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July 30, 2021

**Electronic Filing**

Aida Camacho-Welch, Secretary  
NJ Board of Public Utilities  
44 South Clinton Avenue  
Post Office Box 350  
Trenton, NJ 08625-0350

**Re: In the Matter of the Petition of Elizabethtown Gas Company to Revise Its Energy  
Efficiency Program Rider Rate  
BPU Docket No. \_\_\_\_\_**

Dear Secretary Camacho-Welch:

Enclosed herewith is Elizabethtown Gas Company's Petition to Revise its Energy Efficiency Program Rider Rate, which has been filed electronically today utilizing the Board's e-filing Program. Due to the pandemic, and in accordance with the New Jersey Board of Public Utilities ("BPU") March 19, 2020 and May 20, 2020 Orders issued in BPU Docket No. EO20030254, hard copies are not being provided at this time, but can be provided at a later time, as needed.

Please do not hesitate to contact me with any questions you may have. Thank you for your attention to this matter.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Deborah M. Franco", is written over a light blue horizontal line.

Deborah M. Franco

DMF:caj  
Enclosures

cc: Service list (electronically)

**IN THE MATTER OF THE PETITION OF ELIZABETHTOWN GAS COMPANY  
TO REVISE ITS ENERGY EFFICIENCY PROGRAM RIDER RATE  
BPU DOCKET NO. \_\_\_\_\_**

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**IN THE MATTER OF THE PETITION OF ELIZABETHTOWN GAS COMPANY  
TO REVISE ITS ENERGY EFFICIENCY PROGRAM RIDER RATE  
BPU DOCKET NO. \_\_\_\_\_**

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

**IN THE MATTER OF THE PETITION OF** :  
**ELIZABETHTOWN GAS COMPANY** :  
**TO REVISE ITS ENERGY EFFICIENCY** : **BPU DOCKET NO.** \_\_\_\_\_  
**PROGRAM RIDER RATE** :

## CASE SUMMARY, PETITION, TESTIMONY AND SCHEDULES

July 30, 2021

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

-----X		
<b>In the Matter of the Petition of Elizabethtown</b>	<b>:</b>	<b>Docket No.</b>
<b>Gas Company to Revise Its Energy Efficiency</b>	<b>:</b>	
<b>Program Rider Rate</b>	<b>:</b>	<b>SUMMARY SHEET</b>
-----X		

This Petition presents the request of Elizabethtown Gas Company (“Petitioner”) that the Board of Public Utilities (“Board”) accept the filing of Petitioner’s revised Energy Efficiency Program (“EEP”) Rider rate. The Petition requests authority to change the four-year amortization rate component of the EEP Rider rate to \$0.0027 per therm, inclusive of taxes, effective October 1, 2021. If approved by the Board, the proposed filing would decrease the monthly bill of a residential heating customer using 100 therms by \$0.35 or 0.4%.

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

-----X		
<b>In the Matter of the Petition of Elizabethtown</b>	<b>:</b>	<b>Docket No.</b>
<b>Gas Company to Revise Its Energy Efficiency</b>	<b>:</b>	
<b>Program Rider Rate</b>	<b>:</b>	<b>PETITION</b>
-----X		

**To The Honorable Board of Public Utilities:**

Petitioner, Elizabethtown Gas Company (“Petitioner”, “Elizabethtown” or “Company”), a public utility corporation duly organized under the laws of the State of New Jersey subject to the jurisdiction of the Board of Public Utilities (“Board” or “BPU”), respectfully states:

1. Petitioner’s principal business office is located at 520 Green Lane, Union, New Jersey 07083.
2. Petitioner is engaged in the business of transmission and distribution of natural and mixed gas to approximately 302,000 customers within its service territory located principally in Hunterdon, Mercer, Middlesex, Morris, Sussex, Union and Warren Counties.
3. The purpose of this filing is to revise Petitioner’s Energy Efficiency Program (“EEP”) Rider rate and to reconcile the EEP Rider costs and cost recoveries for the periods identified below.
4. The Company’s filing is being made in compliance with the Board’s Order dated February 19, 2020 in BPU Docket No. GO18070682 (“February 19 Order”), which authorized Elizabethtown to continue implementation of the EEP Rider rate. The EEP Rider rate enables Elizabethtown to recover through a surcharge the costs associated with certain Energy Efficiency Programs (“EE Programs”). This annual filing reconciles the costs and cost recoveries for the period commencing July 1, 2020 through June 30, 2021 (“2021 Recovery Period”) and establishes a rate sufficient to recover those costs as well as the projected EE Program rate revenue requirements for the period July 1, 2021 through June 30, 2022 (“2022 Recovery Period”).

5. Pursuant to the Board's Order dated June 9, 2021 in BPU Docket No. GR20070503 ("June 9 Order"), the legacy EEP Rider rate was decreased from \$0.0073 per therm, inclusive of taxes, to \$0.0062 per therm, inclusive of taxes, effective July 1, 2021.

6. Annexed hereto and incorporated herein is the testimony of:

Exhibit P-1: Thomas Kaufmann, Manager of Rates and Tariffs for Petitioner;

Exhibit P-2: Frank Vetri, Manager, Energy Efficiency Programs for Petitioner; and

Exhibit P-3: Brendon J. Baatz, Vice President, Gabel Associates, Inc.

7. An Index of the MFRs referencing the responsive schedules or testimony sponsored by Mr. Kaufmann, Mr. Vetri and Mr. Baatz accompanies this Petition and is attached hereto as Exhibit A.

8. Elizabethtown's EE Programs include the following:

- (i) Residential Gas HVAC and Gas Hot Water Heater Incentive Program;
- (ii) Residential Home Energy Assessment Program;
- (iii) Residential Home Energy Report (Opower) Program;
- (iv) Residential Home Weatherization for Income Qualified Customers Program;
- and
- (v) Commercial Steam Trap Survey and Repair Program.

Details concerning EE Program actual and estimated expenditures as well as other information are provided in Mr. Vetri's and Mr. Baatz's testimonies and supporting schedules. In accordance with the February 19 Order, Elizabethtown was authorized to offer its currently effective EE Programs through December 31, 2021, subject to an implementation of a new Elizabethtown EE Program with an earlier effective date. In accordance with the Board's Order dated April 7, 2021 in BPU Docket Nos. QO19010040 and GO20090619, the Board authorized Elizabethtown to implement a new EE Program with a ten-year amortization that began on July 1, 2021. Accordingly, Elizabethtown's legacy EE Program with a four-year amortization terminated on June 30, 2021,

although the Company expects some costs related to rebates approved through the end of the program to continue for a few months as discussed further by Mr. Vetri.

9. Petitioner seeks to reconcile EE Program costs and cost recoveries for the 2021 Recovery Period and to recover the forecasted EE Program-related revenue requirements for the 2022 Recovery Period. Information for the 2021 Recovery Period includes actual data through June 30, 2021. Information for the 2022 Recovery Period reflects forecasted data for the period July 1, 2021 through June 30, 2022.

10. The EEP Rider rate is comprised of two rates, one associated with the EEP that ended on June 30, 2021 with a four-year amortization of costs and one associated with a ten-year amortization of costs for the new component of the EEP Rider rate effective July 1, 2021 authorized by the Board's Order dated April 7, 2021 in BPU Docket Nos. QO19010040 and GO20090619. This filing relates only to the four-year amortization rate component of the EEP Rider rate.

11. Petitioner seeks to decrease its current four-year amortization rate component of the EEP Rider rate from \$0.0062 per therm, inclusive of taxes, to \$0.0027 per therm, inclusive of taxes, effective October 1, 2021 to recover a balance of \$1,206,689. The proposed rate will be assessed to all customers except those served under special contracts as filed and approved by the Board and those customers exempt from this charge pursuant to the Long-Term Capacity Agreement Pilot Program ("LCAPP"), P.L. 2011, c.9.

12. The proposed EEP Rider rate was calculated by taking the prior year true-up plus current year activity, totaling (\$461,199), plus projected recoverable amounts for the 2022 Recovery Year of \$1,667,888 and dividing the total amount of \$1,206,689 by the projected volumes for the 2022 Recovery Year for the service classifications and customers subject to the EEP Rider. The resulting quotient is adjusted for applicable taxes, resulting in an EEP Rider rate of \$0.0027 per therm.

13. The MFRs in this filing contain information concerning job creation, cost/benefit analyses, energy efficiency savings, emission reductions impacts and free ridership and spillover data associated



with the Company's EE Program. This information is set forth on Schedules BJB-1 through 6 sponsored by Mr. Baatz.

#### **Overall Impact**

14. The overall impact of Petitioner's proposed rate in this proceeding is a decrease in the monthly bill of a residential customer using 100 therms by \$0.35, from \$99.58 to \$99.23, or a decrease of 0.4% as compared to the currently effective rates.

#### **Miscellaneous**

15. Petitioner is serving notice and a copy of this Petition, together with a copy of the exhibits and schedules annexed hereto on the Director, Division of Rate Counsel, via electronic mail in lieu of providing hard copies. Due to the pandemic, and in accordance with the Board's Orders dated March 19, 2020 and May 20, 2020 in BPU Docket No. EO20030254, hard copies cannot be provided at this time, but can be provided at a later time, as needed.

16. Similarly, Petitioner is also serving this notice and a copy of this Petition on the Department of Law and Public Safety via electronic mail in lieu of providing hard copies, but hard copies can be provided at a later time, as needed.

**WHEREFORE**, Petitioner respectfully requests that the Board (1) accept Petitioner's filing, (2) allow the proposed four-year amortization rate component of the EEP Rider rate to become effective October 1, 2021, (3) grant any waivers of Petitioner's tariff necessitated by this filing as set forth herein and, (4) grant such other relief as the Board may deem just and proper.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Deborah M. Franco".

Deborah M. Franco, Esq.  
VP/Rates, Regulatory & Sustainability  
SJI Utilities, Inc.

Date: July 30, 2021

Communications addressed to the Petitioner  
in this case are to be sent to:

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# Verification

I, Cindy Capozzoli, of full age, being duly sworn according to law, upon my oath, depose and say:

1. I am Director, Rates of SJI Utilities Inc., the parent company to Elizabethtown Gas Company ("Company") and I am authorized to make this verification on behalf of the Company.
2. I have reviewed the within petition and the information contained therein is true according to the best of my knowledge, information and belief.

*Cindy Capozzoli*

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Cindy Capozzoli  
Director, Rates

Sworn to and subscribed to before me this 30<sup>th</sup> day of July, 2021.

*Carolyn A. Jacobs*  
Carolyn A. Jacobs  
CAROLYN A. JACOBS

NOTARY PUBLIC OF NEW JERSEY

My Commission Expires October 28, 2023



**ELIZABETHTOWN GAS COMPANY  
ENERGY EFFICIENCY PROGRAM (EEP) RATE FILING  
MINIMUM FILING REQUIREMENTS (MFR) INDEX**

<b>Minimum Filing Requirements</b>	<b>Schedule</b>
1. Direct FTE employment impacts as defined in Paragraph 28 of the Stipulation, including a breakdown by sub-program	BJB-5
2. A monthly revenue requirement calculation based on program expenditures, showing the actual monthly revenue requirement for each of the past twelve months or clause-review period, as well as supporting calculations, including the information related to the tax rate and revenue multiplier used in the revenue requirement calculation	TK-3
3. For the review period, actual revenues, by month and by rate class recorded under the programs	TK-5
4. Monthly beginning and ending clause balances, as well as the average balance net of tax for the 12-month period	TK-2
5. The interest rate used each month for over/under recoveries, and all supporting documentation and calculations for the interest rate	TK-6
6. The interest expense to be charged or credited to ratepayers each month	TK-2, TK-6
7. A schedule showing budgeted versus actual program costs by the following categories: administrative (all utility costs), marketing/sales, training, rebates/incentives, including inspections and quality control, program implementation (all contract costs), evaluation, and any other costs	FV-1
8. The monthly journal entries relating to regulatory asset and O&M expenses for the 12 month review period	FV-1 (is a summary of the expenses as recorded in the Company's books; copies of the actual journal entries can be made available)
9. Supporting details for all administrative costs included in the revenue requirement	FV-1
10. Information supporting the carrying cost used for the unamortized costs	TK-6
11. Number of program participants, including a breakdown by sub-program	BJB-1
12. Estimated demand and energy savings, including a breakdown by sub-program	BJB-3
13. Emissions reductions from the Program, including a breakdown by sub-program	BJB-4
14. Estimated free ridership and spillover	Exhibit P-3 - Baatz testimony, pages 20-21
15. Participant costs (net of utility incentives), including a breakdown by sub-program	Exhibit P-3 - Baatz testimony, page 19
16. Results of program evaluations, including a breakdown by sub-program	BJB-6
17. Separate cost and recovery information for each approved program and extension.	TK-7

**IN THE MATTER OF THE PETITION OF  
ELIZABETHTOWN GAS COMPANY TO REVISE  
ITS ENERGY EFFICIENCY PROGRAM RIDER RATE**

**BPU DOCKET NO. \_\_\_\_\_**

**DIRECT TESTIMONY**

**OF**

**THOMAS KAUFMANN**

**On Behalf Of  
Elizabethtown Gas Company**

**Exhibit P-1**

**July 30, 2021**

**ELIZABETHTOWN GAS COMPANY  
DIRECT TESTIMONY OF  
THOMAS KAUFMANN**

1     **I.    INTRODUCTION**

2     **Q.    PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3     **A.**    My name is Thomas Kaufmann. My business address is 520 Green Lane, Union, New  
4            Jersey 07083.

5     **Q.    BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6     **A.**    I am employed by Elizabethtown Gas Company (“Elizabethtown” or “Company”) as  
7            Manager of Rates and Tariffs.

8     **Q.    WHAT IS THE SCOPE OF YOUR DUTIES AT ELIZABETHTOWN?**

9     **A.**    I am responsible for designing and developing rates and rate schedules for regulatory  
10           filings with the New Jersey Board of Public Utilities (“Board”) and internal  
11           management purposes. I also oversee daily rate department functions, including tariff  
12           administration, monthly parity pricing, competitive analyses and preparation of  
13           management reports.

14    **Q.    PLEASE DESCRIBE YOUR PROFESSIONAL QUALIFICATIONS AND**  
15    **BUSINESS EXPERIENCE.**

16    **A.**    In June 1977, I graduated from Rutgers University, Newark, N.J. with a Bachelor of  
17           Arts degree in Business Administration, majoring in accounting and economics. In  
18           July 1979, I graduated from Fairleigh Dickinson University, Madison, N.J. with a  
19           Masters of Business Administration, majoring in finance.

20           My professional responsibilities have encompassed financial analysis,  
21           accounting, planning, and pricing in manufacturing and energy services companies in

1 both regulated and unregulated industries. In 1977, I was employed by Allied  
2 Chemical Corp. as a staff accountant. In 1980, I was employed by Celanese Corp. as  
3 a financial analyst. In 1981, I was employed by Suburban Propane as a Strategic  
4 Planning Analyst, promoted to Manager of Rates and Pricing in 1986 and to Director  
5 of Acquisitions and Business Analysis in 1990. In 1993, I was employed by  
6 Concurrent Computer as a Manager, Pricing Administration. In 1996, I joined NUI  
7 Corporation (“NUI”) as a Rate Analyst, was promoted to Manager of Regulatory  
8 Support in August 1997 and Manager of Regulatory Affairs in February 1998, and  
9 named Manager of Rates and Tariffs in July 1998. NUI was acquired by AGL  
10 Resources Inc. (“AGL”) in November 2004. AGL was acquired by Southern Company  
11 in July 2016. South Jersey Industries, Inc. (“SJI”) acquired Elizabethtown in July 2018.

12 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

13 **A.** The purpose of my testimony is to support Elizabethtown’s proposed revisions to its  
14 Energy Efficiency Program (“EEP”) Rider rate, formerly the Regional Greenhouse Gas  
15 Initiative (“RGGI”) rate, to be assessed to all customers except those served under  
16 special contracts as filed and approved by the Board and those customers exempt from  
17 this charge pursuant to the Long-Term Capacity Agreement Pilot Program (“LCAPP”),  
18 P.L. 2011, c. 9.

19 **Q. THE EEP RIDER RATE HAS TWO COMPONENTS. WHICH COMPONENT**  
20 **DOES THIS FILING PERTAIN TO?**

21 **A.** The EEP Rider rate is comprised of two rates, one associated with the EEP that ended  
22 on June 30, 2021 with a four-year amortization of costs and one associated with a ten-  
23 year amortization of costs for the new component of the EEP Rider rate effective July  
24 1, 2021 authorized by the Board’s Order dated April 7, 2021 in BPU Docket Nos.

1 QO19010040 and GO20090619. This filing relates only to the four-year amortization  
2 rate component of the EEP Rider rate.

3 **Q. DOES YOUR TESTIMONY INCLUDE ANY ILLUSTRATIVE SCHEDULES?**

4 **A.** Yes. My testimony includes schedules and proposed tariff sheets that were prepared  
5 under my direction and supervision. These schedules contain information responsive  
6 to the Minimum Filing Requirements (“MFRs”) as referenced in the MFR Index  
7 attached to the Company’s Petition as Exhibit A. The schedules are as follows:

8 (a) Tariff Schedule TK-1 consists of revised tariff sheets in redlined and  
9 clean form;

10 (b) EEP Schedule TK-1 sets forth the calculation of the proposed EEP  
11 Rider rate to be effective October 1, 2021;

12 (c) EEP Schedule TK-1a sets forth the calculation of the Projected EEP  
13 Rider rates based on current cost and recovery projections, as well  
14 as bill impacts for certain tariff classes through 2026 to a near zero  
15 balance;

16 (d) EEP Schedule TK-2 sets forth the calculation of carrying costs;

17 (e) EEP Schedule TK-3 sets forth the calculation of monthly EEP  
18 revenue requirements;

19 (f) EEP Schedule TK-4 sets forth EEP O&M and Program  
20 Expenditures;

21 (g) EEP Schedule TK-5 sets forth cost recoveries;

22 (h) EEP Schedule TK-6 sets forth the interest rate applicable to the  
23 calculation of carrying costs on EEP Schedule TK-2 for the twelve  
24 months ending June 30, 2021; and



- (i) EEP Schedule TK-7 sets forth cost and recovery information for each approved program and extension.

