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July 31, 2020

Electronic Filing

Aida Camacho-Welch, Secretary
NJ Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Ste 314
P. O. 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".

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 31, 2020

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

-----X		
In the Matter of the Petition of Elizabethtown	:	Docket No.
Gas Company to Revise Its Energy Efficiency	:	
Program Rider Rate	:	SUMMARY SHEET
-----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 implement an EEP Rider rate of \$0.0067 per therm inclusive of taxes effective October 1, 2020. If approved by the Board, the proposed filing would decrease the monthly bill of a residential heating customer using 100 therms by \$0.06 or 0.1%.

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

-----X		
In the Matter of the Petition of Elizabethtown	:	Docket No.
Gas Company to Revise Its Energy Efficiency	:	
Program Rider Rate	:	PETITION
-----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”), 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 298,000 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 February 19, 2020 Board Order (“February 19 Order”) in BPU Docket No. GO18070682, 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, 2019 through June 30, 2020 (“2020 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, 2020 through June 30, 2021 (“2021 Recovery Period”).

5. Pursuant to an Order dated March 9, 2020 (“March 9 Order”) issued in BPU Docket No. GR19070872, the EEP Rider rate was increased from \$0.0051 per therm to \$0.0073 per therm, inclusive of taxes, effective April 1, 2020.

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 is authorized to offer its currently effective EE Programs through December 31, 2021.

9. Petitioner seeks to reconcile EE Program costs and cost recoveries for the 2020 Recovery Period and to recover the forecast EE Program-related revenue requirements for the 2021 Recovery Period. Information for the 2020 Recovery Period includes actual data through June 30, 2020. Information for the 2021 Recovery Period reflects forecast data.

10. Petitioner seeks to decrease its current EEP Rider rate of \$0.0073 per therm to \$0.0067 per therm, inclusive of taxes, effective October 1, 2020 to recover a balance of \$2,967,091. 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.

11. The proposed EEP Rider rate was calculated by taking the prior year true-up plus current year activity, totaling \$756,519, plus projected recoverable amounts for the 2021 Recovery Year of \$2,210,572 and dividing the total amount of \$2,967,091 by the projected volumes for the 2021 Recovery Year for the service classifications and customers subject to the EEP. The resulting quotient is adjusted for applicable taxes, resulting in an EEP Rider rate of \$0.0067 per therm.

12. 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

13. 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 \$0.06, from \$106.14 to \$106.08, or a decrease of 0.1% as compared to the currently effective rates.

Miscellaneous

14. 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 BPU’s March 19, 2020 and May 20, 2020 Orders issued in BPU Docket No. EO20030254, hard copies cannot be provided at this time, but can be provided at a later time, as needed.

15. 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 EEP Rider rate to become effective October 1, 2020, (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,



Deborah M. Franco, Esq.
Vice President, Clean Energy and Sustainability
SJI

Date: July 31, 2020

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

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Verification


I, Stefany M. Graham, of full age, being duly sworn according to law, upon my oath, depose and say:

1. I am Director, Rates & Regulatory Affairs 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.


Stefany M. Graham,
Director, Rates & Regulatory Affairs

Sworn to and subscribed to before me this 31st day of July, 2020.


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**

Minimum Filing Requirements	Schedule
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, page 21
15. Participant costs (net of utility incentives), including a breakdown by sub-program	Exhibit P-3 - Baatz testimony, pages 19-20
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 31, 2020

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

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

- 1 (a) Tariff Schedule TK-1 consists of revised tariff sheets in redlined and
2 clean form;
- 3 (b) EEP Schedule TK-1 sets forth the calculation of the proposed EEP
4 Rider rate to be effective October 1, 2020;
- 5 (c) EEP Schedule TK-1a sets forth the calculation of the Projected EEP
6 Rider rates based on current cost and recovery projections, as well
7 as bill impacts for certain tariff classes through 2025 to a near zero
8 balance;
- 9 (d) EEP Schedule TK-2 sets forth the calculation of carrying costs;
- 10 (e) EEP Schedule TK-3 sets forth the calculation of monthly EEP
11 revenue requirements;
- 12 (f) EEP Schedule TK-4 sets forth EEP O&M and Program
13 Expenditures;
- 14 (g) EEP Schedule TK-5 sets forth cost recoveries;
- 15 (h) EEP Schedule TK-6 sets forth the interest rate applicable to the
16 calculation of carrying costs on EEP Schedule TK-2 for the twelve
17 months ending June 30, 2020; and
- 18 (i) EEP Schedule TK-7 sets forth cost and recovery information for
19 each approved program and extension.

20 **II. CURRENT FILING**

21 **Q. PLEASE EXPLAIN THE PROPOSED CHANGE IN THE EEP RATE.**

22 **A.** By this filing the Company is proposing to decrease its currently effective rate of
23 \$0.0073 per therm, as approved in BPU Docket No. GR19070872, to \$0.0067 per
24 therm.

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

3 **A.** The Company is proposing that the proposed EEP Rider rate take effect on October 1,
4 2020. The calculation of the proposed rate is based on actual data from July 1, 2019
5 through June 30, 2020 (“2020 Recovery Year”), and a projected year from July 1, 2020
6 through June 30, 2021 (“2021 Recovery Year”).

7 **Q. WHAT IS THE BASIS FOR THE COMPANY’S PROPOSED REVISIONS TO**
8 **ITS EEP RATE?**

9 **A.** The Company’s filing is being made in compliance with the February 19, 2020 Board
10 Order (“February 19 Order”) in BPU Docket No. GO18070682, which authorized
11 Elizabethtown to continue implementation of the EEP Rider rate. The EEP Rider rate
12 enables Elizabethtown to recover through a surcharge the costs associated with certain
13 Energy Efficiency Programs (“EE Programs”). This annual filing reconciles the costs
14 and cost recoveries for the 2020 Recovery Year ending June 30, 2020 and establishes
15 a rate sufficient to recover those costs as well as the projected EE Program rate revenue
16 requirements for the 2021 Recovery Year.

17 **III. COST RECOVERY MECHANISM**

18 **Q. PLEASE DESCRIBE THE EEP RIDER AND WHAT IT IS DESIGNED TO**
19 **RECOVER.**

20 **A.** The February 19 Order authorized the continuation of a surcharge by which
21 Elizabethtown recovers the costs associated with its EE Programs. Details concerning
22 actual expenditures and projected spending, as well as other information associated
23 with the EE Programs, are provided in Mr. Vetri’s and Mr. Baatz’s testimonies and
24 supporting schedules.

1 **Q. PLEASE EXPLAIN HOW THE PROPOSED EEP RATE WAS CALCULATED.**

2 **A.** The proposed EEP rate was calculated by taking the sum of (i) the prior period balance,
3 if any, (ii) current year O&M costs, (iii) current year revenue requirements, (iv) current
4 year recoveries and (v) applicable carrying costs for the 2020 Recovery Year, plus (vi)
5 projected recoverable amounts for the 2021 Recovery Year and dividing the total
6 amount by the volumes projected for the 2021 Recovery Year for the service
7 classifications and customers subject to the EEP Rider as shown on Tariff Schedule
8 TK-1. The resulting quotient is adjusted for applicable taxes to arrive at an EEP charge
9 of \$0.0067 per therm inclusive of taxes.

10 **Q. WHAT IS THE METHODOLOGY USED TO PROJECT FIRM SALES AND**
11 **SERVICES FOR THE RECOVERY YEAR IN ORDER TO DERIVE THE**
12 **COMPANY'S PROPOSED EEP RATE?**

13 **A.** The methodology used to derive the Projected Normalized Sales and Services on EEP
14 Schedule TK-1 is the same as that used in developing the demand forecast that
15 supported Elizabethtown's Basic Gas Supply Service rate filing dated June 1, 2020.
16 As I mention above, the EEP rate is applicable to all customers except those served
17 under special contracts as filed and approved by the Board and those customers exempt
18 pursuant to the LCAPP legislation.

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

22 **A.** Projected O&M amounts are recoverable in the year incurred. EE Program
23 Expenditures are recoverable over a four (4) year period, as noted on EEP Schedule
24 TK-4. The calculation of the allowable monthly revenue requirement for the amortized

EXHIBIT P-1

1 EE Program expenditures is set forth on EEP Schedule TK-3. The allowable monthly
 2 recoverable amount is developed by taking EE Program expenditures less accumulated
 3 amortization and accumulated deferred income tax credits to derive a month end rate
 4 base. The average of the beginning and end of month balances is multiplied by an after
 5 tax weighted average cost of capital (“WACC”), grossed up for a revenue factor and
 6 divided by twelve (12) to derive a monthly return on investment. This amount, plus
 7 the monthly amortization, results in the allowable monthly revenue. See below for a
 8 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

9

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

11 **A.** The amortization expenses were calculated by dividing each month’s amortizable
 12 expenditure by forty-eight (48) months and accumulating the amounts to the total
 13 monthly amortization expenses.

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

15 **A.** The deferred income taxes were calculated by multiplying the temporary difference in
 16 the Company’s tax and book amortization expense by the effective income tax rate.
 17 The current income tax rate is 28.11% based on a 21% Federal income tax rate and a
 18 9% State corporate business tax rate, effective January 1, 2018.

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

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

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

7 **A.** Carrying cost rates are applied to each year's net prior year balance and current year
8 revenue requirements and recoveries. The interest rate is based on the Company's
9 monthly short-term debt rate on an after-tax basis and is applied monthly to the average
10 monthly EEP balance as shown on EEP Schedule TK-2. Interest on monthly balances
11 is not compounded.

12 **Q. WHAT ARE THE RECOVERIES FOR THE 2020 RECOVERY YEAR?**

13 **A.** EEP Schedule TK-5 presents the recoveries totaling \$2,271,650 for the 2020 Recovery
14 Year ending June 30, 2020.

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

17 **A.** Please see EEP Schedule TK-4 for the current 2020 Recovery Year expenditures and
18 the projected 2021 Recovery Year expenditures reflected in this filing. A breakdown
19 of these expenditures can also be found on EEP Schedules FV-1 and FV-2 sponsored
20 by Mr. Vetri.

