

October 16, 2023

Sherri L. Golden, Secretary New Jersey Board of Public Utilities 44 South Clinton Avenue, 1<sup>st</sup> Floor P.O. Box 350 Trenton, NJ 08625-0350

Submitted via e-mail

#### DOCKET NOS. QO1901040, QO19060748 & QO17091004

Dear Secretary Golden:

Pursuant to the Board's current filing procedures, herein is the Annual Progress Report for Program Year 2023<sup>1</sup> ("PY23") of New Jersey Natural Gas ("NJNG" or "Company") with respect to its Clean Energy Act of 2018 Energy Efficiency ("EE") and Peak Demand Reduction ("PDR") Programs.

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

## **Energy Efficiency Program Progress - Executive Summary**

#### Overall Portfolio

The SAVEGREEN Project® (SAVEGREEN), the customer branded name for NJNG's energy efficiency programs, has been serving customers since 2009. This report addresses new efforts for the expansion of SAVEGREEN that occurred on July 1, 2021² to meet the requirements of the Clean Energy Act, including the transition of many programs that were previously administered by New Jersey's Clean Energy Program. NJNG worked closely with the other New Jersey Utilities (Utilities) to develop coordinated programs to offer comprehensive solutions for our customers.

<sup>&</sup>lt;sup>1</sup> - For the purposes of the quarterly reports for Program Year 2023, the numbering of the quarters aligns to these dates: **Q1** (7/1/22 - 9/30/22); **Q2** (10/1/22 - 12/31/22); **Q3** (1/1/23 - 3/31/23); **Q4** (4/1/23 - 6/30/23).

<sup>&</sup>lt;sup>2</sup> - During this quarter, NJNG was also performing activities to close out projects that were authorized under prior program approvals in BPU Docket No. GO18030355. NJNG will continue to comply with the reporting requirements established within that Docket.

Since NJNG had robust energy-efficiency programs in place and a good working relationship with many contractors, NJNG was able to leverage many elements of our existing structure for program expansion, including the ability to refresh our online marketplace and microsite, established communication and marketing channels with customers and contractors, infrastructure and procedures for our On-Bill Repayment Program (OBRP) and knowledgeable employees, experienced in our energy-efficiency programs, many of whom have been with SAVEGREEN since 2009. However, NJNG continues to devote significant time implementing our Program Management Software System (PMSS) to properly support the tracking of the energy savings and investments of our expanded program portfolio and provide enhanced functionality for customers and contractors, as well as on-going coordination efforts with the Utilities. With limited exception noted within this report, NJNG is not using Third Party Implementation Contractors to administer most programs.

All NJNG's approved programs that were expected to launch in July were accepting applications from customers and contractors in early July 2021. In addition, as noted in our filing and follow-up discussions, NJNG launched certain newer Additional Utility Led Programs, including Moderate Income Weatherization, Energy Management, and Engineered Solutions, later in Program Year 1 (Program Year 2022). Due to longer lead times for commercial projects, Engineered Solutions did not have any closed projects as of the end of this reporting period, but the commercial team has three Engineered Solutions projects in the pipeline, with other potential projects for both Engineered Solutions and Energy Management in development in Program Year 3.

The Utilities continue to work on developing the Statewide Coordinator (SWC) system that will facilitate the exchange of investments and energy savings between a Lead Utility and a Partner Utility. As of the date of this report, the SWC system is partially operational, therefore the Utilities have had limited transfers with expenditures and energy savings. As discussed during Utility Working Group discussions, Utilities are supporting incentives for comprehensive projects that address both fuels with the intention to transfer all information through the SWC when the system is fully operational and integrated with each utility's program management software and tracking system. Accordingly, the information reflected within this report reflects all investments made by NJNG, including those as the Lead Utility on behalf of a Partner Utility. Energy savings shown within this report only reflect savings for NJNG's primary fuel.

Collectively, the programs delivered over 444,400 Dth in savings during PY23. More information on the composition of the savings is presented both within this report and in Appendices B through I.

Additionally, NJNG is committed to improving the program. NJNG is working closely with DNV Energy Insights, the primary evaluation contractor, and their subcontractor APPRISE, Inc. For the purpose of this report, they will collectively be referred to as the DNV Team. The DNV Team has worked with guidance developed by the Statewide Evaluator (SWE) Team under contract to the BPU. Work scopes for Program Year 2 (PY2) evaluations have been finalized and approved by SWE. NJNG has reviewed the final drafts of the evaluation survey/interview instruments for most of the programs. Those final drafts have incorporated feedback from SWE based on their review and we received approval from SWE to proceed. Contractor interviews for HPwES have been completed and other surveys are in progress. DNV is also in the process of reviewing PY2 data activity for QHEC and Energy Efficient Products, along with actively interviewing SAVEGREEN staff to increase their understanding of NJNG internal processes for PY2 evaluations.

#### Residential Sector

Year-to-date highlights include:

- The Energy Efficient Products Program was launched during July 2021.
  - o The SAVEGREEN residential HVAC Program completed 6,182 measures.
  - O Prior quarters within this program year reported on the distribution of community conservation kits. However, as a result of the implementation of A-5160, NJNG was no longer able to claim savings for the majority of the energy saving measures in the conservation kits because of the increased efficiency standard and the inability to identify the current condition in the customers home for these products. This effectively eliminated NJNG's ability to claim savings for community conservation kits based on the mix of products. Accordingly, NJNG has currently halted distribution of these kits.
  - o The NJNG Online Marketplace sold 10,542 efficient products to NJNG customers. The majority of sales were smart thermostats, but NJNG also offered discounted energy products for the home. NJNG previously also sold conservation kits on the Marketplace but also had to eliminate these sales as a result of the implementation of A-5160, as noted in the previous bullet.
    - NJNG's Marketplace Program services are provided by EFI (Energy Federation, Inc.).
  - o NJNG processed 3,216 appliance rebates for washer/dryer units.
- The Home Performance with ENERGY STAR (HPwES) Program completed 427 projects. This does not include HPwES activity within the Multi-family market.
- The Behavioral Program has more than 247,600 customers in our treatment group.
  - O NJNG retained Uplight, as the vendor that provides home energy services for the Behavioral Program throughout this triennium. Uplight sends printed Home Energy Reports (HERs) in the fall and winter periods, and electronic Home Energy Reports (eHERS) are provided during the summer months. High Usage Alerts are sent to customers who provide their e-mail address.
- The Quick Home Energy Check-Up (QHEC) Program completed 879 in-home customer visits.
  - NJNG also offers a QHEC+ option that includes a comprehensive Building Performance Institute (BPI) audit and the potential for the installation of a smart thermostat that is purchased on the NJNG Marketplace. The original fee for the QHEC+ was \$49 fee but our approval allowed for us to offer discounted rates for promotional periods. The QHEC+ was discounted to \$24.50 (half-price) through March 31, 2023 (PY2-Q3). All QHEC visits and QHEC+ audits are conducted by NJNG employees with full BPI certification.
  - o NJNG's social media campaign continues on Facebook and Google targeting customers within the NJNG service territory.
  - o A QHEC promotional YouTube video was launched.
- CLEAResult, NJNG's Moderate-Income Weatherization Program Implementer and Quality Control vendor, completed 84 audits.
- Outreach activities specific to Moderate-Income Weatherization included:
  - Direct mail campaign promoting the Moderate-Income Weatherization Program commenced during May 2023 (dropping every other week). The overall audience consisted of approximately 53,000 customers identified as overburdened community members.
  - o Corresponding e-mail campaign commenced during June 2023 to an audience of approximately 25,000.
  - Presentations were held at various organizations, including Senior Citizens Alliance Network (SCAN), Young Women's Leadership Summit, and Men's Club Renaissance Retirement Community.
  - Information continues to be provided to Monmouth, Ocean and Morris counties agencies, including Affordable Housing and Ocean Inc. These agencies provide information on the Moderate-Income Weatherization Program to customers over income limits for Comfort Partners.

- Residential outreach activities included:
  - Outreach at large events, like Ocean Fun Days and local community day fairs, as well as tabling at the Jersey Shore Blue Claws games.
  - O During the period, 2 digital set of ads ran on Facebook and Instagram, as well as Google Display. We also had digital display ads at the Jersey Shore Blue Claws stadium throughout the season.
- Outreach activities specific to Workforce Development included:
  - To support the growth of the Clean Energy Jobs Workforce Development Program, Building Performance Institute, Inc. (BPI) Certification scholarships are being offered to income-eligible participants in NJNG's service territory. Classes are a mix of online and hybrid to learn the fundamentals of the industry such as home inspections, energy modeling, enhanced in-field management, etc.
  - o Sixteen candidates had completed the initial course as of June 30<sup>th</sup>.
  - o This new program was promoted at the NJR Job Fair, Ocean County Vocational; Technical School, AP Hight School Job Fair, Annual Construction Expo, and Job Fair.

