The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Responses to Division's Fourteenth Set of Data Requests Issued January 22, 2018

Division 14-46

Request:

Please provide all empirical third party evaluations of ratepayer-funded low-income bill affordability assistance offered by the Company, or any affiliated utility, in a state other than Rhode Island since January 1, 2013.

Response:

The Company is not aware of any third party evaluations of customer-funded low income assistance offered by the Company or an affiliate of the Company.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Responses to Division's Fourteenth Set of Data Requests Issued January 22, 2018

Division 14-47

Request:

Please provide a copy of all empirical third party evaluations of ratepayer-funded low-income bill affordability assistance offered by a natural gas and/or electric utility other than the Company which evaluation was reviewed in the development of the proposed bill affordability proposal set forth in this proceeding.

Response:

The Company did not rely on any third-party evaluations of bill affordability assistance programs offered by other natural gas and/or electric utilities in the development of the Company's bill affordability proposals set forth in this proceeding.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Responses to Division's Fourteenth Set of Data Requests Issued January 22, 2018

Division 14-48

Request:

Please provide a final copy of the 4600 Stakeholder Working Group Process report (April 5, 2017) along with any submission that National Grid made to that Working Group in its deliberations.

Response:

The Company is providing the following attachments in response to Division 14-48:

- Attachment DIV 14-48-1: NG Overview of Customer Costs January 20, 2017
- Attachment DIV 14-48-2: Company's Responses to Informal Division Set 1 in Docket No. 4600 (2-16-17)
- Attachment DIV 14-48-3: Rhode Island Docket 4600 Final Working Group Report
- Attachment DIV 14-48-4: National Grid Rate Design Principles
- Attachment DIV 14-48-5: Company Rates Presentation
- Attachment DIV 14-48-6: Company Presentation September 2016

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-1 Page 1 of 1

NG Overview of Customer Costs

January 20, 2017

Customer-related costs are primarily a function of the number of customers served, and are incurred whether or not a particular customer uses any electricity, and do not vary with usage or load profile. These types of costs are typically recovered through a fixed, non-usage based, charge. A utility incurs customer-related costs in order to connect a customer to the distribution system, to meter the customer's usage, and to maintain both customer-related distribution assets and the customer's account. Customer-related costs include capital costs associated with connecting the customer (such as a service drop) and metering the customer (meters), and operating costs such as customer service, field service, meter reading, billing, and customer accounting.

In addition, customer-related costs may also include capital costs associated with a portion of the primary and secondary distribution system. The theory being that in order for a utility to serve even the smallest customer, it must construct and operate a minimum-sized system. Therefore, the costs associated with the minimum system are related to the number of customers served rather than the demand those customers impose on (or require from) the system. In the jurisdiction of the Company's New York affiliate, the capital costs associated with poles/towers/fixtures, overhead conductors, devices underground conduits, conductors, and devices, are split between the demand and customer functions based on special studies. This allocation is performed in the embedded (allocated) cost of service study prepared as part of a general rate case.

Recent legislation in Massachusetts, An Act Relative to Solar Energy St. 2016, c. 75, allows for utilities to propose a monthly minimum reliability contribution ("MMRC") that is intended to ensure that all distribution company customers contribute to the fixed costs of ensuring the reliability, proper maintenance, and safety of the distribution system. The Company's Massachusetts affiliates, Massachusetts Electric Company and Nantucket Electric Company (together, Mass. Electric), and other Massachusetts electric companies presented three options for the design of an MMRC to the Massachusetts Department of Public Utilities ("Department") during a proceeding established by the Department and intended to consider the appropriate design of an MMRC. The Company's preferred approach is consistent with Mass. Electric's alternative to the MMRC supported by all of the Massachusetts electric companies, which is an MMRC based on the cost of the minimum distribution system necessary to supply a theoretical minimum load, as described above. Minimum system costs would be estimated based upon embedded costs multiplied by a ratio of minimum system load to peak system load.

Example:

Average distribution cost per customer per month: \$40.00 Minimum Load (Night): 1,800 MW

Peak Load (Summer): 4,300 MW Ratio: $\frac{42\%}{16.74}$ Minimum System Charge (MMRC) per month: \$ 16.74

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-2 Page 1 of 10

The Narragansett Electric Company d/b/a National Grid
In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600
Issued on February 1, 2017

Informal Division 1-1

Request:

Please provide the average annual number of customers for each rate class for each of the years 2012-2016.

Response:

Please see Attachment DIV 1-1.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-2 Page 2 of 10

> The Narragansett Electric Company d/b/a National Grid Division's Informal Questions in the Context of RIPUC Docket No. 4600 Attachment DIV 1-1 Page 1 of 1

12 Month Average Customer Counts by Year

		<u>A-16</u>	<u>A-60</u>	C-06/C-08	<u>G-02</u>	B-32 / G-32	B-62 / G-62	<u>M1</u>	<u>S</u>	-05	<u>S-06</u>	<u>S-10</u>	<u>S-14</u>	<u>X-1</u>	
	Customer Counts:														
(1)	2012	389,732	43,068	47,748	8,451	1,071	13		3	-	-	2,446	362	1	
(2)	2013	392,904	42,138	49,028	8,460	1,083	15		3	-	-	2,575	376	1	
(3)	2014	392,581	43,147	49,210	8,357	1,069	13		3	-	-	2,515	380	1	
(4)	2015	393,599	46,157	49,716	8,402	1,069	12		3	-	-	2,469	377	1	
(5)	2016	401,314	36,605	49,847	8,402	1,065	13		3	1	-	2,382	368	1	

^{(1) - (5)} Per Company Revenue Reports

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-2 Page 3 of 10

The Narragansett Electric Company d/b/a National Grid
In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600
Issued on February 1, 2017

Informal Division 1-2

Request:

For each rate class, please provide the number and percentage of customers that currently participate in any one of the following rate offerings:

- a. Flat energy rates
- b. Inclining block rates
- c. Declining block rates
- d. Seasonal rates
- e. Time of use rates
- f. Peak time rebates
- g. Critical peak pricing
- h. Real-time prices

Response:

Please see Attachment DIV 1-2, for the number of active customers as of January 2017 who currently participate in the rate offerings listed above.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-2 Page 4 of 10

The Narragansett Electric Company
d/b/a National Grid
Division's Informal Questions in the Context of
RIPUC Docket No. 4600
Attachment DIV 1-2
Page 1 of 1