## **II. CURRENT FILING**

### **Q. PLEASE EXPLAIN THE PROPOSED CHANGE IN THE EEP RIDER RATE.**

**A.** By this filing, the Company is proposing to decrease its currently effective rate of \$0.0067 per therm, inclusive of taxes, as approved by Board's Order dated June 9, 2021 in BPU Docket No. GR20070503 ("June 9 Order"), to \$0.0027 per therm, inclusive of taxes.

### **Q. WHAT EFFECTIVE DATE DOES THE COMPANY PROPOSE FOR THE PROPOSED EEP RIDER RATE?**

**A.** The Company is proposing that the proposed EEP Rider rate take effect on October 1, 2021. The calculation of the proposed rate is based on actual data from July 1, 2020 through June 30, 2021 ("2021 Recovery Year"), and projected data from July 1, 2021 through June 30, 2022 ("2022 Recovery Year").

### **Q. WHAT IS THE BASIS FOR THE COMPANY'S PROPOSED REVISIONS TO ITS EEP RIDER RATE?**

**A.** The Company's filing is being made in compliance with the Board's Order dated February 19, 2020 in BPU Docket No. GO18070682 ("February 19 Order"), which authorized Elizabethtown to continue implementation of the EEP Rider rate. The EEP Rider rate enables Elizabethtown to recover through a surcharge the costs associated with certain Energy Efficiency Programs ("EE Programs"). This annual filing reconciles the costs and cost recoveries for the 2021 Recovery Year and establishes a rate sufficient to recover those costs as well as the projected EE Program rate revenue requirements for the 2022 Recovery Year.

1    **III.    COST RECOVERY MECHANISM**

2    **Q.    PLEASE DESCRIBE THE EEP RIDER AND WHAT IT IS DESIGNED TO**  
3    **RECOVER.**

4    **A.**    The February 19 Order authorized the continuation of a surcharge by which  
5    Elizabethtown recovers the costs associated with its EE Programs. Details concerning  
6    actual expenditures and projected spending, as well as other information associated  
7    with the EE Programs, are provided in Mr. Vetri's and Mr. Baatz's testimonies and  
8    supporting schedules.

9    **Q.    PLEASE EXPLAIN HOW THE PROPOSED EEP RIDER RATE WAS**  
10    **CALCULATED.**

11    **A.**    The proposed EEP Rider rate was calculated by taking the sum of (i) the prior period  
12    balance, if any, (ii) current year O&M costs, (iii) current year revenue requirements,  
13    (iv) current year recoveries and (v) applicable carrying costs for the 2021 Recovery  
14    Year, plus (vi) projected recoverable amounts for the 2022 Recovery Year and dividing  
15    the total amount by the volumes projected for the 2022 Recovery Year for the service  
16    classifications and customers subject to the EEP Rider as shown on Tariff Schedule  
17    TK-1. The resulting quotient is adjusted for applicable taxes to arrive at an EEP Rider  
18    rate of \$0.0027 per therm, inclusive of taxes.

19    **Q.    WHAT IS THE METHODOLOGY USED TO PROJECT FIRM SALES AND**  
20    **SERVICES FOR THE RECOVERY YEAR IN ORDER TO DERIVE THE**  
21    **COMPANY'S PROPOSED EEP RIDER RATE?**

22    **A.**    The methodology used to derive the Projected Normalized Sales and Services on EEP  
23    Schedule TK-1 is the same as that used in developing the demand forecast that  
24    supported Elizabethtown's Basic Gas Supply Service rate filing dated June 1, 2021.

As I mention above, the EEP Rider rate is applicable to all customers except those served under special contracts as filed and approved by the Board and those customers exempt pursuant to the LCAPP legislation.

**Q. PLEASE EXPLAIN HOW INCURRED O&M COSTS AND REVENUE REQUIREMENTS FOR PROGRAM EXPENDITURES ARE DETERMINED AND CALCULATED.**

**A.** O&M amounts are recoverable in the year incurred. EE Program Expenditures are recoverable over a four (4) year period, as noted on EEP Schedule TK-4. The calculation of the allowable monthly revenue requirement for the amortized EE Program expenditures is set forth on EEP Schedule TK-3. The allowable monthly recoverable amount is developed by taking EE Program expenditures less accumulated amortization and accumulated deferred income tax credits to derive a month end rate base. The average of the beginning and end of month balances is multiplied by an after tax weighted average cost of capital (“WACC”), grossed up for a revenue factor and divided by twelve (12) to derive a monthly return on investment. This amount, plus the monthly amortization, results in the allowable monthly revenue. See below for a history of the WACC rate used.

Effective	WACC rate	BPU Docket No(s).	Order Dated
8/03/09 – 12/16/09	6.87%	EO09010056 GO09010060	8/3/2009
12/17/09 – 4/19/12	6.53%	GR09030195	12/17/2009
4/20/12 – 8/31/13	6.42%	GO11070399	4/11/2012
9/1/13 – 6/30/17	5.68%	GO12100946	8/21/2013
7/1/17 – 12/31/17	5.772%	GR16090826	6/30/2017
1/1/18 – 11/14/19	6.063%	AX18010001 GR18030232	3/26/2018
11/15/19 – current	6.5165%	GR19040486	11/13/19

1 **Q. HOW WERE AMORTIZATION EXPENSES CALCULATED?**

2 **A.** The amortization expenses were calculated by dividing each month's amortizable  
3 expenditure by forty-eight (48) months and accumulating the amounts to the total  
4 monthly amortization expenses.

5 **Q. HOW WERE DEFERRED INCOME TAXES CALCULATED?**

6 **A.** The deferred income taxes were calculated by multiplying the temporary difference in  
7 the Company's tax and book amortization expense by the effective income tax rate.  
8 The current income tax rate is 28.11% based on a 21% Federal income tax rate and a  
9 9% State corporate business tax rate, effective January 1, 2018.

10 **Q. ARE CARRYING COSTS INCLUDED IN THE EEP CALCULATION?**

11 **A.** Yes. In accordance with the February 19 Order, the Company is permitted to recover  
12 carrying costs or issue credits on its EEP over/under recovered balances. The Company  
13 will continue to accrue such amounts on its deferred EEP balances for recovery in  
14 subsequent years as shown on EEP Schedule TK-2.

15 **Q. HOW WERE THE CARRYING COSTS CALCULATED?**

16 **A.** Carrying cost rates are applied to each year's net prior year balance and current year  
17 revenue requirements and recoveries. The interest rate is equal to the weighted average  
18 of the Company's monthly commercial paper rate or interest rate on its bank credit  
19 lines. Per the June 9 Order, until such time when ETG has a commercial paper  
20 program, the Company will adjust its short-term debt rate to reflect the commercial  
21 paper rate proxy reduction of 1.64%. In the event that commercial paper or bank credit  
22 lines were not utilized by the Company in the preceding month, the last calculated rate  
23 shall be used. It is calculated on an after-tax basis and is applied to the average monthly

1 EEP balance as shown on EEP Schedule TK-2. Interest on monthly balances is not  
2 compounded.

3 **Q. WHAT ARE THE RECOVERIES FOR THE 2021 RECOVERY YEAR?**

4 **A.** EEP Schedule TK-5 presents the recoveries totaling \$3,066,953 for the 2021 Recovery  
5 Year.

6 **Q. WHAT ARE THE CURRENT AND PROJECTED YEAR EE PROGRAM**  
7 **EXPENDITURES REFLECTED IN THE FILING?**

8 **A.** Please see EEP Schedule TK-4 for the current 2021 Recovery Year expenditures and  
9 the projected 2022 Recovery Year expenditures reflected in this filing. A breakdown  
10 of these expenditures can also be found on EEP Schedules FV-1 and FV-2 sponsored  
11 by Mr. Vetri.

12 **Q. WHAT MAKES UP THE RECOVERABLE COSTS IN THE PROPOSED EEP**  
13 **RIDER RATE?**

14 **A.** For the 2022 Recovery Year, the EEP Rider rate is designed to recover \$1,206,689 as  
15 set forth on EEP Schedule TK-1, line 8. As shown on that schedule, the amount is  
16 made up of the prior period balance, (ii) the current year amounts and (iii) the projected  
17 recoverable amounts.

18 **Q. HAS THE COMPANY PROVIDED A SCHEDULE WITH SEPARATE COST**  
19 **AND RECOVERY INFORMATION FOR EACH APPROVED PROGRAM**  
20 **AND EXTENSION AS REQUIRED BY THE STIPULATION APPROVED IN**  
21 **THE BOARD'S ORDER DATED DECEMBER 16, 2015 IN BPU DOCKET NO.**  
22 **GO15050504?**

23 **A.** Yes. Refer to EEP Schedule TK-7 for recoverable costs by program for the 2021 and  
24 2022 Recovery Year.

1   **Q.    WHAT IS THE IMPACT OF THE PROPOSED CHANGES IN THESE RATES**  
2       **ON TYPICAL RESIDENTIAL CUSTOMERS?**

3   **A.**    The impact of the proposed adjustment to the EEP Rider rate for a residential heating  
4       customer using 100 therms is a decrease to the customer's monthly bill of \$0.35 from  
5       \$99.58 to \$99.23, or a decrease of 0.4%, as compared to the Company's current rates.

6   **Q.    DOES THIS CONCLUDE YOUR TESTIMONY?**

7   **A.**    Yes, it does.

ELIZABETHTOWN GAS COMPANY  
B. P. U. NO. 17 – GAS

~~3rd~~ REVISED SHEET NO. 124

RIDER "E"

ENERGY EFFICIENCY PROGRAM ("EEP")

Applicable to all Customers except those Customers under special contracts as filed and approved by the BPU and those customers exempted pursuant to the Long-Term Capacity Agreement Pilot Program ("LCAPP"), P.L. 2011 c.9, codified as N.J.S.A. 48:3-60.1. See the LCAPP Exemption Procedures at the end of the SBC, Rider "D."

The EEP shall be collected on a per therm basis and shall remain in effect until changed by order of the BPU. The applicable EEP rate is as follows:

Docket No. <del>GR19070872</del> , per a four-year amortization	<del>\$0.00620027</del> per therm
Docket No. GO20090619, per a ten-year amortization	<del>\$0.0063</del> per therm
TOTAL	<del>\$0.01250090</del> per therm

The rate applicable under this Rider includes provision for the New Jersey Sales and Use Tax, and when billed to customers exempt from this tax shall be reduced by the amount of such tax included therein.

In the "Global Warming Act," N.J.S.A.26-2C-45. or "RGGI Legislation" the State Legislature determined that global warming is a pervasive and dangerous threat that should be addressed through the establishment of a statewide greenhouse gas emissions reduction program. On May 8, 2008, the Board issued an Order (the "RGGI Order") pursuant to N.J.S.A. 48:3-98.1(c). The RGGI Order allowed electric and gas public utilities to offer energy efficiency and conservation programs on a regulated basis. The Company's energy efficiency programs were first authorized pursuant to Board orders issued in Docket Nos. EO09010056 and GO09010060. They were subsequently extended pursuant to Board orders issued in GO10070446, GO11070399, GO12100946, GO15050504, GR16070618 and GO18070682. The Company's current energy efficiency programs are effective through June 30, 2024. On May 23, 2018, the Clean Energy Act of 2018 ("CEA" or the "Act") was signed into law. The BPU directed utilities to file changes pursuant to Board orders issued in Docket Nos. QO1901040, QO19060748 and QO17091004 Dated June 10, 2020, ("the 2020 Orders").The EEP enables the Company to recover all costs associated with energy efficiency programs approved by the Board.

Date of Issue: ~~July 1, 2021~~

Effective: Service Rendered  
on and after ~~July 1, 2021~~

Issued by: Christie McMullen, President  
520 Green Lane  
Union, New Jersey 07083

Filed Pursuant to Orders of the Board of Public Utilities  
Dated ~~April 7, 2021~~ in Docket Nos. ~~QO19010040 and GO20090619~~

**CLEAN**



ELIZABETHTOWN GAS COMPANY  
B. P. U. NO. 17 – GAS

REVISED SHEET NO. 124

RIDER "E"

ENERGY EFFICIENCY PROGRAM ("EEP")

Applicable to all Customers except those Customers under special contracts as filed and approved by the BPU and those customers exempted pursuant to the Long-Term Capacity Agreement Pilot Program ("LCAPP"), P.L. 2011 c.9, codified as N.J.S.A. 48:3-60.1. See the LCAPP Exemption Procedures at the end of the SBC, Rider "D."

The EEP shall be collected on a per therm basis and shall remain in effect until changed by order of the BPU. The applicable EEP rate is as follows:

Docket No. , per a four-year amortization	\$0.0027 per therm
Docket No. GO20090619, per a ten-year amortization	<u>\$0.0063 per therm</u>
TOTAL	\$0.0090 per therm

The rate applicable under this Rider includes provision for the New Jersey Sales and Use Tax, and when billed to customers exempt from this tax shall be reduced by the amount of such tax included therein.

In the "Global Warming Act," N.J.S.A.26-2C-45. or "RGGI Legislation" the State Legislature determined that global warming is a pervasive and dangerous threat that should be addressed through the establishment of a statewide greenhouse gas emissions reduction program. On May 8, 2008, the Board issued an Order (the "RGGI Order") pursuant to N.J.S.A. 48:3-98.1(c). The RGGI Order allowed electric and gas public utilities to offer energy efficiency and conservation programs on a regulated basis. The Company's energy efficiency programs were first authorized pursuant to Board orders issued in Docket Nos. EO09010056 and GO09010060. They were subsequently extended pursuant to Board orders issued in GO10070446, GO11070399, GO12100946, GO15050504, GR16070618 and GO18070682. The Company's current energy efficiency programs are effective through June 30, 2024. On May 23, 2018, the Clean Energy Act of 2018 ("CEA" or the "Act") was signed into law. The BPU directed utilities to file changes pursuant to Board orders issued in Docket Nos. QO1901040, QO19060748 and QO17091004 Dated June 10, 2020, ("the 2020 Orders").The EEP enables the Company to recover all costs associated with energy efficiency programs approved by the Board.

Date of Issue:

Effective: Service Rendered  
on and after

Issued by: Christie McMullen, President  
520 Green Lane  
Union, New Jersey 07083

Filed Pursuant to Order of the Board of Public Utilities  
Dated in Docket No.

ELIZABETHTOWN GAS COMPANY  
ENERGY EFFICIENCY PROGRAM ("EEP")

CALCULATION OF THE EEP RATE  
through September 30, 2022  
October 1, 2021 RECOVERY YEAR - 2022

1	Prior Year Balance - (Sch. TK-2)	June 30, 2020		\$756,519
	<u>Actual Amounts Through:</u>	June 30, 2021		
2	Current Year O&M Costs (Sch. TK-2)			\$281,345
3	Current Year Revenue Requirements (Sch. TK-2)			\$1,567,012
4	Current Year Recovery Credits (Sch. TK-2)			(\$3,066,953)
5	Current Year Carrying Costs (Sch. TK-2)			<u>\$878</u>
6	Current Year TK-2 Ending Balance (Sum L1-L5)			(\$461,199)
7	<u>Projected Recoverables :</u>	June 30, 2022		
	- Revenue Requirements (Sch. TK-3)		\$1,667,888	
	- O&M Costs (Sch. TK-4)		<u>\$0</u>	<u>\$1,667,888</u>
8	Total Proposed Recoveries (L6+L7)			\$1,206,689
9	<u>12 Month Projected Normalized Sales and Services:</u>			
	- Residential and GLS		244,816,292	
	- Commercial		137,438,809	
	- Industrial		98,885,721	
	- NGV		47,552	
	- Cogeneration		0	481,188,374 therms
10	EEP Rate, before taxes (L8/L9)			\$0.0025 /therm
11	Sales & Use Tax @	6.625%		<u>\$0.0002</u>
12	EEP Rate (L10+L11)			<u><u>\$0.0027</u></u> /therm

ELIZABETHTOWN GAS COMPANY  
ENERGY EFFICIENCY PROGRAM ("EEP")

EEP Schedule  
TK-1a

**CALCULATION OF THE EEP RATE**  
PROFROMA RATES PER KNOWN ACTUALS  
Data to June 30th to Set Rate For

		Before Rate Date Implementation Adjustments					
		October 1, 2021 June-21	October 1, 2022 June-22	October 1, 2023 June-23	October 1, 2024 June-24	October 1, 2025 June-25	October 1, 2026 June-26
1	Prior Year (Over)/ Under Balance (Sch. TK-2)	(\$461,199)	(\$160,974)	(\$11,698)	(\$34,091)	(\$49,934)	(\$49,855)
2	Monthly Revenue Requirement (Sch. TK-2)	\$1,667,888	\$1,136,606	\$638,088	\$350,932	(\$8,114)	(\$8,114)
3	O&M Expenditures (Sch. TK-2)	\$0	\$0	\$0	\$0	\$0	\$0
4	Total Proposed Recoveries (Sum L1+L2+L3)	<u>\$1,206,689</u>	<u>\$975,632</u>	<u>\$626,390</u>	<u>\$316,841</u>	<u>(\$58,048)</u>	<u>(\$57,969)</u>
5	Projected Firm Sales (1) (Sch. TK-5) Therms	481,188,374	481,188,374	481,188,374	481,188,374	481,188,374	481,188,374
6	<b>Rate, before taxes (L4/L5)</b>	<b>\$0.0025</b>	<b>\$0.0020</b>	<b>\$0.0013</b>	<b>\$0.0007</b>	<b>(\$0.0001)</b>	<b>(\$0.0001)</b>
7	Sales & Use Tax @ 6.625%	<u>\$0.0002</u>	<u>\$0.0001</u>	<u>\$0.0001</u>	<u>\$0.0000</u>	<u>\$0.0000</u>	<u>\$0.0000</u>
8	<b>Rate (L6+L7) per Therm</b>	<b><u>\$0.0027</u></b>	<b><u>\$0.0021</u></b>	<b><u>\$0.0014</u></b>	<b><u>\$0.0007</u></b>	<b><u>(\$0.0001)</u></b>	<b><u>(\$0.0001)</u></b>

(1) All therms excluding NJBPU approved special contracts.

