Pre-Rinse Spray Valve - Electric Water Heating	\$75	Per Unit	Same	\$75				
Energy		910	i Gi Ollit	L	Ψ' Θ				
Solutions for	ICE MACHINES								
Businesses-	Tier 1	\$200	Per Unit	Same	\$200				
Prescriptive	Tier 2	\$300	Per Unit	Same	\$300				
				Same	\$300				
Measures	SOLID DOOR REACH-IN REFRIGERATORS		Per Unit						
	ENERGY STAR® Commercial Solid Door Refrigerator - < 15 ft3	\$400	Per Unit	Same					
	ENERGY STAR® Commercial Solid Door Refrigerator - > 15 to < 30 ft3	· ·			-				
		\$400	Per Unit	Same	\$225				
	ENERGY STAR® Commercial Solid Door Refrigerator - > 30 to < 50 ft3	\$400	Per Unit	Same					
	ENERGY STAR® Commercial Solid Door Refrigerator - ≥ 50 ft3	\$400	Per Unit	Same					
	SOLID DOOR REACH-IN FREEZERS  Per Unit								
	ENERGY STAR® Commercial Solid Door Freezer - < 15 ft3 \$400 Per Unit Same								
	ENERGY STAR® Commercial Solid Door Freezer - > 15 to < 30 ft3	\$400	Per Unit	Same	1				
					\$500				
	ENERGY STAR® Commercial Solid Door Freezer - > 30 to < 50 ft3	\$400	Per Unit	Same					
	ENERGY STAR® Commercial Solid Door Freezer - ≥ 50 ft3	\$400	Per Unit	Same	1				
	GLASS DOOR REACH-IN REFRIGERATORS		Per Unit						
				T -	T				
	ENERGY STAR® Commercial Glass Door Refrigerator - < 15 ft3	\$300	Per Unit	Same					
	ENERGY STAR® Commercial Glass Door Refrigerator - > 15 to < 30 ft3	\$300	Per Unit	Same	2450				
	ENERGY STAR® Commercial Glass Door Refrigerator - > 30 to < 50 ft3	\$300	Per Unit	Same	\$150				
					4				
	ENERGY STAR® Commercial Glass Door Refrigerator - ≥ 50 ft3	\$300	Per Unit	Same					
	GLASS DOOR REACH-IN Freezers								
	ENERGY STAR® Commercial Glass Door Freezer - < 15 ft3	\$300	Den Heit	Same					
			Per Unit						
	ENERGY STAR® Commercial Glass Door Freezer - > 15 to < 30 ft3	\$300	Per Unit	Same	\$300				
	ENERGY STAR® Commercial Glass Door Freezer - > 30 ft3	\$300	Per Unit	Same	1				
		<del>+</del> 5555	1 5, 61110	L					
	COMMERCIAL APPLIANCES								
	CLOTHES WASHER			Same					
	CEE Tier 1	\$200	Per Unit	Same	\$100				
	CEE Tier 2	· ·							
		\$350	Per Unit	Same	\$200				
	WATER HEATING								
	Heat Pump Water Heater - C&I	\$1,500	Per Unit	Up to 30% incentive adder	\$1,500				
			Per Unit						
	Heat Pump Electric Storage Water Heater, size > 55 gallons	\$1,500		Up to 30% incentive adder	\$1,500				
	Heat Pump Electric Storage Water Heater, size ≤ 55 gallons	\$1,500	Per Unit	Up to 30% incentive adder	\$1,500				
	PLUG LOAD CONTROLS								
		<b>#</b> 400	D	11- t- 000/ i- " 11	400				
	Personal Occupancy Sensor	\$100	Per Unit	Up to 30% incentive adder	\$20				
	Hotel Room HVAC Controls	\$300	Per Unit	Up to 30% incentive adder	\$90				
	Hotel Room HVAC/Receptacle Control	\$300	Per Unit	Up to 30% incentive adder	\$20				
	· · · · · · · · · · · · · · · · · · ·				ΨΖΟ				
	Smart Power Strip - Tier 1	\$25	Per Unit	Up to 30% incentive adder	\$20				
	Smart Power Strip - Tier 2	\$50	Per Unit	Up to 30% incentive adder	ΨΣΟ				
	Vending Machine Controls	, , , ,	2						
	Non-Refrigerated	\$150	Per Unit	Up to 30% incentive adder	\$75				
	Refrigerated	\$300	Per Unit	Up to 30% incentive adder	\$125				
		<b>4000</b>			\$125				
		6450	D 11-14						
	Glass Front Refrigerated Cooler Control	\$150	Per Unit	Up to 30% incentive adder	\$125				
		\$150	Per Unit	Up to 30% incentive adder	<b>J</b> \$125				
	Glass Front Refrigerated Cooler Control OFFICE EQUIPMENT								
	Glass Front Refrigerated Cooler Control  OFFICE EQUIPMENT  Monitors - C&I	\$25	Per Unit	Same	\$25				
	Glass Front Refrigerated Cooler Control OFFICE EQUIPMENT								

				Schedule KR-C	21 22 II 2
	Commercial Sector Prescrip	tive Incentives (not including repay	yment plans)		
Program	Prescriptive Measure <sup>1</sup>	Rebate Up To Value (\$) EDC/GDC Consensus Rebate Strategy <sup>2</sup>	Unit Basis	Multifamily Income-Eligible Rebate Up to Value (\$)	Existing Up to Rebate Values 4
Ī	Imaging - C&I	\$25	Per Unit	Same	\$25
	Small Network PC Controller	\$35	Per PC Controlled	Same	\$25
Energy	AGRICULTURE				
Solutions for	Auto Milker Takeoff	\$100	Per Unit	Same	\$90
Businesses-	Dairy Scroll Compressor	\$1,000	Per Unit	Same	\$1,000
Prescriptive	HE Ventilation Fans	\$100	Per Unit	Same	\$215
Measures	High Speed Fan 24" – 35"		Per Unit	Same	\$215
1 [	High Speed Fan 36" - 47"		Per Unit	Same	\$215
1	High Speed Fan 48" - 71"		Per Unit	Same	\$215
	Heat Reclaimers	\$2,500	Per Unit	Same	\$1,000
1	High Volume Low Speed Fans (Destratification)	\$1,200	Per Unit	Same	\$25 per ft of fan blade
	High Volume Low Speed Fan (HVLS) 16'			Same	\$25 per ft of fan blade
1	High Volume Low Speed Fan (HVLS) 18'			Same	\$25 per ft of fan blade
l i	High Volume Low Speed Fan (HVLS) 20'			Same	\$25 per ft of fan blade
1	High Volume Low Speed Fan (HVLS) 22'			Same	\$25 per ft of fan blade
l i	High Volume Low Speed Fan (HVLS) 24'			Same	\$25 per ft of fan blade
	Livestock Waterer	\$500	Per Unit	Same	\$60
Ī	Dairy Vac Pump VSD Controls	\$2,000	Per Unit	Same	\$1,000
l i	Low Pressure Irrigation	\$100	Per acre	Same	\$100
1	Dairy Refrigeration Tune-Up	\$200	Per Unit	Same	\$200
l i	Engine Block Heater Timer	\$25	Per Unit	Same	\$25
l i	RESIDENTIAL APPLIANCES in C&I BUILDING - Non Commercial Duty				
1	Clothes Washer Tier 1	See Residential Incentives	Per Unit	Same	See Residential Incentives
1	Clothes Washer Tier 2	See Residential Incentives	Per Unit	Same	See Residential Incentives
l 1	Clothes Dryer - Tier 1	See Residential Incentives	Per Unit	Same	See Residential Incentives
l	Clothes Dryer - Tier 2	See Residential Incentives	Per Unit	Same	See Residential Incentives
l	Refrigerators	See Residential Incentives	Per Unit	Up to 30% incentive adder	See Residential Incentives
l -	Freezer	See Residential Incentives	Per Unit	Up to 30% incentive adder	See Residential Incentives
l	Dehumidifier	See Residential Incentives	Per Unit	Up to 30% incentive adder	See Residential Incentives
l	Room Air Conditioner	See Residential Incentives	Per Unit	Up to 30% incentive adder	See Residential Incentives
l 1	Water Cooler	See Residential Incentives	Per Unit	Up to 30% incentive adder	See Residential Incentives
	Commercial Kitchen Equipment (Natural Gas)	Coo i tociacima micematos	. 5. 5	op to con modifiave adder	Coo i todiacinaa meenaved
l 1	Demand Controlled Kitchen Ventilation (DCKV)	\$2,696	Per HP of ventilation fan	Same	N/A
l	· /	Ψ2,000	i oi i ii oi voittiatioii iaii		
] L	Commercial Pack Oven (Cas)	\$3,000	Per oven	Same	\$1,000
1	Commercial Rack Oven (Gas)	\$3,000	Per oven	Same	\$1,000
	,	\$3,000 \$500	Per modulating gas dryer		\$1,000 \$150
	Commercial Modulating Gas Dryer Valve	\$500	Per modulating gas dryer valve retrofit	Same	\$150
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas)	\$500 \$1,500	Per modulating gas dryer valve retrofit Per griddle	Same Same	\$150 \$500
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas)	\$500 \$1,500 \$1,000	Per modulating gas dryer valve retrofit Per griddle Per fryer	Same Same Same	\$150 \$500 \$750
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp	\$500 \$1,500 \$1,000 \$400	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher	Same Same Same Same	\$150 \$500 \$750 \$400
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp	\$500 \$1,500 \$1,000 \$400 \$400	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per dishwasher	Same Same Same Same Same	\$150 \$500 \$750 \$400 \$400
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp	\$500 \$1,500 \$1,000 \$400 \$400 \$1,000	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per dishwasher Per dishwasher	Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$400 \$1,000
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp	\$500 \$1,500 \$1,000 \$400 \$400 \$1,000 \$1,500	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per dishwasher Per dishwasher Per dishwasher	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$400 \$400 \$1,000 \$1,500
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, How Temp	\$500 \$1,500 \$1,000 \$400 \$400 \$1,000 \$1,500 \$1,500	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per dishwasher Per dishwasher Per dishwasher Per dishwasher	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$400 \$400 \$1,000 \$1,500 \$1,500
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, How Temp Commercial Dishwashers, Multiple Tank Conveyor, How Temp	\$500 \$1,500 \$1,000 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp	\$500 \$1,500 \$1,000 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$700	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per dishwasher Per dishwasher Per dishwasher Per dishwasher Per dishwasher Per dishwasher	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$700
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp	\$500 \$1,500 \$1,000 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV	\$500 \$1,500 \$1,000 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$7750 \$8	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per CFM	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 N/A
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV	\$500 \$1,500 \$1,000 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV Boilers & Water Heaters (Natural Gas)	\$500 \$1,500 \$1,000 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$750 \$750 \$8 \$8	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per CFM Per CFM	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$700 \$750 N/A
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV  Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers	\$500 \$1,500 \$1,000 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 \$8 \$8	Per modulating gas dryer valve retrofit  Per griddle  Per fryer  Per dishwasher  Per Gishwasher  Per GrM  Per CFM  Per CFM	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$400 \$400 \$1,000 \$1,500 \$1,500 \$1,500 \$700 \$750 N/A N/A
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV Boillers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE	\$500 \$1,500 \$1,000 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$750 \$750 \$8 \$8 \$8	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per CFM Per CFM Per CFM Per MBH Per furnace	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 N/A N/A  Up to full cost of measure \$1,500
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, How Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV  Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE	\$500 \$1,500 \$1,000 \$400 \$440 \$1,000 \$1,500 \$1,500 \$1,500 \$770 \$7750 \$8 \$8 \$8	Per modulating gas dryer valve retrofit  Per griddle  Per fryer  Per dishwasher  Per Gishwasher  Per GrM  Per CFM  Per CFM  Per MBH  Per furnace  Per furnace	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 N/A N/A  Up to full cost of measure \$1,500 \$1,000
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV  Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE Gas Fired Low Intensity Infrared Heating >100MBH	\$500 \$1,500 \$1,000 \$400 \$440 \$1,000 \$1,500 \$1,500 \$1,500 \$750 \$750 \$8 \$8 \$8	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per Gishwasher Per GFM Per CFM Per CFM Per CFM Per GFM Per GFM Per furnace Per furnace Per infrared heater	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 N/A N/A Up to full cost of measure \$1,500 \$1,000 \$1,000 \$500
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE Gas Fired Low Intensity Infrared Heating >100MBH Gas Fired Low Intensity Infrared Heating <100MBH	\$500 \$1,500 \$1,000 \$400 \$440 \$1,000 \$1,500 \$1,500 \$1,500 \$750 \$750 \$8 \$8 \$8 \$11 \$1,500 \$1,150 \$2,000 \$2,000	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per GFM Per CFM Per CFM Per CFM Per WBH Per furnace Per furnace Per infrared heater Per infrared heater	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7750 N/A N/A Up to full cost of measure \$1,500 \$1,000 \$500 \$750
	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV  Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE Gas Fired Low Intensity Infrared Heating >100MBH Gas Fired Low Intensity Infrared Heating <100MBH Gas Engine Driven Chillers	\$500 \$1,500 \$1,000 \$400 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 \$88 \$8 \$8  \$11 \$1,500 \$1,150 \$2,000 \$400	Per modulating gas dryer valve retrofit  Per griddle  Per fryer  Per dishwasher  Per GrM  Per CFM  Per CFM  Per Furnace  Per furnace  Per infrared heater  Per ton	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$400 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$750 N/A N/A Up to full cost of measure \$1,500 \$1,500 \$1,500 \$500 \$3500
Energy	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE Gas Furnace > 95% AFUE Gas Fired Low Intensity Infrared Heating >100MBH Gas Engine Driven Chillers Gas Absorption Chillers, 100 to 400 tons	\$500 \$1,500 \$1,000 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$1,500 \$7700 \$750 \$88 \$8 \$8  \$11 \$1,500 \$1,1500 \$2,000 \$4400 \$4400	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per CFM Per CFM Per CFM Per CFM Per MBH Per furnace Per furnace Per infrared heater Per ton Per ton	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 N/A N/A Up to full cost of measure \$1,500 \$1,000 \$500 \$750 \$350 \$350 \$350
Energy Solutions for	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE Gas Furnace > 95% AFUE Gas Fired Low Intensity Infrared Heating > 100MBH Gas Engine Driven Chillers Gas Absorption Chillers, 100 to 400 tons Gas Absorption Chillers, > 400 tons	\$500 \$1,500 \$1,000 \$400 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$1,500 \$7700 \$7750 \$8 \$8 \$8 \$8  \$11 \$1,500 \$1,150 \$2,000 \$400 \$4400 \$4400	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per GrM Per CFM Per CFM Per Furnace Per furnace Per infrared heater Per ton Per ton Per ton Per ton	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 N/A N/A  Up to full cost of measure \$1,500 \$1,000 \$500 \$500 \$750 \$350 \$230
Energy Solutions for Businesses-	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV  Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE Gas Fired Low Intensity Infrared Heating >100MBH Gas Fired Low Intensity Infrared Heating <100MBH Gas Engine Driven Chillers Gas Absorption Chillers, > 400 tons Gas Absorption Chillers, < 400 tons	\$500 \$1,500 \$1,000 \$400 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$1,500 \$7700 \$7750 \$8 \$8 \$8 \$11 \$1,500 \$1,150 \$2,000 \$4400 \$4400 \$4400 \$4400 \$4400 \$4450	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per Gishwasher Per GFM Per CFM Per CFM Per GFM Per GFM Per furnace Per furnace Per infrared heater Per infrared heater Per ton Per ton Per ton Per ton	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 N/A N/A Up to full cost of measure \$1,500 \$1,000 \$500 \$750 \$1,800 \$1,800 \$1,800 \$1,800 \$1,800 \$1,800 \$1,800 \$1,800 \$500 \$500 \$750 \$350 \$350 \$350 \$230 \$185
Energy Solutions for Businesses- Prescriptive	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV  Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE Gas Fired Low Intensity Infrared Heating >100MBH Gas Fired Low Intensity Infrared Heating <100MBH Gas Engine Driven Chillers Gas Absorption Chillers, < 400 tons Gas Absorption Chillers, < 100 tons Furnace Tune-up	\$500 \$1,500 \$1,000 \$400 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$1,500 \$7700 \$7750 \$8 \$8 \$8 \$8  \$11 \$1,500 \$1,150 \$2,000 \$400 \$4400 \$4400	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per GFM Per CFM Per CFM Per Furnace Per furnace Per infrared heater Per infrared heater Per ton Per ton Per ton Per ton Per ton Per MBh	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 N/A N/A  Up to full cost of measure \$1,500 \$1,000 \$500 \$750 \$350 \$350 \$230
Energy Solutions for Businesses-	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV  Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE Gas Fired Low Intensity Infrared Heating >100MBH Gas Fired Low Intensity Infrared Heating <100MBH Gas Engine Driven Chillers Gas Absorption Chillers, 100 to 400 tons Gas Absorption Chillers, < 100 tons Gas Absorption Chillers, < 100 tons Furnace Tune-up Demand Control Ventilation	\$500 \$1,500 \$1,000 \$400 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7750 \$8 \$8 \$8 \$11 \$1,500 \$1,150 \$2,000 \$2,000 \$4400 \$4400 \$4400 \$4450 \$250 \$2,500	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per GFM Per CFM Per CFM Per Furnace Per furnace Per infrared heater Per infrared heater Per ton Per ton Per ton Per ton Per MBH Per furnace	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7750 N/A N/A Up to full cost of measure \$1,500 \$1,000 \$500 \$1,500 \$1,800 \$1,800 \$1,800 \$1,800 \$1,800 \$1,800 \$1,800 \$1,800
Energy Solutions for Businesses- Prescriptive	Commercial Modulating Gas Dryer Valve Commercial Griddle (Gas) Commercial Fryer (Gas) Commercial Dishwashers, Under Counter Low Temp Commercial Dishwashers, Under Counter High Temp Commercial Dishwashers, Single Tank Conveyor, Low Temp Commercial Dishwashers, Single Tank Conveyor, High Temp Commercial Dishwashers, Multiple Tank Conveyor, Low Temp Commercial Dishwashers, Multiple Tank Conveyor, High Temp Commercial Dishwashers, Door Type Low Temp Commercial Dishwashers, Door Type High Temp Ventilation with Heat Recovery Gas HRV Ventilation with Heat Recovery Gas ERV  Boilers & Water Heaters (Natural Gas) Stack Economizer for Boilers Gas Furnace > 97% AFUE Gas Fired Low Intensity Infrared Heating >100MBH Gas Fired Low Intensity Infrared Heating <100MBH Gas Engine Driven Chillers Gas Absorption Chillers, < 400 tons Gas Absorption Chillers, < 100 tons Furnace Tune-up	\$500 \$1,500 \$1,000 \$400 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$750 \$8 \$8 \$8  \$11 \$1,500 \$1,150 \$2,000 \$2,000 \$4400 \$4400 \$4400 \$4400 \$4450 \$250	Per modulating gas dryer valve retrofit Per griddle Per fryer Per dishwasher Per GFM Per CFM Per CFM Per Furnace Per furnace Per infrared heater Per infrared heater Per ton Per ton Per ton Per ton Per ton Per MBh	Same Same Same Same Same Same Same Same	\$150 \$500 \$750 \$4400 \$4400 \$1,000 \$1,500 \$1,500 \$1,500 \$7700 \$750 N/A N/A Up to full cost of measure \$1,500 \$1,000 \$500 \$750 \$1,800 \$1,800 \$1,800 \$500 \$1,800 \$500 \$500 \$750 \$350 \$350 \$350 \$350 \$3230 \$1855 \$450 \$250

	Scheuule KR-CEF					
	Commercial Sector Prescriptive	Incentives (not including repay	ment plans)			
Program	Prescriptive Measure <sup>1</sup>	Rebate Up To Value (\$) EDC/GDC Consensus Rebate Strategy <sup>2</sup>	Unit Basis	Multifamily Income-Eligible Rebate Up to Value (\$)	Existing Up to Rebate Values 4	
	Boiler, Steam Natural Draft, > 2,500 MBh (81% TE)	\$3	Per MBH	Up to 30% incentive adder	<b>1</b> \$1	
	Boiler, Steam Natural Draft, < 300 to 2,500 MBh (81% TE)	\$2	Per MBH	Up to 30% incentive adder	\$1	
	Boiler, Steam All Except Natural Draft, 300 to 2,500 MBh (81% TE)	\$2	Per MBH	Up to 30% incentive adder	\$2	
	Boiler, Steam All Except Natural Draft, > 2,500 MBh (81% TE)	\$3	Per MBH	Up to 30% incentive adder	\$2	
	Boiler, Steam < 300 MBH Input (82% AFUE)	\$3	Per MBH	Up to 30% incentive adder	\$2	
	Boiler, HW Condensing - Tier 2, 300 to 2,500 MBh (>94% TE)	\$9	Per MBH	Up to 30% incentive adder	\$4	
		\$9	Per MBH	•	\$4	
	Boiler, HW Condensing - Tier 2, > 2,500 MBh (>81%TE)		Per MBH	Up to 30% incentive adder	· · · · · · · · · · · · · · · · · · ·	
	Boiler, HW Condensing - Tier 2, < 300 MBh (>95% AFUE)	\$9		Up to 30% incentive adder	\$1200 per Boiler	
	Boiler, HW Condensing - Tier 1, 300 to 2,500 MBh (88%TE)	\$4	Per MBH	Up to 30% incentive adder	\$4	
	Boiler, HW Condensing - Tier 1, > 2,500 MBh (88% TE)	\$5	Per MBH	Up to 30% incentive adder	\$4	
	Boiler, HW Condensing - Tier 1, < 300 MBh (>90% AFUE)	see residential value - \$1,000	Per boiler	Up to 30% incentive adder	\$1000 per Boiler	
	Boiler w/Reset Controls	\$1	Per control	Up to 30% incentive adder	\$1	
	Boiler Tune-up	\$1	per MBh	Up to 30% incentive adder	\$1	
	Boiler HW Non-condensing, 300 to 2,500 MBh (85% TE)	\$5	Per MBH	Up to 30% incentive adder	\$2	
	Boiler HW Non-condensing, > 2,500 MBh (85% TE)	\$3	Per MBH	Up to 30% incentive adder	\$2	
	Boiler HW Non-condensing, < 300 MBh (85% AFUE)	\$6	Per MBH	Up to 30% incentive adder	\$2	
	Boiler Economizer Controls, 3.5 to 4 MMBtu	\$2,400	Per MBH	Up to 30% incentive adder	\$2,400	
	Boiler Economizer Controls, 3 to 3.5 MMBtu	\$2,100	Per MBH	Up to 30% incentive adder	\$2,100	
	Boiler Economizer Controls, 1.6 to 3 MMBtu	\$1,800	Per MBH	Up to 30% incentive adder	\$1,800	
	1 1 1 1		Per MBH			
	Boiler Economizer Controls, 0.8 to 1.6 MMBtu	\$1,500		Up to 30% incentive adder	\$1,500	
	Boiler Economizer Controls, > 4 MMBtu	\$2,700	Per MBH	Up to 30% incentive adder	\$2,700	
	Boiler Economizer Controls, < 800,000 Btu	\$1,200	Per MBH	Up to 30% incentive adder	\$1,200	
	OTHER HVAC EQUIPMENT (Natural Gas)					
	Thermostat - Smart	\$150	Per thermostat	Up to 30% incentive adder	\$125	
	SBDI - Stand Alone Storage Water Heaters	N/A	Per Water Heater	N/A	N/A	
	SBDI - Pipe Insulation	N/A	Per foot	N/A	N/A	
	SBDI - Low Flow Pre-rinse Spray Valves	N/A	Per valve	N/A	N/A	
	SBDI - Instantaneous Water Heaters	N/A	Per Water Heater	N/A	N/A	
	Pre-Rinse Spray Valve	\$100	Per valve	Up to 30% incentive adder	\$75	
	HW Recirculating System with demand control	\$2,800	Per Water Heater	Up to 30% incentive adder	\$100	
	DHW, Instant, Gas-Fired, > 200,000 Btuh, > 90% TE (Should be TE Thermal Efficiency)	\$2,000	Per Water Heater	Up to 30% incentive adder	\$1,000	
Energy	DHW, Instant, Gas-Fired, < 200,000 Btuh, > 90% TE (Should be TE Thermal Efficiency)	\$750	Per MBH	Up to 30% incentive adder	\$750	
Solutions for Businesses-	DHW Storage, Gas-Fired, 75,000 to 105,000 Btuh, > 94% TE (Should be TE Thermal Efficiency)	\$750	Per Water Heater	Up to 30% incentive adder	\$500	
Prescriptive Measures	DHW Storage, Gas-Fired, 75,000 to 105,000 Btuh, > 82% TE (Should be TE Thermal Efficiency)	\$500	Per Water Heater	Up to 30% incentive adder	\$750	
	DHW Storage, Gas-Fired, > 105,000 Btuh (105 MBH), > 94% TE (Should be TE Thermal Efficiency)	\$800	Per MBH	Up to 30% incentive adder	\$750	
	DHW Storage, Gas-Fired, > 105,000 Btuh (105 MBH), > 82% TE (Should be TE Thermal Efficiency)	\$500		Up to 30% incentive adder	\$500	
	DHW Storage, Gas-Fired, < 75,000 Btuh, (>55gallons) (75 MBH) > 0.81 UEF	\$1,000		Up to 30% incentive adder	\$500	
	DHW Storage, Gas-Fired, < 75,000 Btuh, (<55gallons), (75 MBH) > 0.67 EF or 0.64 UEF	\$600		Up to 30% incentive adder	\$350	
	Condensing Integrated Boiler and Water Heater (<300MBH,90 AFUE)	\$2,500		Up to 30% incentive adder	\$2,500	
	Condensing Integrated Boiler and Water Heater (>300MBH, 94TE)	\$2,500		Up to 30% incentive adder	\$2,500	
	CUSTOM PROJECTS					
	For example: Compressed Air, Refrigeration, Data Center Equipment/Servers, HVAC/Chillers, HVAC Controls, Motors/VFD - Large, Building Improvements, Process Improvements, Agricultural Lighting/Process, Custom Lighting, Demand Controlled Ventilation, Energy Recovery Ventilator, Heat Recovery Ventilator	Incentives are calculated based on the lesser of two factors. 75% of project cost, or \$0.32/kWh and \$16/therm saved in the first year.	per kWh	Up to 30% incentive adder	Incentives are calculated based or the lesser of two factors. 50% of project cost, or \$0.35/kWh saved in the first year.	
	ENERGY MANAGEMENT					
	Bldg Tune-Up	Consensus EDC/GDC Incentive Strategy	% of Project Cost		Existing Incentive Up to Value	
	Lighting Optimization	\$0.32 / kWh	Up to 80%			
	HVAC Optimization	\$0.64 / kWh	Up to 80%		1	

		re Incentives (not including repay		Schedule KK-C	<u> </u>
Program	Prescriptive Measure <sup>1</sup>	Rebate Up To Value (\$) EDC/GDC Consensus Rebate Strategy <sup>2</sup>	Unit Basis	Multifamily Income-Eligible Rebate Up to Value (\$)	Existing Up to Rebate Values
	Refrigeration Optimization	\$0.64 / kWh	Up to 80%		project cap of \$75,000
	Electric Other Optimization	\$0.64 / kWh	Up to 80%		project cap of \$75,000
	Gas Optimization	\$10.00 / therm	Up to 80%		1
	Boiler Tuneup	\$10.00 / therm	Up to 80%		1
	Furnace Tuneup	\$600	Up to 80%		1
	HVAC Tune-Up				
	Single Compressor Units	\$350	Up to 80%		\$175 per unit
	Multiple Compressor Units	\$500			\$250 per unit
	PTAC,PTHP, Mini Splits	\$300			\$75 per unit
	Electric/Other	\$0.64 / kWh	Up to 80%		N/A
	Boiler Tuneup	\$10.00 / Therm	Up to 80%		\$1 per MBH
Energy	Furnace Tuneup	\$600	Up to 80%		\$250
olutions for	Dairy Refrigeration Tune-Up	\$600	Up to 80%		\$200 per unit
usinesses-	Retro-comissioning				
rescriptive Measures	RCx Services (Audit, Implementation, M&V)	_	Up to 100%		N/A
	(for trade ally services only)				
	Customer/Trade Ally Incentive for verified energy savings	\$0.64 / kWh and \$10.00 / therm	Up to 70%		Up to \$0.35 per kWh
	BOC Training				
	Building Operations Training	Up to 70%	\$1,000 / Applicant cap		Up to 70% of the cost to attend qualified BOC training up to \$1000 per person
	Strategic Energy Mgmt.				
	SEM Services (Audit, Implementation, M&V)	-	Up to 100%		N/A
	Customer Incentive for verified energy savings	\$0.64 / kWh and \$10.00 / therm	Up to 70%		Up to \$0.35 / kWh
	Virtual Commissioning VCx				
		\$0.30 / kWh and \$10.00 / therm			Up to \$0.35 per kWh
	Monitoring Based Commissioining				
	MBCx (Audit, Implementation, M&V)		Up to 100%		N/A
	Customer Incentive for verified energy savings	\$0.64 / kWh and \$10.00 / therm	Up to 70%		Up to \$0.35 per kWh
	Notes		•		
	1 - The utilities reserve the right to include additional measures that are supported by established protocol broad range of energy savings measures to maximize energy savings for customers and avoid market dis				
	2 - All rebates will be offered equal to or less than the "Up to" value. Rebate value should not exceed the				
	3 - The total rebate value for a smart thermostat will be up to \$150 total between both fuel utilities				
	4 - Existing up-to rebate values may vary by program administrator.				

	Schedule KR-CEF-EE II-2				
Comprehensive Commercial Programs (not including repayment plans)					
Program	Category	Description of Approach to Incentives 1 & 2	Existing Incentives <sup>3</sup>		
	Tier 1	For Tier 1 customers the program will offer to pay up to 80% of the project cost to install the recommended energy efficiency measures with the participating customer (and/or landlord) repaying the balance not covered through the incentive either in a lump sum or through a repayment plan. Tier 1 will serve all customers with an average annual individual facility peak electrical demand of up to 100 kW and an average annual natural gas load of up to 5,000 therms.	For Tier 1 customers, standard basic energy savings measures may be installed at no cost during the time of the energy assessment. The program will offer to pay up to 80% of the project cost to install the recommended energy efficiency measures with the participating customer (and/or landlord) repaying the balance not covered through the incentive either in a lump sum or through an available repayment option. Customers located in an Urban Enterprise Zone, Opportunity Zone, owned or operated by a local government, or K-12 public schools. may also qualify for Tier 1 status, up to an average individual facility peak electrical demand of 200 kW.		
Direct Install	Tier 2	For Tier 2 customers, program will offer to pay up to 80% of the project cost to install the recommended energy efficiency measures with the participating customer (and/or landlord) repaying the balance not covered through the incentive either in a lump sum or through a repayment plan.  Tier 2 will serve all customers with an average annual individual facility peak demand of up to 300 kW or average annual natural gas load of 40,000 therms located within an Urban Enterprise Zone ("UEZ"), Opportunity Zone, Overburdened Community ("OBC"). Also eligible are customers with an average annual individual facility peak demand of up to 300 kW or an average annual natural gas load of 40,000 therms that are owned or operated by a local government, K-12 public schools, or that are non-profits categorized as 501(c)3.	Tier 2 will serve the larger segment of eligible customers, with an average individual facility peak electrical demand of 101 - 200 kW over the past 12 months. Incentives up to 70% of the total project cost will be offered.		
	Tier 3	Tier 3 will serve the larger segment of eligible customers, with an individual facility average annual peak electrical demand of 101 - 300 kW or 5,001 therms to 40,000 therms over the past 12 months. Incentives up to 70% of the total project cost will be offered with the participating customer repaying the balance not covered through the incentive either in a lump sum or through a repayment plan.	N/A - new		
	Engineered Solutions - Tier 1	Will provide a 100% incentive for an up-front audit, the specific audit level will be determined on a project by-project basis based on the complexity of the facility and the potential energy efficiency measures. In addition, the utilities 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 program with participants repaying the balance of the project costs through a repayment plan.	The subprogram will provide a 100% incentive for an up-front ASHRAE audit, the specific audit level will be determined on a project by project basis based on the complexity of the facility and the potential energy efficiency measures. In addition, PSE&G will buy-down the simple payback of the recommended energy-efficiency project cost for approved measures by up to six years, with the resulting payback not less than three years. After the project incentive buy-down, the remaining project costs may be funded by the subprogram with participants repaying the balance of the project costs through OBRP or access to financing with similar terms.		
	Engineered Solutions - Tier 2	Incentives for the Engineered Solutions Tier 2 pathway will provide incentives for both technical assistance services and other project costs determined on a project-by-project basis using a cost effectiveness tool up to 60% of project cost.			