Customer (Count as of January 20	17											
		<u>A</u> -	·16	<u>A</u>	<u>-60</u>	<u>C-06</u>	/C-08	<u>G</u>	<u>-02</u>	B-32	<u>/ G-32</u>	<u>B-62</u>	/ G-62
(1)	Customer Counts:		412,354		35,040		51,184		8,675		1,083		14
		#	%	#	%	#	%	#	%	#	%	#	%
a.	Flat energy rates	412,354	100.00%	35,040	100.00%	51,184	100.00%	8,675	100.00%	1,083	100.00%	14	100.00%
b.	Inclining block rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
c.	Declining block rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
d.	Seasonal rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
e.	Time of use rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
f.	Peak time rebates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
g.	Critical peak pricing	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
h.	Real-time prices	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
		<u>N</u>	<u>11</u>	<u>S</u> -	<u>-05</u>	<u>S</u> .	<u>-06</u>	<u>s</u>	<u>-10</u>	<u>S</u> -	- <u>14</u>	<u>x</u>	<u>(-1</u>
(2)	Customer Counts:		3		2		2		2,336		362		1
		#	%	#	%	#	%	#	%	#	%	#	%
a.	Flat energy rates	3	100.00%	2	100.00%	2	100.00%	2,336	100.00%	362	100.00%	1	100.00%
b.	Inclining block rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
c.	Declining block rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
d.	Seasonal rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
e.	Time of use rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
	Peak time rebates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
	Critical peak pricing	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
h.	Real-time prices	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%

^{(1) &}amp; (2) Per Company Revenue Reports for January 2017

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-2 Page 5 of 10

The Narragansett Electric Company d/b/a National Grid In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600 Issued on February 1, 2017

Informal Division 1-3

Request:

For each rate class, please provide the number and percentage of customers that currently have meters that would allow the Company to offer any one of the following rate options:

- a. Demand charges
- b. Time-of-use rates: two periods per day
- c. Time-of-use rates: more than two periods per day
- d. Peak time rebates
- e. Critical peak pricing
- f. Real-time prices

Response:

Please see Attachment DIV 1-2, for the number of customers who currently have installed meters that are capable of recording usage in 5- or 15-minute intervals. Although these meters are capable of recording the data necessary for the various pricing options listed above (a. through f.), please note that, to implement any of these different pricing options, the Company would need to make changes to its back office processes, such as meter reading, data collection and processing, billing systems, and customer support. Additionally, the 230 meters in the Rate A-16/A-60 class, 156 meters in Rate C-06 class, and 209 meters in Rate G-02 class noted as being capable of recording the data necessary for the various pricing methods listed above (a. through f.) are interval data recorders, or IDRs, currently installed at customer locations for load research purposes only and are rotated periodically.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-2 Page 6 of 10

> The Narragansett Electric Company d/b/a National Grid Division's Informal Questions in the Context of RIPUC Docket No. 4600 Attachment DIV 1-3 Page 1 of 1

		<u>A-16 / A</u>	<u>460*</u>	C-06/C	<u>C-08*</u>	<u>G-0</u>)2*	B-32	/ G-32	<u>B-62</u>	/ G-62
(1)	Customer Counts:		447,394		51,184		8,675		1,083		14
	Customers with meters allowing:	#	%	#	%	#	%	#	%	#	%
a.	Demand charges	230	0.05%	156	0.30%	8,675	100.00%	1,083	100.00%	14	100.00%
b.	Time-of-use rates: two periods per day	230	0.05%	156	0.30%	209	2.41%	1,083	100.00%	14	100.00%
c.	Time-of-use rates: more than two periods per day	230	0.05%	156	0.30%	209	2.41%	1,083	100.00%	14	100.00%
d.	Peak time rebates	230	0.05%	156	0.30%	209	2.41%	1,083	100.00%	14	100.00%
e.	Critical peak pricing	230	0.05%	156	0.30%	209	2.41%	1,083	100.00%	14	100.00%
f.	Real-time prices	230	0.05%	156	0.30%	209	2.41%	1,083	100.00%	14	100.00%
		<u>S-0.</u>	<u>5</u>	<u>S-0</u>	<u>6</u>	<u>S-</u>	<u>10</u>	<u>S</u> -	14	<u>x</u>	<u>-1</u>
(1)	Customer Counts:		2		2		2,336		362		1
	Customers with meters allowing:	#	%	#	%	#	%	#	%	#	%
a.	Demand charges	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1	100.00%
b.	Time-of-use rates: two periods per day	-	0.00%	-	0.00%	_	0.00%	-	0.00%	1	100.00%
c.	Time-of-use rates: more than two periods per day	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1	100.00%
d.	Peak time rebates	-	0.00%	_	0.00%	-	0.00%	_	0.00%	1	100.00%
e.	Critical peak pricing	-	0.00%	_	0.00%	-	0.00%	_	0.00%	1	100.00%
	Real-time prices	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1	100.00%

⁽¹⁾ Per Company Revenue Reports for January 2017

* The 230 meters in A-16/A-60, 156 in C-06 and 209 in G-02 are IDRs in the field for Load Data Research purposes and are rotated periodically.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-2 Page 7 of 10

The Narragansett Electric Company d/b/a National Grid In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600 Issued on February 1, 2017

Informal Division 1-4

Request:

For each rate class, please provide the following information for all meters NOT capable of interval metering currently installed on the Company's system:

- a. Average meter book life
- b. Average assumed meter operating life
- c. Average meter age
- d. Average expected meter life remaining

Response:

- a. The average meter book life is 18 years for all meters regardless of rate class. The Company does not have the breakdown of non-interval and interval meters in its plant accounting system.
- b. The average meter operating life is assumed to be 30 years for all meters regardless of rate class.
- c.-d. Please refer to the table below for the average meter age and average expected meter life remaining for non-interval meters for each rate class.

Rate Group	Non Interval Meters	Avg Non Interval Meter Age (YRS)	Avg Non Interval Meter Life Remaining (YRS)
A16	414,149	12.7	17.3
A60	34,573	12.6	17.4
C06	53,659	11.7	18.3
G02	8,343	10.9	19.1

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-2 Page 8 of 10

The Narragansett Electric Company d/b/a National Grid In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600 Issued on February 1, 2017

Informal Division 1-5

Request:

For each rate class, please provide the following information for all meters capable of interval metering currently installed on the Company's system:

- a. Average meter book life
- b. Average assumed meter operating life
- c. Average meter age
- d. Average expected meter life remaining

Response:

- a. Please see the response to Division 1-4.
- b. Please see the response to Division 1-4.
- c.-d. Interval meters are used for load research purposes for all rate classes and the B32, G32, G 62, M1, and X1 rates require interval metering for billing. Please see the table below.