<u>Average Billing Changes:</u>							
Determinates	Rates 7/1/21	October 1, 2021 Prj. Billed Amt	October 1, 2022 Prj. Billed Amt	October 1, 2023 Prj. Billed Amt	October 1, 2024 Prj. Billed Amt	October 1, 2025 Prj. Billed Amt	October 1, 2026 Prj. Billed Amt
Effective EEP Rate >	\$0.0062						
<u>Residential Sales Service</u>							
12 Service Charge	\$10.00						
1,000 Volumetric Charge	\$0.8958						
Bill	\$1,015.80	\$1,012.30	\$1,011.70	\$1,011.00	\$1,010.30	\$1,009.50	\$1,009.50
Annual Bill Change		(\$3.50)	(\$0.60)	(\$0.70)	(\$0.70)	(\$0.80)	\$0.00
Percent Change		(0.3%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)	0.0%
Bill Change from Base		(\$3.50)	(\$4.10)	(\$4.80)	(\$5.50)	(\$6.30)	(\$6.30)
Cumulative Billed							(\$30.50)
<u>Small General Service</u>							
12 Service Charge	\$27.01						
1,200 Volumetric Charge	\$0.8404						
Bill	\$1,332.60	\$1,328.40	\$1,327.68	\$1,326.84	\$1,326.00	\$1,325.04	\$1,325.04
Annual Bill Change		(\$4.20)	(\$0.72)	(\$0.84)	(\$0.84)	(\$0.96)	\$0.00
Percent Change		(0.3%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)	0.0%
Bill Change from Base		(\$4.20)	(\$4.92)	(\$5.76)	(\$6.60)	(\$7.56)	(\$7.56)
Cumulative Billed							(\$36.60)
<u>General Delivery Service</u>							
12 Service Charge	\$37.50						
2,400 Demand Charge	\$0.960						
18,000 Volumetric Charge	\$0.8897						
Bill	\$18,768.60	\$18,705.60	\$18,694.80	\$18,682.20	\$18,669.60	\$18,655.20	\$18,655.20
Annual Bill Change		(\$63.00)	(\$10.80)	(\$12.60)	(\$12.60)	(\$14.40)	\$0.00
Percent Change		(0.3%)	(0.1%)	(0.1%)	(0.1%)	(0.1%)	0.0%
Bill Change from Base		(\$63.00)	(\$73.80)	(\$86.40)	(\$99.00)	(\$113.40)	(\$113.40)
Cumulative Billed							(\$549.00)

Exhibit 1  
EEP Schedule  
TK-2

ELIZABETHTOWN GAS COMPANY  
ENERGY EFFICIENCY PROGRAM ("EEP")

Carrying Costs

<u>a</u>	<u>Beginning Balance</u> <u>b</u>	<u>Revenue Requirement</u> <u>TK-3</u> <u>c</u>	<u>O&amp;M</u> <u>TK-4</u> <u>d</u>	<u>Recoveries</u> <u>TK-5</u> <u>e</u>	<u>Ending Balance</u> <u>f=b+c+d-e</u>	<u>Average Balance</u> <u>g=(b+f)/2</u>	<u>Interest Rate</u> <u>TK-6</u> <u>h</u>	<u>Carrying Cost</u> <u>i=g*h/12</u>	<u>Ending Balance plus Cum. (O)/U Carrying Cost</u> <u>j=f+ cum of i</u>
Jun-10	\$0	\$153,488	\$522,139	\$2,991,884	(\$2,316,257)	(\$2,271,904)		(\$4,351)	(\$2,320,608)
Jun-11	(\$2,320,608)	\$470,672	\$1,314,822	\$2,061,741	(\$2,596,855)	(\$2,712,974)		(\$7,577)	(\$2,604,432)
Jun-12	(\$2,604,432)	\$1,016,105	\$1,610,350	\$4,416	\$17,607	(\$49,611)		(\$2,436)	\$15,171
Jun-13	\$15,171	\$1,326,760	\$348,053	\$817	\$1,689,167	\$1,620,408		\$2,233	\$1,691,400
Jun-14	\$1,691,400	\$1,259,659	\$462,362	\$1,120,717	\$2,292,704	\$2,262,365		\$4,375	\$2,297,079
Jun-15	\$2,297,079	\$1,043,900	\$447,774	\$3,449,216	\$339,537	\$368,708		\$3,845	\$343,382
Jun-16	\$343,382	\$660,990	\$206,306	\$2,147,607	(\$936,929)	(\$917,797)		(\$904)	(\$937,833)
Jun-17	(\$937,833)	\$437,843	\$177,035	(\$12,305)	(\$310,650)	(\$339,156)		(\$4,114)	(\$314,764)
Jun-18	(\$314,764)	\$591,632	\$365,264	(\$311,656)	\$953,788	\$903,999		\$3,725	\$957,513
Jun-19	\$957,513	\$1,016,564	\$282,295	\$878,103	\$1,378,269	\$1,367,612		\$23,238	\$1,401,507
Jun-20	\$1,401,507	\$1,410,730	\$199,035	\$2,271,650	\$739,622	\$732,621		\$16,897	\$756,519
Jun-21	\$756,519	\$1,567,012	\$281,345	\$3,066,953	(\$462,077)	(\$488,405)		\$878	(\$461,199)
Jun-22	* (\$461,199)	\$1,667,888	\$0	\$1,367,663	(\$160,974)	(\$197,255)		\$0	(\$160,974)
Jun-23	* (\$160,974)	\$1,136,606	\$0	\$987,330	(\$11,698)	(\$29,675)		\$0	(\$11,698)
Jun-24	* (\$11,698)	\$638,088	\$0	\$660,481	(\$34,091)	(\$43,758)		\$0	(\$34,091)
Jun-25	* (\$34,091)	\$350,932	\$0	\$366,775	(\$49,934)	(\$45,605)		\$0	(\$49,934)
Jun-26	* (\$49,934)	(\$8,114)	\$0	(\$8,193)	(\$49,855)	(\$50,165)		\$0	(\$49,855)
<b>Total</b>		<b>\$14,740,755</b>	<b>\$6,216,780</b>	<b>\$21,043,199</b>				<b>\$35,809</b>	

\* Projected

ELIZABETHTOWN GAS COMPANY  
ENERGY EFFICIENCY PROGRAM ("EEP")

Monthly Recoverable Investment Program Expenditures - Amortized Over Four Years															Wtd. Avg. Cost of Capital After-tax		Revenue		Monthly Revenue Requirement		YTD ending June	
Amortizable Expenditures	Cumulative Expenditures	Average Expenditures	Amort. Months	Monthly Amortization	Accum. Amort.	Accum. Deferred Income Tax	Earnings / Rate Base	Average Rate Base	Revenue Factor	Monthly Return on Rate Base	Monthly Revenue Requirement	YTD ending June	Revenue Requirement	YTD ending June								
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o								
Begin Balance		\$0			\$0		\$0															
Aug-09	\$415	\$415	\$208	48	\$9	\$9	\$167	\$239	\$120	6.87%	1.71702	\$1	\$10									
Sep-09	\$58,552	\$58,967	\$29,691	48	\$1,228	\$1,237	\$23,715	\$34,015	\$17,127	6.87%	1.71702	\$168	\$1,396									
Oct-09	\$503,469	\$562,436	\$310,702	48	\$11,717	\$12,954	\$225,727	\$323,755	\$178,885	6.87%	1.71702	\$1,758	\$13,475									
Nov-09	\$9,154	\$571,590	\$567,013	48	\$11,908	\$24,862	\$224,596	\$322,132	\$322,944	6.87%	1.71702	\$3,175	\$15,083									
Dec-09	\$6,648	\$578,238	\$574,914	48	\$12,047	\$36,909	\$222,378	\$318,951	\$320,542	6.71%	1.72388	\$3,090	\$15,137									
Jan-10	\$29,746	\$607,984	\$593,111	48	\$12,666	\$49,575	\$229,394	\$329,015	\$323,983	6.53%	1.73120	\$3,052	\$15,718									
Feb-10	\$22,212	\$630,196	\$619,090	48	\$13,129	\$62,704	\$233,125	\$334,367	\$331,691	6.53%	1.73120	\$3,125	\$16,254									
Mar-10	\$67,165	\$697,361	\$663,779	48	\$14,528	\$77,232	\$254,749	\$365,380	\$349,874	6.53%	1.73120	\$3,296	\$17,824									
Apr-10	\$25,100	\$722,461	\$709,911	48	\$15,051	\$92,283	\$258,877	\$371,301	\$368,341	6.53%	1.73120	\$3,470	\$18,521									
May-10	\$45,518	\$767,979	\$745,220	48	\$16,000	\$108,283	\$271,003	\$388,693	\$379,997	6.53%	1.73120	\$3,580	\$19,580	11 mos.								
Jun-10	\$37,061	\$805,040	\$786,510	48	\$16,772	\$125,055	\$279,338	\$400,647	\$394,670	6.53%	1.73120	\$3,718	\$20,490	\$153,488								
Jul-10	\$66,161	\$871,201	\$838,121	48	\$18,150	\$143,205	\$298,950	\$429,046	\$414,847	6.53%	1.72431	\$3,893	\$22,043									
Aug-10	\$38,308	\$909,509	\$890,355	48	\$18,948	\$162,153	\$306,859	\$440,497	\$434,772	6.53%	1.72431	\$4,080	\$23,028									
Sep-10	\$102,354	\$1,011,863	\$960,686	48	\$21,080	\$183,233	\$340,059	\$488,571	\$464,534	6.53%	1.72431	\$4,359	\$25,439									
Oct-10	\$115,476	\$1,127,339	\$1,069,601	48	\$23,486	\$206,719	\$377,637	\$542,983	\$515,777	6.53%	1.72431	\$4,840	\$28,326									
Nov-10	\$160,103	\$1,287,442	\$1,207,391	48	\$26,822	\$233,541	\$432,082	\$621,819	\$582,401	6.53%	1.72431	\$5,465	\$32,287									
Dec-10	\$121,085	\$1,408,527	\$1,347,985	48	\$29,344	\$262,885	\$469,558	\$676,084	\$648,952	6.53%	1.72431	\$6,089	\$35,433									
Jan-11	\$316,793	\$1,725,320	\$1,566,924	48	\$35,944	\$298,829	\$584,285	\$842,206	\$759,145	6.53%	1.72431	\$7,123	\$43,067									
Feb-11	\$69,466	\$1,794,786	\$1,760,053	48	\$37,391	\$336,220	\$597,387	\$861,179	\$851,693	6.53%	1.72431	\$7,992	\$45,383									
Mar-11	\$145,466	\$1,940,252	\$1,867,519	48	\$40,422	\$376,642	\$640,298	\$923,312	\$892,246	6.53%	1.72431	\$8,372	\$48,794									
Apr-11	\$123,753	\$2,064,005	\$2,002,129	48	\$43,000	\$419,642	\$673,285	\$971,078	\$947,195	6.53%	1.72431	\$8,888	\$51,888									
May-11	\$181,299	\$2,245,304	\$2,154,655	48	\$46,777	\$466,419	\$728,238	\$1,050,647	\$1,010,863	6.53%	1.72431	\$9,485	\$56,262									
Jun-11	\$94,109	\$2,339,413	\$2,292,359	48	\$48,738	\$515,157	\$746,772	\$1,077,484	\$1,064,066	6.53%	1.72431	\$9,984	\$58,722	\$470,672								
Jul-11	\$151,612	\$2,491,025	\$2,415,219	48	\$51,896	\$567,053	\$787,506	\$1,136,466	\$1,106,975	6.53%	1.72431	\$10,387	\$62,283									
Aug-11	\$225,652	\$2,716,677	\$2,603,851	48	\$56,597	\$623,650	\$856,564	\$1,236,463	\$1,186,465	6.53%	1.72431	\$11,133	\$67,730									
Sep-11	\$217,236	\$2,933,913	\$2,825,295	48	\$61,123	\$684,773	\$920,336	\$1,328,804	\$1,282,634	6.53%	1.72431	\$12,035	\$73,158									
Oct-11	\$223,848	\$3,157,761	\$3,045,837	48	\$65,787	\$750,560	\$984,905	\$1,422,296	\$1,375,550	6.53%	1.72431	\$12,907	\$78,694									
Nov-11	(\$250,636)	\$2,907,125	\$3,032,443	48	\$60,565	\$811,125	\$857,779	\$1,238,221	\$1,330,259	6.53%	1.72431	\$12,482	\$73,047									
Dec-11	\$200,118	\$3,107,243	\$3,007,184	48	\$64,734	\$875,859	\$913,083	\$1,318,301	\$1,278,261	6.53%	1.72431	\$11,994	\$76,728									
Jan-12	\$279,326	\$3,386,569	\$3,246,906	48	\$70,554	\$946,413	\$998,367	\$1,441,789	\$1,380,045	6.53%	1.72431	\$12,949	\$83,503									
Feb-12	\$256,311	\$3,642,880	\$3,514,725	48	\$75,893	\$1,022,306	\$1,072,067	\$1,548,507	\$1,495,148	6.53%	1.72431	\$14,029	\$89,922									
Mar-12	\$249,404	\$3,892,284	\$3,767,582	48	\$81,089	\$1,103,395	\$1,140,824	\$1,648,065	\$1,598,286	6.53%	1.72431	\$14,997	\$96,086									
Apr-12	\$198,955	\$4,091,239	\$3,991,762	48	\$85,234	\$1,188,629	\$1,187,279	\$1,715,331	\$1,681,698	6.49%	1.72431	\$15,683	\$100,917									
May-12	\$238,126	\$4,329,365	\$4,210,302	48	\$90,195	\$1,278,824	\$1,247,709	\$1,802,832	\$1,759,082	6.42%	1.72431	\$16,228	\$106,423									
Jun-12	\$43,972	\$4,373,337	\$4,351,351	48	\$91,111	\$1,369,935	\$1,228,452	\$1,774,950	\$1,788,891	6.42%	1.72431	\$16,503	\$107,614	\$1,016,105								
Jul-12	\$8,900	\$4,382,237	\$4,377,787	48	\$91,297	\$1,461,232	\$1,194,793	\$1,726,212	\$1,750,581	6.42%	1.72431	\$16,149	\$107,446									
Aug-12	\$54,599	\$4,436,836	\$4,409,537	48	\$92,434	\$1,553,666	\$1,179,338	\$1,703,832	\$1,715,022	6.42%	1.72431	\$15,821	\$108,255									
Sep-12	\$13,890	\$4,450,726	\$4,443,781	48	\$92,723	\$1,646,389	\$1,147,134	\$1,657,203	\$1,680,518	6.42%	1.72431	\$15,503	\$108,226									
Oct-12	\$64,306	\$4,515,032	\$4,482,879	48	\$94,063	\$1,740,452	\$1,134,978	\$1,639,602	\$1,648,403	6.42%	1.72431	\$15,207	\$109,270									
Nov-12	\$25,868	\$4,540,900	\$4,527,966	48	\$94,602	\$1,835,054	\$1,106,901	\$1,598,945	\$1,619,274	6.42%	1.72431	\$14,938	\$109,540									
Dec-12	\$38,951	\$4,579,851	\$4,560,376	48	\$95,414	\$1,930,468	\$1,083,836	\$1,565,547	\$1,582,246	6.42%	1.72431	\$14,596	\$110,010	\$652,747								
Jan-13	\$11,653	\$4,591,504	\$4,585,678	48	\$95,656	\$2,026,124	\$1,049,520	\$1,515,860	\$1,540,704	6.42%	1.72431	\$14,213	\$109,869									
Feb-13	\$39,889	\$4,631,393	\$4,611,449	48	\$96,487	\$2,122,611	\$1,026,400	\$1,482,382	\$1,499,121	6.42%	1.72431	\$13,829	\$110,316									
Mar-13	\$61,254	\$4,692,647	\$4,662,020	48	\$97,763	\$2,220,374	\$1,011,486	\$1,460,787	\$1,471,585	6.42%	1.72431	\$13,575	\$111,338									
Apr-13	\$115,134	\$4,807,781	\$4,750,214	48	\$100,162	\$2,320,536	\$1,017,602	\$1,469,643	\$1,465,215	6.42%	1.72431	\$13,517	\$113,679									
May-13	\$33,163	\$4,840,944	\$4,824,363	48	\$100,853	\$2,421,389	\$989,950	\$1,429,605	\$1,449,624	6.42%	1.72431	\$13,373	\$114,226									
Jun-13	\$34,827	\$4,875,771	\$4,858,358	48	\$101,579	\$2,522,968	\$962,682	\$1,390,121	\$1,409,863	6.42%	1.72431	\$13,006	\$114,585	\$1,326,760								
Jul-13	\$38,889	\$4,914,660	\$4,895,216	48	\$102,389	\$2,625,357	\$936,743	\$1,352,560	\$1,371,341	6.42%	1.72431	\$12,651	\$115,040									
Aug-13	\$35,900	\$4,950,560	\$4,932,610	48	\$103,128	\$2,728,485	\$909,280	\$1,312,795	\$1,332,678	6.42%	1.72431	\$12,294	\$115,422									
Sep-13	\$19,751	\$4,970,311	\$4,960,436	48	\$102,320	\$2,830,805	\$875,551	\$1,263,955	\$1,288,375	6.68%	1.71565	\$10,463	\$112,783									
Oct-13	\$23,954	\$4,994,265	\$4,982,288	48	\$92,330	\$2,923,135	\$847,619	\$1,223,511	\$1,243,733	6.68%	1.71565	\$10,100	\$102,430									
Nov-13	\$35,053	\$5,029,318	\$5,011,792	48	\$92,869	\$3,016,004	\$824,001	\$1,189,313	\$1,206,412	6.68%	1.71565	\$9,797	\$102,666									
Dec-13	\$13,937	\$5,043,255	\$5,036,287	48	\$93,021	\$3,109,025	\$791,695	\$1,142,535	\$1,165,924	6.68%	1.71565	\$9,468	\$102,489									
Jan-14	\$45,466	\$5,088,721	\$5,065,988	48	\$93,349	\$3,202,374	\$772,135	\$1,114,212	\$1,128,374	6.68%	1.71565	\$9,163	\$102,512									
Feb-14	\$37,678	\$5,126,399	\$5,107,560	48	\$93,671	\$3,296,045	\$749,262	\$1,081,092	\$1,097,652	6.68%	1.71565	\$8,914	\$102,585									
Mar-14	\$1,330	\$5,127,729	\$5,127,064	48	\$92,299	\$3,388,344	\$712,101	\$1,027,284	\$1,054,188	6.68%	1.71565	\$8,561	\$100,860									
Apr-14	\$56,891	\$5,184,620	\$5,166,175	48	\$92,962	\$3,481,306	\$697,366	\$1,005,948	\$1,016,616	6.68%	1.71565	\$8,256	\$101,218									
May-14	\$41,786	\$5,226,406	\$5,205,513	48	\$92,884	\$3,574,190	\$676,493	\$975,723	\$990,836	6.68%	1.71565	\$8,046	\$100,930									
Jun-14	\$39,235	\$5,265,641	\$5,246,024	48	\$92,929	\$3,667,119	\$654,559	\$943,963	\$959,843	6.68%	1.71565	\$7,795	\$100,724	\$1,259,659								
Jul-14	\$4,676	\$5,270,317	\$5,267,979	48	\$91,648	\$3,758,767	\$619,030	\$892,520	\$918,242	6.68%	1.71565	\$7,457	\$99,105									
Aug-14	\$40,208	\$5,310,525	\$5,290,421	48	\$91,688	\$3,850,455	\$598,001	\$862,069	\$877,295	6.68%	1.71565	\$7,124	\$98,812									
Sep-14	\$27,556	\$5,338,081	\$5,324,303	48	\$90,130	\$3,940,585	\$572,440	\$825,056	\$843,563	6.68%	1.71565	\$6,850	\$96,980									
Oct-14	\$32,072	\$5,370,153	\$5,354,117	48	\$88,392	\$4,028,977	\$549,433	\$791,743	\$808,400	6.68%	1.71565	\$6,565	\$94,957									
Nov-14	\$75	\$5,370,228	\$5,370,191	48	\$85,058	\$4,114,035	\$514,717	\$741,476	\$766,610	6.68%	1.71565	\$6,225	\$91,283									
Dec-14	\$60,029	\$5,430,257	\$5,400,243	48	\$83,786	\$4,197,821	\$505,013	\$727,423	\$734,450	6.68%	1.71565	\$5,964	\$89,750									
Jan-15	\$33,078	\$5,463,335	\$5,446,796	48	\$77,875	\$4,275,696	\$486,713	\$700,926	\$714,175	6.68%</												