21 **Q. WHAT MAKES UP THE RECOVERABLE COSTS IN THE PROPOSED EEP
22 RATE?**

23 **A.** For the 2021 Recovery Year, the EEP rate is designed to recover \$2,967,091 as set
24 forth on EEP Schedule TK-1, line 8. As shown on that schedule, the amount is made

1 up of the prior period balance, (ii) the current year amounts and (iii) the projected
2 recoverable amounts.

3 **Q. HAS THE COMPANY PROVIDED A SCHEDULE WITH SEPARATE COST**
4 **AND RECOVERY INFORMATION FOR EACH APPROVED PROGRAM**
5 **AND EXTENSION AS REQUIRED BY THE STIPULATION APPROVED IN**
6 **THE BOARD ORDER SIGNED DECEMBER 16, 2015 IN DOCKET NO.**
7 **GO15050504?**

8 **A.** Yes. Please see EEP Schedule TK-7 for recoverable costs by program for the period
9 July 2019 through June 2021.

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

12 **A.** The impact of the proposed adjustment to the EEP rate for a residential heating
13 customer using 100 therms is a decrease to the customer's monthly bill of \$0.06 from
14 \$106.14 to \$106.08, or a decrease of 0.1%, as compared to the Company's current rates.

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

16 **A.** Yes, it does.

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

~~4~~¹st 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 Societal Benefits Charge ("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:

~~\$0.0073~~0.0067 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 December 31, 2021 and described below.

The EEP enables the Company to recover all costs associated with the following energy efficiency programs approved by the Board order dated February 19, 2020 in BPU Docket No. GO18070682:

1. Residential gas HVAC and hot water heater incentive programs;
2. Residential home energy assessment program;
3. Residential home weatherization for income qualified customers program;
4. Commercial steam trap survey and repair program; and
5. Enhanced customer education and outreach initiatives designed to encourage customers to conserve energy and lower their gas bills.

Date of Issue: ~~March 16, 2020~~

Effective: Service Rendered
on and after ~~April 1, 2020~~

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

Filed Pursuant to Order of the Board of Public Utilities
Dated ~~March 9, 2020~~ in Docket No. ~~GR19070872~~

CLEAN

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 Societal Benefits Charge ("SBC") Rider "D."

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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, 2021
October 1, 2020 RECOVERY YEAR - 2021

1	Prior Year Balance - (Sch. TK-2)	June 30, 2019		\$1,401,507
	<u>Actual Amounts Through:</u>	June 30, 2020		
2	Current Year O&M Costs (Sch. TK-2)			\$199,035
3	Current Year Revenue Requirements (Sch. TK-2)			\$1,410,730
4	Current Year Recovery Credits (Sch. TK-2)			(\$2,271,650)
5	Current Year Carrying Costs (Sch. TK-2)			<u>\$16,897</u>
6	Current Year TK-2 Ending Balance (Sum L1-L5)			\$756,519
7	<u>Projected Recoverables :</u>	June 30, 2021		
	- Revenue Requirements (Sch. TK-3)		\$1,812,448	
	- O&M Costs (Sch. TK-4)		<u>\$398,124</u>	<u>\$2,210,572</u>
8	Total Proposed Recoveries (L6+L7)			\$2,967,091
9	<u>12 Month Projected Normalized Sales and Services:</u>			
	- Residential and GLS		225,193,000	
	- Commercial		146,549,524	
	- Industrial		96,643,784	
	- NGV		161,250	
	- Cogeneration		0	468,547,558 therms
10	EEP Rate, before taxes (L8/L9)			\$0.0063 /therm
11	Sales & Use Tax @	6.625%		<u>\$0.0004</u>
12	EEP Rate (L10+L11)			<u><u>\$0.0067</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, 2020 June-20	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
1 Prior Year (Over)/ Under Balance (Sch. TK-2)	\$756,519	(\$7,909)	(\$118,375)	(\$83,543)	(\$29,327)	(\$37,347)
2 Monthly Revenue Requirement (Sch. TK-2)	\$1,812,448	\$1,866,026	\$1,315,628	\$806,211	\$313,147	(\$14,100)
3 O&M Expenditures (Sch. TK-2)	\$398,124	\$0	\$0	\$0	\$0	\$0
4 Total Proposed Recoveries (Sum L1+L2+L3)	<u>\$2,967,091</u>	<u>\$1,858,117</u>	<u>\$1,197,253</u>	<u>\$722,668</u>	<u>\$283,820</u>	<u>(\$51,447)</u>
5 Projected Firm Sales (1) (Sch. TK-5) Therms	468,547,558	468,547,558	468,547,558	468,547,558	468,547,558	468,547,558
6 Rate, before taxes (L4/L5)	\$0.0063	\$0.0040	\$0.0026	\$0.0015	\$0.0006	(\$0.0001)
7 Sales & Use Tax @ 6.625%	<u>\$0.0004</u>	<u>\$0.0003</u>	<u>\$0.0002</u>	<u>\$0.0001</u>	<u>\$0.0000</u>	<u>\$0.0000</u>
8 Rate (L6+L7) per Therm	<u>\$0.0067</u>	<u>\$0.0043</u>	<u>\$0.0028</u>	<u>\$0.0016</u>	<u>\$0.0006</u>	<u>(\$0.0001)</u>

(1) All therms excluding NJBPU approved special contracts.

<u>Average Billing Changes:</u>							
Determinates	Rates	October 1, 2020	October 1, 2021	October 1, 2022	October 1, 2023	October 1, 2024	October 1, 2025
	7/1/20	Prj. Billed Amt	Prj. Billed Amt	Prj. Billed Amt	Prj. Billed Amt	Prj. Billed Amt	Prj. Billed Amt
	Effective EEP Rate >	\$0.0073					
<u>Residential Sales Service</u>							
12	Service Charge	\$10.00					
1,000	Volumetric Charge	\$0.9614					
	Bill	\$1,081.40	\$1,080.80	\$1,078.40	\$1,076.90	\$1,075.70	\$1,074.00
	Annual Bill Change		(\$0.60)	(\$2.40)	(\$1.50)	(\$1.20)	(\$1.00)
	Percent Change		(0.1%)	(0.2%)	(0.1%)	(0.1%)	(0.1%)
	Bill Change from Base		(\$0.60)	(\$3.00)	(\$4.50)	(\$5.70)	(\$6.70)
	Cumulative Billed						(\$27.90)
<u>Small General Service</u>							
12	Service Charge	\$27.01					
1,200	Volumetric Charge	\$0.9039					
	Bill	\$1,408.80	\$1,408.08	\$1,405.20	\$1,403.40	\$1,401.96	\$1,400.76
	Annual Bill Change		(\$0.72)	(\$2.88)	(\$1.80)	(\$1.44)	(\$1.20)
	Percent Change		(0.1%)	(0.2%)	(0.1%)	(0.1%)	(0.1%)
	Bill Change from Base		(\$0.72)	(\$3.60)	(\$5.40)	(\$6.84)	(\$8.04)
	Cumulative Billed						(\$33.48)
<u>General Delivery Service</u>							
12	Service Charge	\$37.50					
2,400	Demand Charge	\$0.960					
18,000	Volumetric Charge	\$0.6704					
	Bill	\$14,821.20	\$14,810.40	\$14,767.20	\$14,740.20	\$14,718.60	\$14,700.60
	Annual Bill Change		(\$10.80)	(\$43.20)	(\$27.00)	(\$21.60)	(\$18.00)
	Percent Change		(0.1%)	(0.3%)	(0.2%)	(0.1%)	(0.1%)
	Bill Change from Base		(\$10.80)	(\$54.00)	(\$81.00)	(\$102.60)	(\$120.60)
	Cumulative Billed						(\$502.20)

ELIZABETHTOWN GAS COMPANY
ENERGY EFFICIENCY PROGRAM ("EEP")

Carrying Costs

a	Beginning Balance b	Revenue Requirement TK-3 c	O&M TK-4 d	Recoveries TK-5 e	Ending Balance f=b+c+d-e	Average Balance g=(b+f)/2	Interest Rate TK-6 h	Carrying Cost i=g*h/12	Ending Balance plus Cum. (O)/U Carrying Cost j=f+ cum of i
Jun-10		\$153,488	\$522,139	\$2,991,884	(\$2,316,257)	(\$2,271,904)		(\$4,351)	(\$2,320,608)
Jun-11		\$470,672	\$1,314,822	\$2,061,741	(\$2,596,855)	(\$2,712,974)		(\$7,577)	(\$2,604,432)
Jun-12		\$1,016,105	\$1,610,350	\$4,416	\$17,607	(\$49,611)		(\$2,436)	\$15,171
Jun-13		\$1,326,760	\$348,053	\$817	\$1,689,167	\$1,620,408		\$2,233	\$1,691,400
Jun-14		\$1,259,659	\$462,362	\$1,120,717	\$2,292,704	\$2,262,365		\$4,375	\$2,297,079
Jun-15		\$1,043,900	\$447,774	\$3,449,216	\$339,537	\$368,708		\$3,845	\$343,382
Jun-16		\$660,990	\$206,306	\$2,147,607	(\$936,929)	(\$917,797)		(\$904)	(\$937,833)
Jun-17		\$437,843	\$177,035	(\$12,305)	(\$310,650)	(\$339,156)		(\$4,114)	(\$314,764)
Jun-18		\$591,632	\$365,264	(\$311,656)	\$953,788	\$903,999		\$3,725	\$957,513
Jun-19		\$1,016,564	\$282,295	\$878,103	\$1,378,269	\$1,367,612		\$23,238	\$1,401,507
Jun-20		\$1,410,730	\$199,035	\$2,271,650	\$739,622	\$732,621		\$16,897	\$756,519
Jun-21	*	\$1,812,448	\$398,124	\$2,978,674	(\$11,583)	(\$69,164)		\$3,674	(\$7,909)
Jun-22	*	\$1,866,026	\$0	\$1,977,014	(\$118,897)	(\$154,790)		\$522	(\$118,375)
Jun-23	*	\$1,315,628	\$0	\$1,280,816	(\$83,563)	(\$106,895)		\$20	(\$83,543)
Jun-24	*	\$806,211	\$0	\$752,003	(\$29,335)	(\$46,017)		\$8	(\$29,327)
Jun-25	*	\$313,147	\$0	\$321,365	(\$37,553)	(\$32,388)		\$198	(\$37,347)
Jun-26	*	(\$14,100)	\$0	(\$15,556)	(\$36,097)	(\$36,273)		(\$382)	(\$36,273)
Total		\$15,487,703	\$6,333,559	\$21,896,506				\$38,971	