#### Commercial Sector

Year-to-date highlights include:

- The NJNG outreach team is actively promoting the programs at events across our service territories. They are also engaged in one-on-one discussions with customers who are interested in learning more about available programs.
- Continued presentations to various business associations, such as the Alliance for Action annual healthcare event, as well as various chamber of commerce events.
- The Direct Install Program completed 11 projects.
  - The Utilities considered feedback from customers and trade allies regarding the structure of incentive calculations for the Direct Install Program and reached agreement on modifications to the screening tool for Direct Install projects that was implemented on July 1, 2022. As a result of these changes, NJNG has seen greater participation in this program.
  - As of June 30, 2023, the Direct Install project pipeline had 49 applications submitted for future projects with a steady inflow of new applications.
- The Prescriptive Program completed 10 projects.
  - o As of June 30, 2023, the Prescriptive project pipeline had 2 applications submitted for future projects.
  - NJNG has been successful in converting some Prescriptive Program requests into comprehensive Direct Install projects. NJNG's commercial encourages all interested customers to consider pivoting to more comprehensive upgrades whenever possible.
- The Energy Management Program completed 4 projects.
  - o NJNG expects an increase in participation as the program is marketed to both contractors and customers.
- NJNG also has the infrastructure in place to engage eligible customers in our Engineered Solutions Program. NJNG has been running a similar program since early 2019.
  - As of June 30, 2023, the Engineered Solutions project pipeline had 3 applications submitted for potential future projects. These type of projects generally have long development cycles.
- Although NJNG noticed steady growth in its project pipelines, global supply chain disruptions are lingering.
- NJNG had limited projects close during PY23, as a result, limited energy savings were reported.
- NJNG has engaged a marketing consultant to launch the first commercial marketing campaign.
  - o The Initial focus will be on Direct Install and Prescriptive Programs. Strategies will include social media, e-mail, and direct mail.

## Multi-family Sector

- The Multi-family HPwES Program completed 1,358 units.
- NJNG conducted a competitive solicitation and selected CLEAResult as a Third-Party Implementation Contractor to support the launch of Direct Install of energy savings measures for the Multi-family Program. Program details have been put in place to enable the launch of this pathway. However, no customer applications were submitted during PY23.
- NJNG accepts interested customers into the program for the initial screening and to process incentives for Prescriptive measures pathway. NJNG received 2 applications during PY23.
- NJNG also had the infrastructure in place to engage Multi-family property owners in Engineered Solutions. Applications are currently under review by 3 interested customers.
- Our outreach team is engaged in one-on-one discussions with customers who are interested in learning more about the available Multi-family Programs.

#### Contractor Summary

- NJNG engages nearly 1,900 contractors through our monthly contractor newsletter.
- There were 240 contractors available to participate in our OBRP program, this includes 29 contractors for the HPwES Program.
- There were 29 commercial contractors onboarded for our Direct Install Program.
- There were 32 contractors for our Prescriptive program who signed a participation agreement to allow them to offer our OBRP program.
- Any licensed contractor can offer rebates for qualifying residential HVAC equipment and commercial Prescriptive equipment.
- There were 13 engineering firms in our pool for the Engineered Solutions Program.

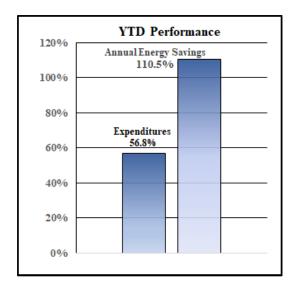
Table 1 - Program Year 2023 Program Results shows the Company's overall performance as a percentage of retail sales, which includes retail sales reductions achieved by the Comfort Partners Program, which is the primary program serving low-income customers and is co-managed with the Division of Clean Energy in conjunction with NJNG and the other investor-owned electric and gas utility companies.

**Table 1 - Program Year 2023 Program Results** 

Utility-Administered Programs Ex-ante Energy Savings (Dth)	Comfort Partners Ex-ante Energy Savings (Dth)	Other Programs Ex-ante Energy Savings (Dth) <sup>1</sup>	Total Ex-ante Energy Savings (Dth)	Compliance Baseline (Dth)	Annual Target (%)	Annual Target (Dth)	Percent of Annual Target (%)	
(A)	(B)	(C)	(D) = (A) + (B) + (C)	(E)	(F)	(G) = (E) * (F)	(H) = (D) / (G)	
444,414	10,266	-	454,680	68,052,214	0.34%	231,378	196.5%	

<sup>&</sup>lt;sup>1</sup> - Other Programs includes Company-specific programs that are not part of the Clean Energy Act (CEA) energy efficiency programs, such as legacy programs and pilots. While NJNG has legacy programs that are expected to contribute to reported savings in PY24, all legacy program projects that closed within PY23 to date reflected the complementary efforts with the NJCEP programs. Accordingly, NJNG is not recording any savings for those legacy programs in Table 1 (above). Future years will only reflect savings from legacy programs that do not have an overlap with NJCEP, primarily Engineered Solutions.

Figure 1 - PY23 Performance of Expenditures and Annual Energy Savings



The chart above is reflective of expenditures and savings from NJNG's approved plan (not reflective of the retail energy targets which is captured in Table 1 - Program Year 2023 Program Results).

Table 2 - Quantitative Performance Indicators provides the results of the QPIs for all programs for which utilities are responsible, inclusive of the CEA-funded programs, Comfort Partners Program (only included in low/moderate income lifetime savings), and any legacy energy efficiency programs administered by NJNG that were authorized or funded by or through a prior filing or authorization.

**Table 2 - Quantitative Performance Indicators** 

	Utility-Administered Plan Year Results	Comfort Partners Plan Year Results	Other Programs Plan Year Results <sup>8</sup>	Total Plan Year Results	Annual Target 5 & 6	Percent of Annual Target Achieved
Annual Energy Savings (Dth) 1	444,414	10,266		454,680	411,345	110.5%
Lifetime Savings (Dth)	3,057,981	188,586		3,246,567	4,244,399	76.5%
Annual Demand Savings (Dth Peak Day) <sup>2</sup>						
Lifetime Persisting Demand Savings (Dth-year) 6						
Low/Moderate-Income Lifetime Savings (Dth) 3	15,305	188,586		203,891		
Small Commercial Lifetime Savings (Dth) 4	5,611		-	5,611		
Net Present Value of Utility Cost Test Net Benefits (\$) 7	\$ 3,131,483			\$ 3,131,483		

- <sup>1</sup> Calculated savings at the retail (customer meter) level. Savings are ex-ante.
- <sup>2</sup> Calculation methodology for Annual Demand Savings and Lifetime of Persisting Demand Savings for natural gas are in development.
- <sup>3</sup> Low/Moderate-Income lifetime savings are the total of any income-qualified Residential or Multi-family program, including Comfort Partners.
- <sup>4</sup> Small Commercial lifetime savings are Direct Install Program savings and those from C&I small business customers (<200 kW peak demand) in other programs.
- <sup>5</sup> The New Jersey Comfort Partners Program does not forecast annual target retail savings (Dth).
- <sup>6</sup> Annual Targets reflect estimated impacts as filed the Company's 2021-2024 Clean Energy Filing.
- <sup>7</sup> Cost effectiveness impacts are not calculated for Comfort Partners or Other Programs.
- 8 Other Programs includes Company-specific programs that are not part of the Clean Energy Act (CEA) energy efficiency programs, such as legacy programs and pilots. While NJNG has legacy programs that are expected to contribute to reported savings in PY23 and PY24, all legacy program projects that closed within PY23 to date reflected the complementary efforts with the NJCEP programs. Accordingly, NJNG is not recording any savings for those legacy programs here. Future years will only reflect savings from legacy programs that do not have an overlap with NJCEP, primarily Engineered Solutions.

## Sector-Level Participation, Expenditures, and Energy Savings

## **Participation**

NJNG has seen a strong start to the residential programs because we have been offering a range of residential energy-efficiency programs since 2009. NJNG has a robust network of participating contractors, active communication channels, and marketing efforts.

NJNG is not surprised that there were few closed commercial projects. Based on experience supporting the commercial energy efficiency programs run by NJCEP, NJNG recognizes longer lead times for those programs. Additionally, NJNG has been successful in converting some Prescriptive Program requests into comprehensive Direct Install projects. This will significantly change the number of forecasted participants since every measure would count as a participant under the Prescriptive Program, but a comprehensive project would only be reflected as one participant. NJNG had similar expectations for the Multi-family program, especially since it launched mid-year during PY22. NJNG's annual forecasted participation was based on commitments rather than closed projects. Additionally, as a result of the implementation of A-5160, NJNG was no longer claiming participants for Conservation Kits.

**Table 3 - Sector-Level Participation** 

Sector <sup>1</sup>	Quarter Participants	YTD Participants	Annual Forecasted Participants	Percent of Annual Forecast
Residential	250,818	268,963	282,647	95.2%
Multi-family	602	1,358	1,273	106.7%
C&I	14	25	1,386	1.8%
Reported Totals for Utility Administered Programs	251,434	270,346	285,306	94.8%
Comfort Partners	101	606	863	70.2%
Utility Total	251,535	270,952	286,169	94.7%

<sup>&</sup>lt;sup>1-</sup>Please note that these numbers are totals across all programs within a sector. Appendix B shows the participation results for individual programs or offerings.

## **Expenditures**

NJNG did not make or request any adjustments to the budget or incentives during PY23-Q4. As reflected in Table 4 below, NJNG has spent 94% of the Residential sector budget, approximately 49% of the Multi-family sector budget, and nearly 21% of the Commercial sector budget. The smaller relative spend for the Multi-family and Commercial Programs reflects that limited incentives were processed during PY23; however, there is significant activity occurring on projects in process and regarding outreach to engage further customers. The Engineered Solutions Program has committed 33% of the triennium budget. NJNG's annual forecasted expenditures were based on commitments rather than closed projects. Accordingly, some programs within the commercial sector spending are expected to remain at lower levels since many comprehensive projects with longer lead times will likely close after the conclusion of the current triennial.