			Schedule KK-CEF-EE 11-2		
	Comprehensive Commercial Programs (not including repayment plans)				
Program	Category	Description of Approach to Incentives 1 & 2	Existing Incentives <sup>3</sup>		
		Incentives for the Energy Management pathway are structured around the measure categories that focus on specific energy efficiency measures and management practices as follows:	Incentives for the Energy Management pathway are structured around the measure categories that focus on specific energy efficiency measures and management practices as follows:		
		HVAC Tune-Up: Fixed incentives for the implementation of the tune-up measures based on the size of the HVAC units.	HVAC Tune-Up: Fixed incentives for the implementation of the tune-up measures base on the size of the HVAC units up to \$250 value.		
Energy Solutions		<b>Building Tune-Up:</b> Incentives that cover up to 80% of the project cost and up to 70% of the cost to attend qualified BOC training up to \$1000 per person.	<b>Building Tune up</b> : Incentives that cover up to 70% of the project cost with a project cal of \$75,000 and up to 70% of the cost to attend qualified BOC training up to \$1,000 per		
		Retro-Commissioning: Incentives to cover up to 100% of the initial cost to perform the required ASHRAE level audit. The total project incentive will be capped at up to 70% of the project cost. The	person.		
		customer may also be paid a custom incentive for the implementation of the energy efficiency measures determined through the audit.	<b>Retro-Commissioning</b> : Incentives to cover up to 50% of the initial cost to perform the required ASHRAE level audit, and the remaining cost upon the customer commitment to implementation of energy efficiency measures defined by the audit. The customer will		
		Monitoring-based Commissioning, Virtual Commissioning: Incentives to cover up to 100% of the cost of integration of third-party hardware and software. Utilities may also implement a performance-based model with an implementation contractor where the utility only pays for delivered and verified energy savings.	also be paid a custom incentive for the implementation of the energy efficiency measure determined through the audit. The total audit and project incentive will be capped at up to 70% of the project cost.		
		Strategic Energy Management: The utility or third-party implementation contractor may perform an engineering assessment of the customer's facility to develop a SEMP or the customer may choose to utilize a consultant of their choosing to perform an engineering assessment to develop the SEMP.	Strategic Energy Management: Customers who utilize a consultant will receive an incentive to cover up to 50% of the initial cost of the engineering assessment, with the remaining cost upon the customer commitment to implementation of energy efficiency measures defined by the SEMP process. A tiered incentive structure for Customer engineering assessment will be utilized based upon square footage of Customer's facility. The SEMP will identify short, medium, and long-term goals for the customer and will set identifiable metrics for mapping to the plan. For the implementation of the energ efficiency measures determined by the SEMP, the customer will be paid an incentive the is commensurate with the applicable Commercial & Industrial Program offering that the measures are attributed.		
	Notes				
		ve the right to include additional measures that are supported by established protocols or evaluation to ensure we include a broad range of energy savings measures to maximize energy savings for market disruption.			
		offered equal to or less than the "Up To" value.			
3 - Represents current incentives and does not including financing incentives. See Section 4H.					

	Schedule KR-CEF-EE II-2			
			Multifamily Incentives (not including repayment plans)	
Program	Pathway	Measure <sup>1</sup>	Rebate Strategy <sup>2</sup>	Existing Rebate Strategy
		Prescriptive	Please refer to the Residential and Commercial Schedules.  Note the additional column for income eligible projects	Energy Assessment with the equipment and installation costs for the standard energy savings measures will be provided to eligible properties with "Up to 100%" of the cost provided by the program.
	N/A	(successor to current MF HPwFS Program)	Tiered incentive cash rebate not to exceed 50% of the costs of the measures used to calculate Total Energy Savings, up to \$1,750 per unit.  - Contractor production incentive of up to \$50 per unit. (Will stay with the lead utility.)	- Tiered incentive cash rebate not to exeed 50% of the costs of the measures used to calculate Total Energy Savings, up to \$1,500 per unit - Up to \$50 contractor production incentive per unit
Multifamily			Provide incentives consistent with proposed Tiers within Small Business Direct Install Program	N/A
		MF Energy Solutions (ES)- regular customers	Follow structure of C&I Energy Solutions	- Program will buy-down the simple payback of the recommended energy-efficiency project cost for approved measures by up to six years, with the resulting payback not less than three years.
		MF Energy Solutions -	For Engineered Solutions Tier 1 – Keep to 6 year buydown. For Engineered Solutions Tier 2 – Increase the incentive up to 80% of project costs.	NJHMFA customers may get a 10-year repayment period; non-NJHFMA a 5-year repayment period.
	Notes	!		
	1 - The utilities reserve the right to include a		additional measures that are supported by established protocols re we include a broad range of energy savings measures to d avoid market disruption.	
	2 - All rebates will be offered equal to or less than the "Up to" value.			

# Attachment 1 Schedule KR-CEF-EE II-2

				Schedule KR-CEF-El	L 11-Z	
	PSE&G Specific - Build	ing Decarbonization Measures - Comprehensive and Prescriptive Programs	;			
Sector	Туре	Specific	Up to Values	Unit Basis	Contractor Bonus - Up	
		Full Displacement - ccASHP	\$ 20,000	Per housing unit		
	Air Source Heat Pumps	Partial Displacement - ccASHP	\$ 4,000	Per 10k BTUh @ 5 degrees		
		Partial Displacement - ASHP	\$ 3,500	Per 10k BTUh @ 17 degrees	\$ 5	
	Ground Source Heat Pumps	Full Displacement	\$ 25,000	Per housing unit		
	Heat Pump Water Heater	240V	\$ 2,500	Per unit	\$ 2	
	ricat rump water ricater	120V	\$ 2,000	Per unit	\$ 2	
	Packaged Terminal Heat Pump	PTHP	\$ 5,000	Per unit		
		Lawnmower - Push	\$ 200	Per unit		
		Lawnmower - Ride	\$ 600	Per unit		
	Electric Lawn Equipment	Snow Blower	\$ 100	Per unit		
Residential	Liectife Lawii Equipitient	Leafblower	\$ 100	Per unit	\$ 500 \$ 200 \$ 200 \$ 200 \$ 200 \$ 500 \$ 500 \$ 750 \$ 750 \$ 750 \$ 750 \$ 750 \$ 750	
		String Trimmer	\$ 100	Per unit		
		Chainsaw	\$ 100	Per unit		
	Heat Pump Clothes Driers	Heat Pump Clothes Dryers	\$ 2,500	Per unit		
	Induction Stove	Induction Stove	\$ 2,500	Per unit		
	Heat Pump Pool Heater	Heat Pump Pool Heater	\$ 2,000	Per unit		
	Custom	Any sufficiently complex system to not be adequately covered by other offerings	\$ 300	Per annual MMBTu fuel savings	\$ 5	
	Whole Home Program	Wx First through Whole Home	\$ 1,000	Per unit	\$ Contractor Bonus - U	
	Whole Home Program	Multi-end use bonus	\$ 750	Per additional end use		
	Electric Ready	Panel Upgrades	\$ 3,500	per unit	\$ 2	
	Income Eligible Program	For core electric end-uses & electric ready measures	Full Cost	per unit		
ector	Type	Specific	Up to Values	Unit Basis	Contractor Bonus - U	
	Electric Ready	Panel Upgrades	\$ 7,500	per unit		
	Air Source Heat Pumps	ccASHP	\$ 6,000			
	All Source Heat Fullips	ASHP	\$ 5,000			
	Air Source Variable Refrigerant Flow Heat Pump	VRF	\$ 6,500	Per 10k BTUh @ minimum rated temperature		
	Water Source Heat Pump	WSHP	\$ 6,000	Per 10k BTUh @ minimum rated temperature		
	Water-Cooled VRF	VRF	\$ 6,000	Per 10k BTUh @ minimum rated temperature		
	Ground Source Heat Pump	GSHP	\$ 6,500	Per 10k BTUh @ minimum rated temperature	\$ 7	
	Packaged Terminal Heat Pumps	PTHP	\$ 5,000	Per unit	\$ 7	
C&I	Heat Pump RTU	RTU	\$ 5,000	Per 10k BTUh @ minimum rated temperature	\$ 7	
	HPWH	HPWH	\$ 2,000	Per unit	\$ 2	
		Lawnmower	\$ 6,000	Per unit		
	Electric Lawn Equipment	Leafblower	\$ 400	Per unit	\$ 75 \$ 20  \$ 20  \$ 50 \$ 20 \$ 20 \$ 20	
	Electric Lawri Equipment	String Trimmer	\$ 300	Per unit		
		Chainsaw	\$ 300	Per unit		
	Electric Forklift	Electric Forklift	\$ 9,000	Per unit		
	Custom	Any sufficiently complex system to not be adequately covered by other offerings	\$ 500	Per annual MMBTu fuel savings	\$ 7	
	Deep Energy Retrofit	Multi-end use bonus	\$ 1,000	Per additional end use		

# 6i. Appendix I: Comfort Partners Transition Plan

The Utilities strongly believe the current Comfort Partners Program ("CP") should be transitioned to full Utility administration in the second triennium and are grateful to the Board for its consideration of the switch. There are several reasons the Utilities believe this transition is both beneficial to customers and consistent with the Clean Energy Act. The Utilities believe the switch can benefit customers by consolidating program design, implementation and evaluation. For participants, having the low-income segment program designed and marketed with the moderate-income program will improve the customer experience by easing access to the program through a streamlined and singular path of entry; the consolidation of the low- and moderate- income segment programs will also allow for the alignment of marketing, the application process, and implementation. It will become a seamless program for all income-qualified customers, as opposed to having two separate, potentially confusing, program offerings in the market.

Furthermore, administration and evaluation of the program would be consolidated within the utilities' program portfolio, which will help to better manage the costs of the program to all customers by integrating the administration and evaluation costs within the larger portfolio and taking advantage of economies of scale. And finally, this switch combines the responsibility for savings performance and budgets to the Utilities alone, which clarifies responsibility in achievement of the Clean Energy Act savings targets and streamlines reporting. The current program cycle has savings and budget responsibility split between the Utilities and the Division of Clean Energy, which does not provide the Utilities with adequate opportunity to appropriately manage the program and achieve the mandated targets.

This document details the utilities' proposed plan to ensure a smooth transition from the existing co-managed Comfort Partners Program to the new utility-run Income Qualified Program.

#### **Schedule**

# Planning Period

The Planning Period is necessary for the Utilities to develop a detailed tactical approach for the transition. This Planning Period is expected to run from July 2024 through January 2025. Although some high-level exploratory pre-planning efforts necessary to develop the Utility filings have already been underway, this more detailed planning period, starting in 2024, is critical to ensure a seamless transition of the myriad processes and responsibilities that will make the transition and future program successful. This period is required to ensure the Utilities have enough time to address details related to sunsetting Comfort Partners and transitioning processes and resources to the new combined Income Qualified Program. Note that the transition timeline is subject to adjustment to allow for a timely and effective process.

#### Soft Transition Period

The Soft Transition Period, is defined as the six-month period during which, Comfort Partners is expected to remain unchanged with regards to services delivered, resource allocation, implementation vendors, procedures manual, marketing strategy, eligibility criteria, data tracking systems, etc. During the Soft Transition Period, the Comfort Partners Program budget will be included in the utilities' filed budgets, specifically the Income Qualified Program. Additionally,

Board Staff will no longer have a program administrative role but will retain regulatory oversight of the program similar to the role they have with other CEA programs.

During the Soft Transition Period, the Utilities will also begin to execute the transition plan developed during the Planning Period. This includes implementing the closeout of specific Comfort Partners operations such as marketing, enrollment, and assessments prior to the launch of the new combined Income Qualified Program.

During the final months of the Soft Transition Period, the Utilities will also begin to ramp-up the new combined Income Qualified Program in parallel with the Comfort Partners Program sunset. The ramp-up involves training vendors, launching marketing, preparing enrollment resources, and eventually scheduling assessments; all to ensure the transition is seamless for customers and program momentum is maintained (some activities could feature a minor overlap between the programs in order to ensure there are no gaps in customer access to the program offering and to seek to avoid disruption to the workforce serving the program).

The schedule allows for an important timing overlap between the Comfort Partners sunset and the new combined Income Qualified Program launch which will be crucial to maintaining participation momentum in this customer segment. The overlapping period allows for the Comfort Partners Working Group to close out committed work-in-progress jobs and shutdown systems and processes related to the legacy Comfort Partners Program. Having this additional time to close out committed customer projects enables the Comfort Partners Program to continue to serve customers up until the new combined Income Qualified Program can begin enrollment efforts, eliminating any gap in service.

#### New Combined Income Qualified Program

The second period of the transition, which will begin in PY5, represents the time post-launch of the new combined Income Qualified Program that will serve both low- and moderate-income residential customers.

Please find the full description of the Income Qualified Program in Section 3.a.i.2 of this Program Plan.

Comfort Partners Transition Plan	2023			2024														
Milestones	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Comfort Partners Fiscal Year 2024 (Unchanged)																		
Comfort Partners Fiscal Year 2025 (6-Month BPU Compliance Filing)																		
Planning																		
Finalize Details - Comfort Partners Sunset Plan																		
Finalize Details - New Program Transition Plan																		
Soft Transition Period																		
Comfort Partners Continues Operation (Modified)																		
Execute Implementation of Transition Plan																		
CP Vendors Close Remaining Work-in-Progress Jobs																		
CP Systems & Processes Transition Completed																		
New Combined Income Qualified Program																		
Pre-Launch Activities																		
Execute Implementation of Income Qualified Program																		

Comfort Partners Transition Plan			2025										2026		
Milestones	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Comfort Partners Fiscal Year 2024 (Unchanged)															
Comfort Partners Fiscal Year 2025 (6-Month BPU Compliance Filing)															
Planning															
Finalize Details - Comfort Partners Sunset Plan															
Finalize Details - New Program Transition Plan															
Soft Transition Period															
Comfort Partners Continues Operation (Modified)															
Execute Implementation of Transition Plan															
CP Vendors Close Remaining Work-in-Progress Jobs															
CP Systems & Processes Transition Completed															
New Combined Income Qualified Program															
Pre-Launch Activities															
Execute Implementation of Income Qualified Program															

#### Notes:

- 1. **Comfort Partners Program Fiscal Year 2024** Comfort Partners will remain unimpacted by the transition plan during Fiscal Year 2024. The Fiscal Year 2024 Compliance Filing will govern the Comfort Partners Program during this period, as per the normal process historically.
- 2. **Comfort Partners Program Fiscal Year 2025 (1st Half)** The Division of Clean Energy submits a Compliance Filing for a 6-month abbreviated Program Year running from July 2024 through December 2024.
- 3. Comfort Partners Program Fiscal Year 2025 (2<sup>nd</sup> Half) January 2025 to mark the start of the Soft Transition Period, in which, the Program maintains the implementation and contracting structure but transitions funding from SBC to CEA funds.
- 4. Transition timeline is subject to adjustment to allow for a timely and effective process.

# **Budgets**

#### Triennium 2

Utilities will consider historical incentive budgets to determine what the annual Low-Income budget should be within the overall Income-Qualified Program offering. The filing will include individual Utility budgets for the next triennium.

#### Administration

The Soft Transition Period is tentatively scheduled to begin, 2025. During that timeframe, the Comfort Partners Working Group will continue to implement the program similiar to previous years, including the implementation structure, procedures manual, vendors, marketing strategy, enrollment criteria, data tracking system, etc. The CP Working Group will coordinate with the Joint Utility Residential Working Group during this time. Board Staff will no longer have a program administrative role but will retain regulatory oversight of the program similar to the role they have with other CEA programs. Quarterly and annual reports will be provided with regards

to program targets via the existing Utility CEA program reporting process and the Utilities can provide status updates through the Utility Working Group discussions.

The Income Qualified Program will be similar to the current Moderate Income Weatherization Program implementation structure. The dollars, participants, and savings will be shared via the SWC system. Each Utility will hire their own implementation vendors to operate the program in their territory and coordinate delivery of the program with their other residential-sector programs in order to streamline customer access to the programs. Utilities may consider continuing working relationships with current Comfort Partners vendors where possible.

During the soft transition period, Comfort Partners and the moderate-income pathway in the Income Qualified Program will not change their eligibility thresholds, rules, and verification process from the way they are currently handled. The future, combined Income Qualified Program will continue to utilize the Federal Poverty Level thresholds for low- and moderate--income that were used in the previous programs, but may consider adjusting them in the future, particularly to align and leverage other programs targeted at low-income customers or to take advantage of Inflation Reduction Act<sup>9</sup> ("IRA") incentives.

The Utilities will consider adjusting the landlord approval process as related to tenant participation.

Regarding the multifamily rules/procedures, the program will remain consistent during the Soft Transition Period.

# **Net Cost Savings / Additional Benefits**

The utilization of a multi-year budget cycle will allow for better long-term forecasting and provide consistency and predictability to program management. This approach would allow Utilities to continuously improve management and implementation processes to provide increased efficiencies and reduce administrative burden and costs.

Reduced administrative burden would provide benefits to the utilities, their low- and moderate-income customers, and all utility customers, by lowering the total costs of program administration. In its current state, the Comfort Partners Program is delivered jointly and collaboratively by the seven investor-owned utilities in New Jersey. This requires duplicative effort in legal review, info and cyber security, senior leadership review and execution, etc. for contracting efforts.

There are a number of contributing factors that make it difficult to estimate the potential combined utility costs savings at this time. These include but are not limited to:

- An expectation that the Utilities will serve more participants so some administrative savings may be absorbed by the need to process additional projects.
- Intention to increase the allowance for health and safety expenses to improve the historic percentage of customers that have not been able to fully proceed through the program which will result in larger projects that may require more administrative review.

-

<sup>9 1 -</sup> Pub.L. 117-169

- More detailed information about processes will not be available until after the transition period is completed
- Unknown potential administrative activities that may be necessary if the program aligns with IRA programs

However, at a minimum the Utilities believe there would be savings from the elimination of the use of the current joint program tracking system by PY6. The current forecasted annual cost is approximately \$800,000.

Combination of the low- and moderate-income programs ("LMI") would ease confusion with the customer base and ensure that potential participants are directed to the pathway that is right for them rather than try to find the right pathway to fit their needs. A combined Income Qualified Program would ease contractor confusion and reduce the need for referrals from one program to another, streamlining the customer journey to ensure they begin receiving services on the first visit, and reducing unproductive visits from contractors leading to non-billable hours. This would help reduce the costs of implementation, providing that every visit would be productive. Additionally, this would help prevent income-qualified customers from having to use vacation days, sick time, or unpaid time off for appointments that are unproductive, and reduce the need for multiple visits with no services rendered.

The removal of defined territories for individual implementation contractors would enable implementers within each Utility's territory to address customers in a more timely manner.

Customers residing in joint delivery territory could potentially be addressed by multiple contractors, providing additional flexibility of scheduling and delivery of services.

A single combined income-qualified offering would simplify marketing and outreach efforts by providing a single point of entry and casting a larger net to reach a larger population of potential participants. A combined offering would ease training of outreach coordinators and community partners, which would help the outreach efforts reach a larger population. A combined offering could also make it easier to align with available federal funding for integration into these programs in the future.

Lastly, a combined offering would enable simpler reporting of key metrics and expenditures to regulators.

# 6j. Appendix J: Building Decarbonization Measures

# Ride-on Lawnmower<sup>10</sup>

# **Description**

This measure represents the purchase of a new or replacement ride-on lawnmower replacing a gasoline powered ride-on lawnmower. This characterizes both residential and commercial applications.

# **Annual Energy Savings Algorithms**

Annual Electric Impact

 $\Delta kWh = ChargesPerYear \times ChargeTime \times kW_{Draw} \times BatteryQuantitity$ Annual Fuel Impact

Annual Fuel Impact

 $\Delta MMBtu_{gas} = (AnnualGas \times 120,476) \div 1,000,000$ 

Net Source MMBtu Impact

 $\overline{\Delta NetMMBTU = \Delta MMBt} u_{gas} \times STS_{gas} - \Delta kWh \times 0.003412 \times STS_{Elec}$ 

# **Calculation Parameters**

	Residential	Commercial
$\Delta kWh$	-72.9	-3,150
Charges per year	32	700
Charge time (hours)	4	4
kW Draw	0.56	0.56
Battery Quantity Operation	1	2
ΔMMBtu	4.3	108.4
AnnualGas (gallons)	36	900

Site-to-So			
	PY4	PY5	PY6
$STS_{Elec}$	2.5	2.47	2.45
$STS_{gas}$	1.01	1.01	1.01

# Measure Life

The effective useful life (EUL) is 10 years for residential applications and 6 years for commercial applications.

<sup>&</sup>lt;sup>10</sup> Characterization from VT's Act 56 Tier II Technical Advisory Group. See: https://publicservice.vermont.gov/sites/dps/files/documents/2022%20Tier%20III%20TRM%20Characterizations.pdf

# **Trimmer**

# **Description**

This applies to the purchase of new commercial or residential electrically powered trimmers

# **Annual Energy Savings Algorithms**

Annual Electric Impact

$$\Delta kWh = \left(\frac{Hours}{Run\ time\ per\ charge}\right) \times E_{Battery} \times Discharge\ Rate \times \frac{1}{efficiency\ charge}$$

$$\div 1.000$$

Annual Fuel Impact

 $\overline{\Delta MMBtu} = (AnnualGas \times MMBtu \ per \ gallon)$ 

Net Source MMBtu Impact

 $\overline{\Delta NetMMBTU = \Delta MMBtu_{gas}} \times STS_{gas} - \Delta kWh \times 0.003412 \times STS_{Elec}$ 

# **Measure Parameters**

Term	1 HP Replac ement	2 HP Replacement	Units	Source
E <sub>battery</sub> : Rated battery energy	100	240	Wh	PSEG-LI TRM
Hours	8.21 Reside ntial, 125 Comm ercial	8.21 Residential, 125 Commercial	hours	Res hours from: Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling, EPA 2002. Commercial Hours from VT TRM.
Run Time per Charge	0.5	0.5	hours	PSEG-LI TRM
Efficiency _Charger	0.92	0.92	percent	PSEG-LI TRM
Discharge rate	90%	90%	percent	PSEG-LI TRM
ΔkWh	-1.61 Reside ntial 24 C&I	-3.86 Residential, -58.7 C&I	kWh	Calculated
AnnualGa s	1.41 Reside ntial, 21.47 C&I	2.35 Residential, 115 C&I	gallons	Residential from PSEG-LI TRM, C&I calculated based on differences in operating hours
MMBtu per gallon	0.12	0.12	MMBtu /gallon	Unit Conversion
AMMBtu	0.17 Reside ntial, 2.58 C&I	0.28 Residential, 13.8 C&I	MMBtu	Calculated

Site-to-So	Site-to-Source Factors									
	PY4	PY5	PY6 2.45							
$STS_{Elec}$	2.5	2.47	2.45							
$STS_{gas}$	1.01	1.01	1.01							

# **Measure Life**

The measure life is 8 years for residential applications, and 2 years for commercial applications.

# **Leaf Blower**

# **Description**

This applies to the purchase of new commercial or residential electrically powered leaf blower

# **Annual Energy Savings Algorithms**

Annual Electric Impact

$$\frac{\Delta kWh = \left(\frac{Hours}{Run \ time \ per \ charge}\right) \times E_{Battery} \times Discharge \ Rate \times \frac{1}{efficiency \ charge}$$

$$\div 1,000$$

Annual Fuel Impact

 $\overline{\Delta MMBtu = (AnnualGas \times MMBtu \ per \ gallon)}$ 

Net Source MMBtu Impact

 $\overline{\Delta NetMMBTU} = \Delta MMBtu_{gas} \times STS_{gas} - \Delta kWh \times 0.003412 \times STS_{Elec}$ 

# **Measure Parameters**

Term	1 HP Replacement	2 HP Replacement	Units	Source
E <sub>battery</sub> : Rated battery energy	100	240	Wh	PSEG-LI TRM
Hours	9.4 Residential, 130 Commercial	9.4 Residential, 130 Commercial	hours	Res hours from: Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling, EPA 2002. Commercial Hours from VT TRM.
Run Time per Charge	0.25	0.25	hours	PSEG-LI TRM
Efficiency_Charge r	0.92	0.92	percent	PSEG-LI TRM
Discharge rate	90%	90%	percent	PSEG-LI TRM
ΔkWh	-3.68 Residential, - 50.87 Commercial	-8.83 Residential, -122 C&I	kWh	Calculated
AnnualGas	1.41 Residential, 19.5 C&I	2.35 Residential, 115 C&I	gallons	Residential from PSEG-LI TRM, C&I calculated based on differences in operating hours
MMBtu per gallon	0.12	0.12	MMBtu/gallo n	Unit Conversion
AMMBtu	0.17 Residential, 2.34 C&I	0.28 Residential, 13.8 C&I	MMBtu	Calculated

Site-to-So			
	PY6		
STS <sub>Elec</sub>	2.5	2.47	2.45
$STS_{gas}$	1.01		

# **Measure Life**

The measure life is 8 years for residential applications, and 2 years for commercial applications.

# **Push Lawnmower**

# **Description**

This applies to the purchase of new commercial or residential electrically powered push lawnmower

# **Annual Energy Savings Algorithms**

$$\frac{Annual\ Electric\ Impact}{\Delta kWh} = \left(\frac{Hours}{Run\ time\ per\ charge}\right) \times E_{Battery} \times Discharge\ Rate \times \frac{1}{efficiency\ charge}$$
 
$$\div 1,000$$
 
$$\frac{Annual\ Fuel\ Impact}{\Delta MMBtu} = (AnnualGas\ \times MMBtu\ per\ gallon)$$
 
$$\frac{Net\ Source\ MMBtu\ Impact}{\Delta NetMMBTU} = \Delta MMBtu_{gas} \times STS_{gas} - \Delta kWh \times 0.003412 \times STS_{Elec}$$

# **Measure Parameters**

Term	Reside ntial	Comm ercial	Units	Source
E <sub>battery</sub> : Rated battery energy	300	300	Wh	PSEG-LI TRM
Hours	15	810	hours	Res hours from: Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling, EPA 2002. Commercial Hours from VT TRM.
Run Time per Charge	1	1	hours	PSEG-LI TRM
Efficiency_C harger	0.92	0.92	percent	PSEG-LI TRM
Discharge rate	90%	90%	percent	PSEG-LI TRM
ΔkWh	-4.4	-238	kWh	Calculated
AnnualGas	3.75	134	gallons	Residential from PSEG-LI TRM, C&I calculated based on differences in operating hours
MMBtu per gallon	0.12	0.12	MMBtu/ gallon	Unit Conversion
ΔMMBtu	0.45	16.08	MMBtu	Calculated

Site-to-Source Factors									
PY4 PY5 PY6									
STS <sub>Elec</sub>	2.5	2.47	2.45						
$STS_{gas}$	1.01	1.01	1.01						

# **Measure Life**

The measure life is 10 years for residential applications, and 6 years for commercial applications.

# **Chainsaw**

# **Description**

This applies to the purchase of new commercial or residential electrically powered chainsaw

# **Annual Energy Savings Algorithms**

Annual Electric Impact

$$\frac{\Delta kWh = \left(\frac{Hours}{Run \ time \ per \ charge}\right) \times E_{Battery} \times Discharge \ Rate \times \frac{1}{efficiency \ charge}$$

$$\div 1,000$$

Annual Fuel Impact

 $\overline{\Delta MMBtu} = (AnnualGas \times MMBtu \ per \ gallon)$ 

Net Source MMBtu Impact

$$\overline{\Delta NetMMBTU} = \Delta MMBtu_{ga} \times STS_{gas} - \Delta kWh \times 0.003412 \times STS_{Elec}$$

# **Measure Parameters**

Term	Residential	Commercial	Units	Source
E <sub>battery</sub> : Rated battery energy	150	150	Wh	PSEG-LI TRM
Hours	9.12	80	hours	Res hours from: Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling, EPA 2002. Commercial Hours from VT TRM.
Run Time per Charge	0.09	0.09	hours	PSEG-LI TRM
Efficiency_Charge	0.92	0.92	percent	PSEG-LI TRM
Discharge rate	90%	90%	percent	PSEG-LI TRM
ΔkWh	-14.87	-130	kWh	Calculated
AnnualGas	1.64	115	gallons	Residential from PSEG-LI TRM, C&I calculated based on differences in operating hours
MMBtu per gallon	0.12	0.12	MMBtu/gallo	Unit Conversion

			n	
ΔMMBtu	0.197	13.8	MMBtu	Calculated

Site-to-Source Factors					
PY4 PY5 PY6					
STS <sub>Elec</sub>	2.5	2.47	2.45		
$STS_{gas}$	1.01	1.01	1.01		

# **Measure Life**

The measure life is 8 years for residential applications, and 2 years for commercial applications.

# **Snow Blower**

#### **Measure Life**

The measure life is 8 years for residential applications, and 2 years for commercial applications. Snowblower

# **Description**

This applies to the purchase of new commercial or residential electrically powered snowblowers.

# **Annual Energy Savings Algorithms**

Annual Electric Impact

$$\Delta kWh = \left(\frac{Hours}{Run\ time\ per\ charge}\right) \times E_{Battery} \times Discharge\ Rate \times \frac{1}{efficiency\ charge}$$

$$\div 1,000$$

Annual Fuel Impact

 $\Delta MMBtu = (AnnualGas \times MMBtu per gallon)$ 

Net Source MMBtu Impact

 $\overline{\Delta NetMMBTU} = \Delta \overline{MMBtu}_{gas} \times STS_{gas} - \Delta kWh \times 0.003412 \times STS_{Elec}$ 

# **Measure Parameters**

Term	Residential	Units	Source	
E <sub>battery</sub> : Rated	280	Wh	PSEG-LI TRM	
hours	8	hours	Res hours from: Median Life, Annual Activity, and Load	
Tiours .	· ·	nours	Factor Values for Nonroad Engine Emissions Modeling, EPA 2002. Commercial Hours from VT TRM.	
Run Time per Charge	0.75	hours	PSEG-LI TRM	
Efficiency_Cha rger	0.92	percent	PSEG-LI TRM	
Discharge rate	90%	percent	PSEG-LI TRM	
ΔkWh	-2.92	kWh	Calculated	
AnnualGas	8	gallons	Residential from PSEG-LI TRM, C&I calculated based on differences in operating hours	
MMBtu per	0.12	MMBtu/	Unit Conversion	
gallon		gallon		
ΔMMBtu	0.96	MMBtu	Calculated	

Site-to-Source Factors				
	PY6			
STS <sub>Elec</sub>	2.5	2.47	2.45	
$STS_{gas}$	1.01	1.01	1.01	

# **Measure Life**

The measure life is 10 years for residential applications.

# **Electric Forklift**

# **Description**

This measure represents a new or replacement electric-powered forklift compared to a liquid propane gas=powered forecast. The assumed baseline propane forklift has a four cylinder engine with an eight gallon fuel tank.

# **Annual Energy Savings Algorithms**

 $\frac{Annual\ Electric\ Impact}{\Delta kWh} = \frac{(Gallons\ \times 91,600\ \times FossilEfficiency)}{ChargerEfficiency\ \times 3,412} \\ \frac{Annual\ Fossil\ Fuel\ Impact}{\Delta MMBtu\ =\ Gallons\ x\ 91,600} \\ \frac{Net\ Source\ MMBtu\ Impact}{\Delta NetMMBTU\ =\ \Delta MMBtu_{gas}\ \times STS_{gas}\ -\ \Delta kWh\ \times\ 0.003412\ \times STS_{Elec}}$ 

# Measure Parameters<sup>11</sup>

Variable	Value
Delta kWh	(13,886)
Gallons	1500
Fossil Efficiency	0.3
Charger Efficiency	0.87
Delta MMBtu	137.4

Site-to-Source Factors				
	PY6			
$STS_{Elec}$	2.5	2.47	2.45	
$STS_{gas}$	1.01	1.01	1.01	

# **Measure Life**

The effective useful life (EUL) is 8 years.

<sup>&</sup>lt;sup>11</sup> Characterization from VT's Act 56 Tier II Technical Advisory Group. See: https://publicservice.vermont.gov/sites/dps/files/documents/2022%20Tier%20III%20TRM%20Characterizations.pdf

# STATE OF NEW JERSEY BOARD OF PUBLIC UTILITIES

# IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY FOR APPROVAL OF ITS CLEAN ENERGY FUTURE-ENERGY EFFICIENCY II PROGRAM ON A REGULATED BASIS

BPU	Docket No.	

# PUBLIC SERVICE ELECTRIC AND GAS COMPANY DIRECT TESTIMONY OF STEPHEN SWETZ SR. DIRECTOR – CORPORATE RATES AND REVENUE REQUIREMENTS

**December 1, 2023** 

# **TABLE OF CONTENTS**

I.	INTRODUCTION AND PURPOSE	1 -
II.	CEF-EE II REVENUE REQUIREMENTS AND COST RECOVERY	1 -
A.	Revenue Requirement Formula and Components	2 -
В.	Monthly Revenue Requirement Calculation	7 -
C.	Initial Revenue Requirements	9-
D.	Method for Cost Recovery	9-
E.	Projected CEF-EE II Bill Impacts	11 -
F.	Other Schedules	13 -
1.	Cumulative GPRC Impact	13 -
2.	Over / Under Calculation	13 -
3.	Income Statement / Balance Sheet	14 -
III.	FEDERAL INCOME TAX PRORATION METHODOLOGY	15 -
IV.	INVESTMENT TAX CREDIT METHODOLOGY	16 -

# PUBLIC SERVICE ELECTRIC AND GAS COMPANY DIRECT TESTIMONY

#### **OF**

# STEPHEN SWETZ SR. DIRECTOR – CORPORATE RATES AND REVENUE REQUIREMENTS

# 1 I. <u>INTRODUCTION AND PURPOSE</u>

- 2 Q. Please state your name and professional title.
- 3 A. My name is Stephen Swetz and I am the Sr. Director Corporate Rates and Revenue
- 4 Requirements for PSEG Services Corporation. My credentials are set forth in the attached
- 5 Schedule SS-CEF-EE II-0.
- 6 Q. What is the purpose of your direct testimony in this proceeding?
- 7 A. The purpose of this testimony is to support Public Service Electric and Gas Company's
- 8 ("PSE&G" or "the Company") proposed methodology for recovery of the costs related to
- 9 PSE&G's Clean Energy Future Energy Efficiency II Program ("CEF-EE II"). I will also
- address projected bill impacts.

#### 11 II. <u>CEF-EE II REVENUE REQUIREMENTS AND COST RECOVERY</u>

- 12 Q. Please briefly summarize PSE&G's proposed cost recovery.
- 13 A. PSE&G is proposing to recover the revenue requirements associated with the direct
- 14 costs of CEF-EE II. Direct costs include all costs related to CEF-EE II's capital expenditures,
- allowance for funds used during construction ("AFUDC"), information technology ("IT")
- 16 costs and operations and maintenance costs including the administrative costs of running CEF-
- 17 EE II. These costs would be offset by any repayments or other revenue offsets.