* Projected

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	YTD ending June
a	TK-4 b	c	d	e	f	g	h	i=C-g-h	j	k	l	m=(j) *k/12	n=m+1	June
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	
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	
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	\$22,403	
Aug-10	\$38,300	\$909,500	\$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	\$1,011,854	\$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	\$1,127,330	\$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	\$94,100	\$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	
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	\$866,564	\$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	
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	\$16,821	\$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	\$94,603	\$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	
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	
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	\$5,156,175	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	\$676,943	\$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	
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	\$98,980	
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											

ELIZABETHTOWN GAS COMPANY
ENERGY EFFICIENCY PROGRAM ("EEP")

Monthly Recoverable Investment
Program Expenditures - Amortized Over Four Years

a	Amortizable Expenditures TK-4 b	Cumulative Expenditures c	Average Expenditures d	Amort. Months e	Monthly Amortization f	Accum. Amort. g	Accum. Deferred Income Tax h	Earnings / Rate Base i=c-g-h	Average Rate Base j	Wtd. Avg. Cost of Capital After-tax k	Revenue Factor l	Monthly Return on Rate Base m=(j) *k/l/12	Monthly Revenue Requirement n=m*H	YTD ending June
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	\$35,862	
May-17	\$12,094	\$6,285,673	\$6,279,626	48	\$30,099	\$5,616,398	\$274,962	\$399,638	\$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	\$29,009	\$5,674,982	\$259,771	\$372,171	\$377,430	5.772%	1.71370692	\$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	6.063%	1.40828098	\$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	\$14,361	\$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	\$13,864	\$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	6.165%	1.406762	\$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	6.165%	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	6.165%	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	6.165%	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	6.165%	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	\$1,852,837	\$2,047,156	6.165%	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	6.165%	1.406762	\$15,145	\$122,799	\$1,410,730
Jul-20	\$162,068	\$11,371,281	\$11,290,247	48	\$109,907	\$8,393,839	\$990,823	\$1,986,619	\$1,967,870	6.165%	1.406762	\$15,033	\$124,940	
Aug-20	\$162,068	\$11,533,349	\$11,452,315	48	\$113,243	\$8,507,082	\$1,004,548	\$2,021,719	\$2,004,169	6.165%	1.406762	\$15,310	\$128,553	
Sep-20	\$342,092	\$11,875,441	\$11,704,395	48	\$119,710	\$8,626,792	\$1,067,060	\$2,181,589	\$2,101,654	6.165%	1.406762	\$16,055	\$135,765	
Oct-20	\$162,068	\$12,037,509	\$11,956,475	48	\$122,728	\$8,749,520	\$1,078,118	\$2,209,871	\$2,195,730	6.165%	1.406762	\$16,774	\$139,502	
Nov-20	\$162,068	\$12,199,577	\$12,118,543	48	\$125,697	\$8,875,217	\$1,088,342	\$2,236,018	\$2,222,945	6.165%	1.406762	\$16,982	\$142,679	
Dec-20	\$342,092	\$12,541,669	\$12,370,623	48	\$132,410	\$9,007,627	\$1,147,283	\$2,386,759	\$2,311,389	6.165%	1.406762	\$17,657	\$150,067	
Jan-21	\$162,068	\$12,703,737	\$12,622,703	48	\$135,369	\$9,142,996	\$1,154,788	\$2,405,953	\$2,396,356	6.165%	1.406762	\$18,306	\$153,675	
Feb-21	\$162,068	\$12,865,805	\$12,784,771	48	\$138,719	\$9,281,715	\$1,161,352	\$2,422,738	\$2,414,346	6.165%	1.406762	\$18,444	\$157,163	
Mar-21	\$342,092	\$13,207,897	\$13,036,851	48	\$144,788	\$9,426,503	\$1,216,814	\$2,564,580	\$2,493,659	6.165%	1.406762	\$19,050	\$163,838	
Apr-21	\$162,068	\$13,369,965	\$13,288,931	48	\$147,841	\$9,574,344	\$1,220,813	\$2,574,808	\$2,569,694	6.165%	1.406762	\$19,631	\$167,472	
May-21	\$162,068	\$13,532,033	\$13,450,999	48	\$150,966	\$9,725,310	\$1,223,934	\$2,582,789	\$2,578,799	6.165%	1.406762	\$19,700	\$170,666	
Jun-21	\$342,092	\$13,874,125	\$13,703,079	48	\$157,891	\$9,883,201	\$1,275,713	\$2,715,211	\$2,649,000	6.165%	1.406762	\$20,237	\$178,128	\$1,812,448
Jul-21	\$0	\$13,874,125	\$13,874,125	48	\$157,647	\$10,040,848	\$1,231,398	\$2,601,879	\$2,658,545	6.165%	1.406762	\$20,309	\$177,956	
Aug-21	\$0	\$13,874,125	\$13,874,125	48	\$157,433	\$10,198,281	\$1,187,144	\$2,488,700	\$2,545,290	6.165%	1.406762	\$19,444	\$176,877	
Sep-21	\$0	\$13,874,125	\$13,874,125	48	\$151,165	\$10,349,446	\$1,144,651	\$2,380,028	\$2,434,364	6.165%	1.406762	\$18,597	\$169,762	
Oct-21	\$0	\$13,874,125	\$13,874,125	48	\$149,452	\$10,498,898	\$1,102,640	\$2,272,587	\$2,326,308	6.165%	1.406762	\$17,771	\$167,223	
Nov-21	\$0	\$13,874,125	\$13,874,125	48	\$144,464	\$10,643,362	\$1,062,032	\$2,168,731	\$2,220,659	6.165%	1.406762	\$16,964	\$161,428	
Dec-21	\$0	\$13,874,125	\$13,874,125	48	\$142,161	\$10,785,523	\$1,022,070	\$2,066,532	\$2,117,632	6.165%	1.406762	\$16,177	\$158,338	
Jan-22	\$0	\$13,874,125	\$13,874,125	48	\$138,389	\$10,923,912	\$983,169	\$1,967,044	\$2,016,788	6.165%	1.406762	\$15,407	\$153,796	
Feb-22	\$0	\$13,874,125	\$13,874,125	48	\$132,588	\$11,056,500	\$945,898	\$1,871,727	\$1,919,386	6.165%	1.4067			

ELIZABETHTOWN GAS COMPANY
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Monthly Recoverable Investment
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												Return on Rate Base m=(j)*k/l/12	Revenue Requirement n=m*1	
Aug-23	\$0	\$13,874,125	\$13,874,125	48	\$76,779	\$12,931,931	\$418,715	\$523,479	\$551,077	6.5165%	1.406762	\$4,210	\$80,989	
Sep-23	\$0	\$13,874,125	\$13,874,125	48	\$75,679	\$13,007,610	\$397,442	\$469,073	\$496,276	6.5165%	1.406762	\$3,791	\$79,470	
Oct-23	\$0	\$13,874,125	\$13,874,125	48	\$68,790	\$13,076,400	\$378,105	\$419,620	\$444,347	6.5165%	1.406762	\$3,395	\$72,185	
Nov-23	\$0	\$13,874,125	\$13,874,125	48	\$65,780	\$13,142,180	\$359,614	\$372,331	\$395,976	6.5165%	1.406762	\$3,025	\$68,805	
Dec-23	\$0	\$13,874,125	\$13,874,125	48	\$64,342	\$13,206,522	\$341,527	\$326,076	\$349,204	6.5165%	1.406762	\$2,668	\$67,010	
Jan-24	\$0	\$13,874,125	\$13,874,125	48	\$62,330	\$13,268,852	\$324,006	\$281,267	\$303,672	6.5165%	1.406762	\$2,320	\$64,650	
Feb-24	\$0	\$13,874,125	\$13,874,125	48	\$60,731	\$13,329,583	\$306,935	\$237,607	\$259,437	6.5165%	1.406762	\$1,982	\$62,713	
Mar-24	\$0	\$13,874,125	\$13,874,125	48	\$56,582	\$13,386,165	\$291,030	\$196,930	\$217,269	6.5165%	1.406762	\$1,660	\$58,242	
Apr-24	\$0	\$13,874,125	\$13,874,125	48	\$56,261	\$13,442,426	\$275,215	\$156,484	\$176,707	6.5165%	1.406762	\$1,350	\$57,611	
May-24	\$0	\$13,874,125	\$13,874,125	48	\$55,828	\$13,498,254	\$259,522	\$116,349	\$136,417	6.5165%	1.406762	\$1,042	\$56,870	
Jun-24	\$0	\$13,874,125	\$13,874,125	48	\$55,519	\$13,553,773	\$243,915	\$76,437	\$96,393	6.5165%	1.406762	\$736	\$56,255	
Jul-24	\$0	\$13,874,125	\$13,874,125	48	\$52,143	\$13,605,916	\$229,258	\$38,951	\$57,694	6.5165%	1.406762	\$441	\$52,584	
Aug-24	\$0	\$13,874,125	\$13,874,125	48	\$48,766	\$13,654,682	\$215,550	\$3,893	\$21,422	6.5165%	1.406762	\$164	\$48,930	
Sep-24	\$0	\$13,874,125	\$13,874,125	48	\$41,639	\$13,696,321	\$203,845	(\$26,041)	(\$11,074)	6.5165%	1.406762	(\$85)	\$41,554	
Oct-24	\$0	\$13,874,125	\$13,874,125	48	\$38,263	\$13,734,584	\$193,089	(\$53,548)	(\$39,795)	6.5165%	1.406762	(\$304)	\$37,959	
Nov-24	\$0	\$13,874,125	\$13,874,125	48	\$34,886	\$13,769,470	\$183,283	(\$78,628)	(\$66,088)	6.5165%	1.406762	(\$505)	\$34,381	
Dec-24	\$0	\$13,874,125	\$13,874,125	48	\$27,760	\$13,797,230	\$175,479	(\$98,584)	(\$88,606)	6.5165%	1.406762	(\$677)	\$27,083	
Jan-25	\$0	\$13,874,125	\$13,874,125	48	\$24,383	\$13,821,613	\$168,625	(\$116,113)	(\$107,349)	6.5165%	1.406762	(\$820)	\$23,563	
Feb-25	\$0	\$13,874,125	\$13,874,125	48	\$21,007	\$13,842,620	\$162,720	(\$131,215)	(\$123,664)	6.5165%	1.406762	(\$945)	\$20,062	
Mar-25	\$0	\$13,874,125	\$13,874,125	48	\$13,880	\$13,856,500	\$158,819	(\$141,194)	(\$136,205)	6.5165%	1.406762	(\$1,041)	\$12,839	
Apr-25	\$0	\$13,874,125	\$13,874,125	48	\$10,503	\$13,867,003	\$155,866	(\$148,744)	(\$144,969)	6.5165%	1.406762	(\$1,107)	\$9,396	
May-25	\$0	\$13,874,125	\$13,874,125	48	\$7,127	\$13,874,130	\$153,863	(\$153,868)	(\$151,306)	6.5165%	1.406762	(\$1,156)	\$5,971	
Jun-25	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Jul-25	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Aug-25	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Sep-25	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Oct-25	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Nov-25	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Dec-25	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Jan-26	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Feb-26	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Mar-26	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Apr-26	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
May-26	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	
Jun-26	\$0	\$13,874,125	\$13,874,125	48	\$0	\$13,874,130	\$153,863	(\$153,868)	(\$153,868)	6.5165%	1.406762	(\$1,175)	(\$1,175)	