**Table 4 - Sector-Level Expenditures** 

Expenditures <sup>1</sup>		Quarter Expenditures (\$000)		YTD Expenditures (\$000)		Annual Budget Denditures (\$000)	Percent of Annual Budget	
Residential	\$	8,422	\$	33,143	\$	35,045	94.6%	
Multi-family	\$	1,788	\$	4,153	\$	8,497	48.9%	
C&I	\$	1,604	\$	8,371	\$	40,003	20.9%	
Reported Totals for Utility Administered Programs	\$	11,814	\$	45,667	\$	83,545	54.7%	
Comfort Partners	\$	1,026	\$	5,216	\$	6,082	85.8%	
Utility Total	\$	12,840	\$	50,883	\$	89,627	56.8%	

<sup>&</sup>lt;sup>1</sup> - Expenditures include rebates, incentives, and loans, as well as program administration costs allocated across programs.

## **Energy Savings**

Given that this is the second year of activity after the transition of the NJCEP programs, NJNG expected some programs to reflect a slower start. NJNG is working to refine procedures to improve the customer experience, engage more contractors, and reach more customers through marketing and outreach.

**Table 5 - Sector-Level Energy Savings** 

Annual Energy Savings <sup>1</sup>	Quarter Retail (Dth)	YTD Retail (Dth)	Annual Target Retail Savings (Dth)	Percent of Annual Target	
Residential	94,133	421,834	283,490	148.8%	
Multi-family	3,614	11,532	10,936	105.4%	
C&I	7,238	11,048	116,920	9.4%	
Reported Totals for Utility Administered Programs	104,985	444,414	411,345	108.0%	
Comfort Partners <sup>2</sup>	1,613	10,266	N/A	N/A	
Utility Total	106,598	454,680	411,345	110.5%	

<sup>&</sup>lt;sup>1</sup> - Annual energy savings represent the total expected annual savings from all EE measures within each sector. Appendix B shows the annual energy savings results for individual programs or offerings.

<sup>&</sup>lt;sup>2</sup> - The New Jersey Comfort Partners Program does not forecast annual target retail savings (Dth).

#### Portfolio Expenditures Breakdown

Table 6 provides quarterly, and year-to-date costs compared to the full program year budget. Spending will accelerate quickly as other Commercial and Multi-family Programs begin to close.

Table 6 - Annual Costs and Budget Variances by Category

Total Utility EE/PDR <sup>1</sup>		Quarter Reported YTD Reported (\$000) (\$000)			Full Year Budget (\$000)	Percent of Annual Budget Spent
Capital Costs <sup>2</sup>	\$	34	\$	504	\$ 527	95.7%
Utility Administration	\$	1,429	\$	4,951	\$ 5,960	83.1%
Marketing	\$	190	\$	658	\$ 1,482	44.4%
Outside Services	\$	418	\$	1,187	\$ 1,935	61.3%
Rebates	\$	3,620	\$	16,176	\$ 38,151	42.4%
No or Low-Interest Loans	\$	5,963	\$	22,000	\$ 34,225	64.3%
Evaluation, Measurement & Verification (EM&V)	\$	350	\$	905	\$ 2,651	34.1%
Inspections & Quality Control	\$	30	\$	116	\$ 163	71.2%
Utility Total	\$	12,034	\$	46,497	\$ 85,094	54.6%

<sup>&</sup>lt;sup>1</sup> - Categories herein align to NJNG's EE plan as approved by the BPU.

#### **Equity Metrics**

These equity metrics draw from the considerable work of the New Jersey Office of Environmental Justice's Overburdened Community (OBC) designations. Per New Jersey's Environmental Justice Law, N.J.S.A. 13:1D-157, census block groups are identified as being an Overburdened Community when specific census criteria are met<sup>1</sup>, and metrics reported herein reflect further direction from BPU Staff<sup>2</sup>.

NJNG devoted significant internal resources to develop the proper reports to extract the information used to populate this table from our Customer Information System to calculate the system wide reference points and our PMSS to develop related participation metrics. NJNG intends to improve our understanding of the implications of these metrics and pursue additional focused strategies to improve the participation levels for customers in OBC as needed.

NJNG has pursued distinct outreach strategies to benefit our low-to moderate income customers living in OBCs. These strategies provide our customers with information about special programs and enhanced incentives the energy efficiency programs have to help lower their energy bills and potentially improve the comfort and safety of their homes. Activities include outreach events, customer bill inserts and newsletters, e-mail campaigns, social media advertising, and direct mail. NJNG has begun to work with community partners to reach customers in OBC communities. We continue to develop new approaches and strategies to increase participation. For example, NJNG sponsored a Montclair University Sustainable Institute Green Team to develop outreach strategies for OBC communities. Together with NJNG, this team worked directly with Interfaith Neighbors, a nonprofit organization based in Asbury Park to brainstorm and develop strategies that can then be replicated in other OBCs in our territory.

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<sup>&</sup>lt;sup>2</sup> - PY1 budget for Capital Cost was \$1.3M. At PY1-Q4 \$823K (61%) was spent. \$527K remained, which carried over and became PY2 full year budget.

<sup>&</sup>lt;sup>1</sup> Per N.J.S.A. 13:1D-157: (1) at least 35 percent of the households qualify as low-income households; (2) at least 40 percent of the residents identify as a minority or as members of a State recognized tribal community; or (3) at least 40 percent of the households have limited English proficiency.

<sup>&</sup>lt;sup>2</sup> Per guidance from BPU Staff, Overburdened Communities as used in Table 6 reflect those communities where at least 35 percent of the households qualify as low-income households but exclude those communities that are solely designated as Minority, Limited English, or Minority and Limited English.

**Table 7 - Equity Performance**  $^7$ 

Territory-Level Benchmarks	Overburdened <sup>1</sup>	Non-Overburdened	Total	Ratio <sup>2</sup>
# of Household Accounts 3	64,552	466,514	531,066	0.12
# of Large Commercial Accounts <sup>3</sup>	1,097	4,925	6,022	0.18
# of Small Commercial Accounts <sup>3</sup>	4,618	28,736	33,354	0.14
Totals	70,267	500,175	570,442	0.12

Territory-Level Benchmarks	Overburdened <sup>1</sup>	Non-Overburdened	Total	Ratio <sup>2</sup>
Household Accounts - Annual Energy	54,951,872	477,761,510	532,713,382	0.10
Large Commercial Accounts - Annual Energy	24,519,742	100,048,084	124,567,826	0.20
Small Commercial Accounts - Annual Energy	47,618,975	276,913,011	324,531,986	0.15
Totals (Therms) 4	127,090,589	854,722,605	981,813,194	0.13
Totals (Dth) <sup>4</sup>	12,709,059	85,472,261	98,181,319	0.13

Program	Sub-Program or Offering	Type of Sub- Program/Offering	Quarter Overburdened <sup>1</sup>	Quarter Non-Overburdened	Quarter Ratio <sup>2</sup>	YTD Overburdened <sup>1</sup>	YTD Non-Overburdened	YTD Ratio <sup>2</sup>
Participation								
	HVAC Co	ore	67	1,552	0.04	322	5,860	0.05
	Community Kits Co	ore	-	-	-	6	18	0.25
Residential - Efficient Products <sup>5</sup>	Others (Online Marketplace &	ore	125	1,056	0.11	1,626	12,132	0.12
	Washers/Dryers *)							
Total Efficient Products Participation			192	2,608	0.07	1,954	18,010	0.10
	Home Performance with Energy Star Co	ore	12	80	0.13	79	348	0.19
Residential - Existing Homes	Quick Home Energy Check-Up Ac	dditional	16	218	0.07	69	810	0.08
	Moderate-Income Weatherization Ac	dditional	3	16	0.16	3	17	0.15
Home Energy Education & Management Behavioral		dditional	24,874	222,799	0.10	24,874	222,799	0.10
Total Residential Partic	pation		25,097	225,721	0.10	26,979	241,984	0.10
C&I Direct Install	Direct Install Co	ore	-	4	-	1	10	0.09
	Prescriptive/Custom Co	ore	1	5	0.17	2	8	0.20
Energy Solutions for Business	Energy Management Ac	dditional	-	4	-	-	4	-
	Engineered Solutions Ac	dditional	-	-	-	-	-	-
Total Business Participa	tion		1	13	0.07	3	22	0.12
	HPWES Co	ore	390	212	0.65	658	700	0.48
	Direct Install Co	ore	-	-	-	-	-	-
Multi-family	Prescriptive/Custom Co	ore	-	-	-	-	-	-
	Engineered Solutions Co	ore	-	-	-	-	-	-
Total Multi-family Participation			390	212	0.65	658	700	0.48
with the same of t	Total C	Core Participation 6	595	2,909	0.17	2,694	19,076	0.12
	Total Additional Participation				0.10	24,946	223,630	0.10
	TOTA	25,488	225,946	0.10	27,640	242,706	0.10	