ELIZABETHTOWN GAS COMPANY  
ENERGY EFFICIENCY PROGRAM ("EEP")

Monthly Recoverable Investment  
Program Expenditures - Amortized Over Four Years

	Amortizable Expenditures	Cumulative Expenditures	Average Expenditures	Amort. Months	Monthly Amortization	Accum. Amort.	Accum. Deferred Income Tax	Earnings / Rate Base i=c-g-h	Average Rate Base i	Wtd. Avg. Cost of Capital After-tax k	Revenue Factor l	Monthly Return on Rate Base m=(j) *k <sup>1/12</sup>	Monthly Revenue Requirement n=m*f	YTD ending June	Ret
a	b	c	d	e	f	g	h	i=c-g-h	i	k	l	m=(j) *k <sup>1/12</sup>	n=m*f		
Jul-16	\$53,903	\$6,095,747	\$6,068,796	48	\$35,698	\$5,285,800	\$332,426	\$477,521	\$472,137	5.68%	1.71565	\$3,834	\$39,532		
Aug-16	\$1,929	\$6,097,676	\$6,096,712	48	\$34,601	\$5,320,401	\$319,080	\$458,195	\$467,858	5.68%	1.71565	\$3,799	\$38,400		
Sep-16	\$31,675	\$6,129,351	\$6,113,514	48	\$34,971	\$5,355,372	\$317,733	\$456,246	\$457,221	5.68%	1.71565	\$3,713	\$38,684		
Oct-16	\$17,197	\$6,146,548	\$6,137,950	48	\$33,990	\$5,389,362	\$310,873	\$446,313	\$451,280	5.68%	1.71565	\$3,665	\$37,655		
Nov-16	\$19,566	\$6,166,114	\$6,156,331	48	\$33,859	\$5,423,221	\$305,035	\$437,858	\$442,086	5.68%	1.71565	\$3,590	\$37,449		
Dec-16	\$19,860	\$6,185,974	\$6,176,044	48	\$33,461	\$5,456,682	\$299,479	\$429,813	\$433,836	5.68%	1.71565	\$3,523	\$36,984		
Jan-17	\$20,031	\$6,206,005	\$6,195,990	48	\$33,635	\$5,490,317	\$293,921	\$421,767	\$425,790	5.68%	1.71565	\$3,458	\$37,093		
Feb-17	\$1,301	\$6,207,306	\$6,206,656	48	\$32,832	\$5,523,149	\$281,041	\$403,116	\$412,442	5.68%	1.71565	\$3,349	\$36,181		
Mar-17	\$50,755	\$6,258,061	\$6,232,684	48	\$32,613	\$5,555,762	\$288,452	\$413,847	\$408,482	5.68%	1.71565	\$3,317	\$35,930		
Apr-17	\$15,518	\$6,273,579	\$6,265,820	48	\$30,537	\$5,586,299	\$282,317	\$404,963	\$409,405	5.68%	1.71565	\$3,325	\$33,862		
May-17	\$12,094	\$6,285,673	\$6,279,626	48	\$30,099	\$5,616,398	\$274,962	\$394,313	\$399,638	5.68%	1.71565	\$3,245	\$33,344		
Jun-17	\$9,676	\$6,295,349	\$6,290,511	48	\$29,575	\$5,645,973	\$266,833	\$382,543	\$388,428	5.68%	1.71565	\$3,154	\$32,729	\$437,843	
Jul-17	\$11,721	\$6,307,070	\$6,301,210	48	\$29,099	\$5,674,982	\$259,771	\$372,317	\$377,430	<b>5.772%</b>	<b>1.71370692</b>	\$3,111	\$32,120		
Aug-17	\$10,292	\$6,317,362	\$6,312,216	48	\$28,475	\$5,703,457	\$252,343	\$361,562	\$366,940	5.772%	1.71370692	\$3,025	\$31,500		
Sep-17	\$300,856	\$6,618,218	\$6,467,790	48	\$34,331	\$5,737,788	\$361,219	\$519,211	\$440,387	5.772%	1.71370692	\$3,630	\$37,961		
Oct-17	\$82,233	\$6,700,451	\$6,659,335	48	\$35,546	\$5,773,334	\$380,290	\$546,827	\$533,019	5.772%	1.71370692	\$4,394	\$39,940		
Nov-17	\$239,392	\$6,939,843	\$6,820,147	48	\$39,803	\$5,813,137	\$461,823	\$664,883	\$605,855	5.772%	1.71370692	\$4,994	\$44,797		
Dec-17	\$110,560	\$7,050,403	\$6,995,123	48	\$41,816	\$5,854,953	\$489,905	\$705,545	\$685,214	5.772%	1.71370692	\$5,648	\$47,464		
Jan-18	\$181,033	\$7,231,436	\$7,140,920	48	\$44,640	\$5,899,593	\$528,245	\$803,598	\$754,572	<b>6.063%</b>	<b>1.40828098</b>	\$5,369	\$50,009		
Feb-18	\$278,475	\$7,509,911	\$7,370,674	48	\$49,657	\$5,949,250	\$592,566	\$968,095	\$885,847	6.063%	1.40828098	\$6,303	\$55,960		
Mar-18	\$77,229	\$7,587,140	\$7,548,526	48	\$51,238	\$6,000,488	\$599,872	\$986,780	\$977,438	6.063%	1.40828098	\$6,955	\$58,193		
Apr-18	\$145,737	\$7,732,877	\$7,660,009	48	\$53,089	\$6,053,577	\$625,915	\$1,053,385	\$1,020,083	6.063%	1.40828098	\$7,258	\$60,347		
May-18	\$288,397	\$8,021,274	\$7,877,076	48	\$58,226	\$6,111,803	\$690,616	\$1,218,855	\$1,136,120	6.063%	1.40828098	\$8,084	\$66,310		
Jun-18	\$46,997	\$8,068,271	\$8,044,773	48	\$58,388	\$6,170,191	\$687,414	\$1,210,666	\$1,214,761	6.063%	1.40828098	\$8,643	\$67,031	\$591,632	
Jul-18	\$0	\$8,068,271	\$8,068,271	48	\$58,291	\$6,228,482	\$671,029	\$1,168,760	\$1,189,713	6.063%	1.40828098	\$8,465	\$66,756		
Aug-18	\$102,223	\$8,170,494	\$8,119,383	48	\$59,583	\$6,288,065	\$683,015	\$1,199,414	\$1,184,087	6.063%	1.40828098	\$8,425	\$68,008		
Sep-18	\$400,259	\$8,570,753	\$8,370,624	48	\$67,347	\$6,355,412	\$776,596	\$1,438,745	\$1,319,080	6.063%	1.40828098	\$9,386	\$76,733		
Oct-18	\$85,123	\$8,655,876	\$8,613,315	48	\$68,453	\$6,423,865	\$781,282	\$1,450,729	\$1,444,737	6.063%	1.40828098	\$10,280	\$78,733		
Nov-18	\$39,507	\$8,695,383	\$8,675,630	48	\$69,274	\$6,493,139	\$772,915	\$1,429,329	\$1,440,029	6.063%	1.40828098	\$10,246	\$79,520		
Dec-18	\$246,194	\$8,941,577	\$8,818,480	48	\$73,153	\$6,566,292	\$821,557	\$1,553,728	\$1,491,529	6.063%	1.40828098	\$10,613	\$83,766		
Jan-19	\$32,819	\$8,974,396	\$8,957,987	48	\$73,147	\$6,639,439	\$810,221	\$1,524,736	\$1,539,232	6.063%	1.40828098	\$10,952	\$84,099		
Feb-19	\$90,666	\$9,065,062	\$9,019,729	48	\$74,304	\$6,713,743	\$814,820	\$1,536,499	\$1,530,618	6.063%	1.40828098	\$10,891	\$85,195		
Mar-19	\$329,788	\$9,394,850	\$9,229,956	48	\$80,489	\$6,794,232	\$884,898	\$1,715,720	\$1,626,110	6.063%	1.40828098	\$11,570	\$92,059		
Apr-19	\$107,407	\$9,502,257	\$9,448,554	48	\$82,691	\$6,876,923	\$891,846	\$1,733,488	\$1,724,604	6.063%	1.40828098	\$12,271	\$94,962		
May-19	\$412,613	\$9,914,870	\$9,708,564	48	\$90,029	\$6,966,952	\$982,524	\$1,965,394	\$1,849,441	6.063%	1.40828098	\$13,159	\$103,188		
Jun-19	\$57,950	\$9,972,820	\$9,943,845	48	\$89,642	\$7,056,594	\$973,616	\$1,942,610	\$1,954,002	6.063%	1.40828098	\$13,903	\$103,545	\$1,016,564	
Jul-19	\$215,926	\$10,188,746	\$10,080,783	48	\$93,774	\$7,150,368	\$1,007,953	\$2,030,425	\$1,986,518	6.063%	1.40828098	\$14,135	\$107,909		
Aug-19	\$0	\$10,188,746	\$10,188,746	48	\$93,717	\$7,244,085	\$981,609	\$1,963,052	\$1,996,739	6.063%	1.40828098	\$14,207	\$107,924		
Sep-19	\$52,797	\$10,241,543	\$10,215,145	48	\$94,352	\$7,338,437	\$969,928	\$1,933,178	\$1,948,115	6.063%	1.40828098	\$13,861	\$108,213		
Oct-19	\$330,649	\$10,572,192	\$10,406,868	48	\$100,564	\$7,439,001	\$1,034,605	\$2,098,586	\$2,015,882	6.063%	1.40828098	\$14,344	\$114,908		
Nov-19	\$144,473	\$10,716,665	\$10,644,429	48	\$103,010	\$7,542,011	\$1,046,260	\$2,128,394	\$2,113,490	6.3049%	1.40747086	\$15,629	\$118,639		
Dec-19	\$69,023	\$10,785,688	\$10,751,177	48	\$103,041	\$7,645,052	\$1,036,697	\$2,103,939	\$2,116,167	<b>6.5165%</b>	<b>1.406762</b>	\$16,166	\$119,207		
Jan-20	\$96,620	\$10,882,308	\$10,833,998	48	\$104,942	\$7,749,994	\$1,034,358	\$2,097,956	\$2,100,948	6.5165%	1.406762	\$16,050	\$120,992		
Feb-20	\$76,715	\$10,959,023	\$10,920,666	48	\$103,642	\$7,853,636	\$1,026,789	\$2,078,598	\$2,088,277	6.5165%	1.406762	\$15,953	\$119,595		
Mar-20	\$199,190	\$11,158,213	\$11,058,618	48	\$107,233	\$7,960,869	\$1,052,638	\$2,144,706	\$2,111,652	6.5165%	1.406762	\$16,132	\$123,365		
Apr-20	\$15,400	\$11,173,613	\$11,165,913	48	\$107,530	\$8,068,399	\$1,026,740	\$2,078,474	\$2,111,590	6.5165%	1.406762	\$16,131	\$123,661		
May-20	\$20,750	\$11,194,363	\$11,183,988	48	\$107,879	\$8,176,278	\$1,002,248	\$2,015,837	\$2,047,156	6.5165%	1.406762	\$15,639	\$123,518		
Jun-20	\$14,850	\$11,209,213	\$11,201,788	48	\$107,654	\$8,283,932	\$976,161	\$1,949,120	\$1,982,479	6.5165%	1.406762	\$15,145	\$122,799	\$1,410,730	
Jul-20	\$14,175	\$11,223,388	\$11,216,301	48	\$106,826	\$8,390,758	\$950,117	\$1,882,513	\$1,915,817	6.5165%	1.406762	\$14,636	\$121,462		
Aug-20	\$5,600	\$11,228,988	\$11,226,188	48	\$106,902	\$8,497,660	\$921,641	\$1,809,687	\$1,846,100	6.5165%	1.406762	\$14,103	\$121,005		
Sep-20	\$21,380	\$11,250,368	\$11,239,678	48	\$106,688	\$8,604,348	\$897,661	\$1,748,359	\$1,779,023	6.5165%	1.406762	\$13,590	\$120,278		
Oct-20	\$22,395	\$11,272,763	\$11,261,566	48	\$106,796	\$8,711,144	\$887,931	\$1,687,683	\$1,718,021	6.5165%	1.406762	\$13,124	\$119,920		
Nov-20	\$43,322	\$11,316,085	\$11,294,424	48	\$107,291	\$8,818,435	\$855,954	\$1,641,696	\$1,664,690	6.5165%	1.406762	\$12,717	\$120,008		
Dec-20	\$47,284	\$11,363,369	\$11,339,727	48	\$107,862	\$8,926,297	\$838,925	\$1,598,147	\$1,619,922	6.5165%	1.406762	\$12,375	\$120,237		
Jan-21	\$30,777	\$11,394,146	\$11,378,758	48	\$108,086	\$9,034,383	\$817,194	\$1,542,569	\$1,570,358	6.5165%	1.406762	\$11,996	\$120,082		
Feb-21	\$653,535	\$12,047,681	\$11,720,914	48	\$121,674	\$9,156,057	\$966,700	\$1,924,924	\$1,733,747	6.5165%	1.406762	\$13,245	\$134,919		
Mar-21	\$149,986	\$12,197,667	\$12,122,674	48	\$123,742	\$9,279,799	\$974,077	\$1,943,791	\$1,934,358	6.5165%	1.406762	\$14,777	\$138,519		
Apr-21	\$369,242	\$12,566,909	\$12,382,288	48	\$131,111	\$9,410,910	\$1,041,015	\$2,114,984	\$2,029,388	6.5165%	1.406762	\$15,503	\$146,614		
May-21	\$79,059	\$12,645,968	\$12,606,439	48	\$132,506	\$9,543,416	\$1,025,991	\$2,076,561	\$2,095,773	6.5165%	1.406762	\$16,010	\$148,516		
Jun-21	\$325,103	\$12,971,071	\$12,808,520	48	\$139,078	\$9,682,494	\$1,078,283	\$2,210,294	\$2,143,428	6.5165%	1.406762	\$16,374	\$155,452	\$1,567,012	
Jul-21	\$94,089	\$13,065,160	\$13,018,116	48	\$140,794	\$9,823,288	\$1,065,155	\$2,176,717	\$2,193,506	6.5165%	1.406762	\$16,757	\$157,551		
Aug-21	\$52,200	\$13,117,360	\$13,091,260	48	\$141,667	\$9,964,955	\$1,040,006	\$2,112,399	\$2,144,558	6.5165%	1.406762	\$16,383	\$158,050		
Sep-21	\$52,200	\$13,169,560	\$13,143,460	48	\$136,486	\$10,101,441	\$1,016,313	\$2,051,806	\$2,082,103	6.5165%	1.406762	\$15,906	\$152,392		
Oct-21	\$43,000	\$13,212,560	\$13,191,060	48	\$135,669	\$10,237,110	\$990,263	\$1,985,187	\$2,018,497	6.5165%	1.406762	\$15,420	\$151,089		
Nov-21	\$0	\$13,212,560	\$13,212,560	48	\$130,682	\$10,367,792	\$953,269	\$1,891,239	\$1,938,213	6.5165%	1.406762	\$14,807	\$145,489		
Dec-21	\$0	\$13,212,560	\$13,212,560	48	\$128,378	\$10,496,170	\$917,442	\$1,798,948	\$1,845,094						

ELIZABETHTOWN GAS COMPANY  
ENERGY EFFICIENCY PROGRAM ("EEP")

Monthly Recoverable Investment  
Program Expenditures - Amortized Over Four Years

	Amortizable Expenditures	Cumulative Expenditures	Average Expenditures	Amort. Months	Monthly Amortization	Accum. Amort.	Accum. Deferred Income Tax	Earnings / Rate Base	Average Rate Base	Wtd. Avg. Cost of Capital After-tax	Revenue Factor	Monthly Return on Rate Base	Monthly Revenue Requirement	Ret YTD ending June
a	TK-4 b	c	d	e	f	g	h	i=g-h	i	k	l	m=(j)*k <sup>1</sup> /12	n=m+f	
Aug-23	\$0	\$13,212,560	\$13,212,560	48	\$62,996	\$12,366,925	\$391,573	\$454,062	\$476,706	6.5165%	1.406762	\$3,642	\$66,638	
Sep-23	\$0	\$13,212,560	\$13,212,560	48	\$61,896	\$12,428,821	\$374,174	\$409,565	\$431,814	6.5165%	1.406762	\$3,299	\$65,195	
Oct-23	\$0	\$13,212,560	\$13,212,560	48	\$55,008	\$12,483,829	\$358,711	\$370,020	\$389,793	6.5165%	1.406762	\$2,978	\$57,986	
Nov-23	\$0	\$13,212,560	\$13,212,560	48	\$51,998	\$12,535,827	\$344,094	\$332,639	\$351,330	6.5165%	1.406762	\$2,684	\$54,682	
Dec-23	\$0	\$13,212,560	\$13,212,560	48	\$50,560	\$12,586,387	\$329,882	\$296,291	\$314,465	6.5165%	1.406762	\$2,402	\$52,962	
Jan-24	\$0	\$13,212,560	\$13,212,560	48	\$48,547	\$12,634,934	\$316,236	\$261,390	\$278,841	6.5165%	1.406762	\$2,130	\$50,677	
Feb-24	\$0	\$13,212,560	\$13,212,560	48	\$46,949	\$12,681,883	\$303,038	\$227,639	\$244,515	6.5165%	1.406762	\$1,868	\$48,817	
Mar-24	\$0	\$13,212,560	\$13,212,560	48	\$42,799	\$12,724,682	\$291,008	\$196,870	\$212,255	6.5165%	1.406762	\$1,621	\$44,420	
Apr-24	\$0	\$13,212,560	\$13,212,560	48	\$42,478	\$12,767,160	\$279,067	\$166,333	\$181,602	6.5165%	1.406762	\$1,387	\$43,865	
May-24	\$0	\$13,212,560	\$13,212,560	48	\$42,046	\$12,809,206	\$267,248	\$136,106	\$151,220	6.5165%	1.406762	\$1,155	\$43,201	
Jun-24	\$0	\$13,212,560	\$13,212,560	48	\$41,736	\$12,850,942	\$255,516	\$106,102	\$121,104	6.5165%	1.406762	\$925	\$42,661	\$638,088
Jul-24	\$0	\$13,212,560	\$13,212,560	48	\$41,441	\$12,892,383	\$243,867	\$76,310	\$91,206	6.5165%	1.406762	\$697	\$42,138	
Aug-24	\$0	\$13,212,560	\$13,212,560	48	\$41,324	\$12,933,707	\$232,250	\$46,603	\$61,457	6.5165%	1.406762	\$469	\$41,793	
Sep-24	\$0	\$13,212,560	\$13,212,560	48	\$40,879	\$12,974,586	\$220,759	\$17,215	\$31,909	6.5165%	1.406762	\$244	\$41,123	
Oct-24	\$0	\$13,212,560	\$13,212,560	48	\$40,412	\$13,014,998	\$209,399	(\$11,837)	\$2,689	6.5165%	1.406762	\$21	\$40,433	
Nov-24	\$0	\$13,212,560	\$13,212,560	48	\$39,510	\$13,054,508	\$198,293	(\$40,241)	(\$26,039)	6.5165%	1.406762	(\$199)	\$39,311	
Dec-24	\$0	\$13,212,560	\$13,212,560	48	\$38,525	\$13,093,033	\$187,464	(\$67,937)	(\$54,089)	6.5165%	1.406762	(\$413)	\$38,112	
Jan-25	\$0	\$13,212,560	\$13,212,560	48	\$37,884	\$13,130,917	\$176,815	(\$95,172)	(\$81,555)	6.5165%	1.406762	(\$623)	\$37,261	
Feb-25	\$0	\$13,212,560	\$13,212,560	48	\$24,268	\$13,155,185	\$169,993	(\$112,618)	(\$103,895)	6.5165%	1.406762	(\$794)	\$23,474	
Mar-25	\$0	\$13,212,560	\$13,212,560	48	\$21,144	\$13,176,329	\$164,049	(\$127,818)	(\$120,218)	6.5165%	1.406762	(\$918)	\$20,226	
Apr-25	\$0	\$13,212,560	\$13,212,560	48	\$13,451	\$13,189,780	\$160,268	(\$137,488)	(\$132,653)	6.5165%	1.406762	(\$1,013)	\$12,438	
May-25	\$0	\$13,212,560	\$13,212,560	48	\$11,804	\$13,201,584	\$156,950	(\$145,974)	(\$141,731)	6.5165%	1.406762	(\$1,083)	\$10,721	
Jun-25	\$0	\$13,212,560	\$13,212,560	48	\$5,031	\$13,206,615	\$155,536	(\$149,591)	(\$147,783)	6.5165%	1.406762	(\$1,129)	\$3,902	\$350,932
Jul-25	\$0	\$13,212,560	\$13,212,560	48	\$3,071	\$13,209,686	\$154,673	(\$151,799)	(\$150,695)	6.5165%	1.406762	(\$1,151)	\$1,920	
Aug-25	\$0	\$13,212,560	\$13,212,560	48	\$1,983	\$13,211,669	\$154,115	(\$153,224)	(\$152,512)	6.5165%	1.406762	(\$1,165)	\$818	
Sep-25	\$0	\$13,212,560	\$13,212,560	48	\$896	\$13,212,565	\$153,864	(\$153,869)	(\$153,547)	6.5165%	1.406762	(\$1,173)	(\$277)	
Oct-25	\$0	\$13,212,560	\$13,212,560	48	\$0	\$13,212,565	\$153,864	(\$153,869)	(\$153,869)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Nov-25	\$0	\$13,212,560	\$13,212,560	48	\$0	\$13,212,565	\$153,864	(\$153,869)	(\$153,869)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Dec-25	\$0	\$13,212,560	\$13,212,560	48	\$0	\$13,212,565	\$153,864	(\$153,869)	(\$153,869)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Jan-26	\$0	\$13,212,560	\$13,212,560	48	\$0	\$13,212,565	\$153,864	(\$153,869)	(\$153,869)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Feb-26	\$0	\$13,212,560	\$13,212,560	48	\$0	\$13,212,565	\$153,864	(\$153,869)	(\$153,869)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Mar-26	\$0	\$13,212,560	\$13,212,560	48	\$0	\$13,212,565	\$153,864	(\$153,869)	(\$153,869)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Apr-26	\$0	\$13,212,560	\$13,212,560	48	\$0	\$13,212,565	\$153,864	(\$153,869)	(\$153,869)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
May-26	\$0	\$13,212,560	\$13,212,560	48	\$0	\$13,212,565	\$153,864	(\$153,869)	(\$153,869)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Jun-26	\$0	\$13,212,560	\$13,212,560	48	\$0	\$13,212,565	\$153,864	(\$153,869)	(\$153,869)	6.5165%	1.406762	(\$1,175)	(\$1,175)	(\$8,114)

ELIZABETHTOWN GAS COMPANY  
ENERGY EFFICIENCY PROGRAM ("EEP")

**Schedule of Expenditures**

O&M Recoverable In Period Expended					Program Expenditures - Amortized Over Four Years				
					\$1,262,050				
	Labor (1)	Customer Education	Dashboard	Prog Eval/ Consultant	Total O&M	Cust Fin & Opower/Uplight	Program Expenditures	Program Total	Total
Jun-10	\$99,464	\$204,988	\$217,687	\$0	\$522,139	\$500,000	\$305,040	\$805,040	\$1,327,179
Jun-11	\$451,985	\$801,775	\$61,062	\$0	\$1,314,822	\$0	\$1,534,373	\$1,534,373	\$2,849,195
Jun-12	\$884,924	\$693,368	\$32,058	\$0	\$1,610,350	(\$500,000)	\$2,533,924	\$2,033,924	\$3,644,274
Jun-13	\$126,113	\$134,040	\$87,900	\$0	\$348,053	\$0	\$502,434	\$502,434	\$850,487
Jun-14	\$119,181	\$302,681	\$40,500	\$0	\$462,362	\$0	\$389,870	\$389,870	\$852,232
Jun-15	\$92,172	\$268,202	\$54,000	\$33,400	\$447,774	\$0	\$404,387	\$404,387	\$852,161
Jun-16	\$122,039	\$30,267	\$54,000	\$0	\$206,306	\$0	\$371,816	\$371,816	\$578,122
Jun-17	\$130,568	\$19,467	\$27,000	\$0	\$177,035	\$0	\$253,505	\$253,505	\$430,540
Jun-18	\$233,862	\$131,402	\$0	\$0	\$365,264	\$874,382	\$898,540	\$1,772,922	\$2,138,186
Jun-19	\$202,036	\$43,389	\$0	\$36,870	\$282,295	\$738,269	\$1,166,280	\$1,904,549	\$2,186,844
Jun-20	\$113,095	\$56,911	\$0	\$29,029	\$199,035	\$490,929	\$745,464	\$1,236,393	\$1,435,428
Jun-21	\$126,153	\$143,989	\$0	\$11,203	\$281,345	\$694,000	\$1,067,858	\$1,761,858	\$2,043,203
Jun-22	*	\$0	\$0	\$0	\$0	\$0	\$241,489	\$241,489	\$241,489
Jun-23	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Jun-24	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Jun-25	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Jun-26	*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$2,701,592	\$2,830,479	\$574,207	\$110,502	\$6,216,780	\$2,797,580	\$10,414,980	\$13,212,560	\$19,429,340

\* Projected

(1) Excludes AIP and includes external Auditor and Temporary Labor costs



ENERGY EFFICIENCY PROGRAM ("EEP")  
Recoveries

	Therm Sales and Services					Total Therms	Recoveries					Total Recoveries	
	Res & GLS	Commercial	Industrial	NGV	Cogen.		Res & GLS	Commercial	Industrial	NGV	Cogen.		
Jun-10	199,789,349	121,568,200	81,414,763	0	853,170	403,625,482	\$1,488,554	\$900,379	\$599,096	\$0	\$3,855	\$2,991,884	
Jun-11	222,140,703	135,002,697	90,445,144	0	2,637,430	450,225,974	\$1,019,635	\$608,929	\$410,115	\$0	\$23,062	\$2,061,741	
Jun-12	181,189,654	115,394,478	82,175,908	0	0	378,760,040	\$1,780	\$2,636	\$0	\$0	\$0	\$4,416	
Jun-13	217,455,912	135,113,439	80,848,839	0	0	433,418,190	\$270	\$547	\$0	\$0	\$0	\$817	
Jun-14	246,136,102	151,372,547	77,878,792	0	0	475,387,441	\$597,818	\$363,514	\$159,385	\$0	\$0	\$1,120,717	
Jun-15	249,592,203	153,487,646	79,638,706	32,390	0	482,750,945	\$1,815,568	\$1,104,482	\$528,934	\$232	\$0	\$3,449,216	
Jun-16	200,899,928	125,876,408	77,353,883	146,807	0	404,277,026	\$1,055,138	\$664,641	\$427,000	\$828	\$0	\$2,147,607	
Jun-17	218,031,693	136,194,120	77,887,388	178,567	0	432,291,768	(\$44,126)	(\$12,440)	\$44,072	\$189	\$0	(\$12,305)	
Jun-18	240,063,694	150,005,625	74,884,188	151,681	0	465,105,188	(\$160,563)	(\$100,390)	(\$50,601)	(\$103)	\$0	(\$311,657)	
Jun-19	240,783,463	146,661,752	83,206,033	59,431	0	470,710,679	\$460,530	\$275,737	\$141,742	\$92	\$0	\$878,101	
Jun-20	227,992,544	134,225,912	78,071,814	42,312	0	440,332,582	\$1,173,195	\$683,648	\$414,587	\$222	\$0	\$2,271,652	
Jun-21	234,224,155	138,036,815	79,184,658	35,304	0	451,480,932	\$1,591,035	\$937,214	\$538,464	\$240	\$0	\$3,066,953	
Jun-22	* 244,816,292	137,438,809	98,885,721	47,552	0	481,188,374	\$664,503	\$381,670	\$321,325	\$165	\$0	\$1,367,663	
Jun-23	* 244,816,292	137,438,809	98,885,721	47,552	0	481,188,374	\$497,581	\$280,647	\$209,001	\$101	\$0	\$987,330	
Jun-24	* 244,816,292	137,438,809	98,885,721	47,552	0	481,188,374	\$329,390	\$186,748	\$144,271	\$72	\$0	\$660,481	
Jun-25	* 244,816,292	137,438,809	98,885,721	47,552	0	481,188,374	\$180,910	\$103,128	\$82,695	\$42	\$0	\$366,775	
Jun-26	* 244,816,292	137,438,809	98,885,721	47,552	0	481,188,374	(\$11,765)	(\$4,514)	\$8,077	\$9	\$0	(\$8,193)	
Total	3,902,380,860	2,330,133,684	1,457,418,721	884,252	3,490,600	7,694,308,117	0	\$10,659,453	\$6,376,576	\$3,978,163	\$2,089	\$26,917	\$21,043,198

\* Projected

\*\* Billing at the tariff rate yields the dollars recovered, inclusive of rate proration, if any. The rate presented is derived from dividing that amount by the therms, as such rounding differences to the tariff / billing rate may

**ELIZABETHTOWN GAS COMPANY  
ENERGY EFFICIENCY PROGRAM ("EEP")**

**Over / Under Recovered Carrying Cost Rate  
Weighted Average Cost of Borrowing**

	Rates:		Ratio:		After Tax Wtd. Avg. Cost of Borrowing. (1) <u>(b*d+c*e)*(1-Tax Rat</u>
	Commercial <u>Paper</u>	Bank <u>Credit Lines</u>	Commercial <u>Paper</u>	Bank <u>Credit Lines</u>	
<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>	
Jul-20	0.29%	0.00%	100.00%	0.00%	0.21%
Aug-20	0.29%	0.00%	100.00%	0.00%	0.21%
Sep-20	0.29%	0.00%	100.00%	0.00%	0.21%
Oct-20	0.29%	0.00%	100.00%	0.00%	0.21%
Nov-20	0.29%	0.00%	100.00%	0.00%	0.21%
Dec-20	0.29%	0.00%	100.00%	0.00%	0.21%
Jan-21	0.29%	0.00%	100.00%	0.00%	0.21%
Feb-21	0.29%	0.00%	100.00%	0.00%	0.21%
Mar-21	0.29%	0.00%	100.00%	0.00%	0.21%
Apr-21	0.25%	0.00%	100.00%	0.00%	0.18%
May-21	0.00%	0.00%	100.00%	0.00%	0.00%
Jun-21	0.00%	0.00%	100.00%	0.00%	0.00%

\* Projected

(1) The Company's weighted average interest rate obtained on its commercial paper and bank credit lines, when utilized. The projected months are based on the last actual rate. The tax rate of 40.85% changed to 28.11% effective January 1, 2018.

ELIZABETHTOWN GAS COMPANY  
ENERGY EFFICIENCY PROGRAM ("EEP")  
RATE IMPACT

	2021	
	True-Up	
(Over)/Under Balance at June *	(\$2,309,556)	
Recoverable Program Costs 7/20 - 6/22: **		
Original filing - 8/09 - 12/10	\$0	
Extension 1/11 - 3/12	\$0	
Extension 4/12 - 8/13	\$0	
Extension 9/13 - 4/17 ***	\$23,522	
Extension 5/17 - 6/20 ****	\$2,779,507	
Extension 7/20 - 6/21	\$713,215	
<b>Total Amount to be Recovered</b>	<b>\$1,206,688</b>	
<b>Per Therm Recovery - Incl. Tax</b>		
Firm Throughput - therms	481,188,374	
(Over)/Under Recovery	(\$0.0036)	
Original filing - 8/09 - 12/10	\$0.0000	
Extension 1/11 - 3/12	\$0.0000	
Extension 4/12 - 8/13	\$0.0000	
Extension 9/13 - 4/17 ***	\$0.0001	
Extension 5/17 - 6/20 ****	\$0.0062	
Extension 7/20 - 6/21	\$0.0016	
<b>EEP Rate, \$ / Therm, inclusive of taxes</b>	<b>\$0.0027</b>	
<b>Typical Annual Bill Amounts</b>		
<i>Residential Non-Heat</i>	250	Annual Therms
(Over)/Under Recovery	(\$0.90)	
Original filing - 8/09 - 12/10	\$0.00	
Extension 1/11 - 3/12	\$0.00	
Extension 4/12 - 8/13	\$0.00	
Extension 9/13 - 4/17 ***	\$0.03	
Extension 5/17 - 6/20 ****	\$1.55	
Extension 7/20 - 6/21	\$0.40	
Total Typical Annual Bill Amount	\$0.68	
\$ Decrease from Current Bill Amount	(\$0.87)	
% Decrease from Current Bill Amount	(0.3%)	
<i>Residential Heat</i>	1,000	Annual Therms
(Over)/Under Recovery	(\$3.60)	
Original filing - 8/09 - 12/10	\$0.00	
Extension 1/11 - 3/12	\$0.00	
Extension 4/12 - 8/13	\$0.00	
Extension 9/13 - 4/17 ***	\$0.10	
Extension 5/17 - 6/20 ****	\$6.20	
Extension 7/20 - 6/21	\$1.60	
Total Typical Annual Bill Amount	\$2.70	
\$ Decrease from Current Bill Amount	(\$3.50)	
% Decrease from Current Bill Amount	(0.3%)	
<i>Small General Service</i>	1,000	Annual Therms
(Over)/Under Recovery	(\$3.60)	
Original filing - 8/09 - 12/10	\$0.00	
Extension 1/11 - 3/12	\$0.00	
Extension 4/12 - 8/13	\$0.00	
Extension 9/13 - 4/17 ***	\$0.10	
Extension 5/17 - 6/20 ****	\$6.20	
Extension 7/20 - 6/21	\$1.60	
Total Typical Annual Bill Amount	\$2.70	
\$ Decrease from Current Bill Amount	(\$3.50)	
% Decrease from Current Bill Amount	(0.3%)	
<i>General Delivery Service</i>	13,000	Annual Therms
(Over)/Under Recovery	(\$46.80)	
Original filing - 8/09 - 12/10	\$0.00	
Extension 1/11 - 3/12	\$0.00	
Extension 4/12 - 8/13	\$0.00	
Extension 9/13 - 4/17 ***	\$1.30	
Extension 5/17 - 6/20 ****	\$80.60	
Extension 7/20 - 6/21	\$20.80	
Total Typical Annual Bill Amount	\$35.10	
\$ Decrease from Current Bill Amount	(\$45.50)	
% Decrease from Current Bill Amount	(0.3%)	

\* Consists of prior year balance plus current year recoveries and carrying costs.