Rate Group	Interval Meters	Avg Interval Meter Age (YRS)	Avg Interval Meter Life Remaining (YRS)
A16	247	9.76	20.24
A60	15	9.51	20.5
B32	7	4.62	25.4
C06	237	7.23	22.8
G02	361	7.29	22.7
G32	1,071	8.23	21.8
G62	13	4.54	25.5
M1	3	11.66	18.3
X01	1	4.22	25.8

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-2 Page 9 of 10

The Narragansett Electric Company d/b/a National Grid In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600 Issued on February 1, 2017

Informal Division 1-6

For each rate class, please provide the number and percentage of customers that currently have each of the following behind-the-meter technologies installed:

- a. Photovoltaics
- b. Combined heat and power
- c. Other types of DG
- d. Plug-in electric vehicles
- e. Batteries or other storage devices

Response:

Please see table below:

Rate Class	Photovoltaic	Combined Heat and Power	Wind	Other DG	Plug-in Electric Vehicles	Battery or Other Storage Devices
A-16	1391	2	8	0	750	0
% of Custs	0.286	0	0.002	0	0.2	0
A-60	22	0	0	0	0	0
% of Custs	0.005	0	0	0	0	0
B-32/G-32	27	6	4	1	0	0
% of Custs	0.006	0.001	0.001	0	0	0
B-62/G-62	3	3	2	0	0	0
% of Custs	0.001	0.001	0	0	0	0
C-06	93	2	3	2	0	0
% of Custs	0.019	0	0.001	0	0	0
G-02	51	5	5	1	0	0
% of Custs	0.010	0.001	0.001	0	0	0
Grand Total	1587	18	22	4	750	0
% of Custs	0.327	0.004	0.005	0.001	0.2	0

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-2 Page 10 of 10

The Narragansett Electric Company d/b/a National Grid
In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600
Issued on February 1, 2017

Informal Division 1-6, page 2

The Company does not track electric vehicles. However, the Company understands that approximately 750 electric vehicles have been registered in the State and has assumed they are all garaged at residential customer locations. The Company is currently evaluating proposals for two solar and storage projects at residential customer locations, but these are not yet interconnected to the distribution system.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 1 of 44

Mediation /Facilitation ▲ Consulting ▲ Training Specializing in Energy & Environmental Issues



April 5, 2017

Luly Massaro, Commission Clerk RI Public Utilities Commission 89 Jefferson Boulevard Warwick. RI 02888

Dear Ms. Massaro:

As the facilitator/mediator for the Rhode Island 4600 Working Group, it gives me great pleasure to convey to the Commission the Working Group's Final Report.

The Working Group met for nine, day-long meetings between May 2016 and March 2017 (two of these meetings occurred before we started), with many additional sub-group meetings and assignments between meetings. During the course of this process the Working Group members had detailed discussions focused primarily on two topics: 1) how to better evaluate the benefits and costs of a wide range of technologies, programs, and investments; and 2) how rate design should evolve in Rhode Island over time.

The Report includes detailed principles, insights, and recommendations on these two topics. It also includes recommendations regarding potential next steps for the Commission both on this Report as well as on additional related topics not covered by this phase of 4600 but of great importance to the Working Group members.

All of the recommendations in the Report are by consensus of the Working Group (i.e., unanimity of all twelve Members), except one issue. For that one issue (whether the opt out from time varying rates for default service should be to the competitive market or another default service option) the two alternatives are presented along with the Working Group members who support each alternative.

Paul Centolella from Paul Centolella & Associates (and TCR), who served as the consultant on the project, and I are available to discuss with the Commission any aspect of this Final Report or the process itself at the upcoming Technical Session or otherwise.

Thank you for undertaking this important process, and we hope that you have what you need to move productively forward on these issues in Rhode Island.

Dr. Jonathan Raab President, Raab Associates, Ltd.

> 118 South Street, Suite 3A ▲ Boston, Mussachuseuts 02111 Ph/617.350.5544 ▲ Fax/617.350.6655 www.BaahAssociates.org ▲ raab@raabassociates.org

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 2 of 44

Docket 4600: Stakeholder Working Group Process

Report to the Rhode Island Public Utilities Commission

April 5, 2017

Facilitation (Mediation)/Consulting Team:

Raab Associates, Ltd. with Paul Centolella & Associates and Tabors Caramanis Rudkevich (TCR)

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 3 of 44

Table of Contents

1. INTRODUCTION, REPORT OVERVIEW, AND WORKING GROUP GOALS	3
1.1 Introduction	
1.2. REPORT OVERVIEW	4
1.3. GOALS	5
2. RHODE ISLAND BENEFIT-COST FRAMEWORK	6
2.1. OVERVIEW OF FRAMEWORK	
2.2. BENEFIT-COST AND BUSINESS CASE ANALYSES	•••••••••••••••••••••••••••••••••••••••
2.3. APPLICATIONS OF THE BENEFIT-COST FRAMEWORK.	
2.3.1. Distributed Energy Resources (DER/DERs) Programs and Technologies	
2.3.2. Conventional Distribution Projects	
2.3.3. Grid Modernization Projects	
2.3.4. Rate Designs	
2.3.5. Comparison Across Resources, Technologies, or Policies	
2.4. NEXT STEPS FOR DEVELOPING THE BENEFIT-COST FRAMEWORK IN RHODE ISLAND	
3. RATE DESIGN	12
3.1. RATE DESIGN PRINCIPLES	
3.2. TIME-VARYING RATES	
3.3. LOCATION-BASED STRATEGIES	
3.4. LOW INCOME/CUSTOMER PROTECTIONS (AND OPPORTUNITIES)	15
3.5. GENERAL RATE DESIGN CONCEPTS	
3.6 Perspective on Long-Term Distribution Rate Design	
4. NEXT STEPS AND POTENTIAL FUTURE PROCESSES	18
4.1. RELATED TO RECOMMENDATIONS IN REPORT	
4.2. Additional Topics and Processes	18
APPENDIX A: LEAD REPRESENTATIVES AND ALTERNATES	22
APPENDIX B: BENEFIT-COST FRAMEWORK	23
APPENDIX C: BACKGROUND INFORMATION FROM NATIONAL GRID	34