ELIZABETHTOWN GAS COMPANY
ENERGY EFFICIENCY PROGRAM ("EEP")

Schedule of Expenditures

	O&M Recoverable In Period Expended				Program Expenditures - Amortized Over Four Years				
	Labor (1)	Customer Education	Dashboard	Prog Eval/ Consultant	Total O&M	Cust Fin & Opower	Program Expenditures	Program Total	Total
									\$1,262,050
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	* \$272,124	\$96,000	\$0	\$30,000	\$398,124	\$720,096	\$1,944,816	\$2,664,912	\$3,063,036
Jun-22	* \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Jun-23	* \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Jun-24	* \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Jun-25	* \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Jun-26	* \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$2,847,563	\$2,782,490	\$574,207	\$129,299	\$6,333,559	\$2,823,676	\$11,050,449	\$13,874,125	\$20,207,684

* 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 *	225,193,000	146,549,524	96,643,784	161,250	0	468,547,558	\$1,425,319	\$930,771	\$621,540	\$1,044	\$0	\$2,978,674	
Jun-22 *	225,193,000	146,549,524	96,643,784	161,250	0	468,547,558	\$926,087	\$614,987	\$435,199	\$741	\$0	\$1,977,014	
Jun-23 *	225,193,000	146,549,524	96,643,784	161,250	0	468,547,558	\$600,911	\$398,553	\$280,872	\$480	\$0	\$1,280,816	
Jun-24 *	225,193,000	146,549,524	96,643,784	161,250	0	468,547,558	\$349,898	\$233,594	\$168,220	\$291	\$0	\$752,003	
Jun-25 *	225,193,000	146,549,524	96,643,784	161,250	0	468,547,558	\$145,022	\$99,195	\$77,013	\$135	\$0	\$321,365	
Jun-26 *	225,193,000	146,549,524	96,643,784	161,250	0	468,547,558	(\$14,814)	(\$5,893)	\$5,136	\$15	\$0	(\$15,556)	
Total	3,795,233,245	2,384,199,968	1,463,668,162	1,578,688	3,490,600	7,648,170,663	0	\$10,840,222	\$6,762,890	\$4,262,310	\$4,166	\$26,917	\$21,896,505

* 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**

<u>a</u>	<u>Rates:</u>		<u>Ratio:</u>		<u>After Tax Wtd. Avg. Cost of Borrowing. (1) (b*d+c*e)*(1-Tax Rat</u>
	<u>Commercial Paper</u> <u>b</u>	<u>Bank Credit Lines</u> <u>c</u>	<u>Commercial Paper</u> <u>d</u>	<u>Bank Credit Lines</u> <u>e</u>	
Jul-19	2.67%	0.00%	100.00%	0.00%	1.92%
Aug-19	2.55%	0.00%	100.00%	0.00%	1.83%
Sep-19	2.38%	0.00%	100.00%	0.00%	1.71%
Oct-19	2.17%	0.00%	100.00%	0.00%	1.56%
Nov-19	1.94%	0.00%	100.00%	0.00%	1.39%
Dec-19	1.90%	0.00%	100.00%	0.00%	1.37%
Jan-20	1.88%	0.00%	100.00%	0.00%	1.35%
Feb-20	1.89%	0.00%	100.00%	0.00%	1.36%
Mar-20	1.39%	0.00%	100.00%	0.00%	1.00%
Apr-20	0.62%	0.00%	100.00%	0.00%	0.45%
May-20	0.95%	0.00%	100.00%	0.00%	0.68%
Jun-20	1.03%	0.00%	100.00%	0.00%	0.74%

(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**

	2020	
	<u>True-Up</u>	
(Over)/Under Balance at June *	(\$853,246)	
Recoverable Program Costs 7/19 - 6/21: **		
Original filing - 8/09 - 12/10	\$0	
Extension 1/11 - 3/12	\$0	
Extension 4/12 - 8/13	\$0	
Extension 9/13 - 4/17 ***	\$138,660	
Extension 5/17 - 6/20 ****	\$2,886,129	
Extension 7/20 - 12/21	\$795,548	
Total Amount to be Recovered	<u>\$2,967,091</u>	
 Per Therm Recovery - Incl. Tax		
Firm Throughput - therms	468,547,558	
(Over)/Under Recovery	(\$0.0002)	
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 ***	\$0.0003	
Extension 5/17 - 6/20 ****	\$0.0066	
Extension 7/20 - 12/21	\$0.0018	
EEP Rate, \$ / Therm, inclusive of taxes	<u>\$0.0067</u>	
 Typical Annual Bill Amounts		
<i>Residential Non-Heat</i>	250	Annual Therms
(Over)/Under Recovery	(\$0.05)	
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 ***	\$0.08	
Extension 5/17 - 6/20 ****	\$1.65	
Extension 7/20 - 12/21	\$0.45	
Total Typical Annual Bill Amount	<u>\$1.68</u>	
\$ Decrease from Current Bill Amount	(\$0.15)	
% Decrease from Current Bill Amount	0.0%	
 <i>Residential Heat</i>	1,000	Annual Therms
(Over)/Under Recovery	(\$0.20)	
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 ***	\$0.30	
Extension 5/17 - 6/20 ****	\$6.60	
Extension 7/20 - 12/21	\$1.80	
Total Typical Annual Bill Amount	<u>\$6.70</u>	
\$ Decrease from Current Bill Amount	(\$0.60)	
% Decrease from Current Bill Amount	(0.1%)	
 <i>Small General Service</i>	1,000	Annual Therms
(Over)/Under Recovery	(\$0.20)	
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 ***	\$0.30	
Extension 5/17 - 6/20 ****	\$6.60	
Extension 7/20 - 12/21	\$1.80	
Total Typical Annual Bill Amount	<u>\$6.70</u>	
\$ Decrease from Current Bill Amount	(\$0.60)	
% Decrease from Current Bill Amount	0.0%	
 <i>General Delivery Service</i>	13,000	Annual Therms
(Over)/Under Recovery	(\$2.60)	
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 ***	\$3.90	
Extension 5/17 - 6/20 ****	\$85.80	
Extension 7/20 - 12/21	\$23.40	
Total Typical Annual Bill Amount	<u>\$87.10</u>	
\$ Decrease from Current Bill Amount	(\$7.80)	
% Decrease from Current Bill Amount	(0.1%)	

* 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 31, 2020

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

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

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

20 **A.** The purpose of my testimony is to support Elizabethtown’s Petition in this proceeding
21 to revise its Energy Efficiency Programs (“EEP”) Rider rate and to provide

1 information concerning the Energy Efficiency Programs (“EE Programs”). I will
2 report on the Company’s actual and projected spending on EE Programs for the
3 period July 1, 2019 through June 30, 2020 (“2020 Program Period”) and support the
4 Company’s spending forecast for the period July 1, 2020 through June 30, 2021
5 (“2021 Program Period”).

6 **Q. DOES YOUR TESTIMONY INCLUDE ANY ILLUSTRATIVE**
7 **SCHEDULES?**

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

- 16 (a) EEP Schedule FV-1 contains budgeted, actual and projected EE
17 Program costs by major spending categories for the period July 1,
18 2019 through June 30, 2020; and
- 19 (b) EEP Schedule FV-2 contains estimated EE Program costs by major
20 spending categories for the period July 1, 2020 through June 30,
21 2021.

22 **II. PROGRAM OVERVIEW**

23 **Q. PLEASE DESCRIBE THE COMPANY’S EE PROGRAMS.**

1 **A.** In accordance with a Board order issued February 27, 2019 in BPU Docket No.
2 GR18070682 (“February 27 Order”), Elizabethtown was authorized to offer the
3 programs listed below from March 1, 2019 through February 29, 2020 with a total
4 budget of approximately \$2.8 million. In accordance with a Board order issued
5 February 19, 2020 in BPU Docket No. GO18070682, (“February 19 Order”),
6 Elizabethtown was authorized to offer the programs listed below from March 1, 2020
7 through June 30, 2020 with a total budget of approximately \$0.6 million of remaining
8 funds from the \$2.8 million approved in the February 27 Order. The February 19
9 Order also authorized the programs to continue from July 1, 2020 through December
10 31, 2021 with a total budget of approximately \$4.2 million (subject to an
11 implementation of a new Elizabethtown EE Program with an earlier effective date).
12 Per a letter dated June 10, 2020 (“June 10 letter”) in the same docket, Elizabethtown
13 notified the Board that due to the challenges that resulted from the COVID-19
14 pandemic, it would reallocate \$431,864 from its EE Program budget ending on June
15 30, 2020 to the eighteen-month EE Program budget which commenced on July 1,
16 2020. This changed the budget for the 16-month period ending June 30, 2020 to \$2.3
17 million, or \$1.6 million for the 2020 Program Period, and the budget for the July 2020
18 – December 2021 budget to \$4.6 million. The authorized programs are as follows:
19 (i) Residential Gas HVAC and Gas Hot Water Heater Incentive
20 Program;
21 (ii) Residential Home Energy Assessment Program;
22 (iii) Residential Home Energy Report Program;

1 (iv) Residential Home Weatherization for Income Qualified Customers
2 Program; and

3 (v) Commercial Steam Trap Survey and Repair Program.