Program	Sub-Program or Offering	Type of Sub- Program/Offering	Quarter Overburdened <sup>1</sup>	Quarter Non-Overburdened	Quarter Ratio <sup>2</sup>	YTD Overburdened <sup>1</sup>	YTD Non-Overburdened	YTD Ratio <sup>2</sup>
Annual Energy Savings (Dth)								
	HVAC	Core	855	22,203	0.04	4,236	82,193	0.05
Residential - Efficient Products 5	Community Kits	Core	-	-	-	30	91	0.25
Residential - Efficient Products	Others (Online Marketplace & Washers/Dryers)	Core	211	1,894	0.10	3,781	33,834	0.10
Total Efficient Products Annual Energy Savings (Dth)			1,066	24,097	0.04	8,047	116,118	0.06
Home Performance with Energy Star		Core	147	1,960	0.07	837	8,417	0.09
Residential - Existing Homes	Quick Home Energy Check-Up	Additional	12	187	0.06	50	764	0.06
	Moderate-Income Weatherization	Additional	24	145	0.14	24	145	0.14
Home Energy Education & Management Behavioral		Additional	6,427	60,068	0.10	27,073	260,359	0.09
Total Residential Annual	Energy Savings (Dth)		7,676	86,457	0.08	36,031	385,803	0.09
C&I Direct Install	Direct Install	Core	-	1,236	-	114	4,568	0.02
	Prescriptive/Custom	Core	230	335	0.41	434	495	0.47
Energy Solutions for Business	Energy Management	Additional	-	5,437	-	-	5,437	-
	Engineered Solutions	Additional	-	-	-	-	-	-
Total Business Annual Er	ergy Savings (Dth)		230	7,008	0.03	548	10,500	0.05
	HPWES	Core	1,726	1,887	0.48	4,523	7,009	0.39
Multi-family	Direct Install	Core	-	-	-	-	-	-
Watti-Talliny	Prescriptive/Custom	Core	-	-	-	-	-	-
	Engineered Solutions	Core	-	-	-	-	-	-
Total Multi-family Annua	1,726	1,887	0.48	4,523	7,009	0.39		
	Total Core Ann	nual Energy Savings <sup>6</sup>	3,169	29,515	0.10	13,955	136,607	0.09
	Total Additional Ann	nual Energy Savings <sup>6</sup>	6,463	65,837	0.09	27,147	266,705	0.09
	TOTAL ANNUAL	L ENERGY SAVINGS 6	9,632	95,352	0.09	41,102	403,312	0.09

Program		Type of Sub- ogram/Offering	Quarter Overburdened <sup>1</sup>	Quarter Non-Overburdened	Quarter Ratio <sup>2</sup>	YTD Overburdened <sup>1</sup>	YTD Non-Overburdened	YTD Ratio <sup>2</sup>
Lifetime Energy Savings (Dth)								
	HVAC Core	•	16,435	428,581	0.04	81,089	1,585,287	0.05
Residential - Efficient Products 5	Community Kits Core	•	-	-	-	453	1,360	0.25
Residential - Efficient Products	Others (Online Marketplace & Core Washers/Dryers)	•	1,669	15,060	0.10	29,244	258,769	0.10
Total Efficient Product	s Lifetime Energy Savings (Dth)		18,104	443,641	0.04	110,786	1,845,416	0.06
	Home Performance with Energy Star Core		2,210	29,332	0.07	10,732	127,672	0.08
Residential - Existing Homes	Quick Home Energy Check-Up Addi	itional	118	1,870	0.06	501	7,635	0.06
	Moderate-Income Weatherization Addi	itional	412	3,128	0.12	412	3,128	0.12
Home Energy Education & Management Behavioral		itional	13,498	126,144	0.10	56,854	546,754	0.09
Total Residential Lifet	me Energy Savings (Dth)		34,342	604,115	0.05	179,285	2,530,605	0.07
C&I Direct Install	Direct Install Core	•	-	20,360	-	1,979	85,899	0.02
	Prescriptive/Custom Core		4,609	4,803	0.49	7,055	7,091	0.50
Energy Solutions for Business	Energy Management Addi	itional	-	50,020	-	-	50,020	-
	Engineered Solutions Addi	itional	-	-	-	-	-	-
Total Business Lifetim	e Energy Savings (Dth)		4,609	75,183	0.06	9,034	143,010	0.06
	HPWES Core		29,337	32,089	0.48	76,894	119,153	0.39
Multi-family	Direct Install Core		-	-	-	-	-	-
Multi-lamily	Prescriptive/Custom Core		-	-	-	-	-	-
	Engineered Solutions Core		-	-	-	-	-	-
Total Multi-family Life	Total Multi-family Lifetime Energy Savings (Dth)				0.48	76,894	119,153	0.39
	Total Core Lifetime I	Energy Savings <sup>6</sup>	54,260	530,225	0.09	207,446	2,185,231	0.09
	Total Additional Lifetime I	Energy Savings <sup>6</sup>	14,028	181,162	0.07	57,767	607,537	0.09
	TOTAL LIFETIME EN	ERGY SAVINGS 6	68,288	711,387	0.09	265,213	2,792,768	0.09

- 1 Across all programs, participation/expenditures/savings are classified as either in an Environmental Justice Overburdened Community census block or not based on the program participant's address. Overburdened Community census blocks were developed and defined by the NJ Department of Environmental Protection (www.nj.gov/dep/ej/communities.html). The Overburdened Community (OBC) census blocks are defined with three criteria: at least 35% of households qualify as low-income, at least 40% of residents identify as minority, and at least 40% of households have limited English proficiency. If any of the three criteria is satisfied, the census block is defined as OBC. Staff directed to only include OBC census blocks where at least 35% of households qualify as low-income. For example, a census block that only satisfies the limited English proficiency criteria is not included.
- <sup>2</sup> The %OBC column shows the ratio of the overburdened metric over the total of overburdened plus non-overburdened. Comparing the territory-level benchmark %OBC (upper table) versus the program %OBC (lower table) shows how equitable the distribution of the program is between the overburdened and non-overburdened populations. If the program %OBC is greater than the benchmark %OBC, then the overburdened population is better represented in the program relative to the percentage of overburdened households or business in the utility territory.
- <sup>3</sup> Estimation of accounts with overburdened designation determined to be active immediately preceding the current Plan Year
- <sup>4</sup>- Estimation of usage with overburdened designation for the 12-month period immediately preceding the current Plan Year.
- 5 Efficient Products Program, Lighting participants represent sales of products originating from stores located within an Overburdened Community. This metric is not intended to identify individual participants who reside in Overburdened Community, but rather the proportion of retail lighting sales stemming from locations serving Overburdened Communities aligned to BPU Staff's modifications.
- <sup>6</sup> Individual line items or totals as listed in the OBC table may differ slightly from those results in Appendix B table due to rounding.
- <sup>7</sup> The 2020 census data was used for PY2-Q3. Previous quarterly reports (PY1 Q1-Q2-Q3-Q4 and PY2 Q1-Q2) reflected 2019 census data.
- 8 Appliance Rebates Washer/Dryers subprogram resulted in negative savings (current quarter and lifetime) as a result of updating our tracking system to the FY2021 Protocol from FY2020 (specific to washers). This had no impact on participant data.

**Table 8 - Benefit-Cost Test Results** 

		Initial							Fin	ıal		
	NJCT	PCT	PACT	RIMT	TRCT	SCT	NJCT	PCT	PACT	RIMT	TRCT	SCT
Residential												
Efficient Products	1.5	1.9	1.4	0.8	0.9	2.3	2.0	2.3	1.5	0.8	1.1	3.1
Existing Homes	0.9	1.9	0.6	0.4	0.5	1.9	0.7	1.8	0.5	0.4	0.4	1.8
Home Energy Education & Management	1.8	2.9	1.4	0.8	1.4	2.4	2.1	3.1	1.6	0.8	1.6	2.8
Commercial												
C&I Direct Install	5.6	4.9	3.1	1.4	4.0	11.1	2.1	5.1	1.3	0.9	1.5	3.9
Energy Solutions for Business	1.5	1.5	1.2	0.9	0.9	2.9	0.3	1.3	0.2	0.2	0.2	0.3
Multi-family	2.0	2.3	1.5	1.0	1.2	4.3	1.0	2.0	0.5	0.4	0.6	2.1
Portfolio	2.0	2.4	1.6	1.0	1.4	4.0	1.5	2.3	1.2	0.7	1.0	2.6

**Table 9 - Legacy Program Totals** 

		(\$0	00's)	ELE	ECTRIC SAVINGS - Insta	GAS & OTHER FUEL SAVINGS - Installed <sup>1</sup>			
	Utility	Total Budget	Total Expenses	Peak Demand Electric Savings (kW)	Annual Electric Savings (MWh)	Lifetime Electric Savings (MWh)	Annual Gas Savings (MMBtu)	Lifetime Gas Savings (MMBtu)	
ĺ	NJNG \$ 135,056 \$ 15,997		-	-	-	-	-		

<sup>&</sup>lt;sup>1</sup> - All legacy program projects that closed within PY23 to date reflected complementary efforts with the NJCEP programs. Accordingly, NJNG is not recording any savings for those legacy programs in Table 9. Future years will only reflect savings from legacy programs that do not have an overlap with NJCEP, primarily Engineered Solutions.

Please contact the undersigned (via e-mail at <u>APeracchio@NJNG.com</u>) should you have any questions or concerns regarding this report.

Respectfully submitted,

Ame-Maire Peracchio

Anne-Marie Peracchio

Managing Director Marketing and Energy Efficiency

Cc: Philip Chao Brian Lipman Maura Caroselli Mamie Purnell Stacy Richardson

## **List of Appendices**

The bolded appendices in this list also appear in the accompanying Annual Report Appendix Spreadsheet.