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 4 of 44

1. Introduction, Report Overview, and Working Group Goals

1.1 Introduction

On March 18, 2016 the Rhode Island PUC opened up Docket 4600. According to the PUC:

The purpose of the docket will be to develop a report that will guide the PUC's review of the Narragansett Electric Company d/b/a National Grid's (National Grid) rate structure in future proceedings. In order to determine the factors necessary for determining rates pursuant to the Renewable Energy Growth Program, and to improve consistency within and across programs, the PUC needs to develop an improved understanding of the costs and benefits caused by various activities on the system. More specifically, in Docket 4600 the PUC seeks answers to the following overarching question: What attributes are possible to measure on the electric system and why should they be measured?

This overarching question can be further broken down into three broad questions:

- 1. What are the costs and benefits that can be applied across any and/or all programs, identifying each and whether each is aligned with state policy?
- 2. At what level should these costs and benefits be quantified—where physically on the system and where in cost-allocation and rates?
- 3. How can we best measure these costs and benefits at these levels–what level of visibility is required on the system and how is that visibility accomplished?

The PUC solicited stakeholders who wanted to participate in 4600, and issued an RFP to retain professional consulting and facilitation services to help run the stakeholder process. The following dozen stakeholder groups in Table 1 participated as full-members of the 4600 Working Group, plus the PUC staff also participated as ex officio members (not taking part in the recommendations included in this Report.) The lead representatives and their alternates (and consultants) from each Stakeholder group can be found in Appendix A.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 5 of 44

Table 1: Rhode Island Docket 4600 Working Group Members

Acadia Center
Conservation Law Foundation (CLF)
Direct Energy
George Wiley Center (GWC)
National Grid
New Energy Rhode Island (NERI)
Northeast Clean Energy Council (NECEC)
People's Power & Light (PPL)
RI Division of Public Utilities & Carriers
RI Energy Efficiency and Resource Management Council (EERMC)
RI Office of Energy Resources (OER)
RI Public Utilities Commission (ex officio)
The Energy Council of Rhode Island (TEC-RI)

The Rhode Island PUC selected Raab Associates, Ltd. (along with its subcontractors Paul Centolella & Associates and TCR) to provide facilitation/mediation and consulting services. Prior to Raab Associates being retained, the PUC staff hosted and facilitated two preliminary meetings of the 4600 Working Group. In developing the workplan for the Working Group with Raab Associates, the PUC agreed that the scope of this phase of the Working Group process would include three parts:

- Explication of the full range of relevant costs and benefits
- · Refinement of cost-effectiveness testing
- Exploration of rate design and cost recovery principles and issues

Between May 2016 and March 2017, the Working Group met nine times (seven times after Raab Associates was retained) to develop the material and recommendations contained in this Report. Unless otherwise noted, the principles and recommendations represent a consensus of all the stakeholders in the Working Group (except for the PUC staff who participated in an ex officio capacity). Where consensus was not reached (in only one instance), alternatives are provided and the stakeholders representing each alternative are identified.

1.2. Report Overview

Chapter 2 includes the Working Group's recommendations regarding a new benefit-cost framework for Rhode Island including a comprehensive set of recommended benefits and costs that can be applied to diverse resources, programs, and rate designs. **Chapter 3** includes the Working Group's recommendations regarding rate design principles and other important rate design issues including time-varying rates, location-based strategies, protections and opportunities for low income and other customers, and cost recovery. **Chapter 4** includes some

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 6 of 44

recommendations on potential next steps including issues that the Working Group would like to see the PUC and stakeholders pursue piggy-backing on the work already accomplished herein.

Appendix A, as mentioned above, includes the participating stakeholder groups and their representatives, alternates, and consultants. **Appendix B** includes the proposed Rhode Island Benefit-Cost Framework. **Appendix C** includes background information from National Grid (in response to a data request from the Division) on its current rate offerings (and customer participation); its current meters; and current use of behind the meter technologies by customers.

1.3. Goals

We conclude this chapter by laying out goals that the Working Group members embrace related to the following important question: What can and should the new electric system be able to accomplish?

- Provide reliable, safe, clean and affordable energy to Rhode Island customers over the long term (this applies to all energy use, not just regulated fuels)
- Strengthen the RI economy, support economic competitiveness, retain and create jobs by optimizing the benefits of a modern grid and attaining appropriate rate design structures
- Address the challenge of climate change and other forms of pollution
- Prioritize and facilitate increasing customer investment in their facilities (efficiency, distributed generation, storage, responsive demand, and the electrification of vehicles and heating) where that investment provides recognizable net benefits
- Appropriately compensate distributed energy resources for the value they provide to the electricity system, customers, and society
- Appropriately charge customers for the cost they impose on the grid
- Appropriately compensate the distribution utility for the services it provides
- Align distribution utility, customer, and policy objectives and interests through the regulatory framework, including rate design, cost recovery, and incentives

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 7 of 44

2. RHODE ISLAND BENEFIT-COST FRAMEWORK

2.1. Overview of Framework

To address the PUC's questions in its Notice initiating this docket (delineated at the beginning of Chapter 1), the Working Group developed a framework identifying categories and drivers of benefits and costs. It provides a more detailed definition of costs and benefits and the factors that drive the value of these cost and benefits. The goal of the framework is to assist the Commission in identifying:

- Costs and benefits that can be evaluated across any and all programs or policies;
- The level at which and where physically on the system these costs and benefits can be quantified;
- How to best measure such costs and benefits; and
- The visibility required to measure such costs and benefits.

The Working Group sought to develop and refine a comprehensive framework of costs, benefits, and their key drivers. The final Rhode Island Benefit-Cost Framework (Framework) agreed to by the full Working Group includes thirty-four categories of costs and benefits (Column B). The categories cover specific ISO-New England wholesale and Rhode Island retail market benefits and costs; various distribution system impacts; risk, uncertainty, and option value; direct environmental compliance costs, as well as, societal level externalities; customer, utility, and societal low-income customer impacts; and qualitative consideration of impacts on customer choice and empowerment.