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

11 **III. PROGRAM SPENDING**

12 **Q. PLEASE DESCRIBE THE COMPANY'S SPENDING LEVELS FOR THE EE
13 PROGRAMS DURING THE 2020 PROGRAM PERIOD.**

14 **A.** EEP Schedule FV-1 reflects approximately \$1.4 million in total EE Program related
15 expenditures during the 2020 Program Period. As reflected on EEP Schedule FV-1,
16 these expenditures include costs in the following categories: (1) O&M, including
17 labor, customer education, and related expenditures, and (2) Program Expenditures.
18 These expenditures are also outlined on EEP Schedule TK-4 which accompanies
19 Company witness Thomas Kaufmann's testimony.

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

22 **A.** Yes. As shown on EEP Schedules TK-4 and FV-1, the Company's spend of
23 approximately \$1.4 million during the 2020 Program Period is within the initial

1 authorized budget of approximately \$2.1 million, or \$1.6 million as adjusted by the
2 June 10 letter, as indicated in EE Schedule FV-1.

3 **Q. PLEASE DESCRIBE THE COMPANY'S PROJECTED SPENDING LEVELS**
4 **FOR THE EE PROGRAMS DURING THE 2021 PROGRAM PERIOD.**

5 **A.** As reflected on EEP Schedule FV-2, the Company expects to incur approximately
6 \$0.4 million in total O&M expense and approximately \$2.7 million in total EE
7 Program expenditures during the 2021 Program Period, totaling approximately \$3.1
8 million. Projected amounts are based on the total budget approved in accordance
9 with the February 19 Order as adjusted by the June 10 letter.

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

11 **A.** Yes, it does.

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

Schedule FV-1

ACTUAL	2020 Program Period												
	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	
O&M EXPENDITURES													
Labor	\$ 10,799	\$ -	\$ 13,877	\$ 9,669	\$ 9,669	\$ 13,990	\$ 12,347	\$ 9,319	\$ 10,479	\$ 10,014	\$ 6,868	\$ 6,064	\$ 113,097
Customer Education, Outreach	\$ 424	\$ -	\$ 1,012	\$ 293	\$ 71	\$ 2,193	\$ 17,153	\$ 3,658	\$ 11,361	\$ 2,810	\$ 12,310	\$ 5,625	\$ 56,911
Program Evaluation	\$ -	\$ -	\$ -	\$ 8,050	\$ -	\$ 12,425	\$ 200	\$ -	\$ 721	\$ 2,844	\$ -	\$ 4,789	\$ 29,028
TOTAL O&M	\$ 11,223	\$ -	\$ 14,889	\$ 18,012	\$ 9,741	\$ 28,609	\$ 29,700	\$ 12,977	\$ 22,562	\$ 15,667	\$ 19,178	\$ 16,477	\$ 199,036
PROGRAM EXPENDITURES													
Residential Gas HVAC/WH :													
Rebates, Grants, Incentives	\$ 10,850	\$ -	\$ -	\$ 38,000	\$ 9,550	\$ 10,250	\$ 8,800	\$ 12,850	\$ 11,550	\$ 15,250	\$ 20,600	\$ 14,700	\$ 152,400
Rebate Processing	\$ 150	\$ -	\$ -	\$ 600	\$ -	\$ 150	\$ 150	\$ 300	\$ 150	\$ 150	\$ 150	\$ 150	\$ 1,950
Home Energy Assessments	\$ -	\$ -	\$ 28,797	\$ 23,925	\$ 14,905	\$ 11,288	\$ -	\$ 39,565	\$ 9,070	\$ -	\$ -	\$ -	\$ 127,550
HEA Administrative Fees	\$ -	\$ -	\$ 24,000	\$ 24,000	\$ 12,000	\$ 12,000	\$ -	\$ 24,000	\$ 12,000	\$ -	\$ -	\$ -	\$ 108,000
Home Weatherization for Income Qualified	\$ 26,676	\$ -	\$ -	\$ 62,580	\$ 98,198	\$ 28,487	\$ 79,700	\$ -	\$ 27,330	\$ -	\$ -	\$ -	\$ 322,970
HW for IQC Administrative Fees	\$ 2,965	\$ -	\$ -	\$ 6,258	\$ 9,820	\$ 2,849	\$ 7,970	\$ -	\$ 2,733	\$ -	\$ -	\$ -	\$ 32,594
Home Energy Report - Opower	\$ 175,286	\$ -	\$ -	\$ 175,286	\$ -	\$ 4,000	\$ -	\$ -	\$ 136,357	\$ -	\$ -	\$ -	\$ 490,929
	\$ 215,926	\$ -	\$ 52,797	\$ 330,648	\$ 144,473	\$ 69,023	\$ 96,620	\$ 76,715	\$ 199,190	\$ 15,400	\$ 20,750	\$ 14,850	\$ 1,236,392
Commercial Gas													
Steam Trap Survey & Cleaning Pilot	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Program Expenditures	\$ 215,926	\$ -	\$ 52,797	\$ 330,648	\$ 144,473	\$ 69,023	\$ 96,620	\$ 76,715	\$ 199,190	\$ 15,400	\$ 20,750	\$ 14,850	\$ 1,236,392
Total EEP Expenditures	\$ 227,149	\$ -	\$ 67,686	\$ 348,661	\$ 154,214	\$ 97,632	\$ 126,320	\$ 89,692	\$ 221,752	\$ 31,067	\$ 39,928	\$ 31,327	\$ 1,435,428

BUDGET PROJECTION *													Reallocation	Revised Budget	
O&M EXPENDITURES															
Labor	\$ 15,350	\$ 15,350	\$ 15,350	\$ 15,350	\$ 15,350	\$ 15,350	\$ 15,350	\$ 15,350	\$ 15,350	\$ 15,350	\$ 15,350	\$ 15,350	\$ 184,194	\$ -	\$ 184,194
Customer Education, Outreach	\$ 4,258	\$ 4,258	\$ 4,258	\$ 4,258	\$ 4,258	\$ 4,258	\$ 4,258	\$ 4,258	\$ 4,258	\$ 4,258	\$ 4,258	\$ 4,258	\$ 51,098	\$ -	\$ 51,098
Program Evaluation	\$ 3,617	\$ 3,617	\$ 3,617	\$ 3,617	\$ 3,617	\$ 3,617	\$ 3,617	\$ 3,617	\$ 3,617	\$ 3,617	\$ 3,617	\$ 3,617	\$ 43,403	\$ -	\$ 43,403
TOTAL O&M	\$ 23,225	\$ 23,225	\$ 23,225	\$ 23,225	\$ 23,225	\$ 23,225	\$ 23,225	\$ 23,225	\$ 23,225	\$ 23,225	\$ 23,225	\$ 23,225	\$ 278,694	\$ -	\$ 278,694
PROGRAM EXPENDITURES															
Residential Gas HVAC/WH :															
Rebates, Grants, Incentives	\$ 13,831	\$ 13,831	\$ 13,831	\$ 13,831	\$ 13,831	\$ 13,831	\$ 13,831	\$ 13,831	\$ 13,831	\$ 13,831	\$ 13,831	\$ 13,831	\$ 165,975	\$ (30,300)	\$ 135,675
Rebate Processing	\$ 193	\$ 193	\$ 193	\$ 193	\$ 193	\$ 193	\$ 193	\$ 193	\$ 193	\$ 193	\$ 193	\$ 193	\$ 2,318	\$ -	\$ 2,318
Home Energy Assessments	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 210,000	\$ (90,606)	\$ 119,394
HEA Administrative Fees	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$ 108,000	\$ -	\$ 108,000
Home Weatherization for Income Qualified	\$ 55,880	\$ 55,880	\$ 55,880	\$ 55,880	\$ 55,880	\$ 55,880	\$ 55,880	\$ 55,880	\$ 55,880	\$ 55,880	\$ 55,880	\$ 55,880	\$ 670,558	\$ (206,654)	\$ 463,904
HW for IQC Administrative Fees	\$ 5,607	\$ 5,607	\$ 5,607	\$ 5,607	\$ 5,607	\$ 5,607	\$ 5,607	\$ 5,607	\$ 5,607	\$ 5,607	\$ 5,607	\$ 5,607	\$ 67,278	\$ (20,665)	\$ 46,613
Home Energy Report - Opower	\$ -	\$ -	\$ 125,879	\$ -	\$ -	\$ 125,879	\$ -	\$ -	\$ 125,879	\$ -	\$ -	\$ 125,879	\$ 503,518	\$ (143)	\$ 503,375
	\$ 102,011	\$ 102,011	\$ 227,890	\$ 102,011	\$ 102,011	\$ 227,890	\$ 102,011	\$ 102,011	\$ 227,890	\$ 102,011	\$ 102,011	\$ 227,890	\$ 1,727,647	\$ (348,368)	\$ 1,379,279
Commercial Gas															
Steam Trap Survey & Cleaning Pilot	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 75,000	\$ (83,496)	\$ (8,496)
	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 6,250	\$ 75,000	\$ (83,496)	\$ (8,496)
Total Program Expenditures	\$ 108,261	\$ 108,261	\$ 234,140	\$ 108,261	\$ 108,261	\$ 234,140	\$ 108,261	\$ 108,261	\$ 234,140	\$ 108,261	\$ 108,261	\$ 234,140	\$ 1,802,647	\$ (431,864)	\$ 1,370,783
Total EEP Expenditures	\$ 131,485	\$ 131,485	\$ 257,365	\$ 131,485	\$ 131,485	\$ 257,365	\$ 131,485	\$ 131,485	\$ 257,365	\$ 131,485	\$ 131,485	\$ 257,365	\$ 2,081,341	\$ (431,864)	\$ 1,649,477

* Represents 12 months of pro-rata spread of 16-month budget approved in BPU Docket No. GO18070682 dated February 19, 2020. Per letter dated June 10, 2020 in same docket, program expenditures of \$431,864 were reallocated to the forward period.

ELIZABETHTOWN GAS COMPANY ENERGY EFFICIENCY PROGRAM ("EEP") ESTIMATED SPENDING BY PROGRAM (\$\$\$)

Schedule FV-2

**2021
PROGRAM**

	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	PERIOD
O&M EXPENDITURES	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
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	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000	\$ 96,000
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	\$ 33,177	\$ 33,177	\$ 33,177	\$ 33,177	\$ 33,177	\$ 33,177	\$ 33,177	\$ 33,177	\$ 33,177	\$ 33,177	\$ 33,177	\$ 33,177	\$ 398,122
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
Home Energy Assessments Admin 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	\$ 195,245	\$ 195,245	\$ 375,268	\$ 195,245	\$ 195,245	\$ 375,268	\$ 195,245	\$ 195,245	\$ 375,268	\$ 195,245	\$ 195,245	\$ 375,268	\$ 3,063,031

**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 31, 2020

**ELIZABETHTOWN GAS COMPANY
DIRECT TESTIMONY OF
BRENDON J. BAATZ**

1 **I. INTRODUCTION**

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

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

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

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

13 Prior to my employment with ACEEE, I was employed with the Federal Energy
14 Regulatory Commission (“FERC”). During my employment with FERC my primary
15 responsibilities were the review and analyses of electric utility cost of service studies in
16 wholesale transmission and electric power rate cases. I also worked on other litigated issues
17 while at FERC including but not limited to transmission capacity reservation rights,
18 municipal power contracts, and formula rate structure and protocols. Prior to my
19 employment with FERC, I held positions with the Maryland Public Service Commission
20 as an energy analyst and the Indiana Office of Utility Consumer Counselor (“OUCC”) as
21 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?**

9 **A.** Yes. I previously testified in the most recent Elizabethtown Gas energy efficiency
10 compliance filing in Docket No. GR19070872.

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

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

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

17 **A.** Yes. I am presenting the following schedules, which have been prepared under my
18 direction and supervision and are accurate and complete to the best of my knowledge and
19 belief. These schedules contain information responsive to the Minimum Filing
20 Requirements (“MFRs”) as referenced in the MFR Index attached to the Petition as Exhibit
21 A and as set forth in the stipulations approved by the Board in its August 3, 2009 Order
22 (“August 3 Order”) in Docket Nos. EO09010056 and GO09010060 et al., as well as the
23 Board’s January 19, 2011 Order (“January 19 Order”) and April 11, 2012 Order (“April 11

1 Order”) in BPU Docket Nos. GO10070446 and GO10100735 et al. and BPU Docket No.
2 GO11070399, respectively. The schedules attached hereto are described below:

- 3 (a) Schedule BJB-1 – EE Program participation summary for the program
4 period July 2019 through June 2020;
- 5 (b) Schedule BJB-2 – Overall Program expenditures for the program period
6 July 2019 through June 2020;
- 7 (c) Schedule BJB-3 – Energy and demand savings by program for the program
8 period July 2019 through June 2020;
- 9 (d) Schedule BJB-4 – Emissions avoided data for the program period July 2019
10 through June 2020;
- 11 (e) Schedule BJB-5 – Job creation estimates for the period of July 2019 through
12 June 2020;
- 13 (f) Schedule BJB-6 – Summary of cost/benefit analysis results for the program
14 period July 2019 through June 2020; and
- 15 (g) Schedule BJB-7 – List of studies used to develop avoided hedge risk
16 premium.

17 **II. PARTICIPATION AND BENEFITS**

18 **Q. Please describe Elizabethtown’s EE Program participation levels in the program**
19 **period from July 2019 through June 2020.**

20 **A.** As summarized in Schedule BJB-1, 153,621 Elizabethtown customers participated in the
21 EE Programs between July 2019 through June 2020. This information was sourced from
22 Elizabethtown.

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

1 **A.** As reflected on Schedule BJB-5, the EE Program resulted in the creation of 6 direct,
2 indirect, and induced job-years during the program period July 2019 through June 2020.

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

4 **A.** I employed the use of industry standard methods and models to calculate the job creation
5 generated from Elizabethtown’s EE Programs. Direct job creation was estimated using the
6 Rutgers University “Analysis for the 2011 Draft New Jersey Energy Master Plan Update.”¹
7 This report specifies 7.91 direct jobs created for every one-million dollars invested in
8 energy efficiency in New Jersey. The Rutgers analysis has been incorporated into previous
9 energy efficiency filings and represents a standard method of determining direct job
10 creation from energy efficiency spending in New Jersey. Indirect and induced jobs are
11 created as a result of those employed by the direct jobs spending a portion of their earnings
12 on other goods and services in New Jersey, creating additional economic value and jobs.
13 This derivative job creation, or “multiplier effect” can have a significant effect on the
14 economy, and if not included would severely understate the job creation benefits of energy
15 efficiency expenditures. Indirect and induced jobs was estimated by employing the
16 National Renewable Energy Laboratory (“NREL”) Jobs and Economic Development
17 Impact (“JEDI”) model.² JEDI is an input-output economic impact model that has been
18 accepted by the New Jersey Board of Public Utilities (“BPU” or “Board”) in other matters
19 and uses state and industry specific economic multipliers that estimate the direct, indirect
20 and induced economic impact of energy industry investments. While JEDI does not have
21 a model specifically for energy efficiency investments, the solar photovoltaic model has

¹ 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_creeep_report20110412.pdf.

² NREL, *Jobs & Economic Development Impact Models*, available at nrel.gov/analysis/jedi/.

1 similar economic characteristics (e.g., both have a large up-front investment for the initial
2 installation followed by very low maintenance costs going forward). Further, both utilize
3 a similar level of skilled trade workers. The model assumed that no New Jersey in-state
4 manufacturing activity would result from the investments; to the extent manufacturing
5 activity is induced, it would result in additional job and multiplier benefits to the State.

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

8 **A.** The EE Programs are expected to avoid 35,535 metric tons of CO₂, 9.96 metric tons of
9 SO₂, and 27.68 metric tons of NO_x. The avoided air emissions estimate was developed
10 using the reported participation and resulting energy savings.³ The emissions factors were
11 developed using dispatch simulation results using AURORAxmp. Because AURORAxmp
12 dispatches generation at the individual unit level, the simulation results provide marginal
13 emissions rates for CO₂, SO₂, and NO_x. The results of this analysis are provided in
14 Schedule BJB-4.

15 **Q. Did you prepare the cost-benefit analysis of Elizabethtown’s EE Programs in this**
16 **filing?**

17 **A.** Yes. I prepared the cost-benefit analysis (“CBA”) which calculates and details the results
18 of the five tests prescribed in the MFR as required by the Board. This entailed developing
19 a model which analyzed measure-specific details and computed the actual costs and
20 estimated savings of each program for use in the Total Resource Cost (“TRC”) test, the
21 Participant Cost test (“PCT”), the Program Administrator Cost (“PAC”) test, the Ratepayer
22 Impact Measure (“RIM”) test, and the Societal Cost test (“SCT”). This testimony presents

³ Schedule BJB-3 presents the total energy and demand savings for the program period.

1 the methodology and results of the five CBA tests required by the Board’s MFRs for the
2 Company energy efficiency program results for the period of July 1, 2019 through June 30,
3 2020. These results allow the BPU to evaluate the performance of the program offerings
4 during this time period.

5 **III. COST-BENEFIT ANALYSIS OVERVIEW**

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

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

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

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

- 21 • Societal Cost Test – The Societal Cost Test measures the net costs of a program as
22 a resource option based on the total costs of the program, including both the
23 participants' and the utility's costs. The Societal Test differs from the TRC test in
24 that it includes the effects of societal impacts such as environmental impacts to the
25 economy, excludes tax credit benefits, and uses a different (societal) discount rate.

⁴ *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_STANDAR_PRACTICE_MANUAL.pdf.

- 1 • Total Resource Cost Test – The Total Resource Cost Test measures the net costs of
2 a program as a resource option based on the total costs, including both the
3 participant and the utility costs of the program.
- 4 • Participant Cost Test – The Participant Cost Test is the measure of the quantifiable
5 benefits and costs from the perspective of program participants. Since many
6 customers do not base their decision to participate in a program entirely on
7 quantifiable variables, this test is not a complete measure of the benefits and costs
8 of a program to a customer.
- 9 • Program Administrator Cost Test – The Program Administrator Cost Test measures
10 the net costs of a program as a resource option based on the costs incurred by the
11 program administrator or utility (including incentive costs) and excluding any net
12 costs incurred by the participant. The benefits are similar to the TRC benefits. Costs
13 are defined more narrowly. This test measures the net economic impact of investing
14 in energy efficiency programs from the perspective of the utility.
- 15 • Ratepayer Impact Measure Test – The Ratepayer Impact Measure test measures
16 what happens to customer rates due to changes in utility revenues and operating
17 costs caused by the program. Rates will go down if the change in revenues from the
18 program is greater than the change in utility costs. Conversely, rates or bills will go
19 up if revenues collected after program implementation are less than the total costs
20 incurred by the utility in implementing the program. This test indicates the direction
21 and magnitude of the expected change in customer bills or rate levels. In essence,
22 this test reviews the benefits of energy efficiency programs against the cost to all
23 ratepayers, not just participants.

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

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

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

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

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

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

22 **A.** Yes, I provided results for all five tests for the period of July 1, 2019 through June 30, 2020,
23 as summarized on Schedule BJB-6.

1 **Q. Please summarize your conclusions.**

2 **A.** Based on a careful calculation of costs and benefits (as detailed in this testimony), I derived
3 the benefit-cost ratio of the each of the five tests for each of the sectors included in the
4 filing. Accordingly, the Elizabethtown Gas 2019-2020 Energy Efficiency portfolio level
5 SCT ratio is 2.97. Over the life of the energy efficiency measures, the programs will yield
6 total societal benefits (NPV) of \$4,927,284 as compared to total societal costs of
7 \$1,660,604, resulting in net benefits of \$3,266,680. A summary of the results is provided
8 in Schedule BJB-6.

9 The results from the other tests, in summary, indicate that:

- 10 • The Elizabethtown program portfolio is cost effective from a TRC perspective;
- 11 • The Elizabethtown program portfolio is cost effective from a PCT perspective;
- 12 • The Elizabethtown program portfolio is cost effective from a PAC perspective; and
- 13 • The Elizabethtown program portfolio shows appropriate impact from a RIM
14 perspective.

15 I also determined that the Elizabethtown programs would result in approximately 6
16 direct, indirect and induced job-years created over the course of the measure lives of the
17 programs. More detail on job creation is provided above as well as in Schedule BJB-5.

18 **Q. What do you conclude from these results?**

19 **A.** The results of the five tests show the portfolio is cost-effective under the TRC and SCT
20 and provide significant benefits.

21 **IV. COST-BENEFIT ANALYSIS ASSUMPTIONS**

22 **Q. What types of cost benefit analyses did you prepare?**

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

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

2 **A.** Consistent with previous EE filings at the Board, I utilized the methods in the California
 3 Standard Practice Manual, which has been used throughout the country for over 30 years
 4 as a basis for the calculation of cost-effectiveness tests through the five prescribed CBA
 5 tests discussed above.

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

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

	SCT	TRC	PCT	PAC	RIM
Program Benefits					
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				
Program Costs					
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

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

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

3 Lifetime Avoided Wholesale Natural Gas Costs

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

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

14 Lifetime Avoided Wholesale Electric Energy Costs

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

18 The value of avoided costs is estimated using PJM Western Hub forward prices,
19 adjusted for congestion to reconcile for topographical Locational Marginal Pricing
20 (“LMP”) differences between Western Hub and the Jersey Central Power & Light
21 (“JCP&L”) zone (the electric delivery territory in which a majority of Elizabethtown
22 customers receive electric service). Historical actual prices were utilized where applicable.
23 Prices were forecasted based upon Energy Information Administration (EIA) Annual

1 Energy Outlook reference case for the Reliability First Corporation – East region electricity
2 generation escalations. All values were adjusted to account for marginal line losses on the
3 JCP&L and PJM systems, and sales and use tax.

4 Lifetime Avoided Wholesale Electric Capacity Costs

5 The lifetime avoided wholesale electric capacity costs category captures the
6 wholesale reduction in PJM capacity as a result of the reductions in electric demand
7 associated with the programs.

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

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

13 The lifetime Demand Reduction Induced Price Effects (“DRIPE”) price
14 suppression (also known as merit order benefits) is a benefit that captures the reduction in
15 wholesale electric and natural gas market prices to all customers, not just participants, as a
16 result of energy efficiency. Wholesale electric and natural gas markets are fundamentally
17 supply and demand based – therefore, downward movement in the electric or natural gas
18 demand curve as a result of reduced consumption should result in less expensive generation
19 resources being dispatched for electricity, and less expensive natural gas delivered. Both
20 markets “clear” at a lower price, and the associated reductions in market prices flow
21 through to all customers.
22

1 Natural gas DRIPE price suppression occurs as a result of reduced demand in the
2 natural gas markets servicing New Jersey. Highly congested natural gas markets, in
3 particular those in New Jersey such as those that trade around the Transco Z6 Non-NY
4 North delivery point are candidates for DRIPE price suppression effects as a result of
5 energy efficiency. In these highly liquid and traded markets, even a small reduction in the
6 bid-ask price spread can have significant effects on the cost of natural gas.

7 While a value for electric or natural gas DRIPE price suppression was not included
8 in this analysis, it merits further research and could be included at a later date as it
9 represents a real benefit to all ratepayers.

10 Lifetime Avoided RPS REC Purchase Costs

11 The lifetime avoided RPS REC purchase costs estimates the reduced volume of
12 RECs that must be purchased by New Jersey’s electric retail suppliers as a result of
13 Elizabethtown’s Programs. The New Jersey Renewable Portfolio Standard (“RPS”) sets
14 the total volume requirement of Renewable Energy Certificates (“RECs”) that must be
15 purchased as a percentage of retail load. A reduction in retail load due to energy efficiency
16 will reduce the total number of RECs required to be purchased.

17 Historical pricing was based upon the New Jersey Clean Energy Program
18 (“NJCEP”) RPS Report Summary 2005-2017.⁵ Forecast market prices for New Jersey
19 Class I RECs, Class II RECs and SRECs were used based upon an internal supply-demand
20 analysis and compliance costs for the three New Jersey REC markets.

21 Lifetime Avoided Wholesale Volatility Costs (Electric & Gas)

⁵ 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.

1 The lifetime avoided wholesale volatility cost category estimates the value of
2 avoiding risk of wholesale purchases. Wholesale electric and natural gas prices are
3 inherently risky as they are market-based and not fixed in price or volume. Large
4 fluctuations in prices expose customers and retail suppliers to risks that ultimately are
5 priced into retail rates. Energy efficient measures and practices amount to a purchase of
6 energy service which does not contain the price volatility implicit in the price of electricity
7 and natural gas. By reducing the overall energy purchases of customers, customers are
8 exposed to less fuel volatility. In this regard, energy efficiency can be viewed as an energy
9 resource that does not contain the price volatility embedded in purchases from the electric
10 and gas supply systems.

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

17 Lifetime Avoided T&D Costs (E&G)

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

21 Avoided electric T&D costs were calculated based upon the precedent set in
22 previous filings, sourced from the “Draft Energy Efficiency Cost-Benefit Analysis
23 Avoided Cost Assumptions” produced by the Center for Energy, Economic and

1 Environmental Policy (“CEEP”) of the Edward J. Bloustein School of Planning and Public
2 Policy at Rutgers University, which has been used previously in a BPU proceeding and
3 was not contested by any party. This estimate is conservative based on other recent data
4 presented by the ACEEE, which presented a range of \$0 to \$200 per kW with most values
5 exceeding \$50/kW.⁶

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

12 Lifetime Avoided Retail Electric and Natural Gas Costs

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

16 Avoided retail electric costs were calculated based upon the electric charges and
17 applicable rate classes in JCP&L’s Tariff for Electric Service. This method results in a
18 “price to compare” analysis, as only portions of the tariff which would be offset as a result
19 of the programs are included in the analysis. By way of example, customers will not offset
20 any of the monthly fixed Service Charge, so that avoiding that charge was not included in
21 the retail electric savings analysis. Each charge was escalated, by component, to account

⁶ 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.

1 for separate escalation rates for distribution and supply charges. Charges related to electric
2 delivery and transmission were escalated at 2.0% per year and electric energy and capacity
3 supply charges were escalated in a manner consistent with the wholesale market escalations
4 explained above.

5 Avoided retail natural gas costs were calculated based on the natural gas charges
6 and applicable rate classes available in Elizabethtown's Tariff for Gas Service. This
7 method results in a "price to compare" type analysis, as only portions of the tariff which
8 would be offset as a result of the programs are included in the analysis. By way of example,
9 customers will not offset any of the monthly fixed Service Charge, so that avoiding that
10 charge was not included in the retail natural gas savings analysis. Each charge was
11 escalated, by component, to account for separate escalation rates for distribution and supply
12 charges. Charges related to natural gas delivery were escalated at 2.0% per year while
13 natural gas supply charges were escalated in a manner consistent with the wholesale market
14 escalations explained above.

15 Lifetime Program Investment Costs

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

21 Lifetime Avoided Distribution Costs (Gained Utility Revenue)

22 The lifetime avoided distribution cost category captures additional revenues
23 collected by the utility which can be used to reduce distribution costs for all customers.

1 The avoided distribution costs primarily occur when revenues from new or increased
2 customer usage exceed the cost to service the new load. This cost is sometimes known as
3 gained utility revenues.

4 This filing did not include any programs which resulted in avoided distribution
5 costs.

6 Lifetime Avoided Emissions Costs

7 The lifetime avoided emissions cost category captures the value of reductions in
8 CO₂, NO_x, and SO₂. I did not include mercury or other greenhouse gases.

9 The reduction in power plant emissions was forecast using dispatch simulation
10 results using AURORAxmp. Because AURORAxmp dispatches generation at the
11 individual unit level, the simulation results provide marginal emissions rates for CO₂, SO₂,
12 and NO_x. Emissions rates associated with natural gas usage savings were based upon the
13 United States Environmental Protection Agency’s (“EPA”) emissions factors for
14 residential natural gas use.

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

20 Lifetime Job and Savings Multiplier Benefits

21 The lifetime job and savings multiplier benefits were calculated using the JEDI
22 model, developed by the NREL. This model has been accepted by the BPU and captures
23 direct, indirect, and induced job multiplier benefits. I also included a multiplier benefit to

capture the value of participant savings in the economy, as a portion of that savings would be spent and have a multiplied impact that would benefit the State overall. This value netted out any additional fixed costs reallocated to ratepayers.

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

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

Lifetime Incremental Costs

The lifetime incremental cost category captures the incremental cost of participating in the programs. This cost is calculated based upon the difference between the efficient measure costs assumed to install energy efficiency technologies and processes and the base measure cost assumed that a participant would otherwise pay without access 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	107,361	309,164	201,803
Res. Home Energy Assessment	15,027	-	(15,027)
Res. Home Energy Report	869,032	-	(869,032)
Res. Home Weatherization	165,711	80,322	(85,389)
Comm. Steam Trap	-	-	-
Total Residential	1,157,131	389,486	(767,644)

Total Commercial	-	-	-
Total Portfolio	1,157,131	389,486	(767,644)

1 Lifetime Administration Costs

2 The lifetime administration cost category captures the cost of administering the
3 energy efficiency programs by Elizabethtown Gas. These costs were provided by the
4 Company and are the actual costs associated with the programs for this time period.⁷

5 Lifetime Program Investment Costs

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

9 Lifetime Reallocated Distribution Costs (Utility Revenue Lost)

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

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

⁷ Schedule BJB-2 shows the overall program expenditures.

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

2 **A.** My primary source was Elizabethtown’s previous energy efficiency filing, which was
3 approved by the Board on February 27, 2019.

4 With respect to free rider and free driver (spillover) effects I assumed a net-to gross
5 ratio of 1.0. This is consistent with the approach taken by TRC in NJCEP planning. In fact,
6 the NJCEP Protocols “report gross savings and generation only. Free riders and free drivers
7 are not addressed in these Protocols. Further research in this area is planned.” While some
8 participants may have made similar investments absent the program (free riders), the
9 programs also drive non-participants to invest in energy efficient products and change
10 behavior (free drivers). I believe 1.0 is a reasonable estimate based on these factors. In
11 addition, the lack of a formal net-to-gross evaluation in New Jersey makes it difficult to
12 ascertain this impact.

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

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

19 **V. COST-BENEFIT ANALYSIS RESULTS**

20 **Q. What were the results of the CBA for the Elizabethtown Energy Efficiency**
21 **Programs?**

1 **A.** Based on my analysis, a majority of programs exceed a SCT ratio of 1.0, with a portfolio
 2 wide average result of 2.97. Table 3 summarizes the SCT ratios for each of the programs
 3 offered by Elizabethtown.

4 **Table 3: Elizabethtown 2019-2020 Energy Efficiency SCT Ratios**

Subprogram	SCT
Total Portfolio	2.97
Residential HVAC and HW	1.8
Residential Home Energy Assessment	15.3
Residential Home Energy Report	3.7
Residential Home Weatherization	3.3
Commercial Steam Trap Survey and Repair	n/a

5 **Q.** **How did the Elizabethtown Gas 2019-2020 Energy Efficiency Programs fare in TRC,**
 6 **PCT PAC, and RIM tests?**

7 **A.** The Elizabethtown programs proved cost-effective using the balance of the CBA tests
 8 prescribed in the MFRs, in addition to the SCT test, as described above. The following
 9 table illustrates the CBA ratios for each of the subprograms for the TRC, PCT, PAC, and
 10 RIM tests.

1 **Table 4: Elizabethtown 2019-2020 Energy Efficiency TRC, PCT, PAC, & RIM Ratios**

	TRC	PCT	PAC	RIM
Total Portfolio	1.2	15.8	1.2	0.5
Residential HVAC and HW	1.0	3.7	2.6	0.7
Residential Home Energy Assessment	4.6	n/a	0.6	0.4
Residential Home Energy Report	1.3	n/a	1.3	0.5
Residential Home Weatherization	0.9	6.8	0.6	0.4
Commercial Steam Trap Survey and Repair	n/a	n/a	n/a	n/a

2

3 **Q. Why did some subprograms score so highly in the participant cost test?**

4 **A.** As detailed above, the participant cost test is designed to ascertain cost-effectiveness for
5 customers participating in programs. Many of the programs were designed to offer
6 participants a number of low and no-cost measures and energy savings, and target markets
7 which often have difficulty participating in energy efficiency programs. This includes
8 subprograms such as the Residential Home Weatherization program which targets
9 residents earning between 225% to 400% of federal poverty level, just above eligibility to
10 participate in the Comfort Partners program, but still in an economic demographic with
11 difficulty focusing on and investing in energy efficiency. Another subprogram
12 encompassed in the Residential Programs is the Residential Home Energy Report program
13 which provides customized Home Energy Reports (“HERs”) to participants. The HERs
14 provide customers with insights and behavioral recommendations to improve the efficiency
15 of their homes, all at no cost to the participants. Because participants pay nothing for the

1 HERs, the PCT for this particular subprogram is infinite (any level of savings divided by
2 zero costs is an incalculable infinite number). Combining this subprogram with other
3 programs which require participant payments results in aggregated results with high cost-
4 effectiveness.

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

6 **A.** My cost benefit analysis of the Elizabethtown 2019-2020 energy efficiency programs
7 shows the portfolio is cost effective and will provide quantified net benefits to the
8 customers over the lifetime of the energy savings. Total direct benefits to ratepayers
9 (participants and non-participants) total more than \$4.9 million while the associated costs
10 are \$1.7 million yielding net benefits of \$3.3 million. In addition, participants direct retail
11 bill savings are estimated at \$5 million.

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

13 **A.** I conclude that the 2019-2020 programs were cost effective at the portfolio level.

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

15 **A.** Yes.

Elizabethtown Gas Company
Energy Efficiency Program

Program Participants (HVAC and HW broken out by measure)

Measure	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	TOTAL
Furnace	-	52	-	75	-	58	37	25	32	45	28	23	375
Boiler	-	1	-	2	-	1	1	1	5	3	2	1	17
Water Heater	-	21	-	17	-	8	6	8	10	9	6	11	96
Boiler/WH Combo	-	11	-	9	-	7	5	9	9	13	16	5	84
Furnace/WH Combo	-	3	-	4	-	3	2	1	4	5	1	3	26
Weatherization Income Qualified	5	-	-	12	21	-	16	-	6	-	-	-	60
Home Energy Assessment	-	-	145	121	83	63	-	214	52	-	-	-	678
Home Energy Report (Opower)	148,236	146,928	156,878	156,878	156,592	155,331	154,330	153,708	153,708	-	-	-	153,621
Steam Trap Survey/Repair	-	-	-	-	-	-	-	-	-	-	-	-	-

Updated for actuals through June 2020

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

Elizabethtown Gas Company
Energy Efficiency Program

Overall Program Expenditures

	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Total
O&M Expenditures													
Labor	\$ 10,799	\$ -	\$ 13,877	\$ 9,669	\$ 9,669	\$ 13,990	\$ 12,347	\$ 9,319	\$ 10,479	\$ 10,014	\$ 6,868	\$ 6,064	\$ 113,097
Customer Education, Outreach	\$ 424	\$ -	\$ 1,012	\$ 293	\$ 71	\$ 2,193	\$ 17,153	\$ 3,658	\$ 11,361	\$ 2,810	\$ 12,310	\$ 5,625	\$ 56,911
Program Evaluation	\$ -	\$ -	\$ -	\$ 8,050	\$ -	\$ 12,425	\$ 200	\$ -	\$ 721	\$ 2,844	\$ -	\$ 4,789	\$ 29,029
Total O&M	\$ 11,223	\$ -	\$ 14,889	\$ 18,012	\$ 9,741	\$ 28,609	\$ 29,700	\$ 12,977	\$ 22,562	\$ 15,667	\$ 19,178	\$ 16,478	\$ 199,036
Program Expenditures													
Rebates, Grants, Incentives	\$ 10,850	\$ -	\$ -	\$ 38,000	\$ 9,550	\$ 10,250	\$ 8,800	\$ 12,850	\$ 11,550	\$ 15,250	\$ 20,600	\$ 14,700	\$ 152,400
Rebate Processing	\$ 150	\$ -	\$ -	\$ 600	\$ -	\$ 150	\$ 150	\$ 300	\$ 150	\$ 150	\$ 150	\$ 150	\$ 1,950
Home Energy Assessments	\$ -	\$ -	\$ 28,797	\$ 23,925	\$ 14,905	\$ 11,288	\$ -	\$ 39,565	\$ 9,070	\$ -	\$ -		\$ 127,550
HEA Admin Fees	\$ -	\$ -	\$ 24,000	\$ 24,000	\$ 12,000	\$ 12,000	\$ -	\$ 24,000	\$ 12,000	\$ -	\$ -		\$ 108,000
Home Weatherization for Income Qualified	\$ 26,676	\$ -	\$ -	\$ 62,580	\$ 98,198	\$ 28,487	\$ 79,700	\$ -	\$ 27,330	\$ -	\$ -		\$ 322,970
HW for IQC Administrative Fees	\$ 2,965	\$ -	\$ -	\$ 6,258	\$ 9,820	\$ 2,849	\$ 7,970	\$ -	\$ 2,733	\$ -	\$ -		\$ 32,594
Home Energy Report - Opower	\$ 175,286	\$ -	\$ -	\$ 175,286	\$ -	\$ 4,000	\$ -	\$ -	\$ 136,357	\$ -	\$ -		\$ 490,929
Steam Trap Survey/Repair	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
Total Program Expenditures	\$ 215,926	\$ -	\$ 52,797	\$ 330,648	\$ 144,473	\$ 69,023	\$ 96,620	\$ 76,715	\$ 199,190	\$ 15,400	\$ 20,750	\$ 14,850	\$ 1,236,392
Total Overall Program Expenditures	\$ 227,149	\$ -	\$ 67,686	\$ 348,661	\$ 154,214	\$ 97,632	\$ 126,320	\$ 89,692	\$ 221,752	\$ 31,067	\$ 39,928	\$ 31,328	\$ 1,435,429

Updated for actuals through June 2020

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	1,609,845	0
Residential Home Energy Assessment	20,326	141,509	0	3.3	66,125	460,358
Residential Home Energy Report	1,319,604	4,288,104	0	3.0	3,958,813	12,864,311
Residential Home Weatherization	19,920	72,717	27	17.4	346,742	1,265,776
Commercial Steam Trap Survey and Repair	0	0	0	3.0	0	0
Total	1,447,128	4,502,330	26.79		5,981,525	14,590,445

Updated for actuals through June 2020

**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	9,277	0.00	7.32
Residential Home Energy Assessment	1,940	1.36	1.49
Residential Home Energy Report	20,985	7.12	16.26
Residential Home Weatherization	3,333	1.48	2.61
Commercial Steam Trap Survey and Repair	0	0.00	0.00
Total	35,535	9.96	27.68

Updated for actuals through June 2020

**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	0	2
Residential Home Energy Report	0	0	0
Residential Home Weatherization	2	1	3
Commercial Steam Trap Survey and Repair	0	0	0
Total	5	1	6

Updated for actuals through June 2020

**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	1.8	1.0	3.7	2.6	0.7
Residential Home Energy Assessment	15.3	4.6	n/a	0.6	0.4
Residential Home Energy Report	3.2	1.3	n/a	1.3	0.5
Residential Home Weatherization	3.3	0.9	6.8	0.6	0.4
Residential Program	3.0	1.2	15.8	1.2	0.6
Commercial Steam Trap Survey and Repair	n/a	n/a	n/a	n/a	n/a
Commercial & Industrial Program	n/a	n/a	n/a	n/a	n/a
Total Portfolio	2.97	1.2	15.8	1.2	0.5

Updated for actuals through June 2020

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