- Appendix A Participant Definitions
- Appendix B Energy Efficiency and PDR Savings Summary
- Appendix C Energy Efficiency and PDR Savings Summary, LMI Customers
- Appendix D Energy Efficiency and PDR Savings Summary, Business Customers
- Appendix E Annual Baseline Calculation
- Appendix F Energy Savings with 2022 TRM Addendum
- Appendix G Ex-Ante Energy Savings Held for Transfer
- Appendix H Cost Effectiveness Test Details
- Appendix I Program Changes

# **Appendix A - Participant Definitions**

NJ Progra	m/Pathway	Participants (as lead utility)						
	HVAC	Sum of HVAC units (multiple units per customer counts as multipleparticipants)						
Efficient Products	<b>Rebated Products</b>	Quantity of units rebated (based on SKU)						
Efficient Froducts	Online Marketplace	Quantity of units sold (based on SKU) - net of returns (negative incurrent period)						
	EE Kits - Giveaway	Per kit delivered						
	Home Performance with Energy Star	Count of completed HPwES projects						
<b>Existing Homes</b>	Quick Home Energy Checkup	Count of completed visits						
	Moderate Income Weatherization	Same as HPwES - (distinction would be paying for audit in thisprogram)						
Home Energy Education & Management	Behavioral	Count of treatment customers at end of reporting period						
C&I Direct Install	Direct Install	Count based on number of applications/projects completed, notaccount number						
	Prescriptive/Custom	Count based on number of applications/projects completed, notaccount number						
Energy Solutions for Business	Energy Management	Count based on number of applications/projects completed, notaccount number						
	EngineeredSolutions	Count based on number of applications/projects completed, notaccount number						
	MF HPwES	Count of completed HPwES projects						
	Direct Install	Count based on number of projects completed						
Multi-family	Prescriptive/Custom	Count based on number of applications/projects completed, not account number						
	<b>Engineered Solutions</b>	Count based on number of applications/projects completed, not account number						

# Appendix B - Energy Efficiency and PDR Savings Summary

			Partici	pation			Actual Ex	openditu	res					x Ante Energy Savin	gs		
		Α	В	C	D = C / B	E	F		G	H=G/F	1	J	K	L = K / J	M	0	P
	NJNG	Current Quarter	Annual Forecasted Participation Number	Reported Participation Number YTD	YTD % of Annual Participants	Current Quarter (\$000)	Forecasted Annual Program Costs 1 (\$000)	Pr L Cos	eported ogram sts YTD \$000)	YTD % of Annual Budget	Current Quarter Annual Retail Energy Savings (Dth)	Annual Forecasted Retail Energy Savings (Dth)	Reported Retail Energy Savings YTD (Dth)	YTD % of Annual Energy Savings	Current Quarter Reported Wholesale Energy Savings (Dth)	Current Quarter Lifetime Retail Savings (Dth)	YTD Lifetime Retail Savings (Dth)
Residential Programs	Sub-Program																
	HVAC	1,619	7,024	6,182	88.0%	\$ 5,685	N/A	\$	22,040	N/A	23,058	63,277	86,429	136.6%	23,289	445,016	1,666,376
	Community Kits	-	10,000	24	0.2%	\$ -	N/A	\$	21	N/A	-	11,200	121	1.1%	-	-	1,813
Efficient Products *	Others	1,181	21,126	13,758	65.1%	\$ 129	N/A	\$	1,305	N/A	2,105	57,048	37,615	65.9%	2,126	16,729	288,013
	(Online Marketplace & Washers/Dryers)																
	Total Efficient Products	2,800	38,150	19,964	52.3%	\$ 5,814	\$ 19,205	\$	23,366	121.7%	25,163	131,525	124,165	94.4%	25,415	461,745	1,956,202
	Home Performance with Energy Star * 4	92	737	427	57.9%	\$ 1,550	\$ 10,088	\$	6,658	66.0%	2,107	22,763	9,254	40.7%	2,128	31,542	138,404
Existing Homes	Quick Home Energy Check-Up	234	1,650	879	53.3%	\$ 320	\$ 1,709	\$	1,236	72.3%	199	2,160	814	37.7%	201	1,988	8,136
	Moderate-Income Weatherization	19	110	20	18.2%	\$ 353	\$ 2,287	\$	733	32.0%	169	3,770	169	4.48%	170.69	3,540	3,540
Home Energy Education & Management	Behavioral <sup>2</sup>	247,673	242,000	247,673	102.3%	\$ 385	\$ 1,756	\$	1,150	65.5%	66,495	123,272	287,432	233.2%	67,160	139,642	603,608
· · · · · · · · · · · · · · · · · · ·	Total Residential	250,818	282,647	268,963	95.2%	\$ 8,422	\$ 35,045	\$	33,143	94.6%	94,133	283,490	421,834	148.8%	95,074	638,457	2,709,890
		100000000000000000000000000000000000000	N	S. 3 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	710 70 70 70 70 70	to the same of the same		: EVE	W454545K	28 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	F	414 X 4 X 7 X 1				*****	
Business Programs	Sub-Program																
C&I Direct Install	Direct Install * 4	4	248	11	4.4%	\$ 977	\$ 16,485	\$	2,435	14.8%	1,236	34,029	4,682	13.8%	1,248	20,360	87,878
	Prescriptive/Custom *	6	1,080	10	0.9%	\$ 322	\$ 7,801	\$	663	8.5%	565	46,452	929	2.0%	571	9,412	14,146
Energy Solutions for	Energy Management	4	12	4	33.3%	\$ 43	\$ 1,047	\$	128	12.2%	5,437	2,769	5,437	196.4%	5,491	50,020	50,020
Business	Engineered Solutions 3	-	46	-	0.0%	\$ 262	\$ 14,670	\$	5,145	35.1%	-	33,670	-	0.0%	-	-	-
	Total Business	14	1,386	25	1.8%	\$ 1,604	\$ 40,003	\$	8,371	20.9%	7,238	116,920	11,048	9.4%	7,310	79,792	152,044
	HPWES	500	21/2	1.050	N1/A	ć 1.700	N/A	^	4.452	21/0	2.614	21/2	11 522	0.00/	2.550	C1 42C	105.047
	Direct Install	602	N/A N/A	1,358	N/A N/A	\$ 1,788	N/A N/A	_	4,153	N/A N/A	3,614	N/A N/A	11,532	0.0%	3,650	61,426	196,047
Multi-family *	Prescriptive/Custom	-	N/A	-	N/A	\$ - \$ -	N/A	_	-	N/A	-	N/A	-	0.0%	-	-	-
	Engineered Solutions	-	N/A	-	N/A	\$ -	N/A			N/A	-	N/A	-	0.0%	-	-	-
	Total Multi-family	602	1.273	1.358	106.7%	\$ 1.788	\$ 8,497		4.153	48.9%	3.614	10.936	11.532	105.4%	3,650	61.426	196.047
Other Programs	Total Multi-lamily	002	1,273	1,358	100.776	\$ 1,788	\$ 8,497	3	4,155	48.970	3,014	10,930	11,532	105.476	3,050	01,420	190,047
Home Optimization & Pea	ak Demand Reduction	_	_	-	0.0%	\$ -	\$ -	Ś	-	0.0%	-	_	-	0.0%	-	_	_
Total Other		-	-	-	0.0%	7	\$ -	Ś	))))))))	0.0%	-	-		0.0%			-
						100000000000000000000000000000000000000	Regional Control				J	J. W. S.	5740 700 700			green ver vere	
Portfolio Total		251,434	285,306	270,346	94.8%	\$ 11,814	\$ 83,545	\$	45,667	54.7%	104,985	411,345	444,414	108.0%	106,035	779,675	3,057,981
Supportive Costs Outside	Destfelle					\$ 221	\$ 1.023	ė.	830	81.2%							

<sup>\* -</sup> Denotes a core EE program. Home Performance with Energy Star only includes non-LMI; the comparable program for LMI participants is Comfort Partners, which is jointly administered by the State and Utilities.

<sup>1 -</sup> Annual Forecasted Program Costs reflect values anticipated in Board-approved Utility EE/PDR filings and may incorporate budget adjustments as provided for in the June 10, 2020 Board Order.

<sup>&</sup>lt;sup>2</sup> - Behavioral lifetime retail savings (Dth) were calculated utilizing useful life of 2.1 years.

<sup>&</sup>lt;sup>3</sup> - Actual expenditures were directly related to Engineered Solutions progress payments.

<sup>4 -</sup> The Home Performance with Energy Star and Direct Install sub-programs resulted in negative savings (current quarter lifetime) as a result of updating our tracking system to re-calculate formulas on certain measures. This had no impact on participant data.

Note - On-going discussions within the Evaluation, Measurement and Verification (EM&V) Working Group have noted that there is no clearly defined protocol for calculating peak demand savings for natural gas measures. It is anticipated that this issue will be addressed by the EM&V Working Group within this Triennial. No Peak

Appendix C - Energy Efficiency and PDR Savings Summary, LMI Customers

		Partici	pation	(Customer Reb	Expenditures ates & Low/No-Cost ancing)	Ex Ante Ene	ergy Savings
N.	ING	Α	В	C	D	E	F
	Reported P	articipation		ed Incentive	Reported Retail		
		Numb			sts YTD		vings YTD
					\$000)	(D	th)
Residential Programs	Sub-Program	LMI	Non-LMI or Unverified	LMI	Non-LMI or Unverified	LMI	Non-LMI or Unverified
	HVAC	414	5,768	\$ 2,07	2 \$ 18,099	5,568	80,861
Efficient Products	Community Kits	24	-	\$ 2	2 \$ -	121	-
Emelia	Others (Online Marketplace - Washers/Dryers)	-	13,758	\$	- \$ 1,305	-	37,615
	Home Performance with Energy Star 1	-	427	\$	- \$ 5,658	-	9,254
Existing Homes	Quick Home Energy Check-Up	-	879	\$	- \$ 77	-	814
	Moderate Income Weatherization	20	-	\$ 5	5 \$ -	169	-
Home Energy Education & Management	Behavioral <sup>2</sup>	5,638	242,035	\$ 2	0 \$ 964	9,447	277,985
	Total Residential	6,096	262,867	\$ 2,16	9 \$ 26,103	15,305	406,529
Multi-family Program	Sub-Program			T .		T	
	HPWES	-	1,358	\$	- \$ 3,631	-	11,532
Multi-family	Direct Install	-	-	\$	- \$ -	-	-
•	Prescriptive/Custom	-	-	\$	- \$ -	-	-
	Engineered Solutions	-	-	\$	- \$ -	-	-
	Total Multi-family	-	1,358	\$	- \$ 3,631	-	11,532
Other Programs		_	_	_			
Home Optimization & Peak Demand Reduct	ion	-	-	\$	- \$ -	-	-
	Total Other	-	-	\$	- \$ -	-	-
	Portfolio Total	6,096	264,225			15,305	418,061
	Supportive Costs Outside Portfolio			\$	- \$ -		
1 - Income-qualified customers are directed	to participate through the Comfort Partners or	Moderate Income	Weatherization pro	ograms.	1		
<sup>2</sup> - Wave of LMI treatment group participant	5.						