The Working Group's recommended Framework can be viewed at the following link http://www.raabassociates.org/main/projects.asp?proj=146&state=Services (B-C Framework Final) and is included as Appendix B to this Report.

For each cost and benefit category, the Framework includes between one and five different System Attributes/Cost Drivers (Column C) that drive the incurrence of the costs and/or accrual of the benefits. A total of 53 different drivers were defined in the Framework. Individual drivers may be a system, policy, market, technology, customer, or other attribute, or set of related attributes, that impact the value of a cost and/or benefit.

The costs and benefits of individual electric distribution, energy efficiency, renewable energy, and/or distributed energy resource technologies and specific applications or deployments of these technologies can be evaluated using the Framework. The specific cost and benefit drivers identified in the Framework are key factors that will affect the value of the associated cost or benefit in the context of specific plans or deployments. In an early step in the development of the Framework, Working Group members were asked to consider how to evaluate the benefits and costs of different technologies. It was useful to start by thinking about the benefits and costs of technologies, rather than of programs, since deployment of a given technology might be supported under more than one program and programs often cover multiple technologies. The Commission asked, "What ... costs and benefits that can be applied across any and/or all programs...?" The cost

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 8 of 44

and benefit categories identified by the Working Group can be applied in evaluating technologies, programs, and rate designs.

The Framework recognizes that the value of a cost or benefit may vary by time, location, electrical product (real power, reactive power, or reserves), technology, or customer. There is, for example, no single distribution value of distributed energy resources. Rather than specifying cost or benefit values, the Framework includes a list of Candidate Methodologies (Column D) that could be used to quantify costs and benefits. The list provides a high level identification of approaches to valuation. The candidate methods are illustrative and not meant to be exclusive. Values for technology deployments would be developed in the context of specific plans and proceedings. For some drivers, the Framework lists multiple options as candidate methodologies. These are generally listed in order of increasing detail and granularity. It is assumed that, over time and as necessary to address issues in specific proceedings, the methods used in valuation may become increasingly sophisticated and precise.¹

Additionally, the Framework was extended to address the Potential Visibility Requirements (Column E) that may be needed to use different valuation methods. The Framework identifies methods that may require additional sensors, advanced or interval meters, detailed modeling, planning studies, and/or customer surveys. With greater visibility, additional valuation methods will become available.

The Framework is intended to be a guide for identifying and valuing different costs and benefits in the context of Rhode Island specific benefit-cost analysis. As the Commission and parties gain experience with the use of these cost and benefit categories and drivers, standard practices may develop and become more sophisticated over time. And, the definition of specific cost and benefit categories and drivers may be refined or modified either by the Commission, by practice in the field, or in the course of future proceedings. This important work remains to be done and should recognize the work done in other states.

2.2. Benefit-Cost and Business Case Analyses

Benefit-cost analysis is a tool that can be used to inform decisions regarding regulatory policies and utility investments. However, the results of a benefit-cost analysis should not necessarily be used in isolation when making such decisions. Additional considerations may need to be addressed. These additional considerations include, for example: statutory requirements; reliability and resiliency needs; customer equity issues; limited utility or customer funding; and rate impacts.

These additional considerations might mean that a resource that is found to be cost-effective according to the Rhode Island Benefit-Cost Framework might not be undertaken, or vice versa. Some states have begun using the term "business case" to describe an approach where additional

¹ The framework is a guide to potential costs and benefits. However, the existence of the different categories does not imply that every possible technology deployment necessarily will be associated with a measurable cost or benefit in each of the categories. There can be examples where a driver is not directly impacted and the most appropriate value for the cost or benefit in a given category might be zero.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 9 of 44

considerations (which are often qualitative or not monetized) are accounted for in addition to the monetized costs and benefits.

2.3. Applications of the Benefit-Cost Framework

Benefit-cost analyses can be used for several purposes, and can be applied in different contexts. It is important to describe the purpose and the application of the benefit-cost analysis, to be clear on what is being compared with what, and what question the analysis will answer.

The Framework can be used for the following purposes and contexts.

2.3.1. Distributed Energy Resources (DER/DERs) Programs and Technologies

The Framework can be used to analyze different DER programs and technologies, including energy efficiency programs, demand response programs, distributed generation resources, storage technologies, net metering programs, and the Renewable Energy Growth Program.

A single program or resource (e.g., energy efficiency programs) is compared in isolation with a reference future scenario (i.e., base case), to indicate the relative costs and benefits of that single program or resource.

This type of analysis would be applied in the context of approving utility investments for a particular type of DER program or technology. This is how energy efficiency programs are currently assessed in Rhode Island.

2.3.2. Conventional Distribution Projects

The Framework can be used to analyze conventional distribution investments, including those needed to maintain, upgrade, or expand the distribution system. Initially, the framework can be applied to significant discretionary distribution projects, and may ultimately also be applied to certain non-discretionary (mandatory) projects.

A specific conventional distribution project, or set of projects, is compared with alternative conventional distribution projects.

This type of analysis might be applied in the context of a future rate case, where the utility is proposing to recover costs from capital investments in conventional distribution technologies.

2.3.3. Grid Modernization Projects

The Framework can be used to analyze grid modernization projects, including advanced metering functionality (AMF), other customer-facing grid modernization technologies, and grid-facing technologies.

A specific grid modernization project, or set of projects, is compared with conventional distribution projects. Some grid modernization projects, such as AMF, might enable other types of resources, such as demand response. In such cases, the cost and benefits of the enabled resources should be embedded in the costs and benefits of the grid modernization project in question.

This type of analysis might be applied in a docket where a utility is seeking guidance on whether to make proposed grid modernization investments, or in a rate case where the utility is seeking to recover the costs of grid modernization investments.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 10 of 44

2.3.4. Rate Designs

The Rhode Island Benefit-Cost Framework can be used to support the evaluation of different rate design proposals including but not limited to increased fixed charges, demand charges, and a variety of time-varying rates. First, it is important to note that in practice rate designs are typically evaluated on the basis of how well they meet rate design principles – but not necessarily with benefit-cost analysis. Nonetheless, the RI Benefit-Cost Framework may identify information relevant to the application of rate design principles and can be used to provide additional information regarding the extent to which rate design benefits might exceed costs.

For example, the rate design benefit cost analysis could include the following steps.