# 1 1. Revenue Requirement Formula and Components 2 How does PSE&G propose to calculate the revenue requirements on a monthly Q. 3 basis? 4 A. Most of the CEF-EE II Program investments proposed will be treated as regulatory and 5 other real assets. Depending on the type of investment, they will be depreciated or amortized 6 as described in the corresponding section below. The revenue requirements associated with 7 the direct costs of CEF-EE II would be expressed as: 8 Revenue Requirements = (Pre-tax Cost of Capital \* Net Investment) + Amortization 9 and/or Depreciation + Expenses + Program Investment Repayments + Additional 10 Revenue Offsets + Tax Flow-thru + Tax Adjustments 11 Please describe the components and defined terms in PSE&G's proposed monthly Q. 12 revenue requirement calculation. 13 The following is a description of each term proposed in PSE&G's revenue requirement A. 14 calculation. 15 Cost of Capital – This is PSE&G's requested overall weighted average cost of capital 16 ("WACC") for CEF-EE II. PSE&G shall earn a return on its net investment in CEF-EE II 17 based upon an authorized return on equity ("ROE") and capital structure including income tax 18 effects. The Company is proposing to utilize the latest cost of capital authorized by the Board 19 in a base rate case proceeding. See Schedule SS-CEF-EE II-1 for the calculation of the current

Pre-Tax WACC utilized in the revenue requirement calculation. Any change in the WACC

authorized by the Board of Public Utilities ("BPU" or the "Board") in any subsequent electric,

gas, or combined base rate case would be reflected in the subsequent monthly revenue

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- 1 requirement calculations. Any changes to current tax rates would also be reflected in an
- 2 adjustment to the Pre/After-Tax WACC.
- 3 Net Investment This is the Gross Plant-in-Service less associated accumulated depreciation
- 4 and/or amortization less Accumulated Deferred Income Tax ("ADIT"). The Gross Plant is
- 5 comprised of:
- 6 1) Program Investment, which includes the regulatory asset associated with the CEF-EE II
- 7 investments, Networked Geothermal and Building Decarbonization
- 8 2) Company-owned investments associated with Networked Geothermal and Building
- 9 Decarbonization
- 10 3) Capitalized IT costs
- With regard to the Company-owned investments, the Company retains the right to request to
- 12 transfer the recovery of related revenue requirements to base rates in future base rate case
- 13 proceedings.
- 14 ADIT will be computed at all times utilizing a normalization method of accounting as
- required by applicable IRS and Treasury Regulations for depreciable assets and a flow-thru
- methodology for all intangible assets. Further, the ADIT balance for the CEF-EE II
- depreciable assets incorporate the federal tax proration methodology as required by the IRS
- 18 for depreciable assets recovered over a forecasted period. The proration methodology and
- 19 flow-thru methodology utilized in the calculation of ADIT are described in more detail below.
- 20 The assumptions supporting the capital expenditures related to CEF-EE II are found in the
- 21 direct testimony and workpapers of Karen Reif.

#### **ATTACHMENT 2**

Depreciation/Amortization – The depreciation or amortization of the CEF-EE II assets will vary depending on the type of asset. The table below summarizes the proposed book recovery and associated tax depreciation and tax treatment applied to the corresponding asset classes. The book recovery of each Company owned asset will be based on the Board approved depreciation rates in effect at the time of each rate adjustment proceeding. While the proposed revenue requirements are based on the depreciation rates approved in PSEG's last base rate case proceeding, any change to depreciation rates in a future base rate case proceeding authorized by the Board would then be reflected in the revenue requirement calculation for subsequent filings. The book recovery of CEF-EE II regulatory assets, Networked Geothermal and Building Decarbonization Demonstrations and IT Capital cost book recovery of the asset as shown below.

Asset Class	Book Recovery	Tax Amortization / Depreciation	Tax Treatment
EE Regulatory Asset	10 years amort.	Expense	Flow-Thru
Network Geothermal	10 years dep.	40% ITC	
IT Software Investments	7 years amort.	5 yr SL	Flow-Thru
Building Electrification	71.4 years dep	39 yr MACRS	

<u>CEF-EE II Program Investment Repayments</u> — These repayments from participants will be credited back to customers as an offset to revenue requirements. The CEF-EE II Program Investment Repayments consist of repayments of a portion of the grants/rebates provided as described in the testimony of Ms. Reif, The monthly detail and assumptions supporting the CEF-EE II investment repayments can be found in electronic workpapers WP-KR-CEF-EE II-1.xlsx.

- 1 Further, the Company has assumed approximately 1% of total repayment will not be recovered
- 2 from participants consistent with the Company's historical experience as reflected in Schedule
- 3 KR-CEF-EE II-1, included with the testimony of Ms. Reif.
- 4 Expenses The O&M expenses will include expenses excluding expenditures recovered via
- 5 investments, for the administration, marketing, training, program management, inspections,
- 6 evaluations and quality assurance/quality control required to run CEF-EE II. An annual
- 7 summary and the monthly detail and assumptions supporting the expenses can be found in
- 8 electronic workpapers WP-KR-CEF-EE II-1.xlsx, WP-KR-CEF-EE II-2.xlsx and WP-KR-
- 9 CEF-EE II.xlsx.
- 10 Revenue Offsets Any net revenues from any future source shall be included in revenue
- 11 requirements. To the extent that CEF-EE II measures are eligible to bid in the PJM Reliability
- 12 Pricing Model ("RPM") Capacity Market Auctions ("Capacity Market") and such bidding is
- appropriate, PSE&G will bid the committed energy efficiency capacity from CEF-EE II into the
- 14 Capacity Market. All auction proceeds, net of the costs associated with participation in the RPM
- 15 auctions, will be credited to customers. However, given current performance rules and the
- 16 performance risk to customers, the Company has not assumed any capacity revenues or
- 17 marketplace revenues for the CEF-EE II Program..
- 18 In addition, there will be a fixed monthly charge to customers participating in the Networked
- 19 Geothermal program based on the peak monthly or daily throughput at the customer premise. This
- will be established when the connection is made from the customer to the geothermal loop.

#### **ATTACHMENT 2**

1 Tax Flow-Thru – Rather than normalizing the timing difference between book and tax 2 depreciation over the life of the assets, the Company will immediately credit/recover the 3 timing difference between certain book and tax depreciation to customers for eligible assets. 4 Gross-up of Amortization Tax Flow-Thru – As the amortization tax flow-thru impacts above 5 are after-tax, an income tax gross-up is required on the amortization of the flow-thru amount. 6 Tax Adjustments – According to current Internal Revenue Service regulations, the portion of 7 the investment that will be repaid by the participant must be treated as a loan for tax purposes. 8 The portions of the investments that are expected to be repaid by the participant are not tax 9 deductible. Therefore, when the loan portions of the investments are amortized and added to 10 revenue requirements, taxable income increases and current taxes increase. The Company 11 must increase the revenue requirement to pay for the increase in current taxes. Conversely, 12 when the participant repayment is returned to the ratepayers, it is non-taxable revenue, which 13 reduces taxable income and current taxes, which further reduces revenue requirements. While 14 the tax adjustments affect monthly revenue requirements, there is no net impact to ratepayers 15 over the life of the investments and 100% of the participant repayments are returned to the 16 customers, 17 Investment Tax Credit ("ITC") – Currently, it is anticipated that the Geothermal Project will 18 be eligible for an ITC of forty (40) percent of eligible construction expenditures. The Company 19 will return all of the ITC it utilizes to customers in accordance with Federal income tax law in 20 particular, the normalization rules. The normalization rules require the ITC be returned to 21 customers amortized over the regulatory life of the assets. The ITC benefit is partially offset 22 by the reduction in tax depreciation associated with the IRS required reduction in the tax basis

- 1 equal to fifty (50) percent of the ITC. The impact on revenue requirements is generated by
- 2 applying the regulatory depreciation method to the difference between the book basis and the
- 3 tax basis multiplied by the tax rate. Details of these calculations can be found in WP-SS-CEF-
- 4 EE II-2G.

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#### 2. Monthly Revenue Requirement Calculation

- 6 Q. Please describe the monthly detailed revenue requirement calculations.
- 7 A. The monthly detailed calculations of the electric and gas revenue requirements for the
- 8 initial period (January 1, 2025 through September 30, 2025) along with an annual summary
- 9 for the entire CEF-EE II Program based upon the projected direct costs for electric and gas are
- shown in Schedules SS-CEF-EE II-2E and SS-CEF-EE II-2G, respectively. The remaining
- monthly calculations that support the annual summary for the second year and beyond are
- available in the electronic workpapers (WP-SS-CEF-EE II-1.xlsx, worksheets "RevReqE" &
- "RevReqG"). Below is a detailed description of the monthly revenue requirements calculations
- set forth in Columns 1 25 of Schedules SS-CEF-EE II-2E and SS-CEF-EE II-2G.
- 15 CEF-EE II Program Investment (Column 1), Customer Side Geothermal (Column 1a)
- and Utility Owned Geothermal (Column 1b) are an input into the revenue requirements
- 17 calculation. An annual summary of the projected CEF-EE II Program Investments can be
- found in Attachment 1, Schedule KR-CEF-EE II-3. Capitalized IT Costs (Column 2) represent
- 19 projects necessary for the implementation of CEF-EE II. For detailed assumptions regarding
- 20 the CEF-EE II Program investments and capitalized IT costs, see electronic workpaper WP-
- 21 KR-CEF-EE II-1.xlsx, WP-KR-CEF-EE II-2.xlsx and WP-KR-CEF-EE II-3.xlsx. Gross Plant
- 22 (Column 3) is the cumulative sum of CEF-EE II Program Investments (Column 1), Customer

#### **ATTACHMENT 2**

1 Side Geothermal (Column 1a), Utility Owned Geothermal (Column 1b) and Capitalized IT 2 Costs (Column 2). The Net Plant (Column 7) is calculated as the gross plant (Column 3) less 3 the depreciation/amortizations of the Program Investments (Column 4), and Capitalized IT 4 Costs (Column 5). The amortization/depreciation lives for each asset in the CEF-EE II Program 5 is described above. The details for the calculation of Tax Amortization / Depreciation (Column 6 8), Book Amortization / Depreciation – Tax Basis (Column 9), Deferred Income Tax (Column 7 10), Beginning ADIT Balance (Column 11) and Ending ADIT Balance (Column 12) related to 8 the CEF-EE II Investments, Geothermal and Building Decarbonization and Capitalized IT 9 Costs are included in the electronic workpapers (WP-SS-CEF-EE II-1.xlsx, worksheets 10 "EERegAsset-E", "EERegAsset-G", "Bldg Decarb", "IT-E", and "IT-G"). The Average Net 11 Investment (Column 13) is equal to the prior month Net Plant (Column 7) less the Beginning 12 ADIT Balance (Column 11) plus the current month Net Plant (Column 7) less the Ending ADIT 13 Balance (Column 12) divided by 2. The monthly Return Requirement (Column 14) is the 14 Average Net Investment (Column 13) multiplied by the Monthly Pre-Tax WACC from 15 Schedule SS-CEF-EE II-1. Program Investment Repayments (Column 15), and Geothermal 16 Revenue Offsets (Column 17), are inputs from workpaper WP-KR-CEF-EE II-1.xlsx and WP-17 KR-CEF-EE II-2 and are an offset to revenue requirements. The Expenses (Column 16) are 18 an input from workpaper WP-KR-CEF-EE II-1.xlsx and WP-KR-CEF-EE II-2.xlsx. A 19 breakdown of the Expenses is provided in Attachment 1, Schedule KR-CEF-EE II-3. The 20 details of the Tax Flow-Thru (Column 18), Tax Flow-Thru Gross-up (Column 19) and Tax 21 Adjustment on Loan (Column 20) are shown in WP-SS-CEF-EE II-1.xlsx, worksheets 22 "EERegAsset-E", "EERegAsset-G", "Bldg Decarb", "IT-E", and "IT-G". ITC Amortization

#### **ATTACHMENT 2**

- 1 (Column 21), ITC Tax Gross-up (Column 22) and Tax Associated with 50% ITC Basis
- 2 Reduction (Column 23) are described above The Monthly Revenue Requirement (Column 24)
- 3 is calculated as the CEF-EE II Program Investment Amortization (Column 4) plus the IT Cost
- 4 Amortization (Column 5), plus the Return Requirement (Column 14) less the CEF-EE II
- 5 Investment Repayments (Column 15) plus the Administrative Expenses (Column 16) less
- 6 Geothermal Revenue Offsets (Column 17), plus Tax Flow-Thru (Column 18), plus Tax Flow-
- 7 Thru Gross-up (Column 19) less Tax Adjustment on Loan (Column 20) less ITC Amortization
- 8 (Column 21), less ITC Tax Gross-up (Column 22) plus Tax Associated with 50% ITC Basis
- 9 Reduction (Column 23).

#### 3. Initial Revenue Requirements

- 11 Q. What are the revenue requirements for the initial rate recovery period?
- 12 A. The electric and gas revenue requirements for the initial rate period of January 1, 2025
- to September 30, 2025 are (\$9.5) million and \$7.9 million, respectively. See Schedule SS-
- 14 CEF-EE II-3.

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- 15 4. Method for Cost Recovery
- 16 Q. Please describe the cost recovery mechanism.
- 17 A. Consistent with the cost recovery methodology for PSE&G's other Board approved
- 18 energy efficiency programs, PSE&G proposes to recover the net revenue requirements
- 19 associated with these CEF-EE II Program components ("CEF-EE IICs") as new components
- of the Company's electric and gas Green Program Recovery Charges ("GPRC"). The electric
- 21 CEF-EE IIC will be applicable to all electric rate schedules on an equal dollar per kilowatt-
- 22 hour basis for recovery of costs associated with the electric allocation of the CEF-EE II

- 1 Program. The gas CEF-EE IIC will be applicable to all gas rate schedules on an equal dollar
- 2 per therm basis for recovery of costs associated with the gas allocation of CEF-EE II. The
- 3 initial CEF-EE IICs will be based on estimated CEF-EE II Program revenue requirements from
- 4 January 1, 2025 through September 30, 2025.

# 5 Q. When is the anticipated implementation of the CEF-EE II?

- 6 A. The initial period for determining rates will be from January 1, 2025 through September
- 7 30, 2025 consistent with the rate recovery period for similar GPRC programs, and rates will
- 8 go into effect as filed for the initial rate period. All CEF-EE II Program costs incurred after
- 9 BPU approval but prior to January 1, 2025 will be deferred until rates go into effect.

# 10 Q. How is recovery anticipated for the subsequent rate periods?

- 11 A. For subsequent rate periods, the CEF-EE IICs will be changed on an annual basis
- 12 incorporating a true-up for actuals and an estimate of the revenue requirements for the
- 13 upcoming recovery period. The calculations of the proposed CEF-EE IICs are shown in
- 14 Schedules SS-CEF-EE II-4E and SS-CEF-EE II-4G, respectively. The Revenue Requirements
- 15 (Column 1) for each period, initial and all subsequent annual periods, are divided by the
- 16 forecasted sales, kilowatt-hours for electric and therms for gas, to determine the electric CEF-
- 17 EE IIC and gas CEF-EE IIC (Column 2) without the New Jersey Sales and Use Tax ("SUT")
- 18 applied.

# 5. Projected CEF-EE II Bill Impacts

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- 2 Q. Please describe the calculation of the bill impacts for the CEF-EE II Program.
- 3 A. An estimate of rate and bill impacts of the CEF-EE II Program has been prepared as
- 4 Schedules SS-CEF-EE II-4E and SS-CEF-EE II-4G, respectively. The calculations of CEF-
- 5 EE IICs without SUT were previously described in the Method of Direct Cost Recovery section
- 6 above. The CEF-EE IICs with SUT (Column 3) are determined by multiplying each CEF-EE
- 7 IIC without SUT (Column 2) by one plus the current SUT rate (6.625%). This Rate Impact
- 8 Analysis uses current rates for calculating the percentage change for all major rate classes. The
- 9 November 1, 2023 current average rates for all electric rate classes are shown on the first row
- of Schedule SS-CEF-EE II-4E. The November 1, 2023 current average rates for all of the gas
- 11 rate classes are shown on Schedule SS-CEF-EE II-4G. In addition, the typical residential
- 12 electric and gas annual bill calculations are also shown in Schedule SS-CEF-EE II-4E and SS-
- 13 CEF-EE II-4G, respectively.

# 14 Q. What are the initial and maximum rates and bill impacts?

- 15 A. The expected decrease from the electric CEF-EE IIC for the initial recovery period
- would be (\$0.000325) per kWh without SUT (\$0.000347) per kWh with SUT) with an
- expected maximum increase occurring in the period from October 1, 2034 through September
- 18 30, 2035 with a rate of \$0.007586 per kWh without SUT (\$0.008089 per kWh with SUT).
- 19 PSE&G's typical residential electric customer using 740 kWh in a summer month and
- 20 577 kWh in an average month (6,920 kWh annually) would experience an initial decrease in
- 21 the average monthly bill from \$117.48 to \$117.28 or \$0.20 or approximately 0.17% (based
- 22 upon rates in effect November 1, 2023 assuming that the customer receives BGS-RSCP service

- 1 from PSE&G). In addition, the expected maximum average monthly bill increase of \$4.66 or
- 2 approximately 3.97% is projected to occur in the period from October 2034 to September 2035.
- The expected increase from the gas CEF-EE IIC for the initial recovery period would
- 4 be \$0.004082 per therm without SUT (\$0.004352 per therm with SUT) with an expected
- 5 maximum increase occurring in the period from October 1, 2028 through September 30, 2029
- 6 with a rate of \$0.044020 per therm without SUT (\$0.046936 per therm with SUT).

PSE&G's typical residential gas heating customers using 172 therms in a winter month and 87 average monthly therms (1,040 therms annually) would experience an initial increase in their average monthly bill from \$93.22 to \$93.60 or \$0.38, or approximately 0.41% (based upon current Delivery Rates and BGSS-RSG charges in effect November 1, 2023 assuming that the customer receives BGSS service from PSE&G and not including any BGSS-RSG Bill Credits). In addition, the expected maximum average monthly bill increase of \$4.07 or approximately 4.36% is projected occur in the period from October 2028 to September 2029.

# 14 Q. Are there any alternatives that could reduce the bill impacts to customers?

A. Yes. If the Company were to increase the amortization of the regulatory assets from ten to fifteen years the estimated initial and maximum bill impacts would be reduced as shown below.

	% Bill Savings			
Amort	Electric Ga			as
Period	min	max	min	max
10 yr	-0.17%	3.97%	0.07%	4.36%
15 yr	-0.27%	3.60%	0.20%	3.87%
Savings	0.00%	0.00%	0.13%	0.00%

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#### 6. Other Schedules

# 2 1. Cumulative GPRC Impact

# 3 Q. Do you provide a projection of the cumulative GPRC impact?

- 4 A. Yes. Schedules SS-CEF-EE II-5E and SS-CEF-EE II-5G show the cumulative rate
- 5 impact of the electric GPRC plus Solar Pilot Recovery Charge ("SPRC") and the gas GPRC
- 6 on all of the class average customers as well as on the typical residential customers.

### **2.** Over / Under Calculation

# 8 Q. How will the Company account for any over- or under-recoveries?

A. Under the Company's proposal, any over/under recovery of the actual revenue requirements compared to revenues would be deferred. In calculating the monthly interest on net over and under recoveries, the interest rate shall be based upon the Company's interest rate obtained on its commercial paper and/or bank credit lines utilized in the preceding month. If both commercial paper and bank credit lines have been utilized, the weighted average of both sources of capital shall be used. In the event that neither commercial paper nor bank credit lines were utilized in the preceding month, the last calculated rate will be used. The interest rate shall not exceed PSE&G's overall rate of return as authorized by the Board as utilized in calculating revenue requirements for the corresponding period. The interest amount charged to the CEF-EE II Program electric and gas deferred balances will be computed using the methodology set forth in Schedule SS-CEF-EE II-5E and SS-CEF-EE II-5G, respectively. The calculation of monthly interest shall be based on the net of tax average monthly balance, consistent with the methodology set forth in Schedules SS-CEF-EE II-5E and SS-CEF-EE II-5E

- balances, and shall be included in the deferred balances at the end of each reconciliation period.
- 2 Near the end of the initial and each subsequent recovery period, the corresponding electric and
- 3 gas deferred balances would be included with forecasted revenue requirements for the
- 4 succeeding period for purpose of setting the revised electric and gas CEF-EECs.

# 5 3. Income Statement / Balance Sheet

# 6 Q. Are there any additional items included with this filing?

- 7 A. Yes, the Board's Order in *I/M/O the Matter of Electric Public Utilities and Gas Public*
- 8 Utilities Offering Energy Efficiency and Conservation Programs, investing in Class I
- 9 Renewable Energy Resources, and Offering Class I Renewable Energy Programs in Their
- 10 Respective Service Territories on a Regulated Basis Pursuant to N.J.S.A. 48:3-98.1, BPU
- Docket No. EO08030164 (Order dated May 12, 2008), at Appendix A, § I(a), requires three
- 12 years of a pro-forma Income Statement and Balance Sheet showing the incremental impacts
- from the CEF-EE II Program. The Income Statement and Balance Sheet for the electric and
- 14 gas CEF-EE II Program for all years is contained in Schedules SS-CEF-EE II-7E and SS-CEF-
- 15 EE II-7G, respectively. Note that the amortization of the regulatory asset associated with the
- 16 CEF-EE II Program Investment described above is considered "Customer Assistance Expense"
- 17 for accounting purposes and is included in the Operations & Maintenance Expense line on the
- 18 Income Statement.

# 1 III. FEDERAL INCOME TAX PRORATION METHODOLOGY

- 2 Q. Why are you utilizing the proration methodology?
- 3 A. In accordance with current IRS regulations, the accumulated deferred Federal income
- 4 tax ("ADFIT") balance used in the calculation of Net Investment must be compliant with the
- 5 IRS Normalization Rules. This entails applying a proration methodology to the forecasted
- 6 changes in the ADFIT balance for depreciable utility-owned plant recovered over a forecasted
- 7 period.
- 8 Q. How does the proration methodology work?
- 9 A. During the forecasted rate period, which is proposed to be October 1 through
- 10 September 30 after the initial period, the monthly Federal deferred income tax balance is
- adjusted by a proration percentage. However, at the conclusion of each rate period the actual
- 12 ADFIT balance is substituted for the prorated ADFIT balance.
- 13 Q. How is the proration percentage calculated?
- 14 A. The proration percentage is calculated as a fraction, the numerator of which is the
- 15 remaining days in the forecasted portion of the rate period after the accrual of a change in the
- ADFIT balance and the denominator of which is the total number of days in the forecasted
- 17 portion of the rate period.
- 18 For example, if the rate period is October 2025 through September 2026, the proration
- 19 factor for changes in the ADFIT balance occurring in October 2018 is approximately 92%,
- 20 calculated as the days between October 31, 2025 (the last day of the month) and September

- 1 30, 2026 (the end of the rate period), or 335 days, divided by the total days in the rate period
- 2 (365).

# 3 IV. INVESTMENT TAX CREDIT METHODOLOGY

- 4 Q. How does the investment tax credit methodology work?
- 5 A. Under the Inflation Reduction Act of 2022 (IRA), the federal tax credit for residential
- 6 geothermal system installations was effective January 1, 2023. A tax credit is a dollar-for-
- 7 dollar amount taxpayers claim on their tax return to reduce the income tax they owe.
- 8 Currently, it is anticipated that the Geothermal Project will be eligible for an ITC of
- 9 forty (40) percent of eligible construction expenditures providing construction starts by
- October 1, 2025. The Company will return all of the ITC it utilizes to customers in accordance
- with Federal income tax law in particular, the normalization rules. The normalization rules
- require the ITC to be returned to customers amortized over the regulatory life of the assets.
- 13 The ITC benefit is partially offset by the reduction in tax depreciation associated with the IRS
- required reduction in the tax basis equal to fifty (50) percent of the ITC. The impact on revenue
- 15 requirements is generated by applying the regulatory depreciation method to the difference
- between the book basis and the tax basis multiplied by the tax rate. Details of these calculations
- 17 can be found in WP-SS-CEF-EE II-2G.

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#### O. How is the Investment Tax Credit calculated?

- 19 A. To calculate the ITC, one multiplies the applicable tax credit percentage by the amount
- spent on eligible property as defined in the tax regulations.

### **ATTACHMENT 2**

- 1 Q. Does this conclude your testimony at this time?
- 2 A. Yes, it does.

### **SCHEDULE INDEX**

Schedule SS-CEF-EE II-0	Stephen Swetz Credentials
Schedule SS-CEF-EE II-1	CEF-EE II Weighted Average Cost of Capital (WACC)
Schedule SS-CEF-EE II-2E	CEF-EE II Electric Revenue Requirements Calculation
Schedule SS-CEF-EE II-2G	CEF-EE II Gas Revenue Requirements Calculation
Schedule SS-CEF-EE II-3	CEF-EE II Proposed Rate Calculation
Schedule SS-CEF-EE II-4E	CEF-EE II Electric Recovery Charge (GPRC) - Rate Impact Analysis
Schedule SS-CEF-EE II-4G	CEF-EE II Gas Recovery Charge (GPRC) - Rate Impact Analysis
Schedule SS-CEF-EE II-5E	CEF-EE II Cumulative Rate Impact Analysis – Solar Pilot Recovery Charge (SPRC) and Electric Green Programs Recovery Charge (GPRC)
Schedule SS-CEF-EE II-5G	CEF-EE II Cumulative Rate Impact Analysis – Gas Green Programs Recovery Charge (GPRC)
Schedule SS-CEF-EE II-6E	CEF-EE II Electric Over / Under Balance Calculation
Schedule SS-CEF-EE II-6G	CEF-EE II Gas Over / Under Balance Calculation
Schedule SS-CEF-EE II-7E	CEF-EE II Electric Income Statement and Balance Sheet
Schedule SS-CEF-EE II-7G	CEF-EE II Gas Income Statement and Balance Sheet

### **ELECTRONIC WORKPAPER INDEX**

WP-SS-CEF-EE II GEO-2.xlsx Calculation of Geothermal Results into Summary

**CREDENTIALS** 1 2 STEPHEN SWETZ 3 4 SR. DIRECTOR-CORPORATE RATES AND REVENUE REQUIREMENTS 5 6 My name is Stephen Swetz and I am employed by PSEG Services 7 Corporation. I am the Sr. Director - Corporate Rates and Revenue Requirements where 8 my main responsibility is to contribute to the development and implementation of electric 9 and gas rates for Public Service Electric and Gas Company (PSE&G, the Company). 10 **WORK EXPERIENCE** 11 I have over 30 years of experience in Rates, Financial Analysis and Operations for three Fortune 500 companies. Since 1991, I have worked in various 12 13 positions within PSEG. I have spent most of my career contributing to the development 14 and implementation of PSE&G electric and gas rates, revenue requirements, pricing and 15 corporate planning with over 20 years of direct experience in Northeastern retail and 16 wholesale electric and gas markets.

As Sr. Director of the Corporate Rates and Revenue Requirements department, I have submitted pre-filed direct cost recovery testimony as well as oral testimony to the New Jersey Board of Public Utilities and the New Jersey Office of Administrative Law for base rate cases, as well as a number of clauses including infrastructure investments, renewable energy, and energy efficiency programs. A list of my prior testimonies can be found on pages 3 and 4 of this document. I have also

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- 1 contributed to other filings including unbundling electric rates and Off-Tariff Rate
- 2 Agreements. I have had a leadership role in various economic analyses, asset valuations,
- 3 rate design, pricing efforts and cost of service studies.
- 4 I am an active member of the American Gas Association's Rate and Strategic
- 5 Issues Committee, the Edison Electric Institute's Rates and Regulatory Affairs Committee
- 6 and the New Jersey Utility Association (NJUA) Finance and Regulatory Committee.

### EDUCATIONAL BACKGROUND

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- 8 I hold a B.S. in Mechanical Engineering from Worcester Polytechnic
- 9 Institute and an MBA from Fairleigh Dickinson University.

### LIST OF PRIOR TESTIMONIES

Part   Section   Part	Company	Utility	Docket	Testimony	Date	Case / Topic
Mod. Storm Controller & Controller   Section						
Mail Control Statistics   Mail Control Sta						
Public Secure Centrol & Con Company   Go   CRESTRINGS & SECURCIAN   Written   Act   Control   CRESTRINGS & CRESTRINGS   Written   Act						
April   Content   Conten					_	
March   Marc						
Public Service Fercine C. Sin Company   G		E/G		written		
Model   Mode		E		written		
March   Control Entern & Got Company   C		G		written		
March Control Entité à du Company   C.    Auth Control Entité à du Company   C.   C.    Auth Control Entité à du Company   C.   C.    Auth Control Entité à du Company   C.    Auth Control Entité à du		G		written		
Mark   Severe   March   Sec General   C.		E		written		
Maile General Enteries & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   6032000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   60320000000   member   Maile Service Pattern & Cast Company   Cg   603200000000000000000000000000000000000				written		
Select Service Service Select Community				written		
Section						
March   Service   Recht   A Get Company   City						
Pablic Service Detail Col (66 Company)						
Paulic Service Electric & Gia Company						
Public Service Destrix & Gis Company						
Additionary   Company						
Paulic Services Electric & Gras Company   G   GR2000000						S4AEXT II, SLII, SLIII / Cost Recovery
Pablic Service Electric & Gias Company						
Public Service Electric & Gos Company   G						
Public Service Electric & Gas Company			GR22060367	written		
Public Service Bettert & Gas Company   E   (\$12,200,005)		G	GR22060362	written		
Public Service Electric & Gist Company		E/G	GR22030152	written		
Public Service Electric & Gas Company   E   RE21121242   written   Nov-21   finderstructure Advancement Program (SAS)		E	ER22020035	written		
Public Service Electric & Gis Company   E/G   E02111211 & G021111212   written   Nov-21   Infrastructure Advancement Program (IAP)		G	GR21121256	written		
Public Service Electric & Gas Company				written		
Public Service Electric & Gas Company	Public Service Electric & Gas Company	E/G	E021111211 & G021111212	written	Nov-21	Infrastructure Advancement Program (IAP)
Public Service Electric & Gas Company	Public Service Electric & Gas Company	E/G	ER21111209 & GR21111210	written	Nov-21	Energy Strong II Program (Energy Strong II) - Second Roll-In
Pablic Service Electric & Gas Company   6   GR21000956 & GR21000956   written   Jun-21   Jun-21   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-21   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPIII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPIII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPIII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPIII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPIII) - Fifth Roll-In   Jun-22   Gas System Modernization Program II (GSMPIII) - Fif	Public Service Electric & Gas Company	E/G	ER21101201 & GR21101202	written	Oct-21	
Public Service Electric & Gas Company   G   ER21060952   written   Jun-21   Gas System Modernization Program II (GSMPII) - Fifth Roll-In	Public Service Electric & Gas Company	E/G	ER21070965 & GR21070966	written	Jul-21	
Public Service Electric & Gas Company   E   RE1006948   written   Jun - 21   PSEG ROW Haven LLC   J. 1-06-40   written   Jun - 21   PSEG G022 AFRR	Public Service Electric & Gas Company				Jun-21	
Public Service Electric & Gas Company   E   RR2006948   written   Jun 21   PSEG ROW Haven LLC   Haven LLC   21-06-40   written   Jun 21   PSEG ROW Haven LLC   Haven LLC   21-06-40   written   Jun 21   PSEG ROW Factor & Gas Company   E   RR20060862   written   Jun 21   Margin Adjustment Charge (MAC) / Cost Recovery	Public Service Electric & Gas Company				Jun-21	Gas System Modernization Program II (GSMPII) - Fifth Roll-In
PAGE   New Naven LLC	Public Service Electric & Gas Company				lun-21	CDDC 2024
Public Service Electric & Gas Company   G   GR.21006882   written   Jun-21   Margin Adjustment Charge (MAC) / Cost Recovery						i
Public Service Electric & Gas Company   E   ER20508595   written   Dec-20   Gas System Modernization Program II (GSMPII) - Forth Roll-In						
Public Service Electric & Gas Company	Public Service Electric & Gas Company				May-21	
Public Service Electric & Gas Company	Public Service Electric & Gas Company				Dec-20	
Public Service Electric & Gas Company	Public Service Electric & Gas Company		GR20120763		Dec-20	Remediation Adjustment Charge-RAC 28
Public Service Electric & Gas Company   E/G   ER20100685 & GR20100685   written   Oct-20   Tax Adjustment Clauses (TACS)   Cost Recovery	Public Service Electric & Gas Company				Nov-20	Energy Strong II Program (Energy Strong II) - First Roll-In
Public Service Electric & Gas Company		E/G	ER20100685 & GR20100686	written		
Public Service Electric & Gas Company	Public Service Electric & Gas Company	E	ER20100658	written	Oct-20	
Public Service Electric & Gas Company  E ER20060454 written Jun-20  Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery  Public Service Electric & Gas Company  G GR20060470 written Jun-20  Weather Normalization Charge / Cost Recovery  Public Service Electric & Gas Company  E ER20040324 written Jun-20  Public Service Electric & Gas Company  E/G GR20010073 written Apr-20  Public Service Electric & Gas Company  E/G GR2010073 written Jun-20  Public Service Electric & Gas Company  E/G GR2010073 written Dec-19  Public Service Electric & Gas Company  E/G ER19091302 & GR19120002 written Dec-19  Public Service Electric & Gas Company  E/G ER19091302 & GR19120002 written Jul-19  Public Service Electric & Gas Company  E/G ER19060764 & GR19060765 written Jul-19  Public Service Electric & Gas Company  E/G ER19060764 & GR19060765 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G GR19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  Public Service Electric & Gas Company  E/G ER19060761 written Jul-19  E	Public Service Electric & Gas Company	E/G	ER20060467 & GR20060468	written	Jun-20	
Public Service Electric & Gas Company G GR20060470 written Jun-20 Weather Normalization Charge / Cost Recovery  Public Service Electric & Gas Company G GR20060384 written Jun-20 Margin Adjustment Charge (MAC) / Cost Recovery  Public Service Electric & Gas Company E ER20040324 written Jun-20 Remediation Adjustment Charge (MAC) / Cost Recovery  Public Service Electric & Gas Company E/G GR20010073 written Jan-20 Remediation Adjustment Charge-RAC 27  Public Service Electric & Gas Company E/G ER1901302 & GR19012002 written Dec-19 Gas System Modernization Program II (GSMPII) - Second Roll-In  Public Service Electric & Gas Company E/G ER1901303 written Jul-19 Societal Benefits Charge (SBC) / Cost Recovery  Public Service Electric & Gas Company E/G ER19060765 written Jul-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4AII, S4AEXT, S4AEXT  Public Service Electric & Gas Company G GR19060766 written Jun-19 Gas System Modernization Program II (GSMPII) - First Roll-In  Public Service Electric & Gas Company E/G GR19060761 written Jun-19 Gas System Modernization Program II (GSMPII) - First Roll-In  Public Service Electric & Gas Company E/G GR19060761 written Jun-19 Gas System Modernization Program II (GSMPII) - First Roll-In  Public Service Electric & Gas Company E/G GR19060761 written Jun-19 Weather Normalization Charge / Cost Recovery  Public Service Electric & Gas Company E/G GR19060698 written May-19 Weather Normalization Charge (SRC)-Solar Loan I) / Cost Recovery  Public Service Electric & Gas Company E/G GR19060698 written May-19 Margin Adjustment Charge (MAC) / Cost Recovery  Public Service Electric & Gas Company E/G E018101113 & G018101112 oral May-19 Glean Energy Future - Energy Efficiency Program Approval  Public Service Electric & Gas Company E/G GR1810113 & G018101111 written Dec-18 Clean Energy Future - Energy Efficiency Program Approval  Public Service Electric & Gas Company E/G GR18101113 & G018101111 written Dec-18 Clean Energy Future - Energy Efficiency Program Approval  Public Serv	Public Service Electric & Gas Company	G	GR20060464	written	Jun-20	Gas System Modernization Program II (GSMPII) - Third Roll-In
Public Service Electric & Gas Company G GR20060384 written Jun-20 Margin Adjustment Charge (MAC) / Cost Recovery  Public Service Electric & Gas Company E GR20040324 written Apr-20 Transitional Renewable Energy Certificate Program (TREC)  Public Service Electric & Gas Company E/G GR20010073 written Jan-20 Remediation Adjustment Charge-RAC 27  Public Service Electric & Gas Company G GR19120002 written Dec-19 Gas System Modernization Program II (GSMPII) - Second Roll-In  Public Service Electric & Gas Company E/G ER19091302 & GR1991303 written Aug-19 Tax Adjustment Clauses (TACS)  Public Service Electric & Gas Company E/G ER19060765 written Jun-19  Public Service Electric & Gas Company E/G ER19060766 written Jun-19  Public Service Electric & Gas Company G GR19060766 written Jun-19  Public Service Electric & Gas Company G GR19060761 written Jun-19  Public Service Electric & Gas Company E/G E0180060741 written Jun-19  Public Service Electric & Gas Company E/G E018006092 & G018060630 oral Jun-19  Public Service Electric & Gas Company G GR19060768 written Jun-19  Public Service Electric & Gas Company E/G E018060693 written Jun-19  Public Service Electric & Gas Company E/G E018060693 written Jun-19  Public Service Electric & Gas Company E/G E018060693 written Jun-19  Public Service Electric & Gas Company E/G E018060693 written May-19  Public Service Electric & Gas Company E/G E018060693 written May-19  Public Service Electric & Gas Company E/G E01801113 & G018101112 oral May-19  Public Service Electric & Gas Company E/G E018101113 & G018101112 written May-19  Public Service Electric & Gas Company E/G E018101113 & G018101112 written Dec-18  Clean Energy Future - Energy Efficiency Program Approval  Public Service Electric & Gas Company E/G G018101113 written Dec-18  Clean Energy Future - Energy Cloud Program (EC)  Public Service Electric & Gas Company E/G G18101111 written Dec-18  Clean Energy Future - Energy Cloud Program (EC)	Public Service Electric & Gas Company	E	ER20060454	written	Jun-20	Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery
Public Service Electric & Gas Company  E FR20040324 written Apr-20 Transitional Renewable Energy Certificate Program (TREC)  Public Service Electric & Gas Company  E/G GR20010073 written Jan-20 Remediation Adjustment Charge-RAC 27  Public Service Electric & Gas Company  E/G ER19091302 & GR19120002 written Dec-19 Gas System Modernization Program II (GSMPII) - Second Roll-in  Public Service Electric & Gas Company  E/G ER19091302 & GR1901303 written Aug-19 Tax Adjustment Clauses (TACs)  Public Service Electric & Gas Company  E/G ER19070850 written Jul-19 Societal Benefits Charge (SBC) / Cost Recovery  Public Service Electric & Gas Company  E/G ER19060764 & GR19060765 written Jul-19 Gas System Modernization Program II (GSMPII) - First Roll-in  Public Service Electric & Gas Company  G GR19060766 written Jul-19 Gas System Modernization Program II (GSMPII) - First Roll-in  Public Service Electric & Gas Company  E ER19060761 written Jul-19 Gas System Modernization Program II (GSMPII) - First Roll-in  Public Service Electric & Gas Company  E ER19060761 written Jul-19 Gas System Modernization Program II (GSMPII) - First Roll-in  Public Service Electric & Gas Company  E ER19060761 written Jul-19 Gas System Modernization Charge (CPRC)-Including CA, DR, EEE, EEE Ext, S4AII, S4AEXT, S4AEXT II, Jul-19 Gas System Modernization Program II (GSMPII) - First Roll-in  Public Service Electric & Gas Company  E ER19060761 written Jul-19 Gas System Modernization Program II (GSMPII) - First Roll-in  Public Service Electric & Gas Company  E ER19060761 written Jul-19 Gas System Modernization Program II (GSMPII) - First Roll-in  Public Service Electric & Gas Company  E ER19060761 written Jul-19 Gas System Modernization Program II (GSMPII) - First Roll-in  Public Service Electric & Gas Company  E ER19060765 written Jul-19 Gas System Modernization Program II (GSMPII) - First Roll-in  Public Service Electric & Gas Company  E ER19060765 written Jul-19 Gas System Modernization Program II (GSMPII) - First Roll-in  Public Service Electric & Gas C	Public Service Electric & Gas Company	G	GR20060470	written	Jun-20	Weather Normalization Charge / Cost Recovery
Public Service Electric & Gas Company E/G GR20010073 written Jan-20 Remediation Adjustment Charge-RAC 27  Public Service Electric & Gas Company E/G ER19091302 & GR19120002 written Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, S4AEXT Jun-19 Green Program In (GSMPII) - First Roll-In Public Service Electric & Gas Company E ER19060761 written Jun-19 Weather Normalization Program II (GSMPII) - First Roll-In Public Service Electric & Gas Company E GR19060761 written May-19 Green Program Approval Public Service Electric & Gas Company E GR19060638 written May-19 Green Program Approval Public Service Electric & Gas Company E GR19040530 written Apr-19 Madison AkV Substation Project (Madison & Marshall) Public Service Electric & Gas Company E GR18101113 written Dec-18 Clean Energy Future - Energy Cloud Program (	Public Service Electric & Gas Company	G	GR20060384	written	Jun-20	Margin Adjustment Charge (MAC) / Cost Recovery
Public Service Electric & Gas Company G GR19120002 written Public Service Electric & Gas Company E/G ER19091302 & GR19091303 written Public Service Electric & Gas Company E/G ER19091302 & GR19091303 written Public Service Electric & Gas Company E/G ER19060765 written Public Service Electric & Gas Company E/G ER19060766 written Public Service Electric & Gas Company Fublic	Public Service Electric & Gas Company	E	ER20040324	written	Apr-20	Transitional Renewable Energy Certificate Program (TREC)
Public Service Electric & Gas Company  E/G  ER19070850  Written  Jul-19  Societal Benefits Charge (SBC) / Cost Recovery  Public Service Electric & Gas Company  E/G  ER19060764 & GR19060765  Written  Jun-19  Public Service Electric & Gas Company  F/G  ER19060766  GR19060766  Written  Jun-19  GG GR19060766  Written  Jun-19  Weather Normalization Program II (GSMPII) - First Roll-In  Weather Normalization Charge / Cost Recovery  Public Service Electric & Gas Company  E/G  ER19060761  Written  Jun-19  Public Service Electric & Gas Company  E/G  ER19060741  Written  Jun-19  Public Service Electric & Gas Company  E/G  ER19060629 & GO18060630  Oral  Jun-19  Public Service Electric & Gas Company  E/G  ER19040523  Written  May-19  Public Service Electric & Gas Company  E/G  ER19040530  Written  May-19  Public Service Electric & Gas Company  E/G  ER19040530  Written  May-19  Madison 4kV Substation Program II (GSMPII) - First Roll-In  May-19  Macgin Adjustment Charge (MAC) / Cost Recovery  Public Service Electric & Gas Company  E/G  ER19040530  Written  Apr-19  Madison 4kV Substation Program Approval  Macgin Adjustment Charge (Mac) / Cost Recovery  Madison 4kV Substation Project (Madison & Marshall)  Public Service Electric & Gas Company  E/G  ER19040530  Written  Apr-19  Macgin Adjustment Charge (Mac) / Cost Recovery  Madison 4kV Substation Project (Madison & Marshall)  Public Service Electric & Gas Company  E/G  ER19040530  Written  Dec-18  Clean Energy Future - Energy Efficiency Program Approval  Remediation Adjustment Charge - Cost Recovery  Remediation Adjustment Charge (Nac) / Cost Recovery  Public Service Electric & Gas Company  E/G  ER19040530  Written  Dec-18  Clean Energy Future - Energy Efficiency Program Approval  Remediation Adjustment Charge - Cost Recovery  Public Service Electric & Gas Company  E/G  ER19040530  Written  Dec-18  Clean Energy Future - Energy Cloud Program (EC)  Public Service Electric & Gas Company  E/G  ER19040530  Written  Dec-18  Clean Energy Future - Energy Cloud Program (EC)	Public Service Electric & Gas Company	E/G	GR20010073	written	Jan-20	Remediation Adjustment Charge-RAC 27
Public Service Electric & Gas Company  E/G ER19070850 Written  Jul-19 Societal Benefits Charge (SBC) / Cost Recovery Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, SAAII, SAAEXT, SAAEXT II, SLII, SLIII / Cost Recovery Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, SAAII, SAAEXT, SAAEXT II, SLIII, SLIII / Cost Recovery Public Service Electric & Gas Company  G GR19060761 Written  Jun-19 Weather Normalization Charge (SBC) / Cost Recovery  Weather Normalization Charge (SC) / Cost Recovery  Weather Normalization Charge (SC) / Cost Recovery  We		G		written	Dec-19	Gas System Modernization Program II (GSMPII) - Second Roll-In
Public Service Electric & Gas Company  E/G  ER19060764 & GR19060765  Written  Jun-19  GR19060766  Written  Jun-19  GR19060766  Written  Jun-19  GR19060766  Written  Jun-19  GR19060766  Written  Jun-19  Weather Normalization Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4Ali, S4AEXT, S4AEXT  Jun-19  Public Service Electric & Gas Company  E  ER19060761  Written  Jun-19  Weather Normalization Charge / Cost Recovery  Public Service Electric & Gas Company  E  ER19060741  Written  Jun-19  Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery  Public Service Electric & Gas Company  E  ER19060763  Oral  Jun-19  Fengy Strong II / Revenue Requirements & Rate Design  May-19  Margin Adjustment Charge (MAC) / Cost Recovery  Public Service Electric & Gas Company  E  ER19040523  Written  May-19  Public Service Electric & Gas Company  E  ER19040530  Written  Apr-19  Madison 4kV Substation Project (Madison & Marshall)  Public Service Electric & Gas Company  E  ER19040530  Written  Apr-19  Madison 4kV Substation Project (Madison & Marshall)  Public Service Electric & Gas Company  E/G  ER19040530  Written  Apr-19  Madison 4kV Substation Project (Madison & Marshall)  Public Service Electric & Gas Company  E/G  GR18121258  Written  Nov-18  Remediation Adjustment Charge-RAC 26  Public Service Electric & Gas Company  E  E018101111  Written  Oct-18  Clean Energy Future - Energy Efficiency Program Approval  Remediation Adjustment Charge-RAC 26  E018101111  Written  Oct-18  Clean Energy Future - Energy Cloud Program (EC)				written		
Public Service Electric & Gas Company E/G ER19060764 & GR19060765 written  Public Service Electric & Gas Company G GR19060766 written  Public Service Electric & Gas Company G GR19060761 written  Public Service Electric & Gas Company E/G E0181061112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G E018101113 & G018101112 written  Public Service Electric & Gas Company E/G GR18121258 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 written  Public Service Electric & Gas Company E/G GR1812158 Written  Public Service Electric & Gas Company E/G GR1812158 Written  Public Service Electric & Gas Com		E/G	ER19070850	written	Jul-19	
Public Service Electric & Gas Company  G GR19060761 written  Jun-19  Weather Normalization Charge / Cost Recovery  Public Service Electric & Gas Company  E ER19060741 written  Jun-19  Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery  Public Service Electric & Gas Company  E/G E018060629 & G018060630 oral  Jun-19  Energy Strong II / Revenue Requirements & Rate Design  May-19  Margin Adjustment Charge (MAC) / Cost Recovery  Public Service Electric & Gas Company  E ER19040523 written  May-19  Non-Utility Generation Charge (NGC) / Cost Recovery  Public Service Electric & Gas Company  E ER19040530 written  Apr-19  Madison 4kV Substation Project (Madison & Marshall)  Public Service Electric & Gas Company  E/G GR1810113 & G018101112 written  Dec-18  Clean Energy Future - Energy Efficiency Program Approval  Remediation Adjustment Charge (NGC) / Cost Recovery  Remediation Adjustment Charge (NGC) / Cost Recovery  May-19  May-19  Clean Energy Future - Energy Efficiency Program Approval  Remediation Adjustment Charge (NGC) / Cost Recovery  Public Service Electric & Gas Company  E/G GR18121258 written  Nov-18  Public Service Electric & Gas Company  E E018101111 written  Oct-18  Clean Energy Future - Energy Cloud Program (EC)  Clean Energy Future - Energy Cloud Program (EC)  Clean Energy Future - Energy Cloud Program (EC)						II, SLII, SLIII / Cost Recovery
Public Service Electric & Gas Company  E ER19060741 written Jun-19 Public Service Electric & Gas Company  E G E018060629 & G018060630 oral Jun-19 Public Service Electric & Gas Company  E G GR19060698 written May-19 Public Service Electric & Gas Company  E ER19040523 written May-19 Public Service Electric & Gas Company  E ER19040523 written May-19 Public Service Electric & Gas Company  E ER19040523 written May-19 Public Service Electric & Gas Company  E ER19040523 written May-19 Public Service Electric & Gas Company  E ER19040523 written May-19 Public Service Electric & Gas Company  E ER19040530 written Apr-19 Public Service Electric & Gas Company  E GEN1801113 & G018101112 written Dec-18 Clean Energy Future - Energy Efficiency Program Approval  Remediation Adjustment Charge (NGC) / Cost Recovery  May-19 Clean Energy Future - Energy Efficiency Program Approval  Remediation Adjustment Charge (NGC) / Cost Recovery  May-19 Clean Energy Future - Energy Efficiency Program Approval  Remediation Adjustment Charge (NGC) / Cost Recovery  May-19 Clean Energy Future - Energy Efficiency Program Approval  Remediation Adjustment Charge (NGC) / Cost Recovery  May-19 Clean Energy Future - Energy Colud Program (EC)  Public Service Electric & Gas Company  E E018101111 written Oct-18 Clean Energy Future - Energy Cloud Program (EC)				written		
Public Service Electric & Gas Company E/G E018060629 & G018060630 or al Jun-19 Energy Strong II / Revenue Requirements & Rate Design  Public Service Electric & Gas Company G GR19060698 written May-19 Margin Adjustment Charge (MAC) / Cost Recovery  Public Service Electric & Gas Company E ER19040523 written May-19 Non-Utility Generation Charge (NGC) / Cost Recovery  Public Service Electric & Gas Company E/G E018101113 & G018101112 or al May-19 Glean Energy Future - Energy Efficiency Program Approval  Public Service Electric & Gas Company E ER19040530 written Apr-19 Madison 4kV Substation Project (Madison & Marshall)  Public Service Electric & Gas Company E/G GR18121258 written Nov-18 Remediation Adjustment Charge (Find Company Find Company)  Public Service Electric & Gas Company E FOG BR18101115 written Oct-18 Clean Energy Future - Energy Cloud Program (EC)  Public Service Electric & Gas Company E FOG BR18101115 written Oct-18 Clean Energy Future - Energy Cloud Program (EC)  Public Service Electric & Gas Company E FOG BR18101111 written Oct-18 Clean Energy Future - Energy Cloud Program (EC)				written		
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Public Service Electric & Gas Company E ER19040523 written May-19 Non-Utility Generation Charge (NGC) / Cost Recovery  Public Service Electric & Gas Company E G E018101113 & G018101112 oral May-19 (Lean Energy Future - Energy Efficiency Program Approval  Public Service Electric & Gas Company E ER19040530 written Apr-19 Madison 4kV Substation Project (Madison & Marshall)  Public Service Electric & Gas Company E/G E018101113 & G018101112 written Dec-18 (Lean Energy Future - Energy Efficiency Program Approval  Public Service Electric & Gas Company E/G GR18121258 written Nov-18 Remediation Adjustment Charge-RAC 26  Public Service Electric & Gas Company E E018101115 written Oct-18 (Lean Energy Future - Energy Cloud Program (EC)  Public Service Electric & Gas Company E E018101111 written Oct-18 (Lean Energy Future- Energy Cloud Program (EC)						<u> </u>
Public Service Electric & Gas Company E/G E018101113 & G018101112 or al May-19 (lean Energy Future - Energy Efficiency Program Approval  Public Service Electric & Gas Company E ER19040530 written Apr-19 Madison 4kV Substation Project (Madison & Marshall)  Public Service Electric & Gas Company E/G E018101113 & G018101112 written Dec-18 (lean Energy Future - Energy Efficiency Program Approval  Public Service Electric & Gas Company E/G GR18121258 written Nov-18 Remediation Adjustment Charge-RAC 26  Public Service Electric & Gas Company E E018101115 written Oct-18 (lean Energy Future - Energy Cloud Program (EC)  Public Service Electric & Gas Company E E018101111 written Oct-18 (lean Energy Future- Energy Cloud Program (EC)	• ' '					
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Public Service Electric & Gas Company E/G E018101113 & G018101112 written Dec-18 Clean Energy Future - Energy Efficiency Program Approval  Public Service Electric & Gas Company E/G GR18121258 written Nov-18 Remediation Adjustment Charge-RAC 26  Public Service Electric & Gas Company E E018101115 written Oct-18 Clean Energy Future - Energy Cloud Program (EC)  Public Service Electric & Gas Company E E018101111 written Oct-18 Clean Energy Future-Electric Vehicle And Energy Storage Programs (EVES)						
Public Service Electric & Gas Company E/G GR18121258 written Nov-18 Remediation Adjustment Charge-RAC 26  Public Service Electric & Gas Company E E018101115 written Oct-18 Clean Energy Future - Energy Cloud Program (EC)  Public Service Electric & Gas Company E E018101111 written Oct-18 Clean Energy Future-Electric Vehicle And Energy Storage Programs (EVES)						
Public Service Electric & Gas Company E E018101115 written Oct-18 Clean Energy Future - Energy Cloud Program (EC) Public Service Electric & Gas Company E E018101111 written Oct-18 Clean Energy Future-Electric Vehicle And Energy Storage Programs (EVES)						
Public Service Electric & Gas Company E E018101111 written Oct-18 Clean Energy Future-Electric Vehicle And Energy Storage Programs (EVES)						
	Public Service Electric & Gas Company  Public Service Electric & Gas Company	G	EO18101111 GR18070831	written	Jul-18	Clean Energy Future-Electric Vehicle And Energy Storage Programs (EVES) Gas System Modernization Program (GSMP) - Third Roll-In

#### LIST OF PRIOR TESTIMONIES

Company	Utility	Docket	Testimony	Date	Case / Topic
Public Service Electric & Gas Company	E/G	ER18070688 & GR18070689	written	Jun-18	Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4AII, S4AEXT, S4AEXT
Public Service Electric & Gas Company	E		written	Jun-18	III, SLIII, SLIII / Cost Recovery
		ER18060681			Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery
Public Service Electric & Gas Company	G	GR18060675	written	Jun-18	Weather Normalization Charge / Cost Recovery
Public Service Electric & Gas Company	E/G	EO18060629 & GO18060630	written	Jun-18	Energy Strong II / Revenue Requirements & Rate Design
Public Service Electric & Gas Company	G	GR18060605	written	Jun-18	Margin Adjustment Charge (MAC) / Cost Recovery
Public Service Electric & Gas Company	E/G	ER18040358 & GR18040359	written	Mar-18	Energy Strong / Revenue Requirements & Rate Design - Eighth Roll-in
Public Service Electric & Gas Company	E/G	ER18030231	written	Mar-18	Tax Cuts and Job Acts of 2017
Public Service Electric & Gas Company	E/G	GR18020093	written	Feb-18	Remediation Adjustment Charge-RAC 25
Public Service Electric & Gas Company	E/G	ER18010029 & GR18010030	written	Jan-18	Base Rate Proceeding / Cost of Service & Rate Design
Public Service Electric & Gas Company	E E	ER17101027	written	Sep-17	Energy Strong / Revenue Requirements & Rate Design - Seventh Roll-in
Public Service Electric & Gas Company	G	GR17070776	written	Jul-17	Gas System Modernization Program II (GSMP II)
Public Service Electric & Gas Company	G		written	Jul-17	Gas System Modernization Program (GSMP) - Second Roll-In
		GR17070775			Substitution (Spain (SSIII) Second for in
Public Service Electric & Gas Company	G	GR17060720	written	Jul-17	Weather Normalization Charge / Cost Recovery
Public Service Electric & Gas Company	E/G	ER17070724 & GR17070725	written	Jul-17	Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4AII, S4AEXT, S4AEXT
Public Service Electric & Gas Company	E	ER17070723	written	Jul-17	Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery
Public Service Electric & Gas Company	G	GR17060593	written	Jun-17	Margin Adjustment Charge (MAC) / Cost Recovery
Public Service Electric & Gas Company	E/G	ER17030324 & GR17030325	written	Mar-17	Energy Strong / Revenue Requirements & Rate Design - Sixth Roll-in
Public Service Electric & Gas Company	E/G	EO14080897	written	Mar-17	Energy Efficiency 2017 Program
Public Service Electric & Gas Company	E/G	ER17020136	written	Feb-17	Societal Benefits Charge (SBC) / Cost Recovery
Public Service Electric & Gas Company	E/G	GR16111064	written	Nov-16	Remediation Adjustment Charge-RAC 24
Public Service Electric & Gas Company	E	ER16090918	written	Sep-16	Energy Strong / Revenue Requirements & Rate Design - Fifth Roll-in
Public Service Electric & Gas Company	E	EO16080788	written	Aug-16	Construction of Mason St Substation
Public Service Electric & Gas Company	-	ER16080785	written	Aug-16	Non-Utility Generation Charge (NGC) / Cost Recovery
	E				,
Public Service Electric & Gas Company	G	GR16070711	written	Jul-16	Gas System Modernization Program (GSMP) - First Roll-In
Public Service Electric & Gas Company	G	GR16070617	written	Jul-16	Weather Normalization Charge / Cost Recovery
				Jul-16	Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4All, S4AEXT, SLII,
Public Service Electric & Gas Company	E/G	ER16070613 & GR16070614	written		SLIII / Cost Recovery
Public Service Electric & Gas Company	E	ER16070616	written	Jul-16	Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery
Public Service Electric & Gas Company	G	GR16060484	written	Jun-16	Margin Adjustment Charge (MAC) / Cost Recovery
Public Service Electric & Gas Company				May-16	Solar 4 All Extension II (S4Allext II) / Revenue Requirements & Rate Design
	E	EO16050412	written		
Public Service Electric & Gas Company Public Service Electric & Gas Company	E/G E/G	ER16030272 & GR16030273	written	Mar-16 Nov-15	Energy Strong / Revenue Requirements & Rate Design - Fourth Roll-in
Public Service Electric & Gas Company  Public Service Electric & Gas Company	E/G	GR15111294 ER15101180	written written	Sep-15	Remediation Adjustment Charge-RAC 23 Energy Strong / Revenue Requirements & Rate Design - Third Roll-in
			written		Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4AII, S4AEXT, SLII,
Public Service Electric & Gas Company	E/G	ER15070757 & GR15070758		Jul-15	SLIII / Cost Recovery
Public Service Electric & Gas Company	E	ER15060754	written	Jul-15	Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery
Public Service Electric & Gas Company  Public Service Electric & Gas Company	G G	GR15060748 GR15060646	written written	Jul-15 Jun-15	Weather Normalization Charge / Cost Recovery  Margin Adjustment Charge (MAC) / Cost Recovery
Public Service Electric & Gas Company	E/G	ER15050558	written	May-15	Societal Benefits Charge (SBC) / Cost Recovery
Public Service Electric & Gas Company	E	ER15050558	written	May-15	Non-Utility Generation Charge (NGC) / Cost Recovery
Public Service Electric & Gas Company Public Service Electric & Gas Company	E/G G	ER15030389 & GR15030390 GR15030272	written written	Mar-15 Feb-15	Energy Strong / Revenue Requirements & Rate Design - Second Roll-in
Public Service Electric & Gas Company  Public Service Electric & Gas Company	E/G	GR14121411	written	Dec-14	Gas System Modernization Program (GSMP)  Remediation Adjustment Charge-RAC 22
Public Service Electric & Gas Company	E/G	ER14091074	written	Sep-14	Energy Strong / Revenue Requirements & Rate Design - First Roll-in
Public Service Electric & Gas Company	E/G	EO14080897	written	Aug-14	EEE Ext II
Public Service Electric & Gas Company	G	ER14070656	written	Jul-14	Weather Normalization Charge / Cost Recovery
Public Service Electric & Gas Company	E/G	ER14070651 & GR14070652	written	Jul-14	Green Programs Recovery Charge (GPRC)-Including CA, DR, EEE, EEE Ext, S4AII, S4AEXT, SLII, SLIII / Cost Recovery
Public Service Electric & Gas Company	Е	ER14070650	written	Jul-14	Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery
Public Service Electric & Gas Company	G	GR14050511	written	May-14	Margin Adjustment Charge (MAC) / Cost Recovery
Public Service Electric & Gas Company	E/G	GR14040375	written	Apr-14	Remediation Adjustment Charge-RAC 21
Public Service Electric & Gas Company	E/G	ER13070603 & GR13070604	written	Jun-13	Green Programs Recovery Charge (GPRC)-Including DR, EEE, EEE Ext, CA, S4AII, SLII / Cost Recovery
Public Service Electric & Gas Company	E	ER13070605	written	Jul-13	Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery
Public Service Electric & Gas Company	G	GR13070615	written		Weather Normalization Charge / Cost Recovery
Public Service Electric & Gas Company  Public Service Electric & Gas Company	G E/G	GR13060445 EO13020155 & GO13020156	written written/oral	May-13 Mar-13	Margin Adjustment Charge (MAC) / Cost Recovery
Public Service Electric & Gas Company  Public Service Electric & Gas Company	G E/G	GO12030188	written/oral	Mar-13	Energy Strong / Revenue Requirements & Rate Design - Program Approval Appliance Service / Tariff Support
Public Service Electric & Gas Company	E	ER12070599	written	Jul-12	Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery
Public Service Electric & Gas Company	E/G	ER12070606 & GR12070605	written	Jul-12	RGGI Recovery Charges (RRC)-Including DR, EEE, EEE Ext, CA, S4AII, SLII / Cost Recovery
Public Service Electric & Gas Company	E E	EO12080721 EO12080721	written/oral	Jul-12	Solar Loan III (SLIII) / Revenue Requirements & Rate Design - Program Approval
Public Service Electric & Gas Company  Public Service Electric & Gas Company	G	GR12080721 GR12060489	written/oral written	Jul-12 Jun-12	Solar 4 All Extension(S4Allext) / Revenue Requirements & Rate Design - Program Approval  Margin Adjustment Charge (MAC) / Cost Recovery
Public Service Electric & Gas Company	G	GR12060583	written	Jun-12	Weather Normalization Charge / Cost Recovery
Public Service Electric & Gas Company	E/G	ER12030207	written	Mar-12	Societal Benefits Charge (SBC) / Cost Recovery
Public Service Electric & Gas Company	E	ER12030207	written	Mar-12	Non-Utility Generation Charge (NGC) / Cost Recovery
Public Service Electric & Gas Company	G	GR11060338	written	Jun-11	Margin Adjustment Charge (MAC) / Revenue Requirements & Rate Design - Program Approval
Public Service Electric & Gas Company	G	GR11060395	written	Jun-11	Weather Normalization Charge / Revenue Requirements & Rate Design - Program Approval
Public Service Electric & Gas Company	E	EO11010030	written	Jan-11	Economic Energy Efficiency Extension (EEEext) / Revenue Requirements & Rate Design -
					Program Approval
Public Service Electric & Gas Company Public Service Electric & Gas Company	E/G E/G	ER10100737 ER10080550	written written	Oct-10 Aug-10	RGGI Recovery Charges (RRC)-Including DR, EEE, CA, S4All, SLII / Cost Recovery
Public Service Electric & Gas Company  Public Service Electric & Gas Company	E/G	ER10080550 ER10080550	written	Aug-10 Aug-10	Societal Benefits Charge (SBC) / Cost Recovery  Non-Utility Generation Charge (NGC) / Cost Recovery
Public Service Electric & Gas Company	E/G	GR09050422	written/oral	Mar-10	Base Rate Proceeding / Cost of Service & Rate Design
Public Service Electric & Gas Company	E	ER10030220	written	Mar-10	Solar Pilot Recovery Charge (SPRC-Solar Loan I) / Cost Recovery
Public Service Electric & Gas Company	E	EO09030249	written	Mar-09	Solar Loan II(SLII) / Revenue Requirements & Rate Design - Program Approval
Public Service Electric & Gas Company	E/G	EO09010056	written	Feb-09	Economic Energy Efficiency(EEE) / Revenue Requirements & Rate Design - Program Approval
Public Service Electric & Gas Company	E	EO09020125	written	Feb-09	Solar 4 All (S4All) / Revenue Requirements & Rate Design - Program Approval
Public Service Electric & Gas Company	E	E008080544	written	Aug-08	Demand Response (DR) / Revenue Requirements & Rate Design - Program Approval
Public Service Electric & Gas Company	E/G	ER10100737	written	Jun-08	Carbon Abatement (CA) / Revenue Requirements & Rate Design - Program Approval

### Schedule SS-CEF-EE II-1

## PSE&G Clean Energy Future Energy Efficiency II Program Weighted Average Cost of Capital (WACC)

			Weighted	Revenue Conversion	Pre-Tax Weighted	Discount
	<u>Percent</u>	Cost	Cost	<u>Factor</u>	Cost	<u>Rate</u>
Long Term Debt	45.53%	3.9567%	1.8017%	1.0000	1.8017%	
Custumer Deposits	0.47%	0.8700%	0.0041%	1.0000	<u>0.0041%</u>	
Sub-total	46.00%	•	1.8058%		1.8058%	1.2982%
	54.00%	9.60%	<u>5.1836%</u>	1.3910	<u>7.2105%</u>	<u>5.1836%</u>
Total	100.00%		6.99%		9.02%	6.4818%
Monthly WACC			0.5825%		0.7514%	

Reflects a tax rate of 28.11%

### PSE&G Clean Energy Future Energy Efficiency II Program Electric Revenue Requirements Calculation

SS-CEF-EE II-2E Page 1 of 2

								C effective 11/1/2018 effective 11/1/2018	0.7514% 28.11%				
	(1)	(1a)	(1b)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Monthly	PSE&G Program Investment	Customer Side Geothermal	Utility Owned Geothermal	Capitalized IT Costs	Gross Plant	PSE&G Program Investment Amortization	IT Cost Amortization	Accumulated Amortization	Net Plant	Tax Depreciation	Book Depreciation Tax Basis	Deferred Income Tax	Beginning Accumulated Deferred Income Tax
Calculation													
Oct-24													
Nov-24	-	-	-	-	-	-	-		-	-	-	-	-
Dec-24	-	-	-	-	-	-	-	-	-	-	-	-	-
Jan-25	17,494,175	•			17,494,175	72,892	•	72,892	17,421,283	16,721,190	69,672	1,183,923	
Feb-25	18,675,645	-	-	-	36,169,821	223,600	-	296,492	35,873,328	17,782,454	213,437	1,249,157	1,183,923
Mar-25	38,024,426	-	-	-	74,194,247	459,850	-	756,343	73,437,904	33,665,458	427,803	2,363,197	2,433,080
Apr-25 May-25	51,565,539 51,604,928				125,759,786 177,364,713	833,142 1,263,019	-	1,589,484 2,852,503	124,170,301 174,512,210	40,180,786 40,208,324	735,496 1,070,450	2,804,560 2,782,703	4,796,277 7,600,837
Jun-25	51,604,928	-	-		228,969,641	1,693,060		4,545,563	224,424,078	40,208,324	1,405,520	2,758,879	10,383,540
Jul-25	51,389,718				280,359,359	2,122,204	_	6,667,767	273,691,591	39,101,666	1,735,978	2,656,700	13,142,420
Aug-25	50,826,569	-	-	-	331,185,928	2,548,105	-	9,215,873	321,970,056	38,603,491	2,059,750	2,598,260	15,799,120
Sep-25	48,106,457	-	-	-	379,292,385	2,960,326	-	12,176,199	367,116,186	36,045,850	2,370,788	2,394,297	18,397,380
	See WP-SS-CEF-EE			See WP-SS-CEF-EE			See WP-SS-CEF-EE	Prior Month + (Col 4		See WP-SS-CEF-EE II-	See WP-SS-CEF-EE II-	See WP-SS-CEF-EE	
	II-1.xlsx	N/A	N/A	II-1.xlsx	+ Col 2a + Col 2b +	II-1.xlsx	II-1.xlsx	+ Col 5)	Col 3 - Col 6	1.xlsx	1.xlsx	II-1.xlsx	EE II-1.xlsx
	'BkTaxSum' wksht			'ITCap-E' wksht	Col 2c + Col 2d)	'BkTaxSum' wksht	'BkTaxSum' wksht	,		'BkTaxSum' wksht	'BkTaxSum' wksht	'BkTaxSum' wksht	'BkTaxSum' wksht
A													
Annual													
Summary 2,024													
2,025	536,049,903			1,264,198	537,314,101	23,514,971	7,525	23,522,496	513,791,605	416,325,585	19,037,180	28,247,206	
2,026	703.378.843	_		21.877.623	1.262.570.567	87.874.007	1.768.008	113,164,510	1,149,406,056	493.019.787	67.398.091	30,261,703	28.247.206
2,027	748,374,609	-	-		2,010,945,175	162,705,375	3,305,974	279,175,859	1,731,769,316	457,526,683	119,582,357	24,027,842	58,508,908
2,028	184,830,393	-	-	-	2,195,775,568	211,062,573	3,305,974	493,544,407	1,702,231,162	95,458,880	146,654,481	(3,640,007)	82,536,750
2,029	-	-	-	-	2,195,775,568	215,007,800	3,305,974	711,858,181	1,483,917,387	5,300,884	148,575,583	(10,186,831)	78,896,743
2,030	-	-	-	-	2,195,775,568	215,007,800	3,305,974	930,171,955	1,265,603,613	5,279,814	148,575,583	(10,188,329)	68,709,911
2,031		•			2,195,775,568	215,007,800	3,305,974	1,148,485,729	1,047,289,839	2,643,360	148,575,583	(10,375,781)	58,521,582
2,032 2,033	-	-	-	-	2,195,775,568	215,007,800	3,298,449	1,366,791,978	828,983,590	672,520	148,568,058	(10,515,373)	48,145,801
2,033	-	-	-	-	2,195,775,568 2,195,775,568	215,007,800 215,007,800	1,537,967	1,583,337,745 1,798,345,545	612,437,823 397,430,024	672,520 672,520	146,807,575 145,269,608	(10,390,202) (10,280,853)	37,630,429 27,240,226
2,035					2,195,775,568	191.492.829		1.989.838.373	205,937,195	672,520	126.239.953	(8.927.844)	16.959.373
2,036					2,195,775,568	127,149,100		2,116,987,473	78,788,095	672,520	79,654,832	(5,615,642)	8,031,529
2,037	-	-	-	-	2,195,775,568	52,669,783	-	2,169,657,256	26,118,312	672,520	29,360,583	(2,039,721)	2,415,886
2,038	-	-	-	-	2,195,775,568	4,312,584	-	2,173,969,840	21,805,728	672,520	2,288,459	(114,893)	376,165
2,039	-	-	-	-	2,195,775,568	367,357	-	2,174,337,198	21,438,370	672,520	367,357	21,697	261,272
2,040	-	-	-	-	2,195,775,568	367,357	-	2,174,704,555	21,071,013	672,520	367,357	21,697	282,969
2,041	-	-	-	-	2,195,775,568	367,357	-	2,175,071,913	20,703,656	672,520	367,357	21,697	304,666
2,042 2,043	-	-	-	-	2,195,775,568	367,357	-	2,175,439,270	20,336,298	672,520	367,357	21,697	326,363
2,043	-	-	-	-	2,195,775,568	367,357	-	2,175,806,628	19,968,941	672,520	367,357	21,697	348,060
2,044		•	•		2,195,775,568 2,195,775,568	367,357 367,357	-	2,176,173,985 2,176,541,343	19,601,583 19,234,226	672,520 672,520	367,357 367,357	21,697 21.697	369,757 391,454
2,046					2,195,775,568	367,357		2,176,908,700	18,866,868	672,520	367,357	21,697	413,151
2,047		-			2,195,775,568	367,357		2,177,276,058	18,499,511	672,520	367,357	21,697	434,848
2,048		-			2,195,775,568	367,357		2,177,643,415	18,132,153	672,520	367,357	21,697	456,545
2,049					2,195,775,568	367,357		2,178,010,773	17,764,796	672,520	367,357	21,697	478,242
Total	2,172,633,748	-	-	23,141,821		2,154,868,952	23,141,821	•		1,487,660,351	1,480,628,857	499,939	
Jan 25 - Sep 25	331,185,928	-	-	-		9,215,873	-			266,471,693	7,718,105	18,397,380	_

### PSE&G Clean Energy Future Energy Efficiency II Program Electric Revenue Requirements Calculation

SS-CEF-EE II-2E Page 2 of 2

		•			Monthly WACC effe Inc. tax rate effectiv		0.7514% 28.11%						
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
Monthly	Ending Acumulated Deferred Income Tax	Average Net Investment	Return Requirement	Program Investment Repayments	Administrative Expenses	Geothermal Revenue Offsets	Tax Flow- through	Tax Flow-Through Gross-up	Tax Adjustment on Loan	ITC Amortization	ITC Tax Gross-up	Tax Assoc. w/40% ITC Basis Reduction	Revenue Requirements
Calculation Oct-24	-	-		-	-	-	-	-	-	-	-	-	-
Nov-24 Dec-24	-		-				-			-			-
Jan-25	1,183,923	8,118,680	61,001	(9,119)	6,597,714		(3,496,819)	(1,367,305)	(2,339)	-	-	-	1,856,025
Feb-25	2,433,080	24,838,804	186,629	(19,628)	6,597,714	-	(3,689,494)	(1,442,644)	(3,770)	-	-	-	1,852,408
Mar-25	4,796,277 7,600,837	51,040,937	383,501 695.801	(87,372)	6,597,714	-	(6,979,908)	(2,729,242)	(21,943)	-	-	-	(2,377,399)
Apr-25 May-25	10,383,540	92,605,545 140,349,067	1,054,527	(236,719) (386,207)	6,597,714 6,597,714	-	(8,283,511) (8,218,953)	(3,238,969) (3,213,726)	(55,220) (77,087)	-	-	-	(3,687,761) (2,980,714)
Jun-25	13,142,420	187,705,164	1,410,342	(535,696)	6,597,714	-	(8,148,589)	(3,186,213)	(98.935)		-	-	(2,268,317)
Jul-25	15,799,120	234,587,065	1,762,593	(699,597)	6,201,049	-	(7,846,795)	(3,068,207)	(125,017)				(1,653,769)
Aug-25	18,397,380	280,732,573	2,109,312	(862,751)	6,201,049		(7,674,186)	(3,000,714)	(149,458)				(828,643)
Sep-25	20,791,677	324,948,592	2,441,534	(1,019,385)	6,201,049		(7,071,763)	(2,765,159)					574,906
	See WP-SS-CEF-EE II- 1.xlsx 'BkTaxSum' wksht	(Prev Col 7 - Col 11 + Col 7 - Col 12) / 2	Col 13 * Monthly Pre Tax WACC	See WP-SS-CEF- EE II-1.xlsx 'PS Inputs' wksht	See WP-SS-CEF- EE II-1.xlsx 'PS Inputs' wksht	See WP-SS-CEF- EE II-1.xlsx 'PS Inputs' wksht	See WP-SS- CEF-EE II-1.xlsx 'BkTaxSum' wksht	See WP-SS-CEF- EE II-1.xlsx 'BkTaxSum' wksht	See WP-SS-CEF- EE II-1.xlsx 'BkTaxSum' wksht	N/A	N/A	N/A	Col 4 + Col 5 + Col 14 + Col 15 + Col 16 + Col 17 + Col 18 + Col 19 + Col 20 + Col 21 - Col 22 - Col 23 + Col 24
Annual													
Summary					-								
2,024		-	-	-	-	-	-	-	-	-	-	-	-
2,025	28,247,206	460,140,487	19,387,610	(7,935,174)	76,792,578	-	(83,430,565)	(32,622,523)	(1,377,121)	-	-	-	(5,662,699)
2,026	58,508,908	1,066,029,070	70,820,377	(35,758,023)	75,779,893	-	(89,377,877)	(34,948,006)	(5,411,182)	-	-	-	70,747,197
2,027	82,536,750	1,635,757,930	126,058,357	(72,308,491)	39,440,102	-	(70,904,224)	(27,724,548)		-	-	-	150,196,523
2,028	78,896,743	1,632,006,375	152,261,435	(101,982,495)	-	-	10,815,160	4,228,880	(13,761,586)	-	-	-	265,929,942
2,029 2,030	68,709,911	1,423,879,432	136,982,330	(104,289,921)	-	-	30,151,771	11,789,766	(13,880,554)	-	-	-	279,067,166
2,030	58,521,582	1,215,753,238	118,216,945 99,457,369	(100,945,186)	-	-	30,156,196	11,791,496	(12,560,838)	-	-	-	264,972,387 259,073,668
2,031	48,145,801 37,630,429	1,007,802,282 800,007,911	80,718,190	(92,275,304) (79,483,859)			30,709,851 31,122,147	12,007,983 12,169,197	(9,140,005) (4,092,947)		-		259,073,668
2,032	27,240,226	593,727,887	62,030,593	(58,259,639)		-	30,752,446	12,024,638	4,281,390		-	-	267,375,195
2,034	16,959,373	389,000,940	43,533,870	(31,056,199)	-	-	30,429,473	11,898,351	15,014,919		-	-	284,828,214
2,035	8,031,529	204,437,306	25,674,075	(4,659,983)	_	_	26,433,245	10,335,770	23,676,124	_	_	_	272,952,060
2,036	2,415,886	80,130,926	11,867,564	(1,561,008)	-	-	16,650,370	6,510,528	17,955,007	-	-	-	178,571,560
2,037	376,165	26,590,585	4,067,070	(584,552)	-	-	6,088,577	2,380,719	8,883,581	-	-	-	73,505,178
2,038	261,272	21,560,667	2,012,354	(5,646)	-	-	403,431	157,747	789,234	-	-	-	7,669,706
2,039	282,969	21,171,612	1,924,978	(0)	-	-	-	-	(0)	-	-	-	2,292,335
2,040	304,666	20,782,558	1,889,900	(0)	-	-	-	-	(0)	-	-	-	2,257,257
2,041	326,363	20,393,503	1,854,821	-	-	-	-	-	-	-	-	-	2,222,179
2,042 2,043	348,060	20,004,449	1,819,743	-	-	-	-	-	-	-	-	-	2,187,100
2,043	369,757 391,454	19,615,394 19,226,340	1,784,664 1,749,586	-	-	-	-	-	-	-	-	-	2,152,022 2,116,943
2,044 2,045	391,454 413.151	19,226,340	1,749,586	-	-	-	-	-	-	-	-	-	2,116,943
2,045	434,848	18,448,231	1,679,429		<u>:</u>			<u>:</u>		<u>:</u>			2,061,665
2,040	456,545	18,059,176	1,644,351	-	-	-			-		-		2,040,767
2,048	478,242	17,670,122	1,609,272					-			-		1,976,630
2,049	499,939	17,281,067	1,574,194	<u> </u>			<u> </u>		<u> </u>				1,941,551
Total			972,333,583	(691,105,479)	192,012,574		0	0	(0)	-	-		2,651,251,451
Jan 25 - Sep 25			7,663,705	(2,837,090)	51,988,384	-	(54,338,254)	(21,247,021)	(533,769)	-	-	-	(9,513,265)

### PSE&G Clean Energy Future Energy Efficiency II Program Gas Revenue Requirements Calculation

Schedule SS-CEF II-2G Page 1 of 2

							,	effective 11/1/2018	0.7514%				
							Inc. tax rate e	effective 11/1/2018	28.11%	<u>.</u>			
	(1)	(1a)	(1b)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	(1)	(Ia)	(10)	(2)	(3)	(4)	(3)	(0)	(1)	(0)	(9)	(10)	Beginning
						PSE&G Program							Acumulated
	PSE&G Program	Customer Side	Utility Owned	Capitalized IT		Investment	IT Cost	Accumulated			Book Depreciation	Deferred Income	
	Investment	Geothermal	Geothermal	Costs	Gross Plant	Amortization	Amortization	Amortization	Net Plant	Tax Depreciation	Tax Basis	Tax	Tax
Monthly													
Calculation													
Oct-24	-	-	-	-	-	-	-	-	-	-	-	-	-
Nov-24	-	-	-	-	-	-	-	-	-	-	-	-	-
Dec-24	7.007.470	-	-	-	7 007 470	- 00.070	-		7.004.000	7 404 407	- 00.050	-	-
Jan-25	7,937,472	-	-	-	7,937,472	33,073	-	33,073	7,904,399 16,933,200	7,164,487 8,243,840	29,852	507,273	507,273
Feb-25 Mar-25	9,133,000 11,444,882	•		-	17,070,472 28,515,354	104,200 189,941	-	137,273 327.214	28,188,141	10.141.579	94,053 170.659	579,450 708,932	1.086.722
Apr-25	22,393,233	125,063	<u>:</u>		51,033,650	331,454	<u>:</u>	658,668	50,374,982	15,532,320	277,634	1,084,608	1,795,655
May-25	22,400,281	125,063	-	-	73,558,994	519,136	-	1,177,804	72,381,190	15,537,248	407,090	1,075,754	2,880,263
Jun-25	22,400,281	125,063		-	96,084,337	706,847		1,884,651	94,199,687	15,537,248	536,567	1,066,548	3,956,017
Jul-25	25,750,056	125,063			121,959,456	908,516		2,793,167	119,166,289	18,180,481	677,058	1,244,493	5,022,565
Aug-25	25,162,541	125,063	-	-	147,247,059	1,121,694	-	3,914,861	143,332,199	17,661,602	826,400	1,196,983	6,267,059
Sep-25	25,006,716	125,063	-	-	172,378,838	1,331,775	-	5,246,635	167,132,203	17,474,299	972,800	1,173,257	7,464,042
				See WP-SS-			0 440 00 055			0 140 00 055		0 440 00 055	0 1410 00 055
	See WP-SS-CEF-			CEF-EE II-1.xlsx	Prior Month + (Col	See WP-SS-CEF-	See WP-SS-CEF- EE II-1.xlsx & WP-			See WP-SS-CEF- EE II-1.xlsx	See WP-SS-CEF-EE II-	EE II-1 vlev & W/D-	
	EE II-1.xlsx	See WP-SS-CEF-EE	See WP-SS-CEF-EE		1 + Col 1a + Col 1b	EE II-1.xlsx	SS-CEF-EE II GEO-	Prior Month + (Col	Col 3 - Col 6	'BkTaxSum' wksht	1.xlsx & WP-SS-CEF-EE	SS-CEF-EE II	SS-CEF-EE II
	'BkTaxSum' wksht	II Geo-2.xlsx	II Geo-2.xlsx	wksht & WP- CEF-EE II GEO-	+ Col 2)	'BkTaxSum' wksht &	2.xlsx	4 + Col 5)		& WP-SS-CEF-EE	II GEO-2.xlsx 'BkTaxSum' wksht	GEO-2.xlsx	GEO-2.xlsx
				2.xlsx		α	'BkTaxSum' wksht			GEO II-2	DK LAXOUIII WKSIIL	'BkTaxSum' wksht	'BkTaxSum' wksht
Ammunal													
Annual Summary													
2024	_	_		_	_	_	_	_	_			_	
2025	242,319,415	1,125,565	_	842,798	244,287,778	10,429,811	5,017	10,434,827	233,852,950	176,874,066	7,770,020	12,023,298	_
2026	306,582,824	1,953,264		14,585,082	567,408,948	38,942,508	1,178,672	50,556,007	516,852,940	217,584,444	29,172,968	13,396,056	12,023,298
2027	279,547,436	13,672,849	32,914,941	-	893,544,174	75,302,152	2,203,983	128,062,142	765,482,032	205,808,930	55,495,769	11,195,274	25,419,354
2028	26,302,781		-	-	919,846,955	89,887,364	2,203,983	220,153,489	699,693,466	21,775,235	64,705,127	(2,723,032)	37,199,888
2029	-	-		-	919,846,955	90,441,907	2,203,983	312,799,379	607,047,576	7,224,849	64,974,425	(3,956,112)	34,829,270
2030	-	-	-	-	919,846,955	90,441,907	2,203,983	405,445,270	514,401,685	5,972,189	64,974,425	(4,174,000)	31,037,439
2031	-	-	-	-	919,846,955	90,441,907	2,203,983	498,091,160	421,755,795	3,696,064	64,974,425	(4,389,844)	26,893,155
2032	-	-	-	-	919,846,955	90,441,907	2,198,966	590,732,034	329,114,921	2,382,171	64,969,408	(4,482,870)	22,469,717
2033	-	-	· ·	-	919,846,955	90,441,907	1,025,311	682,199,252	237,647,703	1,748,461	63,795,753	(4,510,286)	17,953,232
2034	-	-	-	-	919,846,955	90,441,907	-	772,641,160	147,205,795	466,640	62,770,442	(4,661,802)	13,352,357
2035	-	-	-	-	919,846,955	80,012,097	-	852,653,256	67,193,698	(181,471)	55,005,439	(4,223,361)	8,464,296
2036 2037	-	-	-	-	919,846,955 919,846,955	51,499,399	-	904,152,656 919,292,411	15,694,299 554,543	(181,471)	34,776,146	(2,784,732) (755,733)	3,935,538 845,212
2038	-	-	-	-	919,846,955	15,139,756 554,543	•	919,292,411	554,543	(37,807)	9,478,656 269,297	(19,147)	19,147
Total	854,752,456	16,751,678	32.914.941	15,427,880	313,040,933	904,419,074	15,427,880	313,040,333	U	643.132.299	643.132.299	(66,292)	19,147
Jan 25 -	004,702,400	10,701,070	02,014,041	10,721,000		504,415,074	10,721,000			0-10, 102,233	070,102,200	(00,232)	
Sep 25	171,628,462	750,377	-	-		5,246,635	-			125,473,104	3,992,114	8,637,298	

### PSE&G Clean Energy Future Energy Efficiency II Program Gas Revenue Requirements Calculation

Schedule SS-CEF II-2G Page 2 of 2

					Monthly WACC effective 11/1/2018 Inc. tax rate effective 11/1/2018		0.7514% 28.11%						
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
Mandala	Ending Acumulated Deferred Income Tax	Average Net Investment	Return Requirement	Program Investment Repayments	Expenses	Geothermal Revenue Offsets	Tax Flow-through	Tax Flow-Through Gross-up	Tax Adjustment on Loan	ITC Amortization	<u>ITC</u> Tax Gross-up	Tax Assoc. w/40% ITC Basis Reduction	Revenue Requirements
Monthly Calculation													
Oct-24	-	-	-		-	-	-	-	-	-		-	-
Nov-24	-	-	-	-	-		-	-	-			-	-
Dec-24 Jan-25	507,273	3,698,563	27,790	(9,119)	- 4,119,729	-	(4.400.072)	(585,846)	(2,339)	-	-	-	2,085,014
Feb-25	1,086,722	11,621,802		(9,119)	4,119,729		(1,498,273) (1,711,455)	(669,203)	(2,339)				1,907,258
Mar-25	1,795,655	21.119.482	158.683	(36.874)	4,119,729	_	(2.093.893)	(818.742)	(7.010)	_		_	1,511,835
Apr-25	2,880,263	36,943,603	277,579	(119,882)	4,119,729	-	(3,203,484)	(1,252,607)	(26,257)	-	-	-	126,533
May-25	3,956,017	57,959,946		(202,915)	4,119,729	-	(3,177,333)	(1,242,382)	(36,252)	-	-	-	415,472
Jun-25	5,022,565	78,801,147		(285,948)	4,119,729	-	(3,150,143)	(1,231,750)	(46,243)	-	-	-	704,572
Jul-25 Aug-25	6,267,059 7,464,042	101,038,176 124,383,694	759,160 934.569	(380,498) (474,258)	3,816,596 3,816,596	-	(3,675,719) (3,535,392)	(1,437,258) (1.382,388)	(59,628) (71,662)	-	-	-	(68,830) 409,159
Sep-25	8,637,298	147,181,531	1,105,863	(567,851)		-	(3,465,315)	(1,354,987)	(83,690)	-	-	-	782,391
	See WP-SS-CEF-EE II-1.xlsx & WP-SS- CEF-EE II GEO-2.xlsx 'BkTaxSum' wksht	(Prev Col 7 - Col 11 + Col 7 - Col 12) / 2	Col 13 * Monthly Pre Tax WACC	See WP-SS-CEF-EE II-1.xlsx 'PS Inputs' wksht	See WP-SS-CEF-EE II-1.xlsx & WP-SS- GEO-2.xlsx 'PS Inputs' wksht	WP-SS-CEF-EE II GEO-2.xlsx 'PS Inputs' wksht	See WP-SS-CEF- EE II-1.xlsx & WP- SS-CEF-EE II GEO- 2.xlsx 'BkTaxSum' wksht	See WP-SS-CEF- EE II-1.xlsx & WP- SS-CEF-EE II GEO- 2.xlsx 'BkTaxSum' wksht	See WP-SS-CEF- EE II-1.xlsx & WP- SS-CEF-EE II GEO- 2.xlsx 'BkTaxSum' wksht	See WP-SS-CEF- EE II GEO-1.xlsx	See WP-SS-CEF- EE II GEO-2.xlsx	WP-SS-CEF-EE II GEO-2.xlsx 'SS-CEF-GEO-2G RevReqG' wksht	Col 4 + Col 5 + Col 14 + Col 15 + Col 16 + Col 17 + Col 18 + Col 19 + Col 20 + Col 21 - Col 22 - Col 23 + Col 24
Annual Summary 2024	-	-	-	-	-	-	-	-	-	-	-	-	-
2025	12,023,298	210,806,103		(4,275,998)	47,617,953		(35,511,850)	(13,885,632)	(645,182)	-	-	-	12,382,824
2026 2027	25,419,354 37,199,888	478,830,627 727,144,219	31,683,866 58,532,960	(16,615,067) (32,155,360)	46,460,486 24,459,962	(6,071) (72,852)	(39,566,410)	(15,471,022) (11,901,930)	(2,274,821) (4,264,422)	987,448	386,106	200,561	44,332,141 80,492,874
2027	34,829,270	668,569,979		(39,319,847)	36,539	(72,852)	(30,438,625) 9,680,672	3,785,279	(5,037,508)	1,184,938	463,327	257,404	123,260,835
2029	31,037,439	579,701,995	55,941,340	(39,644,207)	37,651	(72,852)		4,860,251	(5,053,954)	1,184,938	463,327	257,404	119,753,121
2030	26,893,155	491,189,863	47,943,458	(39,040,270)	38,796	(72,852)	12,432,813	4,861,404	(4,815,661)	1,184,938	463,327	257,404	112,602,717
2031	22,469,717	402,958,767	39,975,413	(36,854,089)	39,976	(72,852)	12,801,916	5,005,729	(3,953,070)	1,184,938	463,327	257,404	108,198,053
2032	17,953,232	314,832,050	32,027,111	(30,992,853)	41,192	(72,852)	13,076,780	5,113,205	(1,640,431)	1,184,938	463,327	257,404	108,802,164
2033	13,352,357 8,464,296	227,870,479 142,304,101	24,116,506 16.357.838	(20,208,661)	42,445 43,736	(72,852) (72,852)	12,830,313 12.614.998	5,016,833 4,932,641	2,614,635 7.683.995	1,184,938 1.184.938	463,327 463.327	257,404 257,404	114,415,576 123,250,709
2034	3,935,538	65.906.781	8,914,233	(1,222,083)	45,736	(72,852)	10.984.347	4,932,641	9.064.100	1,184,938	463,327	257,404	123,250,709
2036	845,212	16.289.844		(511.529)	46,437	(72,852)	6.736.195	2.633.947	6.105.532	1,184,938	463,327	257,404	68.344.827
2037	19,147	660,933		(151,189)	-	(.2,002)	1,872,435	732,149	2,105,652	197,490	77,221	52,553	19,931,957
2038		0	7,301	(1,010)	<u> </u>		56,552	22,113	111,137			<u> </u>	750,636
Total			391,390,669	(268,352,856)	118,910,240	(734,592)	0	0	(0)	11,849,379	4,633,274	2,569,751	1,147,147,514
Jan 25 - Sep 25			4,378,535	(2,096,923)	36,168,165	-	(25,511,008)	(9,975,162)	(336,837)	-	-	-	7,873,404

### Schedule SS-CEF-EE II-3

## **PSE&G Clean Energy Future Energy Efficiency II Program Proposed Rate Calculations**

(\$'s Unless Specified)

#### Current SUT Rate 6.625%

<u>Line</u>	Date(s)		<u>Electric</u>	<u>Gas</u>	Source/Description
1	Jan 25 - Sep 25	Revenue Requirements	(9,513,265)	7,873,404	SS-2E/G, Col 23
2	Jan 25 - Sep 25	Forecasted (\$/kWh or \$/Therm)	29,263,193	1,929,020	
3		Calculated Rate w/o SUT (\$kWh or \$/Therm)	(0.000325)	0.004082	(Line 1 / (Line 2 * 1,000)) [Rnd 6]
4		Public Notice Rate w/o SUT (\$/kWh)	(0.000325)	0.004082	
5		Existing Rate w/o SUT (\$/kWh or \$/Therm)	0.000000	0.000000	
6		Proposed Rate w/o SUT (\$/kWh or \$/Therm)	(0.000325)	0.004082	Line 4
7		Proposed Rate w/ SUT (\$/kWh or \$/Therm)	(0.000347)	0.004352	(Line 6 * (1 + SUT Rate)) [Rnd 6]
8		Difference in Proposed and Existing Rate	(0.000325)	0.004082	(Line 3 - Line 5)
9		Resultant CEF-EE II Program Revenue Increase / (Decrease)	(9,510,538)	7,874,260	(Line 8 * Line 2 * 1,000)

### PSE&G Clean Energy Future Energy Efficiency II Program Electric GPRC Recovery Charge (GPRC) - Rate Impact Analysis

Schedule SS-CEF-EE II-4E

6,920 Avg RS kWh / yr.

740 Avg RS kWh / Summer Month 495 Avg RS kWh / Winter Month

0.005246 Current electric GPRC (\$/kWh)

6.625% SUT Rate effective 1/1/2018 29,263,193 kWh Sales (000) Oct 24 - Sep 25 37,763,560 kWh Sales (000) - Oct 25 - thereafter

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
						Class Averag	e Rate w/SUT	「- \$/kWh <sup>1</sup>			Турі	cal RS GPR	C (\$)			
	Electric CEF-EE II Revenue Requirements	Electric Impact of CEF EE II w/o SUT (\$/kWh)	Electric Impact of CEF-EE II w/ SUT (\$/kWh)	<u>RS</u>	<u>RHS</u>	<u>RLM</u>	<u>GLP</u>	<u>LPL-S</u>	<u>LPL-P</u>	HTS-S	Summer Monthly Bill	Winter Monthly Bill	Annual Bill	Change in RS Typical Annual Bill (\$'s)	RS Typical Annual Bill (\$'s) 3	% Change in RS Typical Annual Bill
Current		·		0.203723	0.170171	0.194504	0.182325	0.147053	0.162497	0.144903	3.88	2.60	36.32		1,409.76	<u> </u>
Jan 25 - Sep 25	(9,513,265)	(0.000325)	(0.000347)	0.203376	0.169824	0.194157	0.181978	0.146706	0.162150	0.144556	3.63	2.43	33.96	-\$2.36	1,407.40	-0.17%
Oct 25 - Sep 26	48,286,915	0.001279	0.001364	0.205087	0.171535	0.195868	0.183689	0.148417	0.163861	0.146267	4.89	3.27	45.72	\$9.40	1,419.16	0.67%
Oct 26 - Sep 27	128,341,760	0.003399	0.003624	0.207347	0.173795	0.198128	0.185949	0.150677	0.166121	0.148527	6.56	4.39	61.36	\$25.04	1,434.80	1.78%
Oct 27 - Sep 28	241,396,670	0.006392	0.006815	0.210538	0.176986	0.201319	0.189140	0.153868	0.169312	0.151718	8.93	5.97	83.48	\$47.16	1,456.92	3.35%
Oct 28 - Sep 29	283,758,514	0.007514	0.008012	0.211735	0.178183	0.202516	0.190337	0.155065	0.170509	0.152915	9.81	6.56	91.72	\$55.40	1,465.16	3.93%
Oct 29 - Sep 30	267,335,445	0.007079	0.007548	0.211271	0.177719	0.202052	0.189873	0.154601	0.170045	0.152451	9.47	6.33	88.52	\$52.20	1,461.96	3.70%
Oct 30 - Sep 31	260,449,001	0.006897	0.007354	0.211077	0.177525	0.201858	0.189679	0.154407	0.169851	0.152257	9.32	6.24	87.20	\$50.88	1,460.64	3.61%
Oct 31 - Sep 32	257,578,120	0.006821	0.007273	0.210996	0.177444	0.201777	0.189598	0.154326	0.169770	0.152176	9.26	6.20	86.64	\$50.32	1,460.08	3.57%
Oct 32 - Sep 33	265,123,183	0.007021	0.007486	0.211209	0.177657	0.201990	0.189811	0.154539	0.169983	0.152389	9.42	6.30	88.08	\$51.76	1,461.52	3.67%
Oct 33 - Sep 34	278,549,128	0.007376	0.007865	0.211588	0.178036	0.202369	0.190190	0.154918	0.170362	0.152768	9.70	6.49	90.72	\$54.40	1,464.16	3.86%
Oct 34 - Sep 35	286,479,510	0.007586	0.008089	0.211812	0.178260	0.202593	0.190414	0.155142	0.170586	0.152992	9.87	6.60	92.28	\$55.96	1,465.72	3.97%
Oct 35 - Sep 36	204,044,727	0.005403	0.005761	0.209484	0.175932	0.200265	0.188086	0.152814	0.168258	0.150664	8.15	5.45	76.20	\$39.88	1,449.64	2.83%
Oct 36 - Sep 37	99,372,820	0.002631	0.002805	0.206528	0.172976	0.197309	0.185130	0.149858	0.165302	0.147708	5.96	3.99	55.76	\$19.44	1,429.20	1.38%
Oct 37 - Sep 38	16,183,980	0.000429	0.000457	0.204180	0.170628	0.194961	0.182782	0.147510	0.162954	0.145360	4.22	2.82	39.44	\$3.12	1,412.88	0.22%
	From Schedule SS-CEF-EE II-2E Col 24	Col 1 / [kWh Sales] (Rnd to 6 dec.)	Col 2 * (1 + SUT Rate) Rnd 6	Cui	rent Class Av	g Rate + Col :	3 for Each Ra	te Class (Col 4	thru Col 11)		(Cur. eGPRC + Col 3) * Avg RS kWh Sum Mo Rnd 2	(Cur. eGPRC + Col 3) * Avg RS kWh Win Mo Rnd 2	(4 * Col 11) + (8 * Col 12)	Col 13 - Current Col 13	Current Col 15 + Col 14	Col 14 / Current Col 15 Rnd 4

		0/ 01			D . I . /OI	IT.	
				ni Ciass Aver	age Rate w/SI		
	RS	RHS	RLM	GLP	LPL-S	LPL-P	HTS-S
Jan 25 - Sep 25	-0.17%	-0.20%	-0.18%	-0.19%	-0.24%	-0.21%	-0.24%
Oct 25 - Sep 26	0.67%	0.80%	0.70%	0.75%	0.93%	0.84%	0.94%
Oct 26 - Sep 27	1.78%	2.13%	1.86%	1.99%	2.46%	2.23%	2.50%
Oct 27 - Sep 28	3.35%	4.00%	3.50%	3.74%	4.63%	4.19%	4.70%
Oct 28 - Sep 29	3.93%	4.71%	4.12%	4.39%	5.45%	4.93%	5.53%
Oct 29 - Sep 30	3.71%	4.44%	3.88%	4.14%	5.13%	4.65%	5.21%
Oct 30 - Sep 31	3.61%	4.32%	3.78%	4.03%	5.00%	4.53%	5.08%
Oct 31 - Sep 32	3.57%	4.27%	3.74%	3.99%	4.95%	4.48%	5.02%
Oct 32 - Sep 33	3.67%	4.40%	3.85%	4.11%	5.09%	4.61%	5.17%
Oct 33 - Sep 34	3.86%	4.62%	4.04%	4.31%	5.35%	4.84%	5.43%
Oct 34 - Sep 35	3.97%	4.75%	4.16%	4.44%	5.50%	4.98%	5.58%
Oct 35 - Sep 36	2.83%	3.39%	2.96%	3.16%	3.92%	3.55%	3.98%
Oct 36 - Sep 37	1.38%	1.65%	1.44%	1.54%	1.91%	1.73%	1.94%
Oct 37 - Sep 38	0.22%	0.27%	0.23%	0.25%	0.31%	0.28%	0.32%

<sup>&</sup>lt;sup>1</sup> All customers assumed to have BGS Supply

### PSE&G Clean Energy Future Energy Efficiency II Program Gas GPRC Recovery Charge (GPRC) - Rate Impact Analysis

Schedule SS-CEF-EE-Ext-4G

 6.625%
 SUT Rate effective
 1/1/2018
 1,040
 Typical RSG Therms / yr.

 1,929,020
 Therm Sales (000)
 Oct 24 - Sep 25
 172
 89
 29 Monthly Therms

 2,765,921
 Therm Sales (000) - Oct 25 - thereafter
 4
 2
 6 # of Months/year

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
					Class Av	erage Rate w/	SUT - \$/therm				Typical RS0	G GPRC (\$)				
Current	Gas CEF-EE II Revenue Requirements	Gas Impact of CEF EE II w/o SUT (\$/kWh)	Gas Impact of CEF-EE II w/ SUT (\$/kWh)	RSG 1.075635	<u>GSG</u> 1.221300	<u>LVG</u> 0.950268	<u>TSG-F</u> 0.787293	TSG-NF 0.727377	<u>CIG</u> 0.471232	Dec-Mar Monthly Bill 1.66	Nov & Apr Monthly Bill 0.86	May-Oct Monthly Bill 0.28	Annual Bill 10.04	Change in RSG Typcial Annual Bill (\$'s)	RSG Typical Annual Bill (\$'s) <sup>4</sup> 1,118.66	% Change in RSG Typical Annual Bill
Jan 25 - Sep 25	7,873,404	0.004082	0.004352	1.079987	1.225652	0.954620	0.791645	0.731729	0.475314	2.40	1.24	0.41	14.54	\$4.50	1,123.16	0.40%
Oct 25 - Sep 26	34,951,589	0.012637	0.013474	1.089109	1.234774	0.963742	0.800767	0.740851	0.483869	3.97	2.06	0.67	24.02	\$13.98	1,132.64	1.25%
Oct 26 - Sep 27	68,237,759	0.024671	0.026305	1.101940	1.247605	0.976573	0.813598	0.753682	0.495903	6.18	3.20	1.04	37.36	\$27.32	1,145.98	2.44%
Oct 27 - Sep 28	118,215,928	0.042740	0.045572	1.121207	1.266872	0.995840	0.832865	0.772949	0.513972	9.49	4.91	1.60	57.38	\$47.34	1,166.00	4.23%
Oct 28 - Sep 29	121,756,661	0.044020	0.046936	1.122571	1.268236	0.997204	0.834229	0.774313	0.515252	9.73	5.03	1.64	58.82	\$48.78	1,167.44	4.36%
Oct 29 - Sep 30	114,112,123	0.041256	0.043989	1.119624	1.265289	0.994257	0.831282	0.771366	0.512488	9.22	4.77	1.55	55.72	\$45.68	1,164.34	4.08%
Oct 30 - Sep 31	109,184,615	0.039475	0.042090	1.117725	1.263390	0.992358	0.829383	0.769467	0.510707	8.89	4.60	1.50	53.76	\$43.72	1,162.38	3.91%
Oct 31 - Sep 32	107,531,113	0.038877	0.041453	1.117088	1.262753	0.991721	0.828746	0.768830	0.510109	8.79	4.55	1.48	53.14	\$43.10	1,161.76	3.85%
Oct 32 - Sep 33	113,315,562	0.040968	0.043682	1.119317	1.264982	0.993950	0.830975	0.771059	0.512200	9.17	4.74	1.55	55.46	\$45.42	1,164.08	4.06%
Oct 33 - Sep 34	120,790,971	0.043671	0.046564	1.122199	1.267864	0.996832	0.833857	0.773941	0.514903	9.66	5.00	1.63	58.42	\$48.38	1,167.04	4.32%
Oct 34 - Sep 35	118,347,928	0.042788	0.045623	1.121258	1.266923	0.995891	0.832916	0.773000	0.514020	9.50	4.92	1.60	57.44	\$47.40	1,166.06	4.24%
Oct 35 - Sep 36	79,271,040	0.028660	0.030559	1.106194	1.251859	0.980827	0.817852	0.757936	0.499892	6.91	3.58	1.17	41.82	\$31.78	1,150.44	2.84%
Oct 36 - Sep 37	31,421,698	0.011360	0.012113	1.087748	1.233413	0.962381	0.799406	0.739490	0.482592	3.74	1.93	0.63	22.60	\$12.56	1,131.22	1.12%
Oct 37 - Sep 38	2,137,122	0.000773	0.000824	1.076459	1.222124	0.951092	0.788117	0.728201	0.472005	1.80	0.93	0.30	10.86	\$0.82	1,119.48	0.07%
	From Schedule SS-CEF-EE II- 2G Col 24	Col 1 / Therm Sales	Col 2 * (1 + SUT Rate) Rnd 6	Current Cl	ass Avg Rate +	Col 3 for Each	n Rate Class (i	Col 4 thru Col	10)	(Cur. GPRC + Col 3) * Dec-Mar Monthly Therms Rnd 2	(Cur. GPRC + Col 3) * Nov & Apr Monthly Therms Rnd 2	(Cur. GPRC + Col 3) * May-Oct Monthly Therms Rnd 2	(4 * Col 10) + ( 2 * Col 11) + (6 * Col 12)	Col 13 - Current Col 13	Current Col 15 + Col 14	Col 14 / Current Col 15 Rnd 4

	%	Change from C	current Class	Average Rate	w/SUT	
	RSG	GSG	LVG	TSG-F	TSG-NF	CIG
Jan 25 - Sep 25	0.40%	0.36%	0.46%	0.55%	0.60%	0.92%
Oct 25 - Sep 26	1.25%	1.10%	1.42%	1.71%	1.85%	2.86%
Oct 26 - Sep 27	2.45%	2.15%	2.77%	3.34%	3.62%	5.58%
Oct 27 - Sep 28	4.24%	3.73%	4.80%	5.79%	6.27%	9.67%
Oct 28 - Sep 29	4.36%	3.84%	4.94%	5.96%	6.45%	9.96%
Oct 29 - Sep 30	4.09%	3.60%	4.63%	5.59%	6.05%	9.33%
Oct 30 - Sep 31	3.91%	3.45%	4.43%	5.35%	5.79%	8.93%
Oct 31 - Sep 32	3.85%	3.39%	4.36%	5.27%	5.70%	8.80%
Oct 32 - Sep 33	4.06%	3.58%	4.60%	5.55%	6.01%	9.27%
Oct 33 - Sep 34	4.33%	3.81%	4.90%	5.91%	6.40%	9.88%
Oct 34 - Sep 35	4.24%	3.74%	4.80%	5.79%	6.27%	9.68%
Oct 35 - Sep 36	2.84%	2.50%	3.22%	3.88%	4.20%	6.48%
Oct 36 - Sep 37	1.13%	0.99%	1.27%	1.54%	1.67%	2.57%
Oct 37 - Sep 38	0.08%	0.07%	0.09%	0.10%	0.11%	0.17%

<sup>&</sup>lt;sup>1</sup> All customers assumed to have BGSS Supply

### PSE&G Clean Energy Future Energy Efficiency II Program Electric Over/(Under) Calculation

Details

Schedule SS-CEF-EE II-5E

			Reflects a tax rate of Existing Rate / kWh (w/o SUT) Proposed Rate / kWh (w/o SUT)		28.11% 0.000000 -0.000325					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<u>Monthly</u>	Over / (Under) Recovery Beginning Balance	Electric Revenues	Revenue Requirement	Over / (Under) Recovery	Over / (Under) Recovery Ending Balance	Over / (Under) Average Monthly Balance	Interest Rate (Annualized)	Interest On Over / (Under) Average Monthly Balance	Interest Roll-In	Cumulative Interest
Calculation										
Oct-24		-	-	-	-	-	5.21%		-	
Nov-24		-	=	-	-	=	5.21%		-	-
Dec-24		-	-	-	-	-	5.21%		-	-
Jan-25		(1,075,412)		(1,856,025)	(1,856,025)	(928,012)	5.21%		-	(2,898)
Feb-25	(1,856,025)	(942,841)	1,852,408	(2,927,820)	(4,783,845)	(3,319,935)	5.21%	(10,368)	-	(13,266)
Mar-25	(4,783,845)	(1,006,258)	(2,377,399)	1,434,558	(3,349,287)	(4,066,566)	5.21%	(12,700)	-	(25,966)
Apr-25	(3,349,287)	(870,942)	(3,687,761)	2,681,503	(667,784)	(2,008,535)	5.21%	(6,273)	-	(32,239)
May-25	(667,784)	(898,292)	(2,980,714)	2,109,772	1,441,989	387,102	5.21%	1,209	-	(31,030)
Jun-25	1,441,989	(1,088,472)	(2,268,317)	1,370,025	2,812,014	2,127,001	5.21%	6,643	-	(24,388)
Jul-25	2,812,014	(1,320,742)	(1,653,769)	565,298	3,377,312	3,094,663	5.21%	9,665	-	(14,723)
Aug-25	3,377,312	(1,293,225)	(828,643)	(492,099)	2,885,212	3,131,262	5.21%	9,779	-	(4,944)
Sep-25	2,885,212	(1,014,354)	574,906	(1,868,131)	1,017,082	1,951,147	5.21%	6,093	-	1,150
	(Prior Col 5) + (Col 9)		See Revenue Requirements Schedule for	Col 2 - Col 3	Col 1 + Col 4	(Col 1 + Col 5) / 2		(Col 6 * (Col 7) / 12)*net of tax rate		Prior Month + Col 8 - Col 9

### PSE&G Clean Energy Future Energy Efficiency II Program Gas Over/(Under) Calculation

Reflects a tax rate of

Schedule SS-CEF II-5G

			Existing Rate / Therm: Proposed Rate /Thern		0.000000 0.004082					
		L	Proposed Rate / mem	iis (w/0 301)	0.004062					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Monthly	Over / (Under) Recovery Beginning Balance	Gas Revenues	Revenue Requirement	Over / (Under) Recovery	Over / (Under) Recovery Ending Balance	Over / (Under) Average Monthly Balance	Interest Rate (Annualized)	Interest On Over / (Under) Average Monthly Balance	Interest Roll-In	Cumulative Interest
Calculations										
Oct-24	-	-	-	-	-	-	5.21%	-	-	
Nov-24	-	-	-	-	-	-	5.21%	-	-	-
Dec-24	-	-	-	-	-	-	5.21%	-	-	-
Jan-25	-	2,000,483	2,085,014	(84,531)	(84,531)	(42,266)	5.21%	(132)	-	(132)
Feb-25	(84,531)	1,772,027	1,907,258	(135,231)	(219,763)	(152,147)	5.21%	(475)	-	(607)
Mar-25	(219,763)	1,509,106	1,511,835	(2,729)	(222,492)	(221,127)	5.21%	(691)	-	(1,298)
Apr-25	(222,492)	871,602	126,533	745,069	522,577	150,043	5.21%	469	-	(829)
May-25	522,577	526,381	415,472	110,910	633,486	578,032	5.21%	1,805	-	976
Jun-25	633,486	329,900	704,572	(374,672)	258,814	446,150	5.21%	1,393	-	2,369
Jul-25	258,814	299,808	(68,830)	368,638	627,453	443,133	5.21%	1,384	-	3,753
Aug-25	627,453	269,863	409,159	(139,297)	488,156	557,804	5.21%	1,742	-	5,495
Sep-25	488,156	295,092	782,391	(487,300)	856	244,506	5.21%	764	-	6,259
	(Prior Col 5) + (Col 9)		See Revenue Requirements Schedule for Details	Col 2 - Col 3	Col 1 + Col 4	(Col 1 + Col 5) / 2	PSE&G CP/STD Wght Avg Rate from Previous Month	(Col 6 * (Col 7) / 12)*net of tax rate		Prior Month + Col 8 - Col 9

28.11%

Schedule SS-CEF-EE II-6E-1

Page 1 of 2

PSE&G Clean Energy Future Energy Efficiency II Program Cumulative Rate Impact Analysis - Electric GPRC Recovery Charge (GPRC) **Rate Calculations** 

		Proposed Oct 23 - Sep 24
	kWh Forecast =	38,695,017
Revenue Requirement (\$)		
S4A		\$9,995,008
S4AE		(\$2,212,132
S4AEII		(\$6,347,057
SLII		\$5,914,367
SLIII		\$1,209,282
CA		(\$265,428
EEE		(\$263,170
EEEext		\$583,047
EEEXII		\$4,361,360
EE17		\$9,503,915
CSEP		\$15,449,500
TREC		\$118,104,636
CEF-EE		\$83,382,732
SuSI		(\$11,180,541
Total GPRC		\$228,235,519
SPRC		\$2,334,414
	Total Existing Electric	Proposed Oct 23
Rate w/o SUT (\$/kWh)	GPRC Rate w/o SUT	- Sep 24
S4A	0.000297	\$0.000258
S4AE	(0.000222)	(\$0.000057
S4AEII	(0.000105)	(\$0.000164
SLII	0.000109	\$0.000153
SLIII	0.000015	\$0.000031
CA	(0.000010)	(\$0.000007
EEE	0.00004	(\$0.000007
EEEext	0.000034	\$0.000015
EEEXII	0.000108	\$0.000113
EE17	0.000268	\$0.000246
CSEP	0.000084	\$0.000399
TREC	0.00000	\$0.003052
CEF-EE	0.002480	\$0.002155
	0.001257	(\$0.000289
SuSI	0.001231	
SuSI Total GPRC	\$0.004920	\$0.005898

\$0.006354

Note: GPRC sub-program revenue requirements reflect the forecasted amounts filed in the 2023 GPRC and 2023 SPRC cost recovery July 1, 2023.

**Current Rate with SUT** 

<sup>1</sup> Forecasted amounts are not available for future periods.

### PSE&G Clean Energy Future Energy Efficiency II Program Cumulative Rate Impact Analysis - Electric GPRC Recovery Charge (GPRC)

Schedule SS-CEF-EE II-6E

Page 2 of 2

**Rate Impact Analysis** 

Current SUT 1 = 6.625%

6,920 Avg RS kWh / yr.
740 Avg RS kWh / Summer Month
495 Avg RS kWh / Winter Month
1,409.76 Current RS Typical Annual Bill
0.005311 Current GPRC + SPRC w SUT (\$/kWh)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
							Class Ave	rage Rate w/SUT (\$	5/kWh) ~			Typical	I RS GPRC (\$.	/kWh)		
	SPRC w/o SUT (\$/kWh)	GPRC w/o SUT (\$/kWh)	GPRC + SPRC w/o SUT (\$/kWh)	Forecasted GPRC + SPRC w/ SUT (\$/kWh) ss (GPRC + SPRC)	RS 0.198412	RHS 0.164860	RLM 0.189193	GLP 0.177014	LPL-S 0.141742	LPL-P 0.157186	HTS-S 0.139592	Summer Monthly Bill 3.93	Winter Monthly Bill 2.63	Annual Bill 36.76	RS Typical Annual Bill (\$'s) 3 1,373.00	Cumul. GPRC + SPRC % of Current RS Typical Annual Bill
Forecasted Oct 23 - Sep 24 Jan 25 - Sep 25 Cumulative	0.000061 0.000000	0.005898 (0.000325)	0.005959 (0.000325)	0.006354 (0.000347)	0.204766 0.198065	0.171214 0.164513	0.195547 0.188846	0.183368 0.176667	0.148096 0.141395	0.163540 0.156839	0.145946 0.139245	4.70 (0.26)	3.15 (0.17)	44.00 (2.40)	1,417.00 1,370.60	3.105% -0.175%
w/CEF-EE II	0.000061	0.005573	0.005634	0.006007	0.204419	0.170867	0.195200	0.183021	0.147749	0.163193	0.145599	4.45	2.97	41.56	1,414.56	2.938%

Proposed Rate Proposed (Col 3 * (1 + SU	Current Class Avg Rate + Col 4 for Each Rate Class (Col 5 thru Col 11)	Col 4 * Sum Mo kWh Rno	Col 4 * Win Mo kWh Rnd	(4 * Col 12) +	Current Col 15 +	Col 14 /
[Rnd 6] Rate [Rnd 6] (Col 1 + Col 2) Rate)) [Rnd 6]		2	2	(8 * Col 13)	Col 14	Col 15

		Cumu	lative GPRC + SPRC	C % of Current Clas	ss Average Rate w/S	UT	
	RS	RHS	RLM	GLP	LPL-S	LPL-P	HTS-S
Forecasted							
Oct 23 - Sep 24	3.103%	3.711%	3.249%	3.465%	4.290%	3.885%	4.354%
Jan 25 - Sep 25	-0.175%	-0.211%	-0.184%	-0.196%	-0.245%	-0.221%	-0.249%

<sup>&</sup>lt;sup>1</sup> All revenue requirements reflect the new federal tax rate and SUT rate effective January 1, 2018.

<sup>&</sup>lt;sup>2</sup> All customers assumed to have BGS Supply

<sup>&</sup>lt;sup>3</sup> GPRC sub-program revenue requirements reflect the forecasted amounts filed in the 2023 GPRC and 2023 SPRC cost recovery filings submitted July 1, 2023.

# PSE&G Clean Energy Future Energy Efficiency II Program Cumulative Rate Impact Analysis - Gas GPRC Recovery Charge (GPRC) Rate Calculations

Schedule SS-CEF-EE II-6G1
Page 1 of 2

		Oct 23 - Sep 24
	Therm Forecast =	2,776,004
Revenue Requirement (\$)		
Carbon Abatement		(\$1,452,701)
Energy Efficiency Economic		\$78,792
EEE Extension		\$1,017,869
EEE Extension II		\$1,941,515
EE 2017		\$3,827,699
CEF - EE		\$39,902,579
Gas Revenue Requirments		\$45,315,754
	Total Existing	D 10 D1
Rate w/o SUT (\$/kWh)	Gas GPRC Rate	Proposed Gas Rate wo/SUT
Carbon Abatement	-\$0.000470	(\$0.000523)
Energy Efficiency Economic	\$0.000167	\$0.000028
EEE Extension	0.000329	\$0.000367
EEE Extension II	\$0.000472	\$0.000699
EE 2017	\$0.003000	\$0.001379
CEF-EE	<u>\$0.005528</u>	\$0.014374
GPRC Rate w/o SUT	\$0.009026	\$0.016324
Proposed Rate with SUT		\$0.017405

Note: GPRC sub-program revenue requirements reflect the forecasted amounts filed in the 2023 GPRC Cost Recovery Filing.

### PSE&G Clean Energy Future Energy Efficiency II Program Cumulative Rate Impact Analysis - Gas GPRC Recovery Charge (GPRC) Rate Impact Analysis

SS-CEF-EE II-6G

Page 2 of 2

 Current SUT = 6.625%
 1,118.66 current RSG Typical Annual Bill 0.009624 current GPRC w/SUT (\$/therm)
 29 Monthly Therms

 4
 2
 6 # of Months/year

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			C	Class Average Rate	w/SUT (\$/therm	)1			Typical RSG GI	PRC (\$/therm)			
													Cumul. GPRC %
													of Current RSG
	Forecasted GPRC							Dec-Mar Monthly	Nov & Apr	May-Oct Monthly		RSG Typical	Typical Annual
	w/ SUT (\$/therm)	<u>RSG</u>	<u>GSG</u>	<u>LVG</u>	TSG-F	TSG-NF	CIG	<u>Bill</u>	Monthly Bill	Bill	Annual Bill	Annual Bill (\$'s) 3	<u>Bill</u>
	Current	1.066011	1.211676	0.940644	0.777669	0.717753	0.461608	1.66	0.86	0.28	10.04	1,108.62	
Forecasted													
Oct 23 - Sep 24	0.017405	1.083416	1.229081	0.958049	0.795074	0.735158	0.479013	2.99	1.55	0.50	18.06	1,126.68	1.603%
Jan 25 - Sep 25	0.004352	1.070363	1.216028	0.944996	0.782021	0.722105	0.465960	0.75	0.39	0.13	4.56	1,113.18	0.410%
Cumulative													
w/CEF-EE II	0.021757	1.087768	1.233433	0.962401	0.799426	0.739510	0.483365	3.74	1.94	0.63	22.62	1,131.24	2.000%
	_		Current Class Av	√g Rate + Col 1 for	Each Rate Class	(Col 2 thru Col 7)		Col 1 * Dec-Mar Monthly Therms Rnd 2	Col 1 * Nov & Apr Monthly Therms Rnd 2	Col 1 * May-Oct Monthly Therms Rnd 2	(4 * Col 8) + ( 2 * Col 9) + (6 * Col 10)	Current Col 12 + Col 11	Col 11 / Col 12

		Cumulative GPRC % of Current Class Average Rate w/SUT									
	RSG	GSG	LVG	TSG-F	TSG-NF	CIG					
Oct 23 - Sep 24	0.0160654	1.416%	1.817%	2.189%	2.368%	3.634%					
Jan 25 - Sep 25	0.0040659	0.358%	0.461%	0.557%	0.603%	0.934%					

<sup>&</sup>lt;sup>1</sup> All revenue requirements reflect the new SUT rate effective January 1, 2018.

<sup>&</sup>lt;sup>2</sup> All customers assumed to have BGSS Supply

<sup>&</sup>lt;sup>3</sup> GPRC sub-program revenue requirements reflect the forecasted amounts filed in the 2023 Cost Recovery Filing

### PSE&G Clean Energy Future Energy Efficiency II Program Electric Income Statement and Balance Sheet

Schedule SS-CEF-EE II -7E

Page 1 of 3

Electric Program	2025	2026	2027	2028	2029	2030
Tax Adjustment on Loan	2020	2020	<u> 2027</u>	2020	2020	2000
Income Statement						
Operating Revenues	(5,662,699)	70,747,197	150,196,523	265,929,942	279,067,166	264,972,387
Operating Expenses						
Operations & Maintenance <sup>1</sup>	100,307,549	163,653,900	202,145,477	211,062,573	215,007,800	215,007,800
Depreciation & Amortization	7,525	1,768,008	3,305,974	3,305,974	3,305,974	3,305,974
Total Operating Expenses	100,315,074	165,421,908	205,451,451	214,368,547	218,313,774	218,313,774
Operating Income	(105,977,773)	(94,674,710)	(55,254,928)	51,561,395	60,753,392	46,658,613
Other Income Interest Expense	8,335,002 (4,028,176)	36,342,953 (6,715,962)	72,308,491 (513,383)	101,982,495 5,410,913	104,289,921 7,671,405	100,945,186 9,563,832
Income Before Income Taxes	(101,670,947)	(65,047,719)	16,540,180	158,954,802	172,714,717	157,167,631
Income Tax Expense	113,083,294	111,674,335	73,714,102	(45,604,151)	(68,723,147)	(65,306,030)
Net Income	11,412,347	46,626,615	90,254,282	113,350,651	103,991,570	91,861,601
Preferred Dividends	-	-	-	-	-	-
Earnings Available to PSEG	11,412,347	46,626,615	90,254,282	113,350,651	103,991,570	91,861,601
Operations & Maintenance Expense  Balance Sheet  Assets						
Property, Plant & Equipment	1,264,198	23,141,821	23,141,821	23,141,821	23,141,821	23,141,821
Plant in CWIP  Less: Accumulated Depreciation & Amortization	1,805,396 4,485,316	26,729,239	- 73,158,232	- 140,872,297	- 210,610,489	280,348,681
Net Property, Plant & Equipment	7,554,910	49,871,060	96,300,052	164,014,118	233,752,310	303,490,501
Regulatory Asset	536,049,903	1,265,658,070	1,987,803,355	2,172,633,748	2,172,633,748	2,172,633,748
Less: Accumulated Amortization	(23,514,971)	(111,388,978)	(274,094,352)	(485,156,925)	(700,164,725)	(915,172,525)
Net Regulatory Asset	512,534,932	1,154,269,093	1,713,709,003	1,687,476,823	1,472,469,023	1,257,461,223
Total Assets	520,089,842	1,204,140,153	1,810,009,055	1,851,490,941	1,706,221,332	1,560,951,724
Liabilities & Capitalization						
<u>Liabilities</u>						
Deferred Income Taxes	28,247,206	58,508,908	82,536,750	78,896,743	68,709,911	58,521,582
Capitalization  Debt	- 226,269,107	527,040,439	- 794,712,754	- 815,470,797	- 753,326,816	- 691,183,524
Preferred Stock	-	527,040,439	-	-	733,320,610	-
Common Equity	265,573,529	618,590,806	932,759,551	957,123,402	884,184,605	811,246,618
Total Capitalization	491,842,636	1,145,631,245	1,727,472,305	1,772,594,198	1,637,511,421	1,502,430,142
Total Liabilities & Capitalization	520,089,842	1,204,140,153	1,810,009,055	1,851,490,941	1,706,221,332	1,560,951,724

### PSE&G Clean Energy Future Energy Efficiency II Program Electric Income Statement and Balance Sheet

Schedule SS-CEF-EE II -7E Page 2 of 3

Electric Program	2031	2032	2033	2034	2035	2036
Tax Adjustment on Loan						
Income Statement						
Operating Revenues	259,073,668	258,738,977	267,375,195	284,828,214	272,952,060	178,571,560
Operating Expenses						
Operations & Maintenance <sup>1</sup>	215,007,800	215,007,800	215,007,800	215,007,800	191,492,829	127,149,100
Depreciation & Amortization	3,305,974	3,298,449	1,537,967			
Total Operating Expenses	218,313,774	218,306,249	216,545,766	215,007,800	191,492,829	127,149,100
Operating Income	40,759,893	40,432,727	50,829,429	69,820,414	81,459,231	51,422,461
Other Income	92,275,304	79,483,859	58,259,639	31,056,199	4,659,983	1,561,008
Interest Expense	11,576,529	13,762,667	16,256,517	19,138,953	22,427,446	25,150,927
Income Before Income Taxes	144,611,727	133,679,253	125,345,584	120,015,566	108,546,661	78,134,395
Income Tax Expense	(64,789,458)	(65,756,965)	(69,064,981)	(74,960,074)	(73,966,477)	(51,521,802)
Net Income	79,822,269	67,922,288	56,280,603	45,055,492	34,580,183	26,612,593
Preferred Dividends						
Earnings Available to PSEG	79,822,269	67,922,288	56,280,603	45,055,492	34,580,183	26,612,593
Operations & Maintenance Expense  Balance Sheet						
Assets Property, Plant & Equipment	23.141.821	23.141.821	23.141.821	23,141,821	23.141.821	23,141,821
Plant in CWIP	23,141,021	23,141,021	23,141,021	23,141,021	23,141,021	25,141,021
Less: Accumulated Depreciation & Amortization	350,086,872	419,825,064	489,563,255	559,301,447	624,554,323	672,048,591
Net Property, Plant & Equipment	373,228,693	442,966,884	512,705,076	582,443,268	647,696,143	695,190,411
Regulatory Asset	2,172,633,748	2,172,633,748	2,172,633,748	2,172,633,748	2,172,633,748	2,172,633,748
Less: Accumulated Amortization	(1,130,180,325)	(1,345,188,124)	(1,560,195,924)	(1,775,203,724)	(1,966,696,553)	(2,093,845,653)
Net Regulatory Asset	1,042,453,423	827,445,623	612,437,823	397,430,024	205,937,195	78,788,095
Total Assets	1,415,682,116	1,270,412,508	1,125,142,899	979,873,291	853,633,338	773,978,506
<u>Liabilities &amp; Capitalization</u>						
<u>Liabilities</u> Deferred Income Taxes	49 445 904	27 620 420	27,240,226	16 0E0 272	8,031,529	2 445 996
Capitalization	48,145,801	37,630,429	21,240,226	16,959,373	0,031,529	2,415,886
Debt Debt	629,126,468	567,133,631	505,083,210	442,982,483	389,013,787	354,952,524
Preferred Stock		-	-	-	-	-
Common Equity	738,409,846	665,648,448	592,819,463	519,931,435	456,588,023	416,610,096
Total Capitalization	1,367,536,315	1,232,782,079	1,097,902,673	962,913,918	845,601,810	771,562,620
Total Liabilities & Capitalization	1,415,682,116	1,270,412,508	1,125,142,899	979,873,291	853,633,338	773,978,506

### PSE&G Clean Energy Future Energy Efficiency II Program Electric Income Statement and Balance Sheet

Schedule SS-CEF-EE II -7E Page 3 of 3

Electric Program	2037	2038	2039	2040	2041	2042
Tax Adjustment on Loan					<del></del>	<del></del>
Income Statement						
Operating Revenues	73,505,178	7,669,706	2,292,335	2,257,257	2,222,179	2,187,100
Operating Expenses						
Operations & Maintenance <sup>1</sup>	52,669,783	4,312,584	367,357	367,357	367,357	367,357
Depreciation & Amortization						
Total Operating Expenses	52,669,783	4,312,584	367,357	367,357	367,357	367,357
Operating Income	20,835,395	3,357,121	1,924,978	1,889,900	1,854,821	1,819,743
Other Income	584,552	5,646	0	0	-	-
Interest Expense	26,693,682	27,101,376	27,118,872	27,125,897	27,132,923	27,139,948
Income Before Income Taxes	48,113,629	30,464,143	29,043,850	29,015,797	28,987,744	28,959,691
Income Tax Expense	(25,999,725)	(9,534,282)	(8,164,226)	(8,156,340)	(8,148,455)	(8,140,569)
Net Income	22,113,904	20,929,861	20,879,624	20,859,456	20,839,289	20,819,122
Preferred Dividends						
Earnings Available to PSEG	22,113,904	20,929,861	20,879,624	20,859,456	20,839,289	20,819,122
Balance Sheet Assets						
Property, Plant & Equipment Plant in CWIP	23,141,821	23,141,821	23,141,821	23,141,821	23,141,821	23,141,821
Less: Accumulated Depreciation & Amortization	695,357,790	697,381,916	697,381,916	697,381,916	697,381,916	697,381,916
Net Property, Plant & Equipment	718,499,611	720,523,736	720,523,736	720,523,736	720,523,736	720,523,736
Regulatory Asset	2,172,633,748	2,172,633,748	2,172,633,748	2,172,633,748	2,172,633,748	2,172,633,748
Less: Accumulated Amortization	(2,146,515,435)	(2,150,828,020)	(2,151,195,377)	(2,151,562,735)	(2,151,930,092)	(2,152,297,450)
Net Regulatory Asset	26,118,312	21,805,728	21,438,370	21,071,013	20,703,656	20,336,298
Total Assets	744,617,923	742,329,464	741,962,107	741,594,749	741,227,392	740,860,035
Liabilities & Capitalization						
<u>Liabilities</u>	070 405	004.070	000 000	004.000	000.000	0.40.000
Deferred Income Taxes Capitalization	376,165	261,272	282,969	304,666	326,363	348,060
<u>Capitalization</u> Debt	342,383,733	341,383,798	341,204,816	341,025,834	340,846,852	340,667,870
Preferred Stock	-	-	-	-	-	-
Common Equity	401,858,025	400,684,394	400,474,322	400,264,250	400,054,177	399,844,105
Total Capitalization	744,241,758	742,068,193	741,679,138	741,290,084	740,901,029	740,511,975
Total Liabilities & Capitalization	744,617,923	742,329,464	741,962,107	741,594,749	741,227,392	740,860,035

### PSE&G Clean Energy Future Energy Efficiency II Program Gas Income Statement and Balance Sheet

Schedule SS-CEF-EE II-7G Page 1 of 3

<u>Gas Program</u>	<u>2025</u>	<u>2026</u>	2027	<u>2028</u>	2029	2030
Tax Flow-thru						
Income Statement						
Operating Revenues	124,363,209	229,382,490	297,824,528	156,230,479	57,781,072	50,630,667
Operating Expenses	470 000 440	070 450 044	045 000 775	404 500 007	07.440.047	07.447.700
Operations & Maintenance	170,028,149	270,453,344	315,920,775	121,502,687	27,116,647	27,117,793
Depreciation & Amortization	5,017	1,178,672	2,203,983	2,203,983	2,203,983	2,203,983
Total Operating Expenses	170,033,166	271,632,016	318,124,758	123,706,670	29,320,630	29,321,776
Operating Income	(45,669,957)	(42,249,526)	(20,300,230)	32,523,809	28,460,441	21,308,891
Other Income	4,542,550	17,011,091	32,228,212	39,392,699	39,717,059	39,113,122
Interest Expense	(1,508,240)	(4,747,967)	(7,623,534)	(6,613,734)	(5,931,728)	(5,474,109)
Income Before Income Taxes	(42,635,647)	(29,986,401)	4,304,448	65,302,775	62,245,772	54,947,904
Income Tax Expense	48,015,894	49,711,920	32,294,338	(24,415,818)	(26,293,862)	(24,416,690)
Net Income Preferred Dividends	5,380,247	19,725,518	36,598,786	40,886,957	35,951,910	30,531,215
Earnings Available to PSEG	5,380,247	19,725,518	36,598,786	40,886,957	35,951,910	30,531,215
"Customer Assistance Expense" for Accounting Purposes and is included in Operations & Maintenance Expense  Balance Sheet						
<u>Assets</u>						
Property, Plant & Equipment	842,798	15,427,880	15,427,880	15,427,880	15,427,880	15,427,880
Plant in CWIP  Less: Accumulated Depreciation & Amortization	1,203,598 (5,017)	- (1,183,688)	(3,387,671)	- (5,591,654)	- (7,795,637)	(9,999,620)
·						
Net Property, Plant & Equipment Regulatory Asset	2,041,379 242,319,415	14,244,192 548,902,238	12,040,209 828,449,675	9,836,226 854,752,456	7,632,243 854,752,456	5,428,260 854,752,456
Less: Accumulated Amortization	(122,410,196)	(346,403,053)	(637,863,866)	(759,330,014)	(786,409,011)	(813,488,007)
Net Regulatory Asset	119,909,219	202,499,185	190,585,808	95,422,442	68,343,445	41,264,448
Total Assets	121,950,598	216,743,377	202,626,017	105,258,668	75,975,688	46,692,709
Liabilities & Capitalization	121,000,000	210,140,011	202,020,017	100,200,000	10,310,000	40,032,703
Liabilities						
Deferred Income Taxes	12,023,298	25,419,354	37,199,888	34,829,270	31,037,439	26,893,155
<u>Capitalization</u>	-	· -	-	-	-	-
Debt	50,571,362	88,017,412	76,103,249	32,400,601	20,673,559	9,108,660
Preferred Stock		<del>-</del>	<del>-</del>	-	<del>-</del>	-
Common Equity	59,355,938	103,306,611	89,322,880	38,028,797	24,264,691	10,690,894
Total Capitalization	109,927,300	191,324,023	165,426,129	70,429,398	44,938,250	19,799,554
Total Liabilities & Capitalization	121,950,598	216,743,377	202,626,017	105,258,668	75,975,688	46,692,709

### PSE&G Clean Energy Future Energy Efficiency II Program Gas Income Statement and Balance Sheet

Schedule SS-CEF-EE II-7G Page 2 of 3

Gas Program	2031	2032	2033	2034	2035
Tax Flow-thru	2031	2032	2033	2034	2033
Income Statement					
Operating Revenues	46,226,004	46,830,114	52,443,526	61,278,659	56,422,034
Operating Expenses					
Operations & Maintenance <sup>1</sup>	27,118,973	27,120,189	27,121,442	27,122,733	24,459,255
Depreciation & Amortization	2,203,983	2,198,966	1,025,311		
Total Operating Expenses	29,322,956	29,319,155	28,146,753	27,122,733	24,459,255
Operating Income	16,903,048	17,510,959	24,296,774	34,155,927	31,962,779
Other Income	36,926,941	31,065,705	20,281,513	7,433,545	1,294,935
Interest Expense	(5,022,467)	(4,574,778)	(4,134,640)	(3,724,931)	(3,336,079)
Income Before Income Taxes	48,807,522	44,001,887	40,443,647	37,864,541	29,921,635
Income Tax Expense	(23,679,849)	(24,266,405)	(26,078,683)	(28,782,744)	(25,911,500)
Net Income	25,127,673	19,735,482	14,364,964	9,081,797	4,010,135
Preferred Dividends	-				
Earnings Available to PSEG	25,127,673	19,735,482	14,364,964	9,081,797	4,010,135
Balance Sheet Assets					
Property, Plant & Equipment	15,427,880	15,427,880	15,427,880	15,427,880	15,427,880
Plant in CWIP	-	-	-	-	· · · · -
Less: Accumulated Depreciation & Amortization	(12,203,603)	(14,402,569)	(15,427,880)	(15,427,880)	(15,427,880)
Net Property, Plant & Equipment	3,224,277	1,025,311	0	0	0
Regulatory Asset	854,752,456	854,752,456	854,752,456	854,752,456	854,752,456
Less: Accumulated Amortization	(840,567,004)	(867,646,000)	(894,724,997)	(921,803,994)	(946,218,183)
Net Regulatory Asset	14,185,452	(12,893,545)	(39,972,541)	(67,051,538)	(91,465,727)
Total Assets	17,409,729	(11,868,234)	(39,972,541)	(67,051,538)	(91,465,727)
Liabilities & Capitalization					
<u>Liabilities</u>					
Deferred Income Taxes	22,469,717	17,953,232	13,352,357	8,464,296	3,935,538
<u>Capitalization</u>	(0.007.046)	(40.740.477)	(04 504 704)	(04.740.504)	(40,000,754)
Debt Preferred Stock	(2,327,816)	(13,719,177)	(24,531,784)	(34,740,584)	(43,888,751)
Common Equity	(2,732,172)	(16,102,288)	(28,793,115)	(40,775,250)	(51,512,514)
Total Capitalization	(5,059,988)	(29,821,466)	(53,324,898)	(75,515,834)	(95,401,265)
Total Liabilities & Capitalization	17,409,729	(11,868,234)	(39,972,541)	(67,051,538)	(91,465,727)
Total Elabilities & Capitalization	17,403,729	(11,000,234)	(33,312,341)	(01,001,000)	(31,403,121)

### PSE&G Clean Energy Future Energy Efficiency II Program Gas Income Statement and Balance Sheet

Schedule SS-CEF-EE II-7G Page 3 of 3

Gas Program			
	<u>2036</u>	<u>2037</u>	<u>2038</u>
Tax Flow-thru			
Income Statement	04.007.074	40 550 000	404 220
Operating Revenues Operating Expenses	34,367,074	10,552,028	481,339
Operations & Maintenance <sup>1</sup>	16 177 001	E E27 660	205 246
Depreciation & Amortization	16,177,221	5,537,669	285,246
Total Operating Expenses	16,177,221	5,537,669	285,246
. •			
Operating Income Other Income	18,189,852 584,382	5,014,359 151,189	196,093 1,010
Interest Expense	(3,036,645)	(2,876,845)	(2,842,521)
Income Before Income Taxes	15,737,588	2,288,704	(2,645,418)
Income Tax Expense	(15,549,298)	(4,029,543)	607,178
Net Income	188,290	(1,740,840)	(2,038,239)
Preferred Dividends	100,230	(1,740,040)	(2,030,239)
Earnings Available to PSEG	188,290	(1,740,840)	(2,038,239)
'The amortization of the regulatory asset associated with the Program Investment is considered  "Customer Assistance Expense" for Accounting Purposes and is included in Operations &  Maintenance Expense  Balance Sheet			
Assets	45 407 000	45 407 000	45 407 000
Property, Plant & Equipment Plant in CWIP	15,427,880	15,427,880	15,427,880
Less: Accumulated Depreciation & Amortization	(15,427,880)	(15,427,880)	(15,427,880)
Net Property, Plant & Equipment	0	0	0
Regulatory Asset	854,752,456	854,752,456	854,752,456
Less: Accumulated Amortization	(962,348,967)	(967,886,636)	(968,171,882)
Net Regulatory Asset	(107,596,512)	(113,134,181)	(113,419,426)
Total Assets	(107,596,512)	(113,134,181)	(113,419,426)
Liabilities & Capitalization			
Liabilities			
Deferred Income Taxes	845,212	19,147	-
<u>Capitalization</u>	-	-	-
Debt	(49,887,932)	(52,055,476)	(52,177,893)
Preferred Stock	- (50.550.704)	- (04 007 050)	- (04.044.50.1)
Common Equity	(58,553,791)	(61,097,852)	(61,241,534)
Total Capitalization	(108,441,723)	(113,153,328)	(113,419,426)
Total Liabilities & Capitalization	(107,596,512)	(113,134,181)	(113,419,426)

# PUBLIC SERVICE ELECTRIC AND GAS COMPANY BALANCE SHEET \$ (In Thousands)

		<u>I</u>	Dec 31, 2020	<u>I</u>	Dec 31, 2021	1	Dec 31, 2022
Assets and Oth Utility Plant	ner Debits						
Electric Utility	Plant						
101	Electric Utility Plant in Service	\$	22,406,654	\$	23,892,858	\$	24,822,664
103	Electric Experimental Plant Unclassified		-		-		-
105	Electric Utility Plant Held for Future Use		20,778		22,039		34,362
106	Electric Completed Construction not classified- Electric		2,338,428		2,953,893		3,515,040
107	Electric Construction Work in Progress Total Electric Utility Plant		1,710,632 26,476,492		1,110,644 27,979,435		1,184,330 29,556,395
Gas Utility Pla	ant						
101	Gas Utility Plant in Service	\$	9,326,456	\$	10,074,902	\$	10,817,780
103	Gas Experimental Plant Unclassified		-		-		-
105 106	Gas Utility Plant Held for Future Use Gas Completed Construction not classified		96 36,350		96 46,833		96 97,330
107	Gas Construction Work in Progress		30,706		39,475		90,574
	Total Gas Utility Plant		9,393,608		10,161,306		11,005,781
Common Utilis	•						
101	Common Utility Plant in Service	\$	463,500	\$	470,965	\$	488,386
106 107	Common Completed Construction not classified Common Construction Work in Progress		2,832		27 156		49,098
107	Total Common Utility Plant		30,158 496,490		37,156 508,121		537,483
Property under	capital leases						
101.1	Electric & Gas Property under capital leases		99,121 99,121		92,336		86,226
			99,121		92,336		86,226
	Total Utility Plant		36,465,711		38,741,197		41,185,885
Accumulated I Electric Utility	Provisions for Depreciation and Amortization of						
108 & 111	Electric Utility Plant in Service		(4,342,539)		(4,748,992)		(5,244,177)
108.5	Electric Utility Plant Held for Future Use		(4.242.520)		- (4.749.002)		(5.244.177)
	Total Electric Utility Plant		(4,342,539)		(4,748,992)		(5,244,177)
Gas Utility Pla 108 & 111	nt Gas Utility Plant in Service		(2,413,343)		(2,469,413)		(2,517,747)
G 77.11	•						
Common Utilia 108 & 111	Common Utility Plant in Service		(231,877)		(265,024)		(298,968)
	Total Accumulated Provisions for						
	Depreciation and Amortization						
	of Utility Plant		(6,987,759)		(7,483,429)		(8,060,892)
	Net Utility Plant Excluding Nuclear Fuel		29,477,952		31,257,768		33,124,993
Nuclear Fuel							
120.1	120.1 In Process		-		-		-
120.2 120.3	<ul><li>120.2 Materials and Assemblies Stock</li><li>120.3 In Reactor</li></ul>		-		-		-
120.4	120.4 Spent		-		-		-
Accumulated I	Provisions for Amortization						
120.5	120.5 Nuclear Fuel		-		-		-
	Net Nuclear Fuel  Net Utility Plant		29,477,952		31,257,768		33,124,993
Other Property	and Investments				(0)		(0)
			2.264		2 264		2.264
121 122	Nonutility Property Accumulated Provision for Depreciation & Amortization of		3,264		3,264		3,264
	Nonutility Property		(954)		(1,037)		(1,121)
123 & 123.1	Investments in Associated & Subsidiary Companies		45,054		44,904		44,754
124	Other Investments		222,261		180,750		143,341
125-8 175	Special Funds Long-Term Portion of Derivative Assets		51,397		42,906		32,196
-10	Total Other Property and Investments		321,023		270,787		222,434

# PUBLIC SERVICE ELECTRIC AND GAS COMPANY BALANCE SHEET \$ (In Thousands)

		Ι	Dec 31, 2020	Dec 31, 2021	Dec 31, 2022
	Current and Accrued Assets				
131	Cash	\$	153,926	\$ 43,715	\$ 54,792
132-4	Special Deposits		28,826	44,464	48,324
135	Working Funds		-	-	-
136	Temporary Cash Investments		50,000	250,000	165,000
141-3	Notes and Accounts Receivable		1,188,721	1,362,113	1,385,656
144	Accumulated Provision for Uncollectible Accounts - Credit		(205,887)	(336,497)	(339,434)
145-6	Receivables from Associated Companies		16,451	16,411	16,403
151-5	Materials and Supplies (incl. 163)		217,173	233,065	307,024
158	Allowances		-	-	-
164	Gas Stored Underground - Current		-	-	-
165	Prepayments		3,032	8,195	6,110
171	Interest and Dividends Receivable		-	-	-
172	Rents Receivable		11,766	12,405	12,447
173	Accrued Utility Revenues		238,883	228,766	338,559
174	Miscellaneous Current and Accrued		15,665	10,824	4,661
175	Current Portion of Derivative Instrument Assets		-	-	-
	Total Current and Accrued Assets		1,718,555	1,873,462	1,999,541
	Deferred Debits				
181	Unamortized Debt Expense		61,882	66,066	66,714
182	Unrec'd Plt and Reg Costs and Other Reg Assets		4,242,055	3,981,137	4,800,054
183	Preliminary Survey and Investigation Charges		26,603	26,296	27,971
184	Clearing Accounts		3	0	2
185	Temporary Facilities		-	-	-
186	Miscellaneous Deferred Debits		35,489	29,901	32,748
188	Research and Development Expenditures		-	-	· -
189	Unamortized Loss on Reacquired Debt		36,066	29,951	23,854
190	Accumulated Deferred Income Taxes		844,276	787,155	698,717
	Total Deferred Debits		5,246,374	4,920,507	5,650,060
	Total Assets and Other Debits	\$	36,763,904	\$ 38,322,524	\$ 40,997,027

# PUBLIC SERVICE ELECTRIC AND GAS COMPANY BALANCE SHEET \$ (In Thousands)

	\$ (III Thousands)	Dec 31, 2020	Dec 31, 2021	Dec 31, 2022
	Liabilities and Other Credits			
	Proprietary Capital			
201	Common Stock Issued	\$ 892,260	\$ 892,260	\$ 892,260
204	Preferred Stock Issued	-	-	-
207	Premium on Capital Stock		-	- 2155 112
208	Donations from Stockholders	2,155,903	2,155,903	2,155,443
210	Gain on Resale or Cancellation of Reacquired Capital Stock	-	-	-
211 215	Miscellaneous Paid-In Capital Appropriated Retained Earnings	-	-	-
216	Unappropriated Retained Earnings	10,111,424	11,550,226	12,658,335
216.1	Unappropriated Undistributed Subsidiary Earnings	(28)	(178)	(328)
219	Other Comprehensive Income	2,555	615	(4,589)
	Total Proprietary Capital	13,162,115	14,598,826	15,701,122
	Long-Term Debt			
221	221 Bonds	10,999,381	11,890,001	12,790,001
223	223 Advances from Assoc. Co.	-	-	-
225	225 Unamortized Premium on Long-Term Debt	-	-	-
226	226 Unamortized Discount on Long-Term Debt	(28,838)	(29,015)	(27,768)
	Total Long-Term Debt	10,970,543	11,860,986	12,762,232
	Other Non-Current Liabilities			
227-9	Other Non-current Liabilities	1,221,584	609,827	775,001
244	Long-Term Portion of Derivative Instrument Liabilities	-		,
230	Asset Retirement Obligation	313,805	362,845	383,821
	Total Other Non-Current Liabilities	1,535,390	972,672	1,158,822
	Current and Accrued Liabilities			
231	Notes Payable	99,969	-	-
232	Accounts Payable	671,537	570,663	703,212
233-4	Payables to Associated Companies	470,016	408,747	475,519
235	Customer Deposits	68,225	57,770	66,649
236	Taxes Accrued	19,527	21,810	3,085
237	Interest Accrued	109,209	115,396	121,329
238 239	Dividends Declared	-	-	-
239	Matured Long-Term Debt Tax Collections Payable	6,770	384	5,031
242	Miscellaneous Current and Accrued Liabilities	611,148	534,297	686,514
243	Obligations Under Capital leases	12.729	12,254	12,197
244	Current Portion of Derivative Instrument Liabilities	-	12,23	-
	Total Current and Accrued Liabilities	2,069,130	1,721,321	2,073,537
	Deferred Credits			
252	Customer Advances for Construction	58,088	69,670	87,244
253	Other Deferred Credits	349,657	294,923	275,078
254	Other Regulatory Liabilities	3,180,692	3,075,514	2,830,774
255	Accumulated Deferred Investment Tax Credits	128,656	118,652	108,108
281-3	Accumulated Deferred Income Taxes	5,309,633	5,609,959	6,000,110
	Total Deferred Credits	9,026,726	9,168,718	9,301,314
	Total Liabilities and Other Credits	\$ 36,763,904	\$ 38,322,524	\$ 40,997,027

### PUBLIC SERVICE ELECTRIC AND GAS COMPANY

### **INCOME ACCOUNT**

Electric Operating Revenues   \$ 3,600,587   \$ 3,336,129   \$ 3,152,764		YTD 2022 '(\$000)	<u>YTD 2021</u> '(\$000)	YTD 2020 '(\$000)
401   Operation Expense   2,558,833   2,297,497   2,184,449   402   Maintenance Expense   124,436   127,580   129,665   403   Depreciation Expense   320,702   307,425   298,204   404   Amortization of United Term Plant   23,804   19,424   16,391   407   Amortization of Property Losses   14,249   28,165   1,011   407,38   Regulatory Debts   25,756   408,11	400 Electric Operating Revenues	\$ 3,600,587	\$ 3,336,129	\$ 3,152,764
401   Operation Expense   2,558,833   2,297,497   2,184,449   402   Maintenance Expense   124,436   127,580   129,665   403   Depreciation Expense   320,702   307,425   298,204   404   Amortization of United Term Plant   23,804   19,424   16,391   407   Amortization of Property Losses   14,249   28,165   1,011   407,38   Regulatory Debts   25,756   408,11	Electric Operating Expenses:			
402 Maintenance Expense         124,436         127,580         129,665           403 Depreciation Expense         320,702         307,425         298,204           404 Amortization of Limited Term Plant         23,804         19,424         16,391           407 Amortization of Property Losses         14,249         28,165         1,011           407.3 Regulatory Debts         -         -         25,756           408.1 Taxes Other Than Income Taxes         25,219         25,027         24,495           409.1 Income Taxes - Federal         (77,644)         89,475         75,743           411.1 Provision for Deferred Income Taxes - Credit         (344,854)         (300,858)         (336,280)           411.1 Provision for Deferred Income Taxes - Credit         (344,854)         (300,858)         (336,280)           411.1 Investment Tax Credit Adjustments (Net)         (9,796)         9,217)         (8,160)           Total Electric Utility Operating Expenses         3,053,469         2,843,178         2,708,856           Electric Utility Operating Income         \$ 547,118         \$ 492,951         \$ 443,909           * Electric Utility Operating Revenues         \$ 2,440,504         \$ 1,919,020         * 1,679,259           Gas Operating Expenses:         \$ 2,440,504         \$ 1,919,020		2,558,833	2,297,497	2,184,449
Automizization of Limited Term Plant   23,804   19,424   16,391		124,436		
Amortization of Property Losses	403 Depreciation Expense	320,702	307,425	298,204
A07.3 Regulatory Debts	404 Amortization of Limited Term Plant	23,804	19,424	16,391
Autonome   Taxes   Cherr   Than Income   Taxes   Cherr   Che	407 Amortization of Property Losses	14,249	28,165	1,011
A09.1   Income Taxes - Federal   (77,644)   89,475   75,743   410.1   Provision for Deferred Income Taxes   418,520   258,660   297,807   411.1   Provision for Deferred Income Taxes - Credit   (344,854)   (300,858)   (336,280)   411.103   Accretion Expense-Electric   0 0 0 (226)   411.4   Investment Tax Credit Adjustments (Net)   (9,796)   (9,217)   (8,160)   (11,103)	407.3 Regulatory Debts	-	-	25,756
410.1 Provision for Deferred Income Taxes   418,520   258,660   297,807   411.1 Provision for Deferred Income Taxes - Credit   (344,854)   (300,858)   (336,280)   411.103 Accretion Expense-Electric   0 0 0 (226)   411.4 Investment Tax Credit Adjustments (Net)   (9,796)   (9,217)   (8,160)   (756)   (9,217)   (8,160)   (756)   (9,217)   (8,160)   (756)   (9,217)   (8,160)   (9,217)   (9,161)   (9,796)   (9,217)   (9,161)   (9,796)   (9,217)   (9,161)		25,219	25,027	24,495
Att   Provision for Deferred Income Taxes - Credit   (344,854)   (300,858)   (336,280)   (311,103 Accretion Expense-Electric   0   0   0   (226)   (2411.4 Investment Tax Credit Adjustments (Net)   (9,796)   (9,217)   (8,160)   (700,000)   (10,000)   (	409.1 Income Taxes - Federal	(77,644)	89,475	75,743
Credit         (344,854)         (300,858)         (336,280)           411.1.03 Accretion Expense-Electric         0         0         (226)           411.4. Investment Tax Credit Adjustments (Net)         (9,796)         (9,217)         (8,160)           Total Electric Utility Operating Expenses         3,053,469         2,843,178         2,708,856           Electric Utility Operating Income         \$ 547,118         \$ 492,951         \$ 443,909           * Electric Distribution only           YTD 2022 (\$000)         YTD 2021 (\$000)         YTD 2020 (\$000)           400 Gas Operating Revenues         \$ 2,440,504         \$ 1,919,020         \$ 1,679,259           Gas Operating Expenses:           401 Operation Expense         1,617,554         1,181,121         1,028,741           402 Maintenance Expense         38,190         33,201         49,435           403 Depreciation Expense         203,691         189,648         177,246           404 Amortization of United Term Plant         15,318         15,710         12,681           407 Amortization of Property Losses         30,048         38,670         -           407.4 Regulatory Credits         -         -         -         40,364           407.3 Amortization of E	410.1 Provision for Deferred Income Taxes	418,520	258,660	297,807
### ### ##############################	411.1 Provision for Deferred Income Taxes -			
A11.4 Investment Tax Credit Adjustments (Net) Total Electric Utility Operating Expenses   3,053,469   2,843,178   2,708,856	Credit	(344,854)	(300,858)	(336,280)
Total Electric Utility Operating Expenses   3,053,469   2,843,178   2,708,856	411.103 Accretion Expense-Electric	0	0	(226)
* Electric Utility Operating Income  * Electric Distribution only  * TTD 2022  * YTD 2021  * (\$000)  * (\$0	411.4 Investment Tax Credit Adjustments (Net)	 (9,796)	(9,217)	(8,160)
* Electric Distribution only    YTD 2022	Total Electric Utility Operating Expenses	3,053,469	2,843,178	2,708,856
YTD 2022	Electric Utility Operating Income	\$ 547,118	\$ 492,951	\$ 443,909
YTD 2022	* Floatric Distribution only			
(\$000) (\$000)	Electric Distribution only			
(\$000) (\$000)				
400 Gas Operating Revenues       \$ 2,440,504 \$ 1,919,020 \$ 1,679,259         Gas Operating Expenses:       1,617,554 1,181,121 1,028,741         401 Operation Expense       38,190 33,201 49,435         403 Depreciation Expense       203,691 189,648 177,246         404 Amortization of Limited Term Plant 15,318 15,710 12,681       15,710 12,681         407 Amortization of Property Losses 30,048 38,670 - 407.4 Regulatory Credits 40,364       - 407.3 Amortization of Excess cost of removal 9,747 9,747 9,747 9,747 408.1 Taxes Other Than Income Taxes 17,569 17,275 17,029       17,269 17,275 17,029         409.1 Income Taxes - Federal 55,177 (5,189) 13,541       55,177 (5,189) 13,541         410.1 Provision for Deferred Income Taxes 207,008 177,572 197,863       11,1 Provision for Deferred Income Taxes - Cr (255,491) (161,098) (231,396)         411.4 Investment Tax Credit Adjustments (Net) (748) (787) (790)         Total Gas Utility Operating Expenses       1,938,065 1,495,869 1,314,460         Gas Utility Operating Income       \$ 502,439 \$ 423,151 \$ 364,798		YTD 2022	YTD 2021	YTD 2020
Gas Operating Expenses:       1,617,554       1,181,121       1,028,741         401 Operation Expense       38,190       33,201       49,435         402 Maintenance Expense       203,691       189,648       177,246         404 Amortization of Limited Term Plant       15,318       15,710       12,681         407 Amortization of Property Losses       30,048       38,670       -         407.4 Regulatory Credits       -       -       40,364         407.3 Amortization of Excess cost of removal       9,747       9,747       9,747         408.1 Taxes Other Than Income Taxes       17,569       17,275       17,029         409.1 Income Taxes - Federal       55,177       (5,189)       13,541         410.1 Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1 Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,338,065       1,495,869       1,314,460				
401 Operation Expense       1,617,554       1,181,121       1,028,741         402 Maintenance Expense       38,190       33,201       49,435         403 Depreciation Expense       203,691       189,648       177,246         404 Amortization of Limited Term Plant       15,318       15,710       12,681         407 Amortization of Property Losses       30,048       38,670       -         407.4 Regulatory Credits       -       -       40,364         407.3 Amortization of Excess cost of removal       9,747       9,747       9,747         408.1 Taxes Other Than Income Taxes       17,569       17,275       17,029         409.1 Income Taxes - Federal       55,177       (5,189)       13,541         410.1 Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1 Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460				
402       Maintenance Expense       38,190       33,201       49,435         403       Depreciation Expense       203,691       189,648       177,246         404       Amortization of Limited Term Plant       15,318       15,710       12,681         407       Amortization of Property Losses       30,048       38,670       -         407.4       Regulatory Credits       -       -       40,364         407.3       Amortization of Excess cost of removal       9,747       9,747       9,747         408.1       Taxes Other Than Income Taxes       17,569       17,275       17,029         409.1       Income Taxes - Federal       55,177       (5,189)       13,541         410.1       Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1       Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4       Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460	400 Gas Operating Revenues	\$ '(\$000)	\$ '(\$000)	\$ '(\$000)
403       Depreciation Expense       203,691       189,648       177,246         404       Amortization of Limited Term Plant       15,318       15,710       12,681         407       Amortization of Property Losses       30,048       38,670       -         407.4       Regulatory Credits       -       -       40,364         407.3       Amortization of Excess cost of removal       9,747       9,747       9,747         408.1       Taxes Other Than Income Taxes       17,569       17,275       17,029         409.1       Income Taxes - Federal       55,177       (5,189)       13,541         410.1       Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1       Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4       Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460	•	\$ '(\$000)	\$ '(\$000)	\$ '(\$000)
404 Amortization of Limited Term Plant       15,318       15,710       12,681         407 Amortization of Property Losses       30,048       38,670       -         407.4 Regulatory Credits       -       -       40,364         407.3 Amortization of Excess cost of removal       9,747       9,747       9,747         408.1 Taxes Other Than Income Taxes       17,569       17,275       17,029         409.1 Income Taxes - Federal       55,177       (5,189)       13,541         410.1 Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1 Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460         Gas Utility Operating Income       \$ 502,439       \$ 423,151       \$ 364,798	Gas Operating Expenses:	\$ '(\$000) 2,440,504	\$ '(\$000) 1,919,020	\$ '(\$000) 1,679,259
407 Amortization of Property Losses       30,048       38,670       -         407.4 Regulatory Credits       -       -       40,364         407.3 Amortization of Excess cost of removal       9,747       9,747       9,747         408.1 Taxes Other Than Income Taxes       17,569       17,275       17,029         409.1 Income Taxes - Federal       55,177       (5,189)       13,541         410.1 Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1 Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460         Gas Utility Operating Income       \$ 502,439       \$ 423,151       \$ 364,798	Gas Operating Expenses: 401 Operation Expense	\$ 2,440,504 1,617,554	\$ '(\$000) 1,919,020 1,181,121	\$ 1,679,259 1,028,741
407.4 Regulatory Credits       -       -       40,364         407.3 Amortization of Excess cost of removal       9,747       9,747       9,747         408.1 Taxes Other Than Income Taxes       17,569       17,275       17,029         409.1 Income Taxes - Federal       55,177       (5,189)       13,541         410.1 Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1 Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460         Gas Utility Operating Income       \$ 502,439       \$ 423,151       \$ 364,798	Gas Operating Expenses: 401 Operation Expense 402 Maintenance Expense	\$ 1,617,554 38,190 203,691	\$ 1,919,020 1,181,121 33,201 189,648	\$ 1,679,259 1,028,741 49,435 177,246
407.3 Amortization of Excess cost of removal       9,747       9,747       9,747         408.1 Taxes Other Than Income Taxes       17,569       17,275       17,029         409.1 Income Taxes - Federal       55,177       (5,189)       13,541         410.1 Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1 Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460         Gas Utility Operating Income       \$ 502,439       \$ 423,151       \$ 364,798	Gas Operating Expenses: 401 Operation Expense 402 Maintenance Expense 403 Depreciation Expense	\$ 1,617,554 38,190 203,691	\$ 1,919,020 1,181,121 33,201 189,648	\$ 1,679,259 1,028,741 49,435 177,246
408.1 Taxes Other Than Income Taxes       17,569       17,275       17,029         409.1 Income Taxes - Federal       55,177       (5,189)       13,541         410.1 Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1 Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460         Gas Utility Operating Income       \$ 502,439       \$ 423,151       \$ 364,798	Gas Operating Expenses:  401 Operation Expense  402 Maintenance Expense  403 Depreciation Expense  404 Amortization of Limited Term Plant  407 Amortization of Property Losses	\$ 1,617,554 38,190 203,691 15,318	\$ 1,919,020 1,181,121 33,201 189,648 15,710	\$ 1,679,259 1,028,741 49,435 177,246
409.1 Income Taxes - Federal       55,177       (5,189)       13,541         410.1 Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1 Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460         Gas Utility Operating Income       \$ 502,439       \$ 423,151       \$ 364,798	Gas Operating Expenses: 401 Operation Expense 402 Maintenance Expense 403 Depreciation Expense 404 Amortization of Limited Term Plant 407 Amortization of Property Losses 407.4 Regulatory Credits	\$ 1,617,554 38,190 203,691 15,318 30,048	\$ 1,919,020 1,181,121 33,201 189,648 15,710 38,670	\$ 1,679,259  1,028,741 49,435 177,246 12,681 - 40,364
410.1 Provision for Deferred Income Taxes       207,008       177,572       197,863         411.1 Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460         Gas Utility Operating Income       \$ 502,439       \$ 423,151       \$ 364,798	Gas Operating Expenses:  401 Operation Expense  402 Maintenance Expense  403 Depreciation Expense  404 Amortization of Limited Term Plant  407 Amortization of Property Losses  407.4 Regulatory Credits  407.3 Amortization of Excess cost of removal	\$ 1,617,554 38,190 203,691 15,318 30,048 - 9,747	\$ 1,919,020 1,919,020 1,181,121 33,201 189,648 15,710 38,670 - 9,747	\$ 1,679,259  1,028,741 49,435 177,246 12,681 - 40,364 9,747
411.1 Provision for Deferred Income Taxes - Cr       (255,491)       (161,098)       (231,396)         411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460         Gas Utility Operating Income       \$ 502,439       \$ 423,151       \$ 364,798	Gas Operating Expenses:  401 Operation Expense  402 Maintenance Expense  403 Depreciation Expense  404 Amortization of Limited Term Plant  407 Amortization of Property Losses  407.4 Regulatory Credits  407.3 Amortization of Excess cost of removal	\$ 1,617,554 38,190 203,691 15,318 30,048 - 9,747 17,569	\$ 1,919,020 1,919,020 1,181,121 33,201 189,648 15,710 38,670 - 9,747 17,275	\$ 1,679,259  1,028,741 49,435 177,246 12,681 - 40,364 9,747 17,029
411.4 Investment Tax Credit Adjustments (Net)       (748)       (787)       (790)         Total Gas Utility Operating Expenses       1,938,065       1,495,869       1,314,460         Gas Utility Operating Income       \$ 502,439       \$ 423,151       \$ 364,798	Gas Operating Expenses:  401 Operation Expense  402 Maintenance Expense  403 Depreciation Expense  404 Amortization of Limited Term Plant  407 Amortization of Property Losses  407.4 Regulatory Credits  407.3 Amortization of Excess cost of removal  408.1 Taxes Other Than Income Taxes	\$ 1,617,554 38,190 203,691 15,318 30,048 - 9,747 17,569 55,177	\$ 1,919,020  1,181,121 33,201 189,648 15,710 38,670 - 9,747 17,275 (5,189)	\$ 1,679,259  1,028,741 49,435 177,246 12,681 - 40,364 9,747 17,029
Total Gas Utility Operating Expenses         1,938,065         1,495,869         1,314,460           Gas Utility Operating Income         \$ 502,439         \$ 423,151         \$ 364,798	Gas Operating Expenses:  401 Operation Expense  402 Maintenance Expense  403 Depreciation Expense  404 Amortization of Limited Term Plant  407 Amortization of Property Losses  407.4 Regulatory Credits  407.3 Amortization of Excess cost of removal  408.1 Taxes Other Than Income Taxes  409.1 Income Taxes - Federal  410.1 Provision for Deferred Income Taxes	\$ 1,617,554 38,190 203,691 15,318 30,048 - 9,747 17,569 55,177 207,008	\$ 1,919,020  1,919,020  1,181,121 33,201 189,648 15,710 38,670 - 9,747 17,275 (5,189) 177,572	\$ 1,679,259  1,028,741 49,435 177,246 12,681 - 40,364 9,747 17,029 13,541 197,863
Gas Utility Operating Income \$ 502,439 \$ 423,151 \$ 364,798	Gas Operating Expenses:  401 Operation Expense  402 Maintenance Expense  403 Depreciation Expense  404 Amortization of Limited Term Plant  407 Amortization of Property Losses  407.4 Regulatory Credits  407.3 Amortization of Excess cost of removal  408.1 Taxes Other Than Income Taxes  409.1 Income Taxes - Federal  410.1 Provision for Deferred Income Taxes  411.1 Provision for Deferred Income Taxes - Cr	\$ 1,617,554 38,190 203,691 15,318 30,048 - 9,747 17,569 55,177 207,008	\$ 1,919,020  1,919,020  1,181,121 33,201 189,648 15,710 38,670 - 9,747 17,275 (5,189) 177,572	\$ 1,679,259  1,028,741 49,435 177,246 12,681 - 40,364 9,747 17,029 13,541 197,863
	Gas Operating Expenses:  401 Operation Expense  402 Maintenance Expense  403 Depreciation Expense  404 Amortization of Limited Term Plant  407 Amortization of Property Losses  407.4 Regulatory Credits  407.3 Amortization of Excess cost of removal  408.1 Taxes Other Than Income Taxes  409.1 Income Taxes - Federal  410.1 Provision for Deferred Income Taxes  411.1 Provision for Deferred Income Taxes - Cr  411.4 Investment Tax Credit Adjustments (Net)	\$ 1,617,554 38,190 203,691 15,318 30,048 - 9,747 17,569 55,177 207,008 (255,491) (748)	\$ 1,919,020  1,919,020  1,181,121 33,201 189,648 15,710 38,670 - 9,747 17,275 (5,189) 177,572 (161,098) (787)	\$ 1,679,259  1,679,259  1,028,741 49,435 177,246 12,681 - 40,364 9,747 17,029 13,541 197,863 (231,396) (790)
Net Utility Operating Income \$ 1,049,556 \$ 916,102 \$ 808,707	Gas Operating Expenses:  401 Operation Expense  402 Maintenance Expense  403 Depreciation Expense  404 Amortization of Limited Term Plant  407 Amortization of Property Losses  407.4 Regulatory Credits  407.3 Amortization of Excess cost of removal  408.1 Taxes Other Than Income Taxes  409.1 Income Taxes - Federal  410.1 Provision for Deferred Income Taxes  411.1 Provision for Deferred Income Taxes - Cr  411.4 Investment Tax Credit Adjustments (Net)	\$ 1,617,554 38,190 203,691 15,318 30,048 - 9,747 17,569 55,177 207,008 (255,491) (748)	\$ 1,919,020  1,919,020  1,181,121 33,201 189,648 15,710 38,670 - 9,747 17,275 (5,189) 177,572 (161,098) (787)	\$ 1,679,259  1,679,259  1,028,741 49,435 177,246 12,681 - 40,364 9,747 17,029 13,541 197,863 (231,396) (790)
Net Utility Operating Income \$ 1,049,556 \$ 916,102 \$ 808,707	Gas Operating Expenses:  401 Operation Expense  402 Maintenance Expense  403 Depreciation Expense  404 Amortization of Limited Term Plant  407 Amortization of Property Losses  407.4 Regulatory Credits  407.3 Amortization of Excess cost of removal  408.1 Taxes Other Than Income Taxes  409.1 Income Taxes - Federal  410.1 Provision for Deferred Income Taxes  411.1 Provision for Deferred Income Taxes - Cr  411.4 Investment Tax Credit Adjustments (Net)  Total Gas Utility Operating Expenses	 '(\$000)  2,440,504  1,617,554 38,190 203,691 15,318 30,048 - 9,747 17,569 55,177 207,008 (255,491) (748) 1,938,065	1,919,020  1,919,020  1,181,121 33,201 189,648 15,710 38,670 - 9,747 17,275 (5,189) 177,572 (161,098) (787) 1,495,869	1,679,259  1,028,741 49,435 177,246 12,681 - 40,364 9,747 17,029 13,541 197,863 (231,396) (790) 1,314,460
	Gas Operating Expenses:  401 Operation Expense  402 Maintenance Expense  403 Depreciation Expense  404 Amortization of Limited Term Plant  407 Amortization of Property Losses  407.4 Regulatory Credits  407.3 Amortization of Excess cost of removal  408.1 Taxes Other Than Income Taxes  409.1 Income Taxes - Federal  410.1 Provision for Deferred Income Taxes  411.1 Provision for Deferred Income Taxes - Cr  411.4 Investment Tax Credit Adjustments (Net)  Total Gas Utility Operating Expenses	 '(\$000)  2,440,504  1,617,554 38,190 203,691 15,318 30,048 - 9,747 17,569 55,177 207,008 (255,491) (748) 1,938,065	1,919,020  1,919,020  1,181,121 33,201 189,648 15,710 38,670 - 9,747 17,275 (5,189) 177,572 (161,098) (787) 1,495,869	1,679,259  1,028,741 49,435 177,246 12,681 - 40,364 9,747 17,029 13,541 197,863 (231,396) (790) 1,314,460

### PUBLIC SERVICE ELECTRIC AND GAS COMPANY

### BALANCE SHEET \$ (In Thousands)

Assets and Oth	er Dehits	<u>N</u>	<u>Iar 31, 2023</u>
Utility Plant			
Electric Utility	Plant		
101	Electric Utility Plant in Service	\$	24,909,283
103	Electric Experimental Plant Unclassified		-
105	Electric Utility Plant Held for Future Use		34,721
106	Electric Completed Construction not classified- Electric		3,763,035
107	Electric Construction Work in Progress  Total Electric Utility Plant		1,237,563 29,944,602
Gas Utility Pla	ant		
101	Gas Utility Plant in Service	\$	10,961,664
103	Gas Experimental Plant Unclassified		-
105	Gas Utility Plant Held for Future Use		96
106 107	Gas Completed Construction not classified Gas Construction Work in Progress		101,091 111,441
107	Total Gas Utility Plant		11,174,292
Common Utilit	cy Plant		
101	Common Utility Plant in Service	\$	471,631
106	Common Completed Construction not classified		-
107	Common Construction Work in Progress		59,545
	Total Common Utility Plant		531,176
Property under 101.1	*		94.067
101.1	Electric & Gas Property under capital leases		84,967 84,967
	Total Utility Plant		41,735,037
Accumulated F	Provisions for Depreciation and Amortization of		
Electric Utility			(5.226.047)
108 & 111 108.5	Electric Utility Plant in Service Electric Utility Plant Held for Future Use		(5,336,947)
106.3	Total Electric Utility Plant		(5,336,947)
Gas Utility Pla	nt		
108 & 111	Gas Utility Plant in Service		(2,526,768)
Common Utilit	•		
108 & 111	Common Utility Plant in Service		(288,368)
	Total Accumulated Provisions for		
	Depreciation and Amortization		
	of Utility Plant		(8,152,083)
	Net Utility Plant Excluding Nuclear Fuel		33,582,954
Nuclear Fuel	120.1 In Process		
120.1 120.2	120.1 In Process 120.2 Materials and Assemblies Stock		-
120.2	120.3 In Reactor		-
120.4	120.4 Spent		-
Accumulated F	Provisions for Amortization		
120.5	120.5 Nuclear Fuel		-
	Net Nuclear Fuel		-
	Net Utility Plant		33,582,954 (0)
Other Property	and Investments		(0)
121	Nonutility Property		3,264
122	Accumulated Provision for Depreciation & Amortization of		
	Nonutility Property		(1,142)
123 & 123.1	Investments in Associated & Subsidiary Companies		44,754
124 125-8	Other Investments Special Funds		140,818 33,262
175	Long-Term Portion of Derivative Assets		55,202
-	Total Other Property and Investments	-	220,956

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PUBLIC	SERVICE	rara i kit.	ANDUTAS	CUNIPANY

Attachment 3C Page 2 of 3

### BALANCE SHEET \$ (In Thousands)

	Mar 31, 2023

Current	and	Accrued	Assets
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131	Cash	\$ 14,382
132-4	Special Deposits	50,598
135	Working Funds	-
136	Temporary Cash Investments	800,000
141-3	Notes and Accounts Receivable	1,475,481
144	Accumulated Provision for Uncollectible Accounts - Credit	(318,648)
145-6	Receivables from Associated Companies	16,418
151-5	Materials and Supplies (incl. 163)	351,516
158	Allowances	-
164	Gas Stored Underground - Current	-
165	Prepayments	16,856
171	Interest and Dividends Receivable	-
172	Rents Receivable	5,685
173	Accrued Utility Revenues	198,421
174	Miscellaneous Current and Accrued	4,779
175	Current Portion of Derivative Instrument Assets	-
	Total Current and Accrued Assets	2,615,488
	Deferred Debits	
181	Unamortized Debt Expense	72,494
182	Unrec'd Plt and Reg Costs and Other Reg Assets	4,865,436
183	Preliminary Survey and Investigation Charges	29,295
184	Clearing Accounts	2
185	Temporary Facilities	-
186	Miscellaneous Deferred Debits	36,892
188	Research and Development Expenditures	-
189	Unamortized Loss on Reacquired Debt	22,329
190	Accumulated Deferred Income Taxes	653,520
	Total Deferred Debits	 5,679,969
	Total Assets and Other Debits	\$ 42,099,367

	PUBLIC SERVICE ELECTRIC AND GAS COMPANY	Attachment 3C Page 3 of 3
	BALANCE SHEET	
	\$ (In Thousands)	Mar 31, 2023
	Liabilities and Other Credits	
	Proprietary Capital	
201	Common Stock Issued	\$ 892,260
204	Preferred Stock Issued	-
207	Premium on Capital Stock	-
208	Donations from Stockholders	2,155,443
210 211	Gain on Resale or Cancellation of Reacquired Capital Stock Miscellaneous Paid-In Capital	-
215	Appropriated Retained Earnings	_
216	Unappropriated Retained Earnings	13,142,517
216.1	Unappropriated Undistributed Subsidiary Earnings	(328)
219	Other Comprehensive Income	(3,757)
	Total Proprietary Capital	16,186,136
	Long-Term Debt	
221	221 Bonds	13,690,001
223	223 Advances from Assoc. Co.	15,070,001
225	225 Unamortized Premium on Long-Term Debt	_
226	226 Unamortized Discount on Long-Term Debt	(27,847)
	Total Long-Term Debt	13,662,154
	Other Non-Current Liabilities	
	Other Poli-Current Liabilities	
227-9	Other Non-current Liabilities	764,014
244	Long-Term Portion of Derivative Instrument Liabilities	-
230	Asset Retirement Obligation	383,281
	Total Other Non-Current Liabilities	1,147,295
	Current and Accrued Liabilities	
231	Notes Payable	-
232	Accounts Payable	596,768
233-4	Payables to Associated Companies	504,308
235	Customer Deposits	65,951
236	Taxes Accrued	3,491
237	Interest Accrued	129,517
238	Dividends Declared	-
239	Matured Long-Term Debt Tax Collections Payable	42.042
241 242	Miscellaneous Current and Accrued Liabilities	42,942 430,426
243	Obligations Under Capital leases	12,176
244	Current Portion of Derivative Instrument Liabilities	-
	Total Current and Accrued Liabilities	1,785,580
	Deferred Credits	
252		07.70
252	Customer Advances for Construction	87,537
253	Other Deferred Credits Other Regulatory Lightlities	267,305
254 255	Other Regulatory Liabilities Accumulated Deferred Investment Tax Credits	2,742,368 105,123
281-3	Accumulated Deferred Investment Tax Credits  Accumulated Deferred Income Taxes	6,115,868
201-3	Total Deferred Credits	9,318,202
	Total Liabilities and Other Credits	\$ 42,099,367

\$2,440,504

### PUBLIC SERVICE ELECTRIC AND GAS COMPANY **REVENUE BY CLASS OF BUSINESS** 12 MONTHS ENDING DECEMBER 31, 2022

### (Thousands)

Electric Op	perating F	Revenue
-------------	------------	---------

Residential	2,332,509
Commercial	1,814,305
Industrial	230,180
Public Street & Highway Lighting	73,661
Interdepartmental Revenues	1,112
Sales for Resale	12,175
Forfeited Discounts	3,653
Miscellaneous Service Revenues	12,907
Rent from Electric Property	5,140
Other Electric Revenues	71,464
Total Revenue from Electric Distribution Sales	4,557,106

Total Revenue from Electric Distribution Sales

### **Gas Operating Revenue**

Total Revenue from Gas Distribution Sales

Residential	\$1,540,060
Commercial	\$758,735
Industrial	\$65,418
Street & Yard Light Service	\$697
Contract Service Gas	\$7,658
Cogeneration	\$0
Interdepartmental Revenues	\$681
Forfeited Discounts	\$1,447
Miscellaneous Service Revenues	\$40,880
Other Gas Revenues	<u>\$24,927</u>

<sup>\*</sup>Excludes Transmission

### **Attachment 3E**

# Public Service Electric & Gas Company Total Utility Payments or Accruals to Affiliates (\$ THOUSANDS) Net Billing

	<u>2022</u>	<u>2021</u>	<u>2020</u>
PSEG Services	\$ 911,393 \$	944,140 \$	804,345
PSEG Power	1,369,676	1,119,822	1,177,212
PSEG Long Island	(380)	(396)	(602)
PSEG Energy Holdings	(1,106)	(6,703)	(1,596)
PSEG Enterprise	301,641	260,696	(103,960)
Total Payments to Affiliates	\$ 2,581,224 \$	2,317,558 \$	1,875,399

# PUBLIC SERVICE ELECTRIC AND GAS COMPANY Clean Energy Future - Energy Efficiency II Accounting Entries

•		<b>Description</b> er direct program expenditures.	Debit	Credit
ΚI		Program Investment Regulatory Asset  Cash	XXX	XXX
R2		ortize direct program expenditures. Customer Assistance Expenses Program Investment Regulatory Asset	XXX	xxx
R3		ord capitalized IT per PSE&G capitalization policy. Capitalized IT Cash	XXX	xxx
R4	To amo 404 111	ortize IT costs over appropriate book life. Amortization Expense Accumulated Amoritization	XXX	xxx
R5		ord incremental admin. costs. Customer Assistance Expenses Cash	XXX	xxx
R6	To reco 131 908	ord expenditure reimbursements or repayments  Cash  Customer Assistance Expenses	XXX	XXX
R7		ord the monthly Clean Energy Future Energy Efficiency revenues. Customer Accounts Receivable Operating Revenues	XXX	xxx
R8	To reco 182 400 254	ord any over/ under recovery. Regulatory Asset - Clean Energy Future Energy Efficiency Operating Revenues Regulatory Liabilities	XXX XXX	XXX XXX
R9	To reco 182 419 431 254	ord cost of capital on any over/ under recovered balance. Regulatory Asset - Clean Energy Future Energy Effiency Other Income Interest Expense Regulatory Liabilities	XXX XXX XXX	XXX XXX XXX

## PUBLIC SERVICE ELECTRIC AND GAS COMPANY B.P.U.N.J. No. 16 ELECTRIC

XXX Revised Sheet No. 65 Superseding XXX Revised Sheet No. 65

#### **GREEN PROGRAMS RECOVERY CHARGE**

Charge (per kilowatthour)

#### Component:

•	
Carbon Abatement Program	(\$0.000010)
Energy Efficiency Economic Stimulus Program	0.00004
Solar Generation Investment Program	0.000297
Solar Loan II Program	0.000109
Energy Efficiency Economic Extension Program	0.00034
Solar Generation Investment Extension Program	(0.000222)
Solar Loan III Program	0.000015
Energy Efficiency Economic Extension Program II	0.000108
Solar Generation Investment Extension II Program	(0.000105)
Energy Efficiency 2017 Program	0.000268
Transition Renewable Energy Certificate Program	0.002480
Clean Energy Future - Energy Efficiency Program	
Successor Solar Incentive Program	0.000601
Community Solar Energy Program	0.00084
Clean Energy Future – Energy Efficiency II Program	(0.000325)
Sub-total per kilowatthour	\$ <u>0.004595</u> <del>0.004920</del>

Charge including New Jersey Sales and Use Tax (SUT).....\$0.0048990.005246

#### **GREEN PROGRAMS RECOVERY CHARGE**

This charge is designed to recover the revenue requirements associated with the PSE&G Green Programs. The charge will be reset nominally on an annual basis. Interest at the weighted average of the interest rates on PSE&G's commercial paper and bank credit lines utilized in the prior month will be accrued monthly on any under- or over- recovered balances. The interest rates shall be reset each month.

Date of Issue: Effective:

## PUBLIC SERVICE ELECTRIC AND GAS COMPANY B.P.U.N.J. No. 16 ELECTRIC

XXX Revised Sheet No. 65 Superseding XXX Revised Sheet No. 65

#### **GREEN PROGRAMS RECOVERY CHARGE**

Charge (per kilowatthour)

### Component:

Carbon Abatement Program	(\$0.000010)
Energy Efficiency Economic Stimulus Program	0.000004
Solar Generation Investment Program	
Solar Loan II Program	
Energy Efficiency Economic Extension Program	0.00034
Solar Generation Investment Extension Program	(0.000222)
Solar Loan III Program	0.000015
Energy Efficiency Economic Extension Program II	0.000108
Solar Generation Investment Extension II Program	
Energy Efficiency 2017 Program	
Transition Renewable Energy Certificate Program	
Clean Energy Future - Energy Efficiency Program	0.001257
Successor Solar Incentive Program	
Community Solar Energy Program	0.00084
Clean Energy Future – Energy Efficiency II Program	(0.000325)
Sub-total per kilowatthour	
Charge including New Jersey Sales and Use Tax (SUT)	<u>\$0.004899</u>

### **GREEN PROGRAMS RECOVERY CHARGE**

This charge is designed to recover the revenue requirements associated with the PSE&G Green Programs. The charge will be reset nominally on an annual basis. Interest at the weighted average of the interest rates on PSE&G's commercial paper and bank credit lines utilized in the prior month will be accrued monthly on any under- or over- recovered balances. The interest rates shall be reset each month.

Date of Issue: Effective:

### PUBLIC SERVICE ELECTRIC AND GAS COMPANY

**B.P.U.N.J. No. 16 GAS** 

XXX Revised Sheet No. 44
Superseding
XXX Revised Sheet No. 44

#### **GREEN PROGRAMS RECOVERY CHARGE**

CHARGE APPLICABLE TO
RATE SCHEDULES RSG, GSG, LVG, SLG,
TSG-F, TSG-NF, CIG, CSG
(Per Therm)

#### Component:

Carbon Abatement Program	(\$0.000470)
Energy Efficiency Economic Stimulus Program	0.000167
Energy Efficiency Economic Extension Program	0.000329
Energy Efficiency Economic Extension Program II	0.000472
Energy Efficiency 2017 Program	0.003000
Clean Energy Future – Energy Efficiency Program	
Clean Energy Future – Energy Efficiency II Program	0.004082
Green Programs Recovery Charge\$0	.01310 <u>8</u> 0.009026

Green Programs Recovery Charge including New Jersey Sales and Use Tax (SUT)

#### **Green Programs Recovery Charge**

This charge is designed to recover the revenue requirements associated with the PSE&G Green Programs. The charge will be reset nominally on an annual basis. Interest at the weighted average of the interest rates on PSE&G's commercial paper and bank credit lines utilized in the prior month will be accrued monthly on any under- or over- recovered balances. The interest rate shall be reset each month.

See Section 16 of the Standard Terms and Conditions for exemptions from this charge.

Date of Issue: Effective:

### PUBLIC SERVICE ELECTRIC AND GAS COMPANY

**B.P.U.N.J. No. 16 GAS** 

XXX Revised Sheet No. 44
Superseding
XXX Revised Sheet No. 44

#### GREEN PROGRAMS RECOVERY CHARGE

# CHARGE APPLICABLE TO RATE SCHEDULES RSG, GSG, LVG, SLG, TSG-F, TSG-NF, CIG, CSG (Per Therm)

#### Component:

Carbon Abatement Program  Energy Efficiency Economic Stimulus Program  Energy Efficiency Economic Extension Program  Energy Efficiency Economic Extension Program II  Energy Efficiency 2017 Program  Clean Energy Future – Energy Efficiency Program  Clean Energy Future – Energy Efficiency II Program  Green Programs Recovery Charge	0.000167 0.000329 0.000472 0.003000 0.005528 0.004082
Green Programs Recovery Charge including New Jersey Sales and Use Tax (SUT)	

#### **Green Programs Recovery Charge**

This charge is designed to recover the revenue requirements associated with the PSE&G Green Programs. The charge will be reset nominally on an annual basis. Interest at the weighted average of the interest rates on PSE&G's commercial paper and bank credit lines utilized in the prior month will be accrued monthly on any under- or over- recovered balances. The interest rate shall be reset each month.

See Section 16 of the Standard Terms and Conditions for exemptions from this charge.

Effective:

### TYPICAL RESIDENTIAL ELECTRIC BILL IMPACTS

The effect of the proposed changes in the electric Clean Energy Future - Energy Efficiency II (CEF-EE II) component of the Green Programs Recovery Charge (GPRC) on typical residential Electric bills, if approved by the Board, is illustrated below:

Residential Electric Service - Average Monthly Bill						
	Then Your	And Your		And Your		
If Your Average	Present	Proposed	Your Monthly	Percent		
Monthly kWhr	Monthly Bill (1)	Monthly Bill (2)	Bill Change	Change		
Use Is:	Would Be:	Would Be:	Would Be:	Would Be:		
144	\$32.96	\$32.91	(\$0.05)	(0.15) %		
289	60.96	60.86	(0.10)	(0.16)		
577	117.48	117.28	(0.20)	(0.17)		
650	131.90	131.67	(0.23)	(0.17)		
1,042	210.46	210.10	(0.36)	(0.17)		

<sup>(1)</sup> Based upon current Basic Generation Service Residential Small Commercial Pricing (BGS-RSCP) and Delivery Rates in effect November 1, 2023, and assumes that the customer receives BGS-RSCP service from Public Service.

<sup>(2)</sup> Same as (1) except includes decrease in the CEF-EE II.

Residential Electric Service - Monthly Summer Bill					
		And Your			
	Then Your	Proposed	Your Monthly	And Your	
If Your Monthly	Present Monthly	Monthly	Summer Bill	Percent	
Summer kWhr	Summer Bill (3)	Summer Bill (4)	Change	Change	
Use Is:	Would Be:	Would Be:	Would Be:	Would Be:	
185	\$41.86	\$41.80	(\$0.06)	(0.14) %	
370	78.79	78.66	(0.13)	(0.16)	
740	154.56	154.31	(0.25)	(0.16)	
803	167.98	167.70	(0.28)	(0.17)	
1,337	281.95	281.49	(0.46)	(0.16)	

<sup>(3)</sup> Based upon current Basic Generation Service Residential Small Commercial Pricing (BGS-RSCP) and Delivery Rates in effect November 1, 2023, and assumes that the customer receives BGS-RSCP service from Public Service.

<sup>(4)</sup> Same as (3) except includes decrease in the CEF-EE II.

### TYPICAL RESIDENTIAL GAS BILL IMPACTS

The effect of the proposed changes in the gas Clean Energy Future - Energy Efficiency II (CEF-EE II) component of the Green Programs Recovery Charge (GPRC) on typical residential gas bills, if approved by the Board, is illustrated below:

Residential Gas Service - Average Monthly Bill					
If Your	Then Your	And Your		And Your	
Average	Present	Proposed	Your Monthly	Percent	
Monthly Therm	Monthly Bill (1)	Monthly Bill (2)	Bill Change	Change	
Use Is:	Would Be:	Would Be:	Would Be:	Would Be:	
14	\$22.23	\$22.29	\$0.06	0.27 %	
28	35.82	35.95	0.13	0.36	
51	58.24	58.46	0.22	0.38	
87	93.22	93.60	0.38	0.41	
100	106.28	106.71	0.43	0.40	
151	156.30	156.96	0.66	0.42	

<sup>(1)</sup> Based upon Delivery Rates and Basic Gas Supply Service (BGSS-RSG) charges in effect November 1, 2023, and assumes that the customer receives commodity service from Public Service.

(2) Same as (1) except includes increase in the CEF-EE II.

Residential Gas Service - Monthly Winter Bill					
	Then Your	Proposed	Your Monthly	And Your	
If Your Monthly	Present Monthly	Monthly	Winter Bill	Percent	
Winter Therm	Winter Bill (3)	Winter Bill (4)	Change	Change	
Use Is:	Would Be:	Would Be:	Would Be:	Would Be:	
25	\$33.15	\$33.26	\$0.11	0.33 %	
50	57.68	57.90	0.22	0.38	
100	107.85	108.29	0.44	0.41	
172	179.30	180.04	0.74	0.41	
201	208.17	209.05	0.88	0.42	
300	306.29	307.59	1.30	0.42	

<sup>(3)</sup> Based upon Delivery Rates and Basic Gas Supply Service (BGSS-RSG) charges in effect November 1, 2023, and assumes that the customer receives commodity service from Public Service.

<sup>(4)</sup> Same as (3) except includes increase in the CEF-EE II.

## NOTICE TO PUBLIC SERVICE ELECTRIC AND GAS COMPANY CUSTOMERS

# IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY FOR APPROVAL OF ITS CLEAN ENERGY FUTURE – ENERGY EFFICIENCY II ("CEF-EE II") PROGRAM ON A REGULATED BASIS

### Notice of Filing and Notice of Public Hearing

#### **BPU Docket No.**

PLEASE TAKE NOTICE that, in December 2023, Public Service Electric and Gas Company ("Public Service", "PSE&G", or "Company") filed a petition ("Petition") and supporting documentation with the New Jersey Board of Public Utilities ("Board" or "BPU") seeking Board approval to expand its energy efficiency deployment in its service territory beyond current levels through the establishment of a Clean Energy Future - Energy Efficiency II Program ("CEF-EE II Program" or "Program").

PSE&G is proposing to recover the revenue requirements associated with the direct costs of CEF-EE II. Most of the CEF-EE II Program investments proposed will be treated as regulatory and other real assets which include Geothermal investments, Building Decarbonization and Electrification, and IT Capital cost.

Under the Company's proposal, PSE&G seeks Board approval to commit up to \$3.1 billion in direct investment and \$311 million in expense over a period of approximately four (4) years. Approval of this filing would decrease rates to be paid by the Company's electric customers by \$9.5 million and increase rates to be paid by the Company's gas customers by \$7.9 million.

PSE&G proposes to recover all Program costs through a new separate component of the existing electric and gas Green Programs Recovery Charge ("GPRC") entitled "Clean Energy Future - Energy Efficiency II Program." The CEF-EE II Program component will be applicable to all electric and gas rate schedules. The component would be reviewed and modified in an annual filing. The proposed GPRC rates, if approved by the Board, are shown in Table #1.

Table #2 and #3 provide the approximate net effect of the proposed initial increase in rates relating to the CEF-EE II Program, if approved by the Board. The monthly percentage increase applicable to specific customers will vary according to the applicable rate schedule and the level of the customer's usage. The approximate effect of the proposed initial increase on typical electric and gas residential monthly bills, if approved by the Board, is illustrated in Table #4 and #5.

Under the Company's proposal, a typical residential electric customer using 740 kWh in a summer month and 577 kWh in an average month (6,920 kWh annually), would see an initial decrease in their average monthly bill from \$117.48 to \$117.28, or \$0.20 or approximately 0.17%. The peak increase to typical average monthly residential electric bills is \$4.66 or 3.97% occurring in 2035. The average monthly rate impact from the start of the Program through 2038 would amount to an average increase in the average monthly bill of \$3.05, or 2.60% during this period.

Under the Company's proposal, a residential gas heating customer using 100 therms per month in a winter month and 51 therms in an average month (610 therms annually), would see an initial increase in the average monthly bill from \$58.24 to \$58.46, or \$0.22 or approximately 0.38%.

Moreover, under the Company's proposal, a typical residential gas heating customer using 172 therms per month during the winter months and, 87 therms in an average month (1,040 therms annually), would see an increase in the average monthly bill from \$93.22 to \$93.60, or \$0.38 or approximately 0.41%. The peak increase to typical average monthly residential gas bills of \$4.07 or 4.36% occurring in 2029. The average monthly rate impact from the start of the Program through 2038 would amount to an average increase in the average monthly bill of \$2.74, or 2.94% during this period.

Any rate adjustments with resulting changes in bill impacts found by the Board to be just and reasonable as a result of the Company's Petition may be modified and/or allocated by the Board in accordance with the provisions of N.J.S.A. 48:2-21 and for other good and legally sufficient reasons to any class or classes of customers of the Company. Therefore, the described charges may increase or decrease based upon the Board's decision. PSE&G's electric costs addressed in the Petition and subsequent updates will remain subject to audit by the Board, and Board approval shall not preclude or prohibit the Board from taking any such actions deemed appropriate as a result of any such audit.

A copy of this Notice is being served upon the clerk, executive or administrator of each municipality and county within the Company's service territory. The Petition is available for review online at the PSEG website at http://www.pseg.com/pseandgfilings and was provided to the New Jersey Division of Rate Counsel ("Rate Counsel"), who will represent the interests of all PSE&G customers in this proceeding. The Petition may also be viewed on the https://publicaccess.bpu.state.ni.us. Board's website. where you can search by the above-captioned docket number. The Petition and Board file may also be reviewed at the Board located at 44 South Clinton Avenue, 1st Floor, Trenton, NJ, with an appointment. To make an appointment, please call (609) 913-6298.

Date: TBD

Times: 4:30 p.m. and 5:30 p.m. Join: Join Zoom Meeting

https://pseg.zoom.us/j/92846158128?pwd=czBtZHE5ZTh

1Z1FveGlmSVg0R1NuQT09#success

Go To <a href="www.Zoom.com">www.Zoom.com</a> and choose "Join a Meeting" at the top of the web page. When prompted, use Meeting number 928 4615 8128 to access the meeting.

-or-

Join by phone (toll-free): **Dial In:** (888) 475-4499 **Meeting ID:** 928 4615 8128

When prompted, enter the Meeting ID number to access the meeting.

Representatives from the Company, Board Staff, and Rate Counsel will participate in the virtual public hearings. Members of the public may participate by utilizing the link or Dial-In number set forth above and express their views on the Petition. To encourage full participation in this

opportunity for public comment, please submit any requests for needed accommodations, such as interpreters and/or listening assistance, 48 hours prior to the above hearings to the Secretary at board.secretary@bpu.nj.gov.

Comments may be submitted directly to the specific docket listed above using the "Post Comments" button on the Board's Public Document Search tool (https://publicaccess.bpu.state.ni.us/). Comments are considered public documents for purposes of the State's Open Public Records Act. Only submit public documents using the "Post Comments" button on the Board's Public Document Search tool. Any confidential information should be submitted in accordance with the procedures set forth in N.J.A.C. 14:1-12.3. In addition to hard copy submissions, confidential information may be filed electronically via the Board's e-filing system or by email to the Secretary of the Board, Sherri L. Golden. Please include "Confidential Information" in the subject line of any email. Instructions for confidential e-filing are found on the Board's webpage, https://www.nj.gov/bpu/agenda/efiling/.

Emailed and/or written comments may also be submitted

to:

Sherri L. Golden, Secretary of the Board 44 South Clinton Ave., 1st Floor

PO Box 350

Trenton, NJ 08625-0350 Phone: 609-913-6241

Email: board.secretary@bpu.nj.gov

Table # 1
Initial GPRC Charge Impact

minual of ito offarge impact						
	CEF EE II Program Component of the GPRC		Total GPRC			
	Present (Incl SUT)	Proposed (Incl SUT)	Present (Incl SUT)	Proposed (Incl SUT		
GPRC Electric - \$ per kWhr	\$0.000000	\$(0.000347)	\$0.005246	\$0.004899		
GPRC Gas - \$ per Therm	\$0.00000	\$0.004352	\$0.009624	\$0.013976		

Table # 2
Initial Rate Impact by Electric Customer Class

middle react by model by model of diagonal				
PROPOSED PERCENTAGE (%) DECREASES BY CUSTOMER CLASS FOR ELECTRIC SERVICE				
Residential		RS	(0.17)%	
Residential Heating		RHS	(0.20)	
Residential Load Management		RLM	(0.18)	
General Lighting & Power		GLP	(0.19)	
Large Power & Lighting - Secondary		LPL-S	(0.24)	
Large Power & Lighting – Primary		LPL-P	(0.21)	
High Tension – Subtransmission		HTS-S	(0.24)	

The percent increases noted above are based upon Delivery Rates and the applicable Basic Generation Service (BGS) charges in effect November 1, 2023 and assumes that customers receive commodity service from Public Service Electric and Gas Company.

Table #3
Initial Rate Impact by Gas Customer Class

PROPOSED PERCENTAGE (%) INCREASES BY CUSTOMER CLASS FOR GAS SERVICE					
Rate Class % Increase					
Residential Service	RSG	0.40%			
General Service	GSG	0.36			
Large Volume Service	LVG	0.46			
Firm Transportation Gas Service	TSG-F	0.55			
Non-Firm Transportation Gas Service TSG-NF 0.60					
Cogeneration Interruptible Service CIG 0.87					

The percent increases noted above are based upon Delivery Rates and the Basic Gas Supply Service (BGSS) charges in effect November 1, 2023 and assumes that customers receive commodity service from Public Service Electric and Gas Company.

Table #4
Residential Electric Service

	Then Your	And Your	Your Monthly	And Your	
If Your Monthly	Present Monthly	Proposed	Summer Bill	Monthly Percent	
Summer kWh	Summer Bill (1)	Monthly Summer	Change Would	Change	
Use Is:	Would Be:	Bill (2) Would Be:	Be:	Would Be:	
185	\$41.86	\$41.80	(\$0.06)	(0.14)%	
370	78.79	78.66	(0.13)	(0.16)	
740	154.56	154.31	(0.25)	(0.16)	
803	167.98	167.70	(0.28)	(0.17)	
1,337	281.95	281.49	(0.46)	(0.16)	

- (1) Based upon current Delivery Rates and Basic Generation Service Residential Small Commercial Pricing (BGS-RSCP) charges in effect November 1, 2023 and assumes that the customer receives BGS-RSCP service from Public Service.
- (2) Same as (1) except includes the proposed change in the Clean Energy Future Energy Efficiency II Program component of the GPRC.

Table #5
Residential Gas Service

		And Your	Your Monthly	And Your
If Your Monthly	Then Your Present	Proposed	Winter Bill	Monthly Percent
Winter Therm	Monthly Winter Bill	Monthly Winter Bill	Change Would	Change
Use Is:	(1) Would Be:	(2) Would Be:	Be:	Would Be:
25	\$33.15	\$33.26	\$0.11	0.33%
50	57.68	57.90	0.22	0.38
100	107.85	108.29	0.44	0.41
172	179.30	180.04	0.74	0.41
201	208.17	209.05	0.88	0.42
300	306.29	307.59	1.30	0.42

- (1) Based upon current Delivery Rates and Basic Gas Supply Service (BGSS-RSG) charges in effect November 1, 2023 and assumes that the customer receives BGSS-RSG commodity service from Public Service.
- (2) Same as (1) except includes the proposed change in the Clean Energy Future Energy Efficiency II Program component of the GPRC.

Stacey M. Mickles, Esq.
Associate Counsel - State Regulatory

PUBLIC SERVICE ELECTRIC AND GAS COMPANY