Wave of LMI treatment group participants

Appendix D - Energy Efficiency and PDR Savings Summary, Business Customers

					xpenditures ites and Low/no- nancing)	Ex Ante Energy Savings		
NJNG	Α	В	С	D	E	F		
				Cost	Incentive s YTD 100)	Reported Retail Energy Savings YTD (Dth)		
D	0.1.0	Small	Large	Small	Large	Small	Large	
Business Programs	Sub-Program	Commercial 1	Commercial	Commercial 1	Commercial	Commercial <sup>1</sup>	Commercial	
C&I Direct Install	Direct Install	11	1	\$ 1,665	\$ -	4,682	-	
	Prescriptive/Custom	10	•	\$ 170	\$ -	929	-	
Energy Solutions for Business	Energy Management	•	4	\$ -	\$ 14	1	5,437	
	Engineered Solutions <sup>2</sup>	-	-	\$ -	\$ -	-	-	
	Total Business	21	4	\$ 1,835	\$ 14	5,611	5,437	
Other Programs								
Home Optimization & Peak Demand Reduction	on	-	-	\$ -	\$ -	-	-	
	Total Other	-	-	\$ -	\$ -	-	-	
	Portfolio Total		4	\$ 1,835	\$ 14	5,611	5,437	
	Supportive Costs Outside Portfolio			\$ -	\$ -			
1 - Customers with average annual peak dema								

<sup>&</sup>lt;sup>2</sup> - Expenditures for Engineered Solutions will not be reflected in this table until the completion of the project(s), which is when energy savings are claimed.

# **Appendix E - Annual Baseline Calculation**

						Energy Efficiency Co	mpliance Baselines	and Benchmarks (t	herms)			
							Overall Annual	Overall Annual	State-Administered	State-Administered	Utility-Administered	Utility-Administered
Gas	Plan	Color Booked	Sales		Adjusted	Compliance	<b>Energy Reduction</b>	<b>Energy Reduction</b>	Annual Energy	Annual Energy	Annual Energy	Annual Energy
Utility	Year	Sales Period	(therms)	Adjustments	Retail Sales	Baseline <sup>2</sup>	Target	Target	Reduction Target	Reduction Target	Reduction Target	Reduction Target
							(%)	(therms)	(%)	(therms)	(%)	(therms)
			(A)	(B)	(C) = (A) - (B)	(D) = Average (C)	(E) 1	(F) = (E) * (D)	(G) <sup>1</sup>	(H) = (G) * (D)	(I) <sup>1</sup>	(J) = (I) * (D)
NJNG	2020	7/1/19 - 6/30/20	672,480,094	5,866,252	666,613,842							
	2021 <sup>3</sup>	7/1/20 - 6/30/21	699,330,177	6,556,593	692,773,584							
	2022	7/1/21 - 6/30/22	687,821,314	5,642,322	682,178,992							
						680,522,140	0.50%	3,402,611	0.16%	1,088,835	0.34%	2,313,775
						68,052,214						
						(Dth)						

<sup>(</sup>A) Includes calendar sales for firm and interruptible service classifications.

<sup>(</sup>B) Includes adjustments to remove Distributed Generation volumes.

<sup>&</sup>lt;sup>1</sup> - (E,G,I) No formal targets established for PY22 in the June 2020 CEA Framework Order.

<sup>&</sup>lt;sup>2</sup> - Calculated as average annual gas usage in the prior three plan years (July - June) per N.J.S.A. 48:3-87.9(a).

<sup>&</sup>lt;sup>3</sup> - Adjusted retail sales for 2021 to match actuals, previous quarterly reports (PY1 Q1-Q2-Q3) reflected estimates.

#### **Appendix F - Energy Savings with 2022 TRM Addendum**

For compliance purposes throughout the first triennium, the utilities calculate program savings (collectively, "Primary Metrics") based on a mix of protocols from the FY20 NJCEP Protocols, FY21 NJCEP Protocols Addendum, and TRMs from other states when no applicable NJ-specific measure calculation is available. This mix of protocols is cataloged in the Joint Utility Coordinated Measures List. The EM&V Working Group created the 2022 TRM Addendum to address key non-NJ specific and dated assumptions in the Coordinated Measures List. Program Energy Savings Metrics calculated with the NJ CEP TRM 2022 Addendum (7-21-22) are called the "Secondary Metrics". The Secondary Metric values are informational for stakeholders to assess program performance under a more current and NJ-specific measure calculation approach and to inform future program design.

Table F-1 - Sector-Level Energy Savings: Primary Metrics from 2020/21 TRM

Annual Energy Savings <sup>1</sup>	Annual Retail (Dth)	Annual Target Retail Savings (Dth) 2	Percent of Annual Target
Residential	421,834	24,523	5.8%
Multi-family	11,532	N/A	N/A
C&I	11,048	6,891	62.4%
Reported Totals for Utility Administered Programs	444,414	31,414	7.1%

Table F-2 - Sector-Level Energy Savings: Secondary Metrics from 2022 TRM Addendum

Annual Energy Savings <sup>1</sup>	Annual Retail (Dth)	Annual Target Retail Savings (Dth) 2	Percent of Annual Target
Residential	416,606	19,295	4.6%
Multi-family	11,532	N/A	N/A
C&I	6,396	2,239	35.0%
Reported Totals for Utility Administered Programs	434,534	21,534	5.0%

<sup>&</sup>lt;sup>1</sup> - Annual energy savings represent the total expected annual savings from all energy efficiency measures within each sector, and not only those measures affected by the FY2022 TRM Addendum.

<sup>&</sup>lt;sup>2</sup> - Values in column labeled 'Annual Target Retail Savings' represent total savings for the affected measures by the FY 2022 addendum.

### Appendix G - Ex-Ante Energy Savings Held for Transfer

The following data are presented to provide Board Staff visibility into the full picture of statewide annual ex-ante energy projects in progress, with these energy savings being excluded from data presented in the body of the report. These data are based upon coordinated program projects completed by a lead utility and awaiting transfer to a partner utility. The data presented are estimates and are subject to change during transfer to and verification by partner utilities. Transferred savings and associated costs will be included in partner utility results once allocated by the Statewide Coordinator platform.

Estimated Annual Energy Savings Held by NJNG							
Program	MWh Held for Transfer						
Efficient Products	1,546.3824						
Existing Homes	425.1145						
C&I Direct Install	461.9089						
Energy Management	1,819.8864						
Multi-family HPwES	18.8280						

# **Appendix H - Cost Effectiveness Test Details**

		Residential		Business		MF		LMI	Total
		Residential		busilless		IVIF		LIVII	Portfolio
Total	Resource Cost Test (TRC)								
1	Lifetime Avoided Electric Supply Costs	\$ 516,872	\$	237,361	\$	58,232	\$	3,412	\$ 815,877
2	Lifetime Avoided Electric Capacity Costs	\$ 53,196	\$	198,382	\$	4,007	\$	467	\$ 256,052
3	Lifetime Avoided Natural Gas Supply Costs	\$ 7,267,772	\$	88,443	\$	489,480	\$	7,316	\$ 7,853,012
4	Lifetime Merit Order (DRIPE) Benefits	\$ 143,515	\$	267,819	\$	13,031	\$	1,050	\$ 425,415
5	Lifetime REC Avoided Purchases	\$ 282,071	\$	120,661	\$	28,920	\$	1,753	\$ 433,405
6	Lifetime Wholesale Volatility Value	\$ 783,784	\$	52,419	\$	55,172	\$	1,120	\$ 892,494
7	Lifetime Avoided Replacement	\$ -	\$	-	\$	-	\$	-	\$ -
8	Lifetime Avoided T&D Costs	\$11,493,648	\$	870,945	\$	706,513	\$	16,095	\$ 13,087,200
	Total Benefit = 1+2+3+4+5+6+7+8	\$ 20,540,858	\$	1,836,030	\$	1,355,355	\$	31,213	\$ 23,763,455
9	Lifetime Participant Costs	\$ 7,153,992	\$	78,219	\$	0	\$	3,193	\$ 7,235,404
10	Lifetime Administration Costs	\$ 3,792,525	\$	1,894,845	\$	469,454	\$	610,263	\$ 6,767,087
11	Lifetime Program Investment Costs	\$ 9,427,405	\$	544,023	\$	1,899,292	\$	49,729	\$ 11,920,448
	Total Costs (9+10+11)	\$ 20,373,922	\$	2,517,086	\$	2,368,746	\$	663,185	\$ 25,922,939
	Benefit Cost Ratio = (1+2+3+4+5+6+7+8)/(9+10+11)	1.0		0.7		0.6		0.05	0.9
	LC LT LINCT		L						
	cpant Cost Test (PCT)	A 24 055 055		1.050.000		2.577.256	ć	07.555	ć 40 474 455
	Lifetime Participant Benefits	\$ 34,856,836	_	1,952,381		3,577,351	\$	87,566	\$40,474,135
13	Lifetime Repayment Benefits	\$ 3,474,789	\$		\$	278,745	Ş	-	\$ 3,877,055
	Benefit Cost Ratio = (11+12+13)/9	2.3	-	3.3		2.0		1.7	2.3
Prog	ram Administrator Cost Test (PAC)								
8	Benefit Cost Ratio = (1+2+3+4+5+6+7+8)/(10+11+13)	1.2	Т	0.7		0.5		0.05	1.1
	Deficit cost natio = (112131413101710)) (10111113)	1.2		0.7		0.5		0.03	1.1
Rate	payer Impact Measure Test (RIM)								
	Lifetime utility Revenue Gained	\$ 20,540,858	Ś	1,836,030	Ś	1,355,355	\$	31,213	\$ 23,763,455
	Lifetime Utility Cost	\$ 28,145,876	- 1	3,276,447	-	3,351,479		675,759	\$ 35,449,561
					•		-		
	Benefit Cost ratio = (1+2+3+4+5+6+7+8+14)/(10+11+13+15)	1.0		0.7		0.7		0.05	0.8
	Benefit Cost ratio = (1+2+3+4+5+6+7+8+14)/(10+11+13+15)	1.0		0.7		0.7		0.05	0.8
	Benefit Cost ratio = (1+2+3+4+5+6+7+8+14)/(10+11+13+15)  etal Cost Test (SC)	1.0		0.7		0.7		0.05	0.8
Socie		\$ 649,099	\$		\$	80,497	\$	4,412	
Socie	etal Cost Test (SC)		-	312,169	-				\$ 1,046,177
Socie 16 17	etal Cost Test (SC) Lifetime Avoided Electric Supply Costs	\$ 649,099	\$	312,169	-	80,497	\$	4,412	\$ 1,046,177 \$ 363,782
<b>Socie</b> 16 17 18	etal Cost Test (SC) Lifetime Avoided Electric Supply Costs Lifetime Avoided Electric Capacity Costs	\$ 649,099 \$ 76,616	\$	312,169 280,665	\$	80,497 5,849	\$	4,412 652	\$ 1,046,177 \$ 363,782 \$ 10,645,239
Socie 16 17 18 19	etal Cost Test (SC) Lifetime Avoided Electric Supply Costs Lifetime Avoided Electric Capacity Costs Lifetime Avoided Natural Gas Supply Costs	\$ 649,099 \$ 76,616 \$ 9,843,582	\$	312,169 280,665 115,475	\$	80,497 5,849 676,424	\$	4,412 652 9,758	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855
16 17 18 19 20	etal Cost Test (SC) Lifetime Avoided Electric Supply Costs Lifetime Avoided Electric Capacity Costs Lifetime Avoided Natural Gas Supply Costs Lifetime Merit Order (DRIPE) Energy Benefits	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714	\$ \$ \$ \$	312,169 280,665 115,475 374,950	\$	80,497 5,849 676,424 23,831	\$	4,412 652 9,758 5,360	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804
50cie 16 17 18 19 20 21	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049	\$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788	\$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811	\$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872
Socie 16 17 18 19 20 21	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)  Avoided RPS REC Purchase Costs	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873	\$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831	\$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277	\$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520
Socie 16 17 18 19 20 21 22 23	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)  Avoided RPS REC Purchase Costs  Avoided Wholesale Volatility Costs	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930	\$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908	\$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886	\$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164
50cie 16 17 18 19 20 21 22 23	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)  Avoided RPS REC Purchase Costs  Avoided Wholesale Volatility Costs  Lifetime Avoided Wholesale T&D Costs	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456	\$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641	\$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594	\$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260
16 17 18 19 20 21 22 23 24 25	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)  Avoided RPS REC Purchase Costs  Avoided Wholesale Volatility Costs  Lifetime Avoided Wholesale T&D Costs  Lifetime Emission Savings	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775	\$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489	\$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098	\$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758
16 17 18 19 20 21 22 23 24 25	Lifetime Avoided Electric Supply Costs Lifetime Avoided Electric Capacity Costs Lifetime Avoided Natural Gas Supply Costs Lifetime Merit Order (DRIPE) Energy Benefits Natural Gas Demand Reduction Induced Price Effects (DRIPE) Avoided RPS REC Purchase Costs Avoided Wholesale Volatility Costs Lifetime Avoided Wholesale T&D Costs Lifetime Emission Savings Avoided SO <sub>2</sub> + NOx Emissions Damages Job and Energy Savings Economic Value-Added Multiplier Benefits	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205	\$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086	\$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565	\$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286
16 17 18 19 20 21 22 23 24 25 26	Lifetime Avoided Electric Supply Costs Lifetime Avoided Electric Capacity Costs Lifetime Avoided Natural Gas Supply Costs Lifetime Merit Order (DRIPE) Energy Benefits Natural Gas Demand Reduction Induced Price Effects (DRIPE) Avoided RPS REC Purchase Costs Avoided Wholesale Volatility Costs Lifetime Avoided Wholesale T&D Costs Lifetime Emission Savings Avoided SO <sub>2</sub> + NOx Emissions Damages Job and Energy Savings Economic Value-Added Multiplier Benefits Total Benefit = (16+17+18+19+20+21+22+23+24+25+26)	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 4,682,221	\$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b>	\$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 253,434	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718
16 17 18 19 20 21 22 23 24 25 26	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)  Avoided RPS REC Purchase Costs  Avoided Wholesale Volatility Costs  Lifetime Avoided Wholesale T&D Costs  Lifetime Emission Savings  Avoided SO <sub>2</sub> + NOx Emissions Damages  Job and Energy Savings Economic Value-Added Multiplier Benefits  Total Benefit = (16+17+18+19+20+21+22+23+24+25+26)  Lifetime Participant Costs	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 <b>4,682,221</b> 656,863	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 <b>253,434</b> 49,125	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311
16 17 18 19 20 21 22 23 24 25 26	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)  Avoided RPS REC Purchase Costs  Avoided Wholesale Volatility Costs  Lifetime Avoided Wholesale T&D Costs  Lifetime Emission Savings  Avoided SO <sub>2</sub> + NOx Emissions Damages  Job and Energy Savings Economic Value-Added Multiplier Benefits  Total Benefit = (16+17+18+19+20+21+22+23+24+25+26)  Lifetime Participant Costs  Lifetime Administration Costs	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354 \$ 3,998,475	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 4,682,221 656,863 1,998,908	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969 496,441	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 253,434 49,125 645,370	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311 \$ 7,139,194
Socie 16 17 18 19 20 21 22 23 24 25 26	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)  Avoided RPS REC Purchase Costs  Avoided Wholesale Volatility Costs  Lifetime Avoided Wholesale T&D Costs  Lifetime Emission Savings  Avoided SO <sub>2</sub> + NOx Emissions Damages  Job and Energy Savings Economic Value-Added Multiplier Benefits  Total Benefit = (16+17+18+19+20+21+22+23+24+25+26)  Lifetime Participant Costs	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 <b>4,682,221</b> 656,863	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 <b>253,434</b> 49,125	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311 \$ 7,139,194
16 17 18 19 20 21 22 23 24 25 26	Lifetime Avoided Electric Supply Costs Lifetime Avoided Electric Capacity Costs Lifetime Avoided Natural Gas Supply Costs Lifetime Merit Order (DRIPE) Energy Benefits Natural Gas Demand Reduction Induced Price Effects (DRIPE) Avoided RPS REC Purchase Costs Avoided Wholesale Volatility Costs Lifetime Avoided Wholesale T&D Costs Lifetime Emission Savings Avoided SO <sub>2</sub> + NOx Emissions Damages Job and Energy Savings Economic Value-Added Multiplier Benefits Total Benefit = (16+17+18+19+20+21+22+23+24+25+26) Lifetime Participant Costs Lifetime Administration Costs Total Costs = (27+28)	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354 \$ 3,998,475 \$ 21,478,829	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 4,682,221 656,863 1,998,908 2,655,771	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969 496,441 2,501,410	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 253,434 49,125 645,370 694,495	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311 \$ 7,139,194 \$ 27,330,505
16 17 18 19 20 21 22 23 24 25 26 27 28	Lifetime Avoided Electric Supply Costs Lifetime Avoided Electric Capacity Costs Lifetime Avoided Rectric Capacity Costs Lifetime Avoided Natural Gas Supply Costs Lifetime Merit Order (DRIPE) Energy Benefits Natural Gas Demand Reduction Induced Price Effects (DRIPE) Avoided RPS REC Purchase Costs Avoided Wholesale Volatility Costs Lifetime Avoided Wholesale T&D Costs Lifetime Emission Savings Avoided SO <sub>2</sub> + NOx Emissions Damages Job and Energy Savings Economic Value-Added Multiplier Benefits Total Benefit = (16+17+18+19+20+21+22+23+24+25+26) Lifetime Participant Costs Lifetime Administration Costs Total Costs = (27+28) Benefit Cost Ratio = (16+17+18+19+20+21+22+23+24+25+26)/(27+28)  Jersey Cost Test (NJCT)	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354 \$ 3,998,475 \$ 21,478,829 2.7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 <b>4,682,221</b> 656,863 1,998,908 2,655,771 <b>1.8</b>	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969 496,441 2,501,410 2.1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 253,434 49,125 645,370 694,495 0.4	\$ 1,046,177 \$ 363,782 \$ 10,645,233 \$ 609,853 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311 \$ 7,139,194 \$ 27,330,505
16 17 18 19 20 21 22 23 24 25 26 27 28	Lifetime Avoided Electric Supply Costs Lifetime Avoided Electric Capacity Costs Lifetime Avoided Rectric Capacity Costs Lifetime Avoided Natural Gas Supply Costs Lifetime Merit Order (DRIPE) Energy Benefits Natural Gas Demand Reduction Induced Price Effects (DRIPE) Avoided RPS REC Purchase Costs Avoided Wholesale Volatility Costs Lifetime Avoided Wholesale T&D Costs Lifetime Emission Savings Avoided SO <sub>2</sub> + NOx Emissions Damages Job and Energy Savings Economic Value-Added Multiplier Benefits Total Benefit = (16+17+18+19+20+21+22+23+24+25+26) Lifetime Participant Costs Lifetime Administration Costs Total Costs = (27+28) Benefit Cost Ratio = (16+17+18+19+20+21+22+23+24+25+26)/(27+28)  Jersey Cost Test (NJCT) Lifetime Merit Order (DRIPE) Capacity Benefits	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354 \$ 3,998,475 \$ 21,478,829 2.7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 <b>4,682,221</b> 656,863 1,998,908 2,655,771 <b>1.8</b>	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969 496,441 2,501,410	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 253,434 49,125 645,370 694,495	\$ 1,046,177 \$ 363,782 \$ 10,645,235 \$ 609,855 \$ 26,802 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311 \$ 7,139,192 \$ 27,330,505 \$ 25,520 \$ 584,166
16 17 18 19 20 21 22 23 24 25 26 27 28	Lifetime Avoided Electric Supply Costs Lifetime Avoided Electric Capacity Costs Lifetime Avoided Rectric Capacity Costs Lifetime Avoided Natural Gas Supply Costs Lifetime Merit Order (DRIPE) Energy Benefits Natural Gas Demand Reduction Induced Price Effects (DRIPE) Avoided RPS REC Purchase Costs Avoided Wholesale Volatility Costs Lifetime Avoided Wholesale T&D Costs Lifetime Emission Savings Avoided SO <sub>2</sub> + NOx Emissions Damages Job and Energy Savings Economic Value-Added Multiplier Benefits Total Benefit = (16+17+18+19+20+21+22+23+24+25+26) Lifetime Participant Costs Lifetime Administration Costs Total Costs = (27+28) Benefit Cost Ratio = (16+17+18+19+20+21+22+23+24+25+26)/(27+28)  Jersey Cost Test (NJCT)	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354 \$ 3,998,475 \$ 21,478,829 2.7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 <b>4,682,221</b> 656,863 1,998,908 2,655,771 <b>1.8</b>	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969 496,441 2,501,410 2.1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 253,434 49,125 645,370 694,495 0.4	\$ 1,046,177 \$ 363,782 \$ 10,645,233 \$ 609,853 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311 \$ 7,139,194 \$ 27,330,505
20 21 22 23 24 25 26 27 28 New 29	Lifetime Avoided Electric Supply Costs Lifetime Avoided Electric Capacity Costs Lifetime Avoided Rectric Capacity Costs Lifetime Avoided Natural Gas Supply Costs Lifetime Merit Order (DRIPE) Energy Benefits Natural Gas Demand Reduction Induced Price Effects (DRIPE) Avoided RPS REC Purchase Costs Avoided Wholesale Volatility Costs Lifetime Avoided Wholesale T&D Costs Lifetime Emission Savings Avoided SO <sub>2</sub> + NOx Emissions Damages Job and Energy Savings Economic Value-Added Multiplier Benefits Total Benefit = (16+17+18+19+20+21+22+23+24+25+26) Lifetime Participant Costs Lifetime Administration Costs Total Costs = (27+28) Benefit Cost Ratio = (16+17+18+19+20+21+22+23+24+25+26)/(27+28)  Jersey Cost Test (NJCT) Lifetime Merit Order (DRIPE) Capacity Benefits	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354 \$ 3,998,475 \$ 21,478,829 2.7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 <b>4,682,221</b> 656,863 1,998,908 2,655,771 <b>1.8</b>	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969 496,441 2,501,410 2.1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 253,434 49,125 645,370 694,495 0.4	\$ 1,046,177 \$ 363,782 \$ 10,645,235 \$ 609,855 \$ 26,802 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311 \$ 7,139,192 \$ 27,330,505 \$ 25,520 \$ 584,166
20 21 22 23 24 25 26 27 28 New 29 30 31	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)  Avoided RPS REC Purchase Costs  Avoided Wholesale Volatility Costs  Lifetime Avoided Wholesale T&D Costs  Lifetime Emission Savings  Avoided SO <sub>2</sub> + NOx Emissions Damages  Job and Energy Savings Economic Value-Added Multiplier Benefits  Total Benefit = (16+17+18+19+20+21+22+23+24+25+26)  Lifetime Participant Costs  Lifetime Administration Costs  Total Costs = (27+28)  Benefit Cost Ratio = (16+17+18+19+20+21+22+23+24+25+26)/(27+28)  Jersey Cost Test (NJCT)  Lifetime Merit Order (DRIPE) Capacity Benefits  Lifetime Avoided Ancillary Services Costs <sup>1</sup> Lifetime Avoided Replacement  Lifetime Non Energy Benefits	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354 \$ 3,998,475 \$ 21,478,829 2.7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 4,682,221 656,863 1,998,908 2,655,771 1.8	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969 496,441 2,501,410 2.1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 253,434 49,125 645,370 694,495 0.4	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311 \$ 7,139,194 \$ 27,330,505 2.5
20 21 22 23 24 25 26 27 28 New 29 30 31	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)  Avoided RPS REC Purchase Costs  Avoided Wholesale Volatility Costs  Lifetime Avoided Wholesale T&D Costs  Lifetime Emission Savings  Avoided SO <sub>2</sub> + NOx Emissions Damages  Job and Energy Savings Economic Value-Added Multiplier Benefits  Total Benefit = (16+17+18+19+20+21+22+23+24+25+26)  Lifetime Participant Costs  Lifetime Administration Costs  Total Costs = (27+28)  Benefit Cost Ratio = (16+17+18+19+20+21+22+23+24+25+26)/(27+28)  Jersey Cost Test (NJCT)  Lifetime Merit Order (DRIPE) Capacity Benefits  Lifetime Avoided Ancillary Services Costs 1  Lifetime Avoided Replacement	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354 \$ 3,998,475 \$ 21,478,829 2.7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 4,682,221 656,863 1,998,908 2,655,771 1.8	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969 496,441 2,501,410 2.1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 253,434 49,125 645,370 694,495 0.4	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311 \$ 7,139,194 \$ 27,330,505 2.5
20 21 22 23 24 25 26 27 28 New 29 30 31	Etal Cost Test (SC)  Lifetime Avoided Electric Supply Costs  Lifetime Avoided Electric Capacity Costs  Lifetime Avoided Natural Gas Supply Costs  Lifetime Merit Order (DRIPE) Energy Benefits  Natural Gas Demand Reduction Induced Price Effects (DRIPE)  Avoided RPS REC Purchase Costs  Avoided Wholesale Volatility Costs  Lifetime Avoided Wholesale T&D Costs  Lifetime Emission Savings  Avoided SO <sub>2</sub> + NOx Emissions Damages  Job and Energy Savings Economic Value-Added Multiplier Benefits  Total Benefit = (16+17+18+19+20+21+22+23+24+25+26)  Lifetime Participant Costs  Lifetime Administration Costs  Total Costs = (27+28)  Benefit Cost Ratio = (16+17+18+19+20+21+22+23+24+25+26)/(27+28)  Jersey Cost Test (NJCT)  Lifetime Merit Order (DRIPE) Capacity Benefits  Lifetime Avoided Ancillary Services Costs <sup>1</sup> Lifetime Avoided Replacement  Lifetime Non Energy Benefits	\$ 649,099 \$ 76,616 \$ 9,843,582 \$ 205,714 \$ 16,873 \$ 348,049 \$ 1,056,930 \$ 15,249,456 \$ 8,915,180 \$ 2,981,775 \$ 19,631,205 \$ 58,974,478 \$ 17,480,354 \$ 3,998,475 \$ 21,478,829 2.7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	312,169 280,665 115,475 374,950 220 155,788 70,831 1,098,908 433,641 397,489 1,442,086 4,682,221 656,863 1,998,908 2,655,771 1.8	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	80,497 5,849 676,424 23,831 5,754 38,811 76,277 964,886 680,594 257,098 2,353,565 <b>5,163,586</b> 2,004,969 496,441 2,501,410 2.1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,412 652 9,758 5,360 3,957 2,224 1,482 20,914 12,846 7,396 184,430 253,434 49,125 645,370 694,495 0.4	\$ 1,046,177 \$ 363,782 \$ 10,645,239 \$ 609,855 \$ 26,804 \$ 544,872 \$ 1,205,520 \$ 17,334,164 \$ 10,042,260 \$ 3,643,758 \$ 23,611,286 \$ 69,073,718 \$ 20,191,311 \$ 7,139,194 \$ 27,330,505 2.5

### **Appendix I - Program Changes**

This table is a summary of the program changes that were already reported in the Q1, Q2, and Q3 quarterly reports plus any changes that occurred in Q4.

Program	Summary of Program Changes
Efficient Products	1
Existing Homes	N/A
Home Energy Education & Management	N/A
C&I Direct Install	N/A
Energy Solutions for Business	N/A
Multi-family	N/A

<sup>1 -</sup> Prior quarters within this program year reported on the distribution of community conservation and marketplace kits. However, as a result of the implementation of A-5160, NJNG was no longer able to claim savings for the majority of the energy saving measures in the kits because of the increased efficiency standard and the inability to identify the current condition in the customers home for these products. This effectively eliminated NJNG's ability to claim savings for community conservation and marketplace kits based on the mix of products. Accordingly, NJNG has currently halted distribution of these kits.