- 1. Identify different rate design proposals to compare.
- 2. Each rate design proposal would be compared with the current rate design for the relevant class.
- 3. For each rate design proposal, rate components may change customer behavior and usage patterns and may impact the costs and benefits of several different customer activities, such as improving consumption patterns, participating in demand response programs, installing storage technologies, or purchasing and managing the charging of electric vehicles.
- 4. For each-customer activity, identify any increased or decreased costs associated with the rate design proposals, based upon the costs in the Rhode Island Benefit-Cost Framework.
- For each customer activity, identify any benefits associated with the two rate design proposals, based on the benefits included in the Rhode Island Benefit-Cost Framework.
- 6. For each customer activity, compare the costs to the benefits to indicate the relative value of the individual activity.
- 7. Combine all of the costs of each activity and all of the benefits of each activity, to provide total costs and benefit results for each rate design proposal.
- 8. Consider other factors that were not addressed in the benefit-cost analysis described above (e.g., customer equity, simplicity, and gradualism²).

This approach will likely need to be refined and improved, once the analysis begins and the stakeholders develop a better sense of what needs to be done.

² James Bonbright (1961) in his historic principles for rate design defines gradualism as "stability of the rates themselves with a minimum of unexpected changes seriously adverse to existing customers."

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 11 of 44

2.3.5. Comparison Across Resources, Technologies, or Policies

The Framework can be used to compare across different resources and policies. For example,

- Different types of DERs can be compared with each other to indicate which DERs or DER programs have the lowest cost, has the highest benefit-cost ratio, or results in the greatest net benefits.
- Conventional distribution projects can be compared with DERs, for example to see the costs and benefits of a particular non-wires alternative (NWA) relative to a conventional distribution project. This is the approach that is currently used in System Reliability Procurement (SRP).
- A variety of resource options can be optimized, where conventional distribution projects
 are compared with DERs, customer-facing grid modernization projects, and grid-facing grid
 modernization projects. This methodology is used in integrated resource planning
 practices, and is being explored in several states for use in distribution system planning. It
 uses detailed modeling practices to optimize an entire portfolio of resources.

When comparing or evaluating resources, planners and policy makers will have to account for the fact that in a market environment some DERs will be deployed and operated by customers and/or third parties and that they will do so based upon their perceptions of their own costs and benefits and in response to specific rate designs, incentives, and/or compensation mechanisms.

The Benefit-Cost Framework should be applied through a methodology that:

- Identifies and justifies preferred characterization and quantification methods for each component attribute or effect.
- Addresses uncertainty and the appropriate adjustments for less than comprehensive data.
- Establishes the timeframe for assessing component attributes and effects, or the cost and benefit impacts perspective that should be used for each (e.g., impacts on participants, non-participants, the utility, and society at large).
- Integrates these decisions in a unified manner and includes instructions for its use.

2.4. Next Steps for Developing the Benefit-Cost Framework in Rhode Island

Rhode Island already has a well-established practice for assessing the cost-effectiveness of energy efficiency resources. The new Framework should be developed by incrementally expanding upon current practices. A step-by-step approach should make the analyses more feasible and practical, and should allow stakeholders to assess the implications of the framework each step of the way—with the goal of refining the framework, establishing best practices for assessing each type of cost and benefit, and generally making it more robust with experience.

The Framework should be used to evaluate:

• Energy efficiency programs

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 12 of 44

- Demand response programs
- Distributed generation programs, such as the Renewable Energy Growth Program and the Rhode Island net metering provisions
- Different distributed energy resource programs against each other
- Alternative rate designs
- Major proposed distribution capital investments
- Benefits and costs of conversion to advanced metering functionality, taking into account the full range of potential opportunities that advanced metering functionality could enable
- Dynamic portfolio optimization (eventually).

The results of each of the analyses should be presented in terms of benefit-cost ratios and net benefits for each program (in present value dollars). The results should also be put in terms of MWh, MWh, MWh, MWh, MWh, MWh, and MWh, and MWh, and MWh, it allow for comparison across resources and policies. However, as described in section 2.2 above the results of a benefit-cost analysis should not necessarily be used in isolation when making such decisions. Additional considerations may need to be addressed.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 13 of 44

3. RATE DESIGN

This chapter begins with a listing of rate design principles that should be considered when designing and evaluating effective rates. Rates are generally designed to both send appropriate price signals to customers and to allow utilities (and 3rd party suppliers) to recover reasonable costs associated with maintaining, operating, and modernizing the electric grid (and for supplying electricity).

The second part of this chapter includes the Working Group's recommendations on the design of time-varying rates (TVR) and of location-based strategies. The third describes the Working Group's recommendations around low-income and customer protections. In the final part of this chapter, the Working Group discusses general rate design concepts, and then provides a shared perspective on long-term distribution rate design.

3.1. Rate Design Principles

The Working Group agrees on the following rate design principles that the Commission, utility, and stakeholders should take into account when designing and evaluating rate design options.

- Ensure safe, reliable, affordable, and environmentally responsible electricity service today and in the future
- Promote economic efficiency over the short and long term
- Provide efficient price signals that reflect long-run marginal cost
- Future rates and rate structures should appropriately address "externalities" that are not adequately counted in current rate structures
- Empower consumers to manage their costs
- Enable a fair opportunity for utility cost recovery of prudently incurred costs and revenue stability
- All parties should provide fair compensation for value and services received and should receive fair compensation for value and benefits delivered
- Be transparent and understandable to all customers
- Any changes in rate structures should be implemented with due consideration to the
 principle of gradualism in order to allow ample time for customers (including DER
 customers) to understand new rates and to lessen immediate bill impacts
- Provide opportunities to reduce energy burden, and address low income and vulnerable customers needs
- Be consistent with policy goals (e.g. environmental, climate (Resilient Rhode Island Act), energy diversity, competition, innovation, power/data security, least cost procurement, etc.)
- Rate structures should be evaluated on whether they encourage or discourage appropriate investments that enable the evolution of the future energy system

3.2. Time-Varying Rates

The purpose of time-varying rates (TVR) is to send better and more accurate price signals to customers regarding when the use of electricity is relatively expensive or relatively cheap so that

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 14 of 44

customers can make more efficient decisions regarding when to use and not use electricity. TVR can be used for sending more accurate price signals regarding production, transmission, and distribution. There are a wide range of TVR options including most commonly time-of-use (TOU) pricing; critical peak pricing (CPP); peak-time rebates (PTR); and real-time pricing (RPP).

The Working Group has the following important observations and recommendations regarding the design and implementation of TVR in Rhode Island—made by consensus unless otherwise noted.

For TVR to be successful extensive consumer education is needed, as is the ready availability of various control technologies to help facilitate price responsiveness. Education should cover the purpose, potential impacts (to customer, system, environment), and ways to use technology and adjust behavior to reduce customer' bills. Consumer education strategies on TVR and control technologies should be multi-faceted, including:

- Community outreach strategies;
- Customized strategies for different customer classes and customer types (e.g., homeowners and renters);
- Integration into existing programs (to leverage them) such as energy efficiency program design and delivery; and

Well-designed TVR should be offered as a default service for energy supply on an opt-out basis as soon as practical (e.g., the presence of advanced metering functionality and related communications and billing changes in place).

- National Grid, Direct Energy, NECEC, TEC-RI, and CLF: Offering a single (TVR) Standard
 Offer Service rate option will allow customers to easily compare the Company's default
 commodity rate to options available in the competitive market. This approach is
 consistent with the long-standing policy of facilitating a competitive market for commodity
 supply.
- Division, Wiley Center, Acadia, PPL, OER, NERI, and EERMC: During an initial transitional phase, residential customers who opt out of time varying rates should be provided with the option of using National Grid's standard offer service, as well as the opportunity to access the competitive market. Residential customers should not be forced to use a Nonregulated Power Producer. Providing an alternative default rate similar to the current A-60 and A-16 rates through National Grid will provide a stable, known option for those customers who initially elect to opt out of time varying rates. Over the medium term, rate design should seek innovative products and design strategies to encourage customers to choose time varying rates. Over the long term, changing customer opportunities and expectations around rate design may support reevaluation of the opt-out alternative.

An opt-in approach should be considered for any transition period to any opt-out requirement. Also, once the opt-out paradigm is in place any customer that choses to opt out, should be able to opt back in at a later date.

Any roll out of TVR should address low-income and all other customer challenges and opportunities.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 15 of 44

When and if advanced metering functionality is in place, interval meter data for residential and small commercial customers should be made available to $3^{\rm rd}$ party providers (with customer approval), so that $3^{\rm rd}$ parties could offer rate design alternatives and energy management services more cost-effectively than they can today.

Third parties, in addition to utilities, should be permitted to provide consolidated bills that could breakdown customer usage by end use, suggest targeted energy savings improvements, and other related services (e.g., on-bill financing). The Working Group acknowledges that this would require numerous changes, and recommends that the Commission investigate this further.

Regarding default TVR rates for different customer classes, instead of specific TVR recommendations for each customer class at this point in time, the Working Group prefers to lay out the following recommended parameters/considerations, as well as recommended process for determining TVR design at a later date.

- Different rate designs should be considered for different customer classes reflecting their unique characteristics and capabilities
- Alternative rate designs should be evaluated for relative benefits and costs using the Rhode Island Benefit-Cost Framework (See Chapter 2)
- Alternative rate designs should also be evaluated for their potential relative effectiveness and impacts on equity
- TVR approaches should be used to complement and support technologies and programs to reduce peak demand
- TVR should be considered for not just energy supply, but also distribution and transmission rates
- Capacity should be developed to consider impacts of rates on goals that include both DERs and electrification (heat pumps and vehicles) to replace fossil fuels
- Although the Working Group is not prepared to recommend specific TVR rate designs for
 each customer class at this juncture, it does recommend that the Commission consider the
 following types of rate designs (peak time rebates, time-of-use (including seasonal) critical
 peak pricing, and real time pricing) for each of the customer classes (large C&I, small C&I,
 and residential)
- The Commission should consider establishing performance metrics for the utility's achievement of specific peak demand reductions over time, and should also consider establishing financial incentives for the utility to do so

3.3. Location-Based Strategies

The Working Group recommends that the Commission investigate the following potential strategies related to the specific location of production and consumption of electricity:

• Administratively-based programs to identify the areas of the National Grid service territory with the greatest transmission and/or distribution constraints, as well as identifying potential non-wires alternative solutions (for example through use a targeted procurement process) that could cost-effectively defer or down-size traditional distribution investments.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 16 of 44

- Targeting DERs (e.g., microgrids, EV infrastructure, DG) to neighborhoods with high economic and/or environmental locational value
- Use both existing and new targeted incentives, pricing, or both in areas with greatest distribution constraints to incentivize demand reduction
- Broad-based location-based pricing (once more granular information is readily available)
- Congestion-based pricing

The Working Group also recommends that the Commission investigate the magnitude and variance in locational costs across Rhode Island.

3.4. Low Income/Customer Protections (and Opportunities)

The Working Group recommends the following low income/customer protections broadly related to rate design:

- Investigate income-sensitive payment plans;
- Arrearage management with capped maximum monthly arrearage payment and forgiveness;
- Redesign of the low-income A-60 rate to take a fixed percent reduction from residential rates:
- Temporary additional discounts or other mechanisms as needed for low-income
 consumers related to rate increases driven by programs, infrastructure changes, or uneven
 access to new programs or resources (i.e., where the benefit of the new programs or
 resources will not accrue to low-income consumers), or as required by principles of equity
 or burden.
- Possibility of accommodations in certain rate design elements as appropriate

The Working Group also recommends that the Commission investigate opportunities to animate customers to better manage their energy consumption/costs; as well as ways to maintain customer equity, and mitigate any customer equity concerns.

3.5. General Rate Design Concepts

The Working Group agrees to the following principles about cost recovery and statement about decoupling:

- National Grid should have a reasonable opportunity to recover its prudently incurred costs.
- Rhode Island already has a decoupling mechanism in place to true up under (or over) collection of allowed base rate revenue requirements by National Grid.

The Working Group also wanted to convey to the Commission some collective insights and observations related to rate design based on the exercises and discussions that took place during the 4600 process.

- Rate designs that provide meaningful price signals to customers who have the tools and opportunity to respond can improve customers' consumption patterns
- Different rate designs can create higher or lower incentives for the pursuit of distributed energy resources
- TVR offers an opportunity to provide efficient price signals across all resources. TVR also appears to be most robust across the rate design principles listed above, although other

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 17 of 44

rate designs also meet multiple principles reasonably well

- Until some form of advanced metering functionality that provides data on time-specific usage is in place, TVR is not practical in Rhode Island
- Certain rate design types appear better suited for incentivizing particular resource types. For instance, all things being equal under existing rate design (i.e., in the absence of TVR):
 - Higher volumetric charges (kWh) appear to provide higher incentives for energy efficiency and for distributed generation (particularly given net metering),
 - Demand charges based on coincident peak demand (kW) provide higher incentives for distributed storage and responsive demand if consumers have sufficient information and opportunities to respond
 - Lower volumetric charges (kWh) appear to provide higher incentives for electrification strategies
- The Commission should investigate potential cost shifting and equity concerns over time as distributed generation and other types of DERs become more widespread.

The Working Group also has the following perspective (below in 3.6) on how rate design should evolve in Rhode Island in the near- and longer-term as technology that can measure consumption data on an interval basis (e.g., every 5 minutes) become more practical, and technology for customers to better manage their energy use is more readily available.

3.6 Perspective on Long-Term Distribution Rate Design

Rate design should be evaluated not only for its ability to recover costs, but also for the role that it can play in supporting the evolution of the system. As the grid modernizes, consideration should be given to how distribution rate design, in combination with advancements in energy efficiency, demand response, and other DERs, can help the system evolve in an efficient manner to ultimately benefit all customers. Therefore, the Commission should investigate long-term rate design options that will provide price signals to customers, promote a more efficient use of the electric system, and compensate the utility and others for services to customers.

The members of the Working Group all agree with the application of TVR over the long term. In addition, changes to customer charges and consideration of demand charges (e.g., specific time blocks where demand would be measured) for both small and large customers warrant investigation. The following changes will be needed to enable or support TVR:

- Metering, communications, and data management technologies capable of sending and receiving time-based rates at a certain level of granularity.
- Customer-side technologies that automate end-use response to TVR.
- Customer education and engagement programs to provide all customers (including hardto-reach customers) with the information and tools to optimize their electricity consumption.
- Statutory changes may be needed to enable TVR for residential customers.

As technology develops, utilities and retail suppliers may be able to offer, and consumers may be able to understand and benefit from more complex and granular rate design options. As DER integration improves, customers will have the potential to provide a greater number of services to

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 18 of 44

the distribution utility, for example, when technologies such as solar PV are combined with smart inverters or storage and operated in a manner to provide particular services to the distribution utility. Other examples of these services include demand response, energy efficiency, generation and VAR support. These services may allow the utility to defer investments that would have otherwise been made in order to address reliability or system stability issues. Pricing that appropriately compensates customers for these services can provide incentives for customers to embrace opportunities that benefit the system and will also advance equity principles if DER credit values are aligned with economic values.

When retail rates for generation and delivery appropriately reflect the underlying cost of the system, it will be possible to accurately charge and credit consumers for the grid services they use and provide in a technology-neutral manner. It is important to note that peak periods of usage and costs may change and rate design needs to be flexible enough to account for this.

In the meantime, the Commission should consider:

- What is the appropriate way to measure any cost-shift between DER and non-DER customers and at what level does it become unreasonable? (How does this compare to cost-shifting in rates today e.g., rural versus urban, large versus small within rate classes?)
- What are the proper steps to take to recover costs associated with resources and investments required by legislation or regulation, such as funding for the energy efficiency programs or net metering programs?
- As significant rate innovations are implemented, gradualism should be an important principle to the extent necessary to ensure maximum consumer benefits, understanding, and adoption.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 19 of 44

4. NEXT STEPS AND POTENTIAL FUTURE PROCESSES

The Working Group has potential next step recommendations to the Commission in two areas 1) what the Commission should do with this Report; and 2) additional topics and processes the Commission and other state agencies may want to initiate.

4.1. Related to Recommendations in Report

- File report in April
- Invite public comment
- Working group members may submit letters of support (including comments on next steps)
- PUC should hold one technical session on the Report, and potentially additional technical sessions on specific topics (e.g., low income issues, economic and manufacturing competitive issues, etc.)
- Commission feedback on recommendations (e.g., order)—next steps
- Reflect findings and recommendations in next National Grid rate case filing (i.e., November)
 Consider consultation w/stakeholders prior to filing
- Caveat: Report is starting point, but expect modifications and improvements over time (e.g., the Benefit-Cost Framework)

4.2. Additional Topics and Processes

The issues addressed in this report – a Benefit-Cost Framework, principles of rate design, and the importance of time varying rates – comprise a significant contribution to discussions on the future of Rhode Island's electricity grid. However, stakeholders believe that there are additional topics that are essential for stakeholders, the Commission, and other state agencies of Rhode Island to address in order to achieve our energy vision.

This chapter briefly outlines topics identified by stakeholders throughout discussions in Docket 4600 as essential to achieve a low-carbon, least-cost, reliable electricity system with recommendations for next steps.

Future Utility Business Model. Existing rate design structures are based on electric utilities' collection of revenue from end-users of electricity, and depend on the utility's business model as a provider of kilowatts. However, the emergence of distributed energy resources and access to advanced information and communications technologies has enabled customers to reduce, generate, and better control their own energy usage. Enabled consumers continue to rely on the electric utility, but for integration of resources and reliability rather than solely for basic delivery of energy. Stakeholders believe that a discussion of future rate design must begin from a discussion of the future utility business model and, in particular, discussion of what services the utility should provide, what utility functions would provide greatest value to customers, and how those functions should be compensated. This discussion should include an examination of the relative benefits of existing utility incentive and legislative programs.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 20 of 44

Recommendations:

Through collaboration in the policy development process with other agencies and with stakeholders,

Hold appropriate technical meetings to review the Office of Energy Resources' and the
Division of Public Utilities and Carriers' development of a policy vision and regulatory
proposals for the future utility business model based upon collaboration with stakeholders
and the utility.

Future Grid Functionality and Pathways. New opportunities to achieve utility system efficiency and enabled customers depend on deployment of customer- and grid-facing technologies. Stakeholders recommend development of the business cases for application of various kinds of information and communications technologies to the electric grid to achieve a designated degree of grid connective functionality. Evaluation of the costs and benefits of these technologies is complex because the technologies often function as an integrated package and because current capabilities must allow for future technology evolution. It is important to include clear standards and communications protocols and rules to govern third party participation.

Recommendations:

Through collaboration in the policy development process with other agencies and with stakeholders,

- