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**Re: In the Matter of the Petition of Pivotal Utility Holdings, Inc. d/b/a
Elizabethtown Gas for Authority to Extend the term of Energy Efficiency
Programs and Approval of Associated Cost Recovery Mechanism
BPU Docket No. GR18070682**

Dear Ms. Peterson and Ms. Friel:

On behalf of Elizabethtown Gas Company (“Elizabethtown”), in accordance with the February 27, 2019 Board of Public Utilities Order (“Board”) issued in the above-referenced proceeding, enclosed is an “Assessment of Elizabethtown Energy Efficiency Programs” that Elizabethtown is required to provide to Board Staff and the New Jersey Division of Rate Counsel. pursuant to paragraph J. of the Stipulation.

Please feel free to contact the undersigned if you have any questions.

CMS
H. Westland, Esq.

Respectfully yours,

Deborah M. Franco

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DMF/adh
Enclosure

cc: Service List – via email



August 22, 2019

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2019 AUG 26 P 2:19
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Assessment of Elizabethtown Energy Efficiency Programs

Pursuant to a Stipulation (“Stipulation”) between Elizabethtown Gas Company (“Etown”), New Jersey Board of Public Utilities (“BPU”) Staff (“Staff”) and the New Jersey Division of Rate Counsel (“Rate Counsel”), which was approved by a February 27, 2019 Order in BPU Docket No. GO18070682, Etown is required to provide an assessment of its energy efficiency programs. This Assessment, which contains an evaluation of Etown’s energy efficiency programs for the period July 31, 2018 through June 30, 2019, complies with this requirement of the Stipulation. The specific terms requiring the provision of this assessment are provided in Attachment 1.

1. Cost Benefit Analysis

The following section contains the results of cost benefit analysis of Etown’s energy efficiency programs for the one-year period of July 31, 2018 through June 30, 2019.

a. Cost Benefit Test Ratios

The cost benefit results presented in table 1 are based on actual participation and spending. As the table shows, the residential and commercial sector programs were cost effective under the societal cost and total resource cost tests. The entire portfolio was also cost effective under both the societal cost test and total resource cost test, showing that these programs were a prudent investment by ratepayers.

Table 1. Cost Benefit Ratios Based on Actual Participation and Spending

Program	Societal Cost Test (SCT)	Total Resource Cost Test (TRC)	Participant Cost Test (PCT)	Program Administrator Cost Test (PAC)	Ratepayer Impact Measure Test (RIM)
Residential HVAC and HW	1.7	0.9	3.7	3.1	0.8
Residential Home Energy Assessment	4.3	1.5	5.1	4.0	1.0
Residential Home Energy Report	3.8	1.6	n/a	1.6	0.6
Residential Home Weatherization	3.6	1.1	6.7	1.0	0.6
Residential Program	3.2	1.3	12.3	1.7	0.6
Commercial Steam Trap	1.8	1.0	9.5	1.4	0.8
Commercial & Industrial Program	1.8	1.0	9.5	1.4	0.8
Total Portfolio	3.2	1.3	12.3	1.7	0.6

b. Energy Savings by Fuel Type

The programs reduced consumption of electric and natural gas for Etown customers. Table 2 shows the first year and lifetime electric and natural gas reductions by program for the period of July 31, 2018 through June 30, 2019. The programs will reduce natural gas consumption by 6.3 million therms and electric consumption by 16.3 million kWh over the lifetime of the programs.

Table 2. Electric and Natural Gas Savings by Program

Program	First Year Natural Gas savings (therms)	First Year Electric Savings (kWh)	Electric Demand Savings (kW)	Lifetime Natural Gas Savings (therms)	Lifetime Electric Savings (kWh)
Residential HVAC and HW	84,599	0	0	1,485,154	0
Residential Home Energy Assessment	13,837	80,459	18.2	139,503	811,202
Residential Home Energy Report	1,331,450	4,326,596	0	3,994,350	12,979,789
Residential Home Weatherization	38,922	142,399	52.5	679,005	2,484,217
Commercial Steam Trap	17,266	0	0	51,798	0
Total	1,486,073	4,549,454	71	6,349,810	16,275,209

c. Monetary Savings

The natural gas and electric reductions achieved through the Etown programs provide customers with significant bill savings. Table 3 shows the estimated lifetime monetary savings by program and fuel type. In total, the programs will save customers approximately \$5.5 million over the lifetime of the measures.