\*\* Amortized costs and return on rate base for the respective periods plus O&M for the period.

\*\*\* Extension 9/13-8/15 which was subsequently extended through 12/16 using the same budget and extended again through 7/17 with additional money.

\*\*\*\* Extension 5/17-12/18 which was subsequently extended through 2/19 using the same budget, extended again through 2/20 with additional money and again through 6/20 with same budget. Per 6/10/2020 letter, reallocated a portion of the budget to following extension period.

**IN THE MATTER OF THE PETITION OF  
ELIZABETHTOWN GAS COMPANY TO REVISE  
ITS ENERGY EFFICIENCY PROGRAM RIDER RATE**

**BPU DOCKET NO. \_\_\_\_\_**

**DIRECT TESTIMONY**

**OF**

**FRANK VETRI**

**On Behalf Of  
Elizabethtown Gas Company**

**Exhibit P-2**

**July 30, 2021**

**ELIZABETHTOWN GAS COMPANY  
DIRECT TESTIMONY OF  
FRANK VETRI**

1     **I.     INTRODUCTION**

2     **Q.     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3     **A.**     My name is Frank Vetri. My business address is 520 Green Lane, Union, New Jersey  
4             07083.

5     **Q.     BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6     **A.**     I am employed by Elizabethtown Gas Company (“Elizabethtown” or “Company”) as  
7             Manager – Energy Efficiency Programs.

8     **Q.     WHAT IS THE SCOPE OF YOUR DUTIES AT ELIZABETHTOWN?**

9     **A.**     I am responsible for the management of the Company’s Energy Efficiency Programs  
10            (“EE Programs” or “EEP”).

11    **Q.     PLEASE    DESCRIBE    YOUR    EDUCATIONAL    AND    BUSINESS**  
12       **EXPERIENCE.**

13    **A.**     In May 2008, I graduated from Rutgers University located in New Brunswick, N.J.  
14             with a Bachelor of Arts degree in Economics. In 2011, I joined PSE&G’s Renewables  
15             and Energy Solutions Department where I would eventually manage the Comfort  
16             Partners and Smart Thermostat Marketplace programs. I joined Elizabethtown’s  
17             Energy Efficiency Department in August of 2019 managing the Company’s six EE  
18             Programs.

1   **Q.    WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
2   **PROCEEDING?**

3   **A.**    The purpose of my testimony is to support Elizabethtown’s Petition in this proceeding  
4           to revise its EEP Rider rate and to provide information concerning the EE Programs.  
5           I will report on the Company’s actual and projected spending on EE Programs for the  
6           period July 1, 2020 through June 30, 2021 (“2021 Program Period”). and support the  
7           Company’s spending forecast for the period July 1, 2021 through June 30, 2022  
8           (“2022 Program Period”).

9   **Q.    DOES YOUR TESTIMONY INCLUDE ANY ILLUSTRATIVE**  
10   **SCHEDULES?**

11   **A.**    Yes. My testimony includes two schedules prepared under my direction and  
12           supervision. These schedules contain information responsive to the Minimum Filing  
13           Requirements (“MFRs”) as referenced in the MFR Index attached to the Petition as  
14           Exhibit A and as set forth in the Stipulations approved by the Board in its August 3,  
15           2009 Order in BPU Docket Nos. EO09010056 and GO09010060 et al., as well as the  
16           Board’s January 19, 2011 Order and April 11, 2012 Order in BPU Docket Nos.  
17           GO10070446 and GO10100735 *et al.* and BPU Docket No. GO11070399,  
18           respectively. The schedules are as follows:

- 19                   (a)       EEP Schedule FV-1 contains budgeted and actual EE Program  
20                               costs by major spending categories for the 2021 Program Period;  
21                               and  
22                   (b)       EEP Schedule FV-2 contains estimated EE Program costs by major  
23                               spending categories for the 2022 Program Period.

1     **II.     PROGRAM OVERVIEW**

2     **Q.     PLEASE DESCRIBE THE COMPANY'S EE PROGRAMS.**

3     **A.**     In accordance with the Board's Order dated February 19, 2020 in BPU Docket No.  
4             GO18070682, Elizabethtown was authorized to offer the programs listed below from  
5             July 1, 2020 through December 31, 2021 with a total budget of approximately \$4.2  
6             million, subject to an implementation of a new Elizabethtown EE Program with an  
7             earlier effective date. Per a letter dated June 10, 2020 ("June 10 Letter") in the same  
8             docket, Elizabethtown notified the Board that due to the challenges that resulted from  
9             the COVID-19 pandemic, it would reallocate \$431,864 from its EE Program budget  
10            ending on June 30, 2020 to the eighteen-month EE Program budget which  
11            commenced on July 1, 2020. This changed the budget for the July 2020 – December  
12            2021 period to \$4.6 million. In accordance with the Board's Order dated April 7,  
13            2021 in BPU Docket Nos. QO19010040 and GO20090619 ("April 7 Order"), the  
14            Board authorized Elizabethtown to implement a new EE Program that began on July  
15            1, 2021. Accordingly, Elizabethtown's legacy EEP terminated on June 30, 2021. The  
16            authorized programs through June 30, 2021 were as follows:

- 17                   (i)     Residential Gas HVAC and Gas Hot Water Heater Incentive  
18                             Program;  
19                   (ii)    Residential Home Energy Assessment Program;  
20                   (iii)   Residential Home Energy Report Program;  
21                   (iv)    Residential Home Weatherization for Income Qualified Customers  
22                             Program; and  
23                   (v)     Commercial Steam Trap Survey and Repair Program.

1 In addition to a range of rebates, the EE Programs contain various customer education  
2 and outreach initiatives, including an on-line customer Dashboard, designed to  
3 encourage customers to conserve energy and provide information to them on how to  
4 lower their gas bills. In addition, a Home Energy Report program provides a sample  
5 size of approximately 155,000 residential customers with a report of their home's  
6 energy usage and compares their results with that of "like" sized neighbors and offers  
7 tips and tools for changing energy usage behavior.

8 **III. PROGRAM SPENDING**

9 **Q. PLEASE DESCRIBE THE COMPANY'S SPENDING LEVELS FOR THE EE**  
10 **PROGRAMS DURING THE 2021 PROGRAM PERIOD.**

11 **A.** EEP Schedule FV-1 reflects approximately \$2.0 million in total EE Program related  
12 expenditures during the 2021 Program Period. As reflected on EEP Schedule FV-1,  
13 these expenditures include costs in the following categories: (1) O&M, including  
14 labor, customer education, and related expenditures, and (2) Program Expenditures.  
15 These expenditures are also outlined on EEP Schedule TK-4 which accompanies  
16 Company witness Thomas Kaufmann's testimony.

17 **Q. IS THE COMPANY'S SPENDING TO DATE CONSISTENT WITH THE**  
18 **BUDGET APPROVED BY THE ORDERS DISCUSSED ABOVE?**

19 **A.** Yes. As shown on EEP Schedules TK-4 and FV-1, the Company's spending of  
20 approximately \$2.0 million during the 2021 Program Period is within the authorized  
21 budget, as adjusted by the June 10 Letter, of approximately \$3.1 million.

22 **Q. PLEASE DESCRIBE THE COMPANY'S PROJECTED SPENDING LEVELS**  
23 **FOR THE EE PROGRAMS DURING THE 2022 PROGRAM PERIOD.**



1    **A.**     As reflected on EEP Schedule FV-2, the Company expects to incur no O&M  
2            expenses and approximately \$0.2 million in total EE Program expenditures during  
3            the 2022 Program Period. As noted above, Elizabethtown's legacy EEP terminated  
4            on June 30, 2021 per the April 7 Order. However, due to timing issues, payment of  
5            invoices related to the legacy program will continue into the 2022 Program Period.  
6            In addition, a few large commercial Steam Trap Rebate Program projects, committed  
7            within the 2021 Program Period, will be completed and invoiced within the 2022  
8            Program Period.

9    **Q.     DOES THIS CONCLUDE YOUR TESTIMONY?**

10   **A.**     Yes, it does.

**ELIZABETHTOWN GAS COMPANY ENERGY EFFICIENCY PROGRAM ("EEP") ACTUAL/BUDGET SPENDING BY PROGRAM (\$\$\$)**

**Schedule FV-1**

ACTUAL	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	2021 Program Period
O&M EXPENDITURES	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	
Labor	\$ 6,718	\$ 7,605	\$ 4,387	\$ 7,707	\$ 6,268	\$ 6,253	\$ 6,587	\$ 7,164	\$ 21,971	\$ 15,146	\$ 13,689	\$ 22,657	\$ 126,153
Customer Education, Outreach	\$ -	\$ 2,250	\$ 13,550	\$ 31,175	\$ 352	\$ 4,707	\$ 13,417	\$ 13,599	\$ 24,214	\$ 17,800	\$ 22,925	\$ -	\$ 143,988
Program Evaluation	\$ -		\$ 45,203	\$ -	\$ -	\$ -	\$ 136,000	\$ (170,000)	\$ -	\$ -	\$ -	\$ -	\$ 11,203
TOTAL O&M	\$ 6,718	\$ 9,855	\$ 63,141	\$ 38,882	\$ 6,620	\$ 10,960	\$ 156,004	\$ (149,237)	\$ 46,185	\$ 32,946	\$ 36,614	\$ 22,657	\$ 281,345
PROGRAM EXPENDITURES													
Residential Gas HVAC/WH :													
Rebates, Grants, Incentives	\$ 10,200	\$ 5,450	\$ 8,350	\$ 5,300	\$ 5,250	\$ 4,000	\$ 3,100	\$ 4,350	\$ -	\$ 23,050	\$ 14,600	\$ 26,300	\$ 109,950
Rebate Processing	\$ 150	\$ 150	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 7,300
Home Energy Assessments	\$ -	\$ -	\$ -	\$ 4,395	\$ 25,372	\$ 20,841	\$ 20,977	\$ 28,014	\$ 34,312	\$ 55,294	\$ 57,542	\$ 49,020	\$ 295,767
HEA Administrative Fees	\$ -	\$ -	\$ -	\$ 12,000	\$ 12,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 66,000
Home Weatherization for Income Qualified	\$ -	\$ -	\$ 11,209	\$ -	\$ -	\$ 14,312	\$ -	\$ 102,019	\$ 99,067	\$ 84,063	\$ 217	\$ 220,985	\$ 531,871
HW for IQC Administrative Fees	\$ -	\$ -	\$ 1,121	\$ -	\$ -	\$ 1,431	\$ -	\$ 10,202	\$ 9,907	\$ 8,386	\$ -	\$ 22,098	\$ 53,145
Home Energy Report - Opower	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 502,250	\$ -	\$ 191,750	\$ -	\$ -	\$ 694,000
	\$ 10,350	\$ 5,600	\$ 21,380	\$ 22,395	\$ 43,322	\$ 47,284	\$ 30,777	\$ 653,535	\$ 149,986	\$ 369,242	\$ 79,059	\$ 325,103	\$ 1,758,033
Commercial Gas													
Steam Trap Survey & Cleaning Pilot	\$ 3,825	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,825
	\$ 3,825	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,825
Total Program Expenditures	\$ 14,175	\$ 5,600	\$ 21,380	\$ 22,395	\$ 43,322	\$ 47,284	\$ 30,777	\$ 653,535	\$ 149,986	\$ 369,242	\$ 79,059	\$ 325,103	\$ 1,761,858
Total EEP Expenditures	\$ 20,893	\$ 15,455	\$ 84,520	\$ 61,277	\$ 49,942	\$ 58,244	\$ 186,781	\$ 504,298	\$ 196,171	\$ 402,188	\$ 115,674	\$ 347,761	\$ 2,043,203
BUDGET PROJECTION *													
O&M EXPENDITURES													
Labor	\$ 22,677	\$ 22,677	\$ 22,677	\$ 22,677	\$ 22,677	\$ 22,677	\$ 22,677	\$ 22,677	\$ 22,677	\$ 22,677	\$ 22,677	\$ 22,677	\$ 272,122
Customer Education, Outreach	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 144,000
Program Evaluation	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 30,000
TOTAL O&M	\$ 37,177	\$ 37,177	\$ 37,177	\$ 37,177	\$ 37,177	\$ 37,177	\$ 37,177	\$ 37,177	\$ 37,177	\$ 37,177	\$ 37,177	\$ 37,177	\$ 446,122
PROGRAM EXPENDITURES													
Residential Gas HVAC/WH :													
Rebates, Grants, Incentives	\$ 20,066	\$ 20,066	\$ 20,066	\$ 20,066	\$ 20,066	\$ 20,066	\$ 20,066	\$ 20,066	\$ 20,066	\$ 20,066	\$ 20,066	\$ 20,066	\$ 240,790
Rebate Processing	\$ 760	\$ 760	\$ 760	\$ 760	\$ 760	\$ 760	\$ 760	\$ 760	\$ 760	\$ 760	\$ 760	\$ 760	\$ 9,120
Home Energy Assessments	\$ 28,284	\$ 28,284	\$ 28,284	\$ 28,284	\$ 28,284	\$ 28,284	\$ 28,284	\$ 28,284	\$ 28,284	\$ 28,284	\$ 28,284	\$ 28,284	\$ 339,404
HEA Administrative Fees	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 144,000
Home Weatherization for Income Qualified	\$ 79,988	\$ 79,988	\$ 79,988	\$ 79,988	\$ 79,988	\$ 79,988	\$ 79,988	\$ 79,988	\$ 79,988	\$ 79,988	\$ 79,988	\$ 79,988	\$ 959,851
HW for IQC Administrative Fees	\$ 7,999	\$ 7,999	\$ 7,999	\$ 7,999	\$ 7,999	\$ 7,999	\$ 7,999	\$ 7,999	\$ 7,999	\$ 7,999	\$ 7,999	\$ 7,999	\$ 95,985
Home Energy Report - Opower	\$ -	\$ -	\$ 180,024	\$ -	\$ -	\$ 180,024	\$ -	\$ -	\$ 180,024	\$ -	\$ -	\$ 180,024	\$ 720,095
	\$ 149,096	\$ 149,096	\$ 329,120	\$ 149,096	\$ 149,096	\$ 329,120	\$ 149,096	\$ 149,096	\$ 329,120	\$ 149,096	\$ 149,096	\$ 329,120	\$ 2,509,245
Commercial Gas													
Steam Trap Survey & Cleaning Pilot	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 155,664
	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 12,972	\$ 155,664
Total Program Expenditures	\$ 162,068	\$ 162,068	\$ 342,092	\$ 162,068	\$ 162,068	\$ 342,092	\$ 162,068	\$ 162,068	\$ 342,092	\$ 162,068	\$ 162,068	\$ 342,092	\$ 2,664,909
Total EEP Expenditures	\$ 199,245	\$ 199,245	\$ 379,268	\$ 199,245	\$ 199,245	\$ 379,268	\$ 199,245	\$ 199,245	\$ 379,268	\$ 199,245	\$ 199,245	\$ 379,268	\$ 3,111,031

\*Due to the impacts of the COVID-19 pandemic, program marketing budget was increased during the 12 month period to accommodate program relaunch. Total approved 18 month marketing budget was not exceeded.

**EEP Schedule FV-2****PERIOD**

PROGRAM EXPENDITURES	
1	1000000
2	2000000
3	3000000
4	4000000
5	5000000
6	6000000
7	7000000
8	8000000
9	9000000
10	10000000
11	11000000
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**IN THE MATTER OF THE PETITION OF  
ELIZABETHTOWN GAS COMPANY TO REVISE  
ITS ENERGY EFFICIENCY PROGRAM RIDER RATE**

**BPU DOCKET NO. \_\_\_\_\_**

**DIRECT TESTIMONY**

**OF**

**BRENDON J. BAATZ**

**Gabel Associates, Inc.**

**On Behalf Of  
Elizabethtown Gas Company**

**Exhibit P-3**

**July 30, 2021**

ELIZABETHTOWN GAS COMPANY  
DIRECT TESTIMONY OF  
BRENDON J. BAATZ

**I. INTRODUCTION**

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

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

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

**A.** I have been employed with Gabel Associates since March of 2018. Prior to my employment with Gabel Associates, I managed the utility program at the American Council for an Energy Efficient Economy (“ACEEE”). There I focused on various issues related to utility-sector energy efficiency programs, including efficiency program design, state policies, and regulatory issues affecting energy efficiency, including electric and gas rate design. I testified in various proceedings on these issues during that time.

Prior to my employment with ACEEE, I was employed with the Federal Energy Regulatory Commission (“FERC”). During my employment with FERC, my primary responsibilities were the review and analyses of electric utility cost of service studies in wholesale transmission and electric power rate cases. I also worked on other litigated issues while at FERC including but not limited to transmission capacity reservation rights, municipal power contracts, and formula rate structure and protocols. Prior to my employment with FERC, I held positions with the Maryland Public Service Commission as an energy analyst and the Indiana Office of Utility Consumer Counselor (“OUCC”) as a utility analyst. While working at the OUCC, I testified on a variety of utility issues

1 including but not limited to rate design, renewable energy credit compensation, and utility  
2 petitions for construction.

3 I hold a Master of Public Affairs degree from Indiana University Bloomington and  
4 a Bachelor of Science in political science from Arizona State University. I have continued  
5 my education through attendance of various seminars and conferences. I have also  
6 completed formal training in rate design, cost of service, depreciation, and other utility  
7 regulatory matters.

8 **Q. Have you previously testified before the New Jersey Board of Public Utilities (“BPU”**  
9 **or “Board”)?**

10 **A.** Yes. I previously testified in several energy efficiency proceedings before the Board,  
11 including the most recent Elizabethtown Gas Company (“Elizabethtown” or “Company”)  
12 energy efficiency compliance filing in Docket No. GR20070503.

13 **Q. What is the purpose of your direct testimony?**

14 **A.** The purpose of my testimony is to support the Petition filed by Elizabethtown in this  
15 proceeding to revise its Energy Efficiency Program (“EEP”) Rider rate and to provide  
16 information concerning the Energy Efficiency (“EE”) Programs, including a cost-benefit  
17 analysis (“CBA”).

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

19 **A.** Yes. I am presenting the following schedules, which have been prepared under my  
20 direction and supervision and are accurate and complete to the best of my knowledge and  
21 belief. These schedules contain information responsive to the Minimum Filing  
22 Requirements (“MFRs”) as referenced in the MFR Index attached to the Petition as Exhibit  
23 A and as set forth in the stipulations approved by the Board in its August 3, 2009 Order in

BPU Docket Nos. EO09010056 and GO09010060 et al., as well as the Board's January 19, 2011 Order and April 11, 2012 Order in BPU Docket Nos. GO10070446 and GO10100735 et al. and BPU Docket No. GO11070399, respectively. The schedules attached hereto are described below:

- (a) Schedule BJB-1 – EE Program participation summary for the program period July 2020 through June 2021;
- (b) Schedule BJB-2 – Overall Program expenditures for the program period July 2020 through June 2021;
- (c) Schedule BJB-3 – Energy and demand savings by program for the program period July 2020 through June 2021;
- (d) Schedule BJB-4 – Emissions avoided data for the program period July 2020 through June 2021;
- (e) Schedule BJB-5 – Job creation estimates for the period of July 2020 through June 2021;
- (f) Schedule BJB-6 – Summary of cost/benefit analysis results for the program period July 2020 through June 2021; and
- (g) Schedule BJB-7 – List of studies used to develop avoided hedge risk premium.

**II. PARTICIPATION AND BENEFITS**

**Q. Please describe Elizabethtown's EE Program participation levels in the program period from July 2020 through June 2021.**

A. As summarized in Schedule BJB-1, Elizabethtown had over 105,000 participants in the EE Programs between July 2020 through June 2021. This information was sourced from Elizabethtown.

**Q. What direct impact did the EE Programs have on full time employment?**

A. As reflected on Schedule BJB-5, the EE Programs resulted in the creation of 11 direct, indirect, and induced job-years during the program period July 2020 through June 2021.

**Q. How did you estimate the job creation associated with Elizabethtown's EE Programs?**

A. I employed the use of industry standard methods and models to calculate the job creation generated from Elizabethtown's EE Programs. Direct job creation was estimated using the Rutgers University "Analysis for the 2011 Draft New Jersey Energy Master Plan Update."<sup>1</sup> This report specifies 7.91 direct jobs created for every one-million dollars invested in energy efficiency in New Jersey. The Rutgers analysis has been incorporated into previous energy efficiency filings and represents a standard method of determining direct job creation from energy efficiency spending in New Jersey. Indirect and induced jobs are created as a result of those employed by the direct jobs spending a portion of their earnings on other goods and services in New Jersey, creating additional economic value and jobs. This derivative job creation, or "multiplier effect", can have a significant effect on the economy, and if not included, would severely understate the job creation benefits of energy efficiency expenditures. Indirect and induced jobs were estimated by employing the National Renewable Energy Laboratory ("NREL") Jobs and Economic Development Impact ("JEDI") model.<sup>2</sup> JEDI is an input-output economic impact model that has been

<sup>1</sup> Rutgers University Edward J. Bloustein School of Planning and Public Policy, *Analysis for the 2011 Draft New Jersey Energy Master Plan Update*, (Apr. 12, 2011), [nj.gov/emp/docs/pdf/emp\\_creep\\_report20110412.pdf](http://nj.gov/emp/docs/pdf/emp_creep_report20110412.pdf).

<sup>2</sup> NREL, *Jobs & Economic Development Impact Models*, available at [nrel.gov/analysis/jedi/](http://nrel.gov/analysis/jedi/).



accepted by the Board in other matters and uses state and industry specific economic multipliers that estimate the direct, indirect and induced economic impact of energy industry investments. While JEDI does not have a model specifically for energy efficiency investments, the solar photovoltaic model has similar economic characteristics (e.g., both have a large up-front investment for the initial installation followed by very low maintenance costs going forward). Further, both utilize a similar level of skilled trade workers. The model assumed that no New Jersey in-state manufacturing activity would result from the investments; to the extent manufacturing activity is induced, it would result in additional job and multiplier benefits to the State.

**Q. What are the estimated greenhouse gas emission reductions attributable to the EE Programs?**

**A.** The EE Programs are expected to avoid 19,356 metric tons of CO<sub>2</sub>, 5.02 metric tons of SO<sub>2</sub>, and 15.15 metric tons of NO<sub>x</sub>. The avoided air emissions estimate was developed using the reported participation and resulting energy savings.<sup>3</sup> The emissions factors were developed using dispatch simulation results using AURORAxmp. Because AURORAxmp dispatches generation at the individual unit level, the simulation results provide marginal emissions rates for CO<sub>2</sub>, SO<sub>2</sub>, and NO<sub>x</sub>. The results of this analysis are provided in Schedule BJB-4.

**Q. Did you prepare the CBA of Elizabethtown's EE Programs in this filing?**

**A.** Yes. I prepared the CBA which calculates and details the results of the five tests prescribed in the MFRs as required by the Board. This entailed developing a model which analyzed measure-specific details and computed the actual costs and estimated savings of each

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<sup>3</sup> Schedule BJB-3 shows the total energy and demand savings for the program period.

program for use in the Total Resource Cost (“TRC”) test, the Participant Cost test (“PCT”), the Program Administrator Cost (“PAC”) test, the Ratepayer Impact Measure (“RIM”) test, and the Societal Cost test (“SCT”). This testimony presents the methodology and results of the five CBA tests required by the Board’s MFRs for the Company energy efficiency program results for the period of July 1, 2020 through June 30, 2021. These results allow the BPU to evaluate the performance of the program offerings during this time period.

### III. COST-BENEFIT ANALYSIS OVERVIEW

#### Q. Please describe the five CBA tests required by the Board’s MFRs.

A. On October 20, 2017, the Board approved Docket No. QO17091004 memorializing a new set of MFRs to supersede those put in place in May of 2008. The updated MFRs section V.b. states:

The utility shall calculate a cost/benefit analysis using the Participant Cost Test, Program Administrator Cost Test, Ratepayer Impact Measure Test, Total Resource Cost Test, and Societal Cost Test that assesses all program costs and benefits from a societal perspective i.e., that includes the combined financial costs and benefits realized by the utility and the customer. The utility may also provide any cost benefit analysis that it believes appropriate with supporting rationales and documentation.

Each test listed above is designed to provide a different perspective on the cost-effectiveness of the proposed programs. According to the California Standard Practice Manual,<sup>4</sup> the five tests can be understood to illustrate the following:

- Societal Cost Test – The SCT measures the net costs of a program as a resource option based on the total costs of the program, including both the participants' and the utility's costs. The SCT differs from the TRC test in that it includes the effects

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<sup>4</sup> *California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects* (Oct. 2001), available at [cpuc.ca.gov/uploadedFiles/CPUC\\_Public\\_Website/Content/Utilities\\_and\\_Industries/Energy\\_-\\_Electricity\\_and\\_Natural\\_Gas/CPUC\\_STANDARD\\_PRACTICE\\_MANUAL.pdf](http://cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/CPUC_STANDARD_PRACTICE_MANUAL.pdf).

of societal impacts such as environmental impacts to the economy, excludes tax credit benefits, and uses a different (societal) discount rate.

- Total Resource Cost Test – The TRC Test measures the net costs of a program as a resource option based on the total costs, including both the participant and the utility costs of the program.
- Participant Cost Test – The PCT is the measure of the quantifiable benefits and costs from the perspective of program participants. Since many customers do not base their decision to participate in a program entirely on quantifiable variables, this test is not a complete measure of the benefits and costs of a program to a customer.
- Program Administrator Cost Test – The PAC Test measures the net costs of a program as a resource option based on the costs incurred by the program administrator or utility (including incentive costs) and excluding any net costs incurred by the participant. The benefits are similar to the TRC Test benefits. Costs are defined more narrowly. This test measures the net economic impact of investing in energy efficiency programs from the perspective of the utility.
- Ratepayer Impact Measure Test – The RIM Test measures what happens to customer rates due to changes in utility revenues and operating costs caused by the program. Rates or bills will go down if the change in revenues from the program is greater than the change in utility costs. Conversely, rates or bills will go up if revenues collected after program implementation are less than the total costs incurred by the utility in implementing the program. This test indicates the direction and magnitude of the expected change in customer bills or rate levels. In

1 essence, this test reviews the benefits of energy efficiency programs against the cost  
2 to all ratepayers, not just participants.

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

5 **Q. Do you prefer a specific test to evaluate the cost-effectiveness of the proposed**  
6 **program?**

7 **A.** Yes. I believe the SCT is the best test to evaluate energy efficiency programs because it  
8 provides the most complete picture of the costs and benefits of the EE Programs. In fact,  
9 the renewable and energy efficiency legislation (P.L. 2018, c. 17) which was signed into  
10 law by Governor Murphy on May 23, 2018 requires utilities to file EE Programs with  
11 CBAs that consider “both economic and environmental factors.”

12 The other tests, while useful for other information, are incomplete in comparison  
13 with the SCT. The SCT is the only test that recognizes carbon reduction and other  
14 environmental benefits, and therefore is the only means to consider the potential cost of  
15 climate change and the positive impact on the environment of proposed programs, and their  
16 alignment with the State’s environmental and energy policy goals.

17 A thorough accounting of all benefits related to the EE Programs, inclusive of  
18 environmental benefits and other important society-wide impacts such as emission  
19 reductions, economic and employment benefits, and reduced health costs, among other  
20 benefits, can only be accomplished through use of the SCT as a critical test evaluating cost-  
21 effectiveness.

22 **Q. Did you evaluate all the programs using the five CBA tests required in the MFRs?**

1 A. Yes, I provided results for all five tests for the period of July 1, 2020 through June 30, 2021,  
2 as summarized on Schedule BJB-6.

3 Q. Please summarize your conclusions.

4 A. Based on a careful calculation of costs and benefits (as detailed in this testimony), I derived  
5 the benefit-cost ratio of the each of the five tests for each of the sectors included in the  
6 filing. Accordingly, Elizabethtown's 2020-2021 Energy Efficiency portfolio level SCT  
7 ratio is 2.59. Over the life of the energy efficiency measures, the programs will yield total  
8 societal benefits (present value) of \$3,206,118 as compared to total societal costs of  
9 \$1,237,950, resulting in net benefits of \$1,968,168. A summary of the results for all tests  
10 is provided in Schedule BJB-6.

11 I also determined that Elizabethtown's programs would result in approximately 11  
12 direct, indirect and induced job-years created over the course of the measure lives of the  
13 programs. More detail on job creation is provided above as well as in Schedule BJB-5.

14 Q. What do you conclude from these results?

15 A. The results of the five tests show the portfolio is cost-effective under the TRC Test and  
16 SCT and provide significant benefits.

17 IV. COST-BENEFIT ANALYSIS ASSUMPTIONS

18 Q. What types of CBAs did you prepare?

19 A. I prepared analysis for each of the five CBA tests required by the Board's MFRs.

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

21 A. Consistent with previous EE filings at the Board, I utilized the methods in the California  
22 Standard Practice Manual, which has been used throughout the country for over 30 years

as a basis for the calculation of cost-effectiveness tests through the five prescribed CBA tests discussed above.

Within the CBA tests, there are a wide range of costs and benefits used to characterize program integrity, some of which are applicable in conducting certain tests but not others. Table 1 shows a list of specific costs and benefits and the tests they apply to:

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

	SCT	TRC	PCT	PAC	RIM
<b>Program Benefits</b>					
Lifetime Avoided Wholesale Electric Energy Costs	x	x		x	x
Lifetime Avoided Wholesale Electric Capacity Costs	x	x		x	x
Lifetime Avoided Wholesale Natural Gas Costs	x	x		x	x
Lifetime DRIPE Benefits (E&G)	x	x		x	x
Lifetime Avoided RPS REC Purchase Costs	x	x		x	x
Lifetime Avoided Wholesale Volatility Costs (E&G)	x	x		x	x
Lifetime Avoided T&D Costs (E&G)	x	x		x	x
Lifetime Avoided Retail Electric Costs			x		
Lifetime Avoided Retail Natural Gas Costs			x		
Lifetime Program Investment Costs			x		
Lifetime Avoided Distribution Costs (utility lost revenue)					x
Lifetime Avoided Emissions Costs	x				
Lifetime Job and Savings Multiplier Benefits	x				
<b>Program Costs</b>					
Lifetime Incremental Costs	x	x			
Lifetime Participant Costs			x		
Lifetime Administration Costs	x	x		x	x
Lifetime Program Investment Costs				x	x
Lifetime Reallocated Distribution Costs (utility lost revenue)					x

**Q. Please describe the Program Benefits listed in Table 1.**

**A.** To conduct the CBA, I reviewed and analyzed thirteen (13) types of benefits which were incorporated across the five prescribed cost benefit tests. These benefits are:

1        Lifetime Avoided Wholesale Natural Gas Costs

2                The lifetime avoided wholesale natural gas costs category captures wholesale  
3        natural gas market purchases that would be avoided as a result of reduction in energy usage  
4        associated with the programs.

5                The value of avoided costs is computed based upon the market cost of natural gas  
6        delivered to Transcontinental Pipeline (Transco) Z6 Non-NY North delivery point.  
7        Historical actual prices were utilized where applicable. Underlying supply prices for future  
8        periods were escalated based upon Energy Information Administration (“EIA”) Annual  
9        Energy Outlook Henry Hub reference case. The underlying Henry Hub supply forecast was  
10       combined with the Transco Z6 Non-NY North basis to determine the avoided cost  
11       projection. All values were adjusted to account for average losses and sales and use tax.

12       Lifetime Avoided Wholesale Electric Energy Costs

13               The lifetime avoided wholesale electric energy costs category captures wholesale  
14       electric market purchases that would be avoided as a result of reductions in energy usage  
15       associated with the programs.

16               The value of avoided costs is estimated using PJM Western Hub (“PJM”) forward  
17       prices, adjusted for congestion to reconcile for topographical Locational Marginal Pricing  
18       (“LMP”) differences between PJM and the Jersey Central Power & Light (“JCP&L”) zone  
19       (the electric delivery territory in which a majority of Elizabethtown customers receive  
20       electric service). Historical actual prices were utilized where applicable. Prices were  
21       forecasted based upon EIA Annual Energy Outlook reference case for the Reliability First  
22       Corporation – East region electricity generation escalations. All values were adjusted to  
23       account for marginal line losses on the JCP&L and PJM systems, and sales and use tax.

1        Lifetime Avoided Wholesale Electric Capacity Costs

2                The lifetime avoided wholesale electric capacity costs category captures the  
3        wholesale reduction in PJM capacity as a result of the reductions in electric demand  
4        associated with the programs.

5                I used actual cleared PJM Eastern Mid-Atlantic Area Council (“EMAAC”)  
6        Locational Deliverability Area (“LDA”) prices where available. Clearing prices were  
7        escalated by three (3) percent thereafter. All values were adjusted to account for marginal  
8        line losses on the JCP&L and PJM systems, PJM’s Forecast Pool Requirement (“FPR”) to  
9        account for avoided reserve requirements, and sales and use tax.

10       Lifetime Demand Reduction Induced Price Effect Benefits (Electric & Gas)

11               The lifetime Demand Reduction Induced Price Effects (“DRIPE”) price  
12        suppression (also known as merit order benefits) is a benefit that captures the reduction in  
13        wholesale electric and natural gas market prices to all customers, not just participants, as a  
14        result of energy efficiency. Wholesale electric and natural gas markets are fundamentally  
15        supply and demand based – therefore, downward movement in the electric or natural gas  
16        demand curve as a result of reduced consumption should result in less expensive generation  
17        resources being dispatched for electricity, and less expensive natural gas delivered. Both  
18        markets “clear” at a lower price, and the associated reductions in market prices flow  
19        through to all customers.

20               Natural gas DRIPE price suppression occurs as a result of reduced demand in the  
21        natural gas markets servicing New Jersey. Highly congested natural gas markets, in  
22        particular those in New Jersey such as those that trade around the Transco Z6 Non-NY  
23        North delivery point, are candidates for DRIPE price suppression effects as a result of



1 energy efficiency. In these highly liquid and traded markets, even a small reduction in the  
2 bid-ask price spread can have significant effects on the cost of natural gas.

### 3 Lifetime Avoided RPS REC Purchase Costs

4 The lifetime avoided RPS REC purchase costs estimates the reduced volume of  
5 RECs that must be purchased by New Jersey's electric retail suppliers as a result of  
6 Elizabethtown's Programs. The New Jersey Renewable Portfolio Standard ("RPS") sets  
7 the total volume requirement of Renewable Energy Certificates ("RECs") that must be  
8 purchased as a percentage of retail load. A reduction in retail load due to energy efficiency  
9 will reduce the total number of RECs required to be purchased.

10 Historical pricing was based upon the New Jersey Clean Energy Program  
11 ("NJCEP") RPS Report Summary 2005-2017.<sup>5</sup> Forecast market prices for New Jersey  
12 Class I RECs, Class II RECs and SRECs were used based upon an internal supply-demand  
13 analysis and compliance costs for the three New Jersey REC markets.

### 14 Lifetime Avoided Wholesale Volatility Costs (Electric & Gas)

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

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<sup>5</sup> NJCEP, *NJ RPS Compliance EY 2017 Final Results*, (Nov. 2, 2017), available at [njcleanenergy.com/files/file/rps/EY17/NJ%20RPS%20Compliance%20EY%202017%20Final%20Results%2011\\_2\\_17.pdf](http://njcleanenergy.com/files/file/rps/EY17/NJ%20RPS%20Compliance%20EY%202017%20Final%20Results%2011_2_17.pdf).

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

4 The risk avoidance benefit of energy efficiency was applied as a price adder to the  
5 cost of electricity and natural gas. The price adder was determined based upon a review of  
6 studies and regulatory decisions. While there is some variation among the studies, a  
7 conservative premium based on these precedents equal to 10% of electric and natural gas  
8 costs was assumed. A list of the studies and regulatory decisions reviewed in association  
9 with this value is provided in Schedule BJB-7.

10 Lifetime Avoided T&D Costs (Electric & Gas)

11 The lifetime avoided T&D cost category estimates the value of reducing the cost of  
12 building new and maintaining existing transmission and distribution infrastructure as a  
13 result of reduced or flattened load.

14 Avoided electric T&D costs were calculated based upon the precedent set in  
15 previous filings, sourced from the “Draft Energy Efficiency Cost-Benefit Analysis  
16 Avoided Cost Assumptions” produced by the Center for Energy, Economic and  
17 Environmental Policy (“CEEP”) of the Edward J. Bloustein School of Planning and Public  
18 Policy at Rutgers University, which has been used previously in a BPU proceeding and  
19 was not contested by any party. This estimate is conservative based on other recent data  
20 presented by the ACEEE, which presented a range of \$0 to \$200 per kW with most values  
21 exceeding \$50/kW.<sup>6</sup>

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<sup>6</sup> See Brendon Baatz, Everyone Benefits: Practices and Recommendations for Utility System Benefits of Energy Efficiency p. 18-19 (June 2015), available at [aceee.org/sites/default/files/publications/researchreports/u1505.pdf](http://aceee.org/sites/default/files/publications/researchreports/u1505.pdf).

1           Avoided natural gas T&D value results from a reduction in natural gas throughput,  
2           which has the potential to avoid incremental investment in transportation and delivery  
3           infrastructure, as well as potentially reduce maintenance and other related costs on a system  
4           experiencing less throughput. While avoided natural gas T&D value was not included in  
5           this analysis, it merits further research and could be included at a later time as it represents  
6           a real benefit to all ratepayers.

7           Lifetime Avoided Retail Electric and Natural Gas Costs

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

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

21          Avoided retail natural gas costs were calculated based on the natural gas charges  
22          and applicable rate classes available in Elizabethtown's Tariff for Gas Service. This  
23          method results in a "price to compare" type analysis, as only portions of the tariff which

1 would be offset as a result of the programs are included in the analysis. By way of example,  
2 customers will not offset any of the monthly fixed Service Charge, so that avoiding that  
3 charge was not included in the retail natural gas savings analysis. Each charge was  
4 escalated, by component, to account for separate escalation rates for distribution and supply  
5 charges. Charges related to natural gas delivery were escalated at 2.0% per year while  
6 natural gas supply charges were escalated in a manner consistent with the wholesale market  
7 escalations explained above.

#### 8 Lifetime Program Investment Costs

9 The lifetime program investment cost category captures the direct rebate incentives  
10 provided to participants of the programs. Depending on perspective, lifetime program  
11 investment costs can either be a benefit to a program (to participants) or a cost to programs  
12 (to the utility and ultimately, ratepayers). This benefit is only realized in the participant  
13 cost test, as that test singles out the experience of a participant in the programs.

#### 14 Lifetime Avoided Emissions Costs

15 The lifetime avoided emissions cost category captures the value of reductions in  
16 CO<sub>2</sub>, NO<sub>x</sub>, and SO<sub>2</sub>. I did not include mercury or other greenhouse gases.

17 The reduction in power plant emissions was forecast using dispatch simulation  
18 results using AURORAxmp. Because AURORAxmp dispatches generation at the  
19 individual unit level, the simulation results provide marginal emissions rates for CO<sub>2</sub>, SO<sub>2</sub>,  
20 and NO<sub>x</sub>. Emissions rates associated with natural gas usage savings were based upon the  
21 United States Environmental Protection Agency's ("EPA") emissions factors for  
22 residential natural gas use.

1           The emissions benefits were calculated using methods accepted by the State and  
2           EPA and other recognized national sources, including the “Social Cost of Carbon for  
3           Regulatory Impact Analysis - Under Executive Order 12866” produced by the Interagency  
4           Working Group on Social Cost of Greenhouse Gases, United States Government, as well  
5           as the Cross-State Air Pollution Rule (“CSAPR”) EPA cost-benefit analysis.

6           Lifetime Job and Savings Multiplier Benefits

7           The lifetime job and savings multiplier benefits were calculated using the JEDI  
8           model, developed by the NREL. This model has been accepted by the BPU and captures  
9           direct, indirect, and induced job multiplier benefits. I also included a multiplier benefit to  
10          capture the value of participant savings in the economy, as a portion of that savings would  
11          be spent and have a multiplied impact that would benefit the State overall. This value  
12          netted out any additional fixed costs reallocated to ratepayers.

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

14   **A.**    I reviewed and analyzed five (5) categories of costs which were incorporated into the five  
15          prescribed cost benefit tests. These costs are:

16          Lifetime Incremental Costs

17          The lifetime incremental cost category captures the incremental cost of  
18          participating in the programs. This cost is calculated based upon the difference between  
19          the efficient measure costs assumed to install energy efficiency technologies and processes  
20          and the base measure cost assumed that a participant would otherwise pay without access  
21          to the proposed program.

### Lifetime Participant Costs

The lifetime participant cost category captures the incremental cost of participating in the programs paid by participants. This category includes both incremental costs paid by participants for the non-subsidized portion of energy efficiency costs, as well as loan repayments for programs offering financing. The total participant costs, net of utility incentives, are shown in the table below.

**Table 2. Lifetime participant incentives and costs**

Program	Lifetime Incentives	Lifetime Participant Costs	Net Participant Costs
Res. HVAC and HW	94,337	225,340	131,003
Res. Home Energy Assessment	6,834	-	(6,834)
Res. Home Energy Report	234,768	-	(234,768)
Res. Home Weatherization	351,172	146,783	(204,389)
Comm. Steam Trap	-	-	-
Total Residential	<b>687,111</b>	<b>372,123</b>	<b>(314,988)</b>
Total Commercial	-	-	-
Total Portfolio	<b>687,111</b>	<b>372,123</b>	<b>(314,988)</b>

### Lifetime Administration Costs

The lifetime administration cost category captures the cost of administering the EE Programs by Elizabethtown. These costs were provided by the Company and are the actual costs associated with the programs for this time period.<sup>7</sup>

### Lifetime Program Investment Costs

The lifetime program investment cost category captures the direct rebate incentives provided to participants of the programs. These costs were provided by the Company and are the actual costs associated with the programs for this time period.

<sup>7</sup> Schedule BJB-2 shows the overall program expenditures.

Lifetime Reallocated Distribution Costs (Utility Revenue Lost)

An associated cost is the lifetime reallocated distribution costs category which captures the value of any distribution costs being avoided by participants that must be collected from the balance of ratepayers. These are not direct program costs and represent the transfer between existing ratepayer subsectors. This cost is sometimes known as lost utility costs or lost revenues.

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

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

**A.** My primary source was Elizabethtown's previous energy efficiency filing, which was approved by the Board on February 27, 2019 in BPU Docket No. GO18070682.

With respect to free rider and free driver (spillover) effects, I assumed a net-to gross ratio of 1.0. This is consistent with the approach taken by TRC in NJCEP planning. In fact, the NJCEP Protocols "report gross savings and generation only. Free riders and free drivers are not addressed in these Protocols. Further research in this area is planned."

While some participants may have made similar investments absent the program (free riders), the programs also drive non-participants to invest in energy efficient products and change behavior (free drivers). I believe 1.0 is a reasonable estimate based on these factors.

In addition, the lack of a formal net-to-gross evaluation in New Jersey makes it difficult to ascertain this impact.

**Q. Were the costs and benefits evaluated on a nominal or present value basis?**

**A.** For the purposes of each of the CBA tests, all costs and benefits were evaluated on a present value basis. The TRC, PCT, PAC, and RIM tests used a discount rate to determine the present value of costs and benefits of 6.1%. This value was determined based upon Elizabethtown's net of tax weighted average cost of capital. The SCT was evaluated using a discount rate of 3.09, equal to the yield of a 30-year U.S. Treasury bond.

**V. COST-BENEFIT ANALYSIS RESULTS**

**Q. What were the results of the CBA for the Elizabethtown EE Programs?**

**A.** Based on my analysis, a majority of programs exceed a SCT ratio of 1.0, with a portfolio wide average result of 2.6. Table 3 summarizes the SCT ratios for each of the programs offered by Elizabethtown.

**Table 3: Elizabethtown 2020-2021 Energy Efficiency SCT Ratios**

<b>Subprogram</b>	<b>SCT</b>
<b>Total Portfolio</b>	<b>2.6</b>
Residential HVAC and HW	1.9
Residential Energy Assessment	3.6
Residential Home Energy Report	2.9
Residential Home Weatherization	3.1
Commercial Steam Trap Survey and Repair	n/a



**Q. How did the Elizabethtown Gas 2020-2021 EE Programs fare in TRC, PCT PAC, and RIM tests?**

**A.** The following table illustrates the CBA ratios for each of the subprograms for the TRC, PCT, PAC, and RIM tests.

**Table 4: Elizabethtown 2020-2021 Energy Efficiency TRC, PCT, PAC, & RIM Ratios**

	TRC	PCT	PAC	RIM
<b>Total Portfolio</b>	<b>0.9</b>	<b>7.9</b>	<b>0.8</b>	0.5
Residential HVAC and HW	1.0	3.9	2.6	0.8
Residential Home Energy Assessment	0.6	n/a	0.3	0.2
Residential Home Energy Report	1.2	n/a	1.2	0.5
Residential Home Weatherization	0.8	6.8	0.6	0.4
Commercial Steam Trap Survey and Repair	n/a	n/a	n/a	n/a

**Q. Can you summarize the results of your analysis?**

**A.** My cost benefit analysis of the Elizabethtown 2020-2021 EE Programs shows the portfolio is cost effective and will provide quantified net benefits to the customers over the lifetime of the energy savings. Total direct benefits to ratepayers (participants and non-participants) total more than \$4.9 million while the associated costs are \$1.7 million, yielding net benefits of \$3.3 million. In addition, participants direct retail bill savings are estimated at \$5 million.

**Q. Based on these results what do you conclude?**

**A.** I conclude that the 2020-2021 EE Programs were cost effective at the portfolio level.

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

**A.** Yes.

**Elizabethtown Gas Company  
Energy Efficiency Program**

**Program Participants (HVAC and HW broken out by measure)**

Measure	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	TOTAL
Furnace	11	19	12	13	8	4	12	-	79	41	65	45	309
Boiler	1	-	-	-	-	1	-	-	2	-	1	1	6
Water Heater	4	5	6	8	5	4	2	-	11	13	14	9	81
Boiler/WH Combo	5	6	4	3	2	-	2	-	5	4	21	9	61
Furnace/WH Combo	-	2	1	-	2	4	1	-	1	1	3	1	16
Weatherization Income Qualified	-	-	1	-	-	4	-	23	19	20	-	51	118
Home Energy Assessment	-	-	-	21	56	27	40	54	68	103	127	106	602
Home Energy Report (Opower)	-	-	-	157,097	156,606	155,832	155,658	155,480	155,302	155,124	154,949	154,949	103,997
Steam Trap Survey/Repair	-	-	-	-	-	-	-	-	-	-	-	-	-

Updated for actuals through June 2021, except for HER, which is an estimate.

\*Home Energy Report program participation is an average of customers over the period.

**Elizabethtown Gas Company  
Energy Efficiency Program**

**Overall Program Expenditures**

<b>O&amp;M Expenditures</b>	<b>Jul-20</b>	<b>Aug-20</b>	<b>Sep-20</b>	<b>Oct-20</b>	<b>Nov-20</b>	<b>Dec-20</b>	<b>Jan-21</b>	<b>Feb-21</b>	<b>Mar-21</b>	<b>Apr-21</b>	<b>May-21</b>	<b>Jun-21</b>	<b>Total</b>
Labor	\$ 6,718	\$ 7,605	\$ 4,387	\$ 7,707	\$ 6,268	\$ 6,253	\$ 6,587	\$ 7,164	\$ 21,971	\$ 15,146	\$ 13,689	\$ 22,657	\$ 126,153
Customer Education, Outreach	\$ -	\$ 2,250	\$ 13,550	\$ 31,175	\$ 352	\$ 4,707	\$ 13,417	\$ 13,599	\$ 24,214	\$ 17,800	\$ 22,925	\$ -	\$ 143,988
Program Evaluation	\$ -		\$ 45,203	\$ -	\$ -	\$ -	\$ 136,000	\$ (170,000)	\$ -	\$ -	\$ -	\$ -	\$ 11,203
Total O&M	\$ 6,718	\$ 9,855	\$ 63,141	\$ 38,882	\$ 6,620	\$ 10,960	\$ 156,004	\$ (149,237)	\$ 46,185	\$ 32,946	\$ 36,614	\$ 22,657	\$ 281,345
<b>Program Expenditures</b>													
Rebates, Grants, Incentives	\$ 10,200	\$ 5,450	\$ 8,350	\$ 5,300	\$ 5,250	\$ 4,000	\$ 3,100	\$ 4,350	\$ -	\$ 23,050	\$ 14,600	\$ 26,300	\$ 109,950
Rebate Processing	\$ 150	\$ 150	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 7,300
Home Energy Assessments	\$ -	\$ -	\$ -	\$ 4,395	\$ 25,372	\$ 20,841	\$ 20,977	\$ 28,014	\$ 34,312	\$ 55,294	\$ 57,542	\$ 49,020	\$ 295,767
HEA Admin Fees	\$ -	\$ -	\$ -	\$ 12,000	\$ 12,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 66,000
Home Weatherization for Income Qualified	\$ -	\$ -	\$ 11,209	\$ -	\$ -	\$ 14,312	\$ -	\$ 102,019	\$ 99,067	\$ 84,063	\$ 217	\$ 220,985	\$ 531,871
HW for IQC Administrative Fees	\$ -	\$ -	\$ 1,121	\$ -	\$ -	\$ 1,431	\$ -	\$ 10,202	\$ 9,907	\$ 8,386	\$ -	\$ 22,098	\$ 53,145
Home Energy Report - Opower	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 502,250	\$ -	\$ 191,750	\$ -	\$ -	\$ 694,000
Steam Trap Survey/Repair	\$ 3,825	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,825
<b>Total Program Expenditures</b>	\$ 14,175	\$ 5,600	\$ 21,380	\$ 22,395	\$ 43,322	\$ 47,284	\$ 30,777	\$ 653,535	\$ 149,986	\$ 369,242	\$ 79,059	\$ 325,103	\$ 1,761,858
<b>Total Overall Program Expenditures</b>	\$ 20,893	\$ 15,455	\$ 84,520	\$ 61,277	\$ 49,942	\$ 58,244	\$ 186,781	\$ 504,298	\$ 196,171	\$ 402,188	\$ 115,674	\$ 347,761	\$ 2,043,203

Updated for actuals through June 2021

**Elizabethtown Gas Company**  
**Energy Efficiency Program**

**First Year Energy and Demand Savings by Program**

Program	Natural Gas Savings (therms)	Electric Savings (kWh)	Electric Demand Savings (kW)	Measure lifetime	Lifetime Therms	Lifetime kWh
Residential HVAC and HW	87,278	0	0	18.4	1,604,119	0
Residential Home Energy Assessment	20,326	52,706	0	2.9	58,572	151,878
Residential Home Energy Report	1,319,604	3,258,897	0	3.0	3,958,813	9,776,691
Residential Home Weatherization	19,920	144,185	53	17.4	346,777	2,510,060
Commercial Steam Trap Survey and Repair	0	0	0	3.0	0	0
Total	1,447,128	3,455,788	53.13		5,968,282	12,438,629

Updated for actuals through June 2021

**Elizabethtown Gas Company**  
**Energy Efficiency Program**

**Air Emissions Avoided From Lifetime Energy Savings**

Program	CO2 Emissions Reduction (tons)	SO2 Emissions Reduction (tons)	NOx Emissions Reduction (tons)
Residential HVAC and HW	7,305	0.00	5.76
Residential Home Energy Assessment	813	0.53	0.63
Residential Home Energy Report	4,858	1.64	3.76
Residential Home Weatherization	6,380	2.85	4.99
Commercial Steam Trap Survey and Repair	0	0.00	0.00
Total	19,356	5.02	15.15

Updated for actuals through June 2021

**Elizabethtown Gas Company  
Energy Efficiency Program**

**Job Creation**

Program	Direct Job Creation	Indirect and Induced Job Creation	Total Jobs Created
Residential HVAC and HW	1	0	1
Residential Home Energy Assessment	2	1	3
Residential Home Energy Report	0	0	0
Residential Home Weatherization	5	2	7
Commercial Steam Trap Survey and Repair	0	0	0
Total	8	3	11

Updated for actuals through June 2021

**Elizabethtown Gas Company**  
**Energy Efficiency Program**

**Cost Benefit Results Summary**

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	1.9	1.0	3.9	2.6	0.8
Residential Home Energy Assessment	3.6	0.6	N/A	0.3	0.2
Residential Home Energy Report	2.9	1.2	N/A	1.2	0.5
Residential Home Weatherization	3.1	0.8	6.8	0.6	0.4
<b>Residential Program</b>	<b>2.7</b>	<b>1.0</b>	<b>7.9</b>	<b>0.9</b>	<b>0.5</b>
Commercial Steam Trap Survey and Repair	N/A	N/A	N/A	N/A	N/A
<b>Commercial &amp; Industrial Program</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Total Portfolio	2.60	0.9	7.9	0.8	0.5

Updated for actuals through June 2021

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