Table 3. Lifetime Program Participant Monetary Savings by Program

Program	Lifetime Avoided Retail Electric Costs	Lifetime Avoided Retail Natural Gas Costs	Total
Residential HVAC and HW		\$1,022,784	\$1,022,784
Residential Home Energy Assessment	\$123,697	\$168,091	\$291,788
Residential Home Energy Report	\$1,034,217	\$2,321,629	\$3,355,846
Residential Home Weatherization	\$219,859	\$544,647	\$764,506
Residential Program	\$1,377,773	\$4,057,150	\$5,434,923
Commercial Steam Trap		\$36,767	\$36,767
Commercial & Industrial Program		\$36,767	\$36,767
Total Portfolio	\$1,377,773	\$4,093,918	\$5,471,691

d. Environmental Savings

The environmental benefits of energy efficiency programs are also significant. Reducing consumption of electricity and natural gas reduces air pollution and greenhouse gas emissions, providing health and environmental benefits to New Jersey communities. Table 4 shows the environmental benefits associated with emissions reductions.¹

Table 4. Lifetime Avoided Air Emissions Benefits by Program

<i>Program</i>	<i>Lifetime Avoided Emissions Damages</i>
<i>Residential HVAC and HW</i>	<i>\$585</i>
<i>Residential Home Energy Assessment</i>	<i>\$117,125</i>
<i>Residential Home Energy Report</i>	<i>\$620,737</i>
<i>Residential Home Weatherization</i>	<i>\$228,211</i>
<i>Residential Program</i>	<i>\$966,657</i>
<i>Commercial Steam Trap</i>	<i>\$18</i>
<i>Commercial & Industrial Program</i>	<i>\$18</i>
<i>Total Portfolio</i>	<i>\$966,676</i>

2. Summary CBA at Program Level

All programs were deemed cost effective based upon the results of the societal cost test and all but one program was deemed cost effective based upon the total resource cost test. That one program, Residential HVAC and HW, scored a 0.9 on the total resource cost test. The summary cost benefit results at the program level are presented in Table 1.

3. Program Participation

Table 5 shows participation by program for the period between July 31, 2018 through June 30, 2019.

Table 5. Participation by Program

<i>Program</i>	<i>Participants</i>
<i>Residential HVAC and HW (measures)</i>	<i>653</i>
<i>Weatherization Income Qualified (homes)</i>	<i>117</i>
<i>Home Energy Assessment (homes)</i>	<i>478</i>

¹ The avoided environmental damages were estimated using displaced emissions from power plants. For carbon dioxide this value was from the Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis, August 2016. Interagency Working Group on Social Cost of Greenhouse Gases, United States Government. Other pollutant damages were sourced from Technical Support Document: Estimating the Benefit per Ton of Reducing PM2.5 Precursors from 17 Sectors, February 2018. U.S. Environmental Protection Agency.

<i>Home Energy Report</i> <i>(customers)</i>	155,000
<i>Steam Trap Survey/Repair</i> <i>(jobs)</i>	2

4. Program Budgets

Table 6 shows the projected versus actual budgets by program for the period between July 31, 2018 through June 30, 2019. As the table shows, Etown has spent less than the projected budget for all programs with the exception of Residential Home Weatherization. The costs shown in table 6 include all administrative, labor, and evaluation costs, as well as rebates, incentives, and other program delivery costs.

Table 6. Actual vs. Projected Costs by Program

<i>Program</i>	<i>Projected</i>	<i>Actual</i>	<i>Difference</i>
<i>Residential HVAC and HW</i>	\$402,984	\$228,622	(\$174,361)
<i>Residential Home Energy Assessment</i>	\$477,069	\$357,810	(\$119,259)
<i>Residential Home Weatherization</i>	\$732,995	\$815,355	\$82,360
<i>Residential Home Energy Report</i>	\$924,481	\$843,757	(\$80,725)
<i>Residential Program</i>	\$2,537,529	\$2,245,543	(\$291,986)
<i>Commercial Steam Trap</i>	\$97,635	\$9,719	(\$87,916)
<i>Commercial & Industrial Program</i>	\$97,635	\$9,719	(\$87,916)
<i>Total Portfolio</i>	\$2,635,164	\$2,255,262	(\$379,902)

5. Actual Dollars Spent by Program Expenditures and Administrative Costs

Table 7 shows the actual dollars spent by program expenditures and administrative costs. The vast majority of costs were related to program delivery, including rebates, incentives paid, and direct program costs.

Table 7. Actual Dollars Spent by O&M and Direct Program Expenditures

<i>Portfolio O&M Costs</i>	
Labor	\$202,036
Customer Education, Outreach	\$43,051
Program Evaluation	\$36,870
TOTAL O&M	\$281,957
<i>Program Expenditures</i>	
Residential Gas HVAC/WH	
Rebates, Grants, Incentives	\$192,874
Rebate Processing	\$7,166
Home Energy Assessments	\$253,076
HEA Administrative Fees	

Home Weatherization for Income Qualified	\$648,561
HW for IQC Administrative Fees	\$64,856
Home Energy Report	\$738,269
Total Residential	\$1,904,802
Commercial Steam Trap	\$8,504
Total Commercial	\$8,504
Total Program Expenditures	\$1,973,306
Total EEP Expenditures	\$2,255,262

6. Actual dollars committed through June 2019

Through June 2019, Etown has committed \$2,255,262 through its energy efficiency programs. The breakout of committed dollars by program are shown in table 6.

7. Projected Annual Energy Savings

The annual energy savings projections for the program year under the extension would cover March 1, 2019 through February 29, 2020. Table 8 shows the forecasted annual energy savings for this period.

Table 8. Forecasted Annual Natural Gas and Electric Savings by Program

<i>Program</i>	<i>Natural Gas Savings (therms)</i>	<i>Electric Savings (kWh)</i>
<i>Residential HVAC and HW</i>	128,491	
<i>Residential Home Energy Assessment</i>	35,104	220,270
<i>Residential Home Energy Report</i>	655,000	4,661,559
<i>Residential Home Weatherization</i>	62,573	230,016
<i>Commercial Steam Trap</i>	143,883	
Total	1,025,051	5,111,845

8. Actual Annual Energy Savings

Table 9 shows the actual savings through June 2019 for the current extension period, which began on March 1, 2019.

Table 9. Actual Natural Gas and Electric Savings through June 2019

<i>Program</i>	<i>Natural Gas Savings (therms)</i>	<i>Electric Savings (kWh)</i>
<i>Residential HVAC and HW</i>	28,200	
<i>Residential Home Energy Assessment</i>	4,612	26,820
<i>Residential Home Energy Report</i>	443,817	1,442,199
<i>Residential Home Weatherization</i>	12,974	47,466
<i>Commercial Steam Trap</i>	5,755	
Total	495,358	1,516,485

9. Recap of relevant recent policy determinations or NJCEP program changes

There are no recent NJCEP program changes or policy determinations that are relevant to the Etown energy efficiency program offerings. Since the time of the Stipulation, NJCEP has implemented its FY2020 budget and programs; however, any modifications associated with the NJCEP FY2020 budget and programs do not have a material impact on Etown's programs.

10. Summary of Insights and Barriers Identified to Date for the Programs

Etown identified several insights and barriers related to the implementation of the approved energy efficiency programs. These included:

- **Commercial Steam Trap:** Customers participating in this program shared positive feedback regarding their experience and its impact. The program drew stronger than anticipated customer interest due in large part to the favorable return on investment. Hospital projects experienced extended cycle times due to the sensitivity of installing measures in these facilities and the associated logistical complexities. Due to the positive feedback and extensive interest from customers, Etown is considering an expansion of this program to capitalize on energy savings associated with its success.
- **Residential Home Weatherization:** This program received strong customer satisfaction feedback. The most significant obstacle the program implementer confronted was existing health and safety barriers in customer homes. Challenging housing stock is commonly found in income eligible programs (similar barriers are faced in implementing the New Jersey Comfort Partners Program). Additional budget would have allowed the program to address health and safety barriers; however, the current allowed budget for those jobs could not support that additional, limited energy savings related work.
- **Residential Home Energy Report:** Etown worked with the program implementor to adjust report language which changed customer behavior and optimized savings.
- **Residential Home Energy Assessment:** This program received significant customer interest which led to the participation targets being exceeded. Due to the heavy customer interest, Etown is considering adding smart thermostats and including the blower door test as a component of the audit for a more seamless customer transition into the Home Performance with Energy Star Program, or other residential program offerings.

11. Summary of Relevant Insights and Barriers for Potential Joint Program Efforts

Etown delivers several programs that would be potential candidates for joint program delivery. These programs include: 1) residential home energy assessment; and, 2) residential home weatherization. Both of these programs rely on an in-home delivery approach where Etown Gas auditors identify energy saving opportunities and install measures at no cost. A joint audit could drive greater electric savings as the Etown program offerings currently focus on gas savings. The direct connection with the customer also provides opportunities to drive customers to other programs, including other utility and OCE programs.

12. Description of how the program delivery and administrative mechanisms of those programs which are subsequently determined to be more appropriately delivered by NJCEP will be transitioned from Elizabethtown to NJCEP management

Etown Gas does not currently offer any programs that would be more appropriately delivered by NJCEP.

ATTACHMENT 1: Stipulation Requirements

The following requirements are contained in Section J of the Stipulation approved by the New Jersey Board of Public Utilities in BPU Docket No. GO18070682:

J. Assessment. Elizabethtown will conduct a comprehensive assessment of this EE Program with the Board and Rate Counsel. This assessment will be completed by August 2019. This assessment will include, but not be limited to, the following items:

1. A Cost Benefit Analysis (“CBA”), reflective of actual costs, savings and customer participation. The CBAs shall be calculated in accordance with prevailing approved NJCEP protocols at the subprogram level and will include:
 - a. CBA ratios for the following tests:
 - (i) Participant Cost Test
 - (ii) Program Administrator Cost Test
 - (iii) Ratepayer Impact Measure Test
 - (iv) Total Resource Cost Test; and
 - (v) Societal Cost Test
 - b. Energy savings by fuel type
 - c. Monetary savings
 - d. Environmental savings
2. Summary CBAs will also be provided at the program and portfolio level;
3. The number of participants by sub program;
4. The budgeted dollars per sub program;
5. The actual dollars spent through June 2019 by type of expenditure:
 - a. Program expenditures; and

b. Administrative costs

6. The actual dollars committed through June 2019;
7. The original annual savings projections provided in the Petition by sub program;
8. The actual annual savings from program participants by sub program;
9. Recap of recent policy determinations or NJCEP program changes that are relevant by sub program;
10. Summary of insights and barriers identified to date for the subprograms;
11. Summary of relevant insights regarding the potential for joint/aligned utility efforts by sub program, including potential timing for advancements in this area; and
12. Description of how the program delivery and administrative mechanisms of those programs which are subsequently determined to be more appropriately delivered by NJCEP will be transitioned from Elizabethtown to NJCEP management.

Elizabethtown will provide this assessment to Staff and Rate Counsel once complete and discuss the results. Elizabethtown will endeavor to modify any future EE Program to comply with the recently approved State legislation L. 2018, c. 21, changes in the NJCEP, or policy decisions made by the Board since the date of Board approval of this stipulation, or based on program results. In addition, Elizabethtown commits to share market insights from all subprograms in its EE Program with the BPU and other stakeholders as the State begins to address the legislative mandates for energy efficiency and renewable energy or as otherwise deemed appropriate by the Board.



Furthermore, to the extent feasible, in support of any future petition for an extension of the EE Programs, Elizabethtown will consider an evaluation, measurement & verification study to examine factors such as net-to-gross, free-ridership, spillover, and savings persistence.

**IN THE MATTER OF THE PETITION OF PIVOTAL UTILITY HOLDINGS, INC. D/B/A
ELIZABETHTOWN GAS FOR AUTHORITY TO EXTEND THE TERM OF ENERGY EFFICIENCY
PROGRAMS AND APPROVAL OF ASSOCIATED COST RECOVERY MECHANISM**

BPU DOCKET NO. GO18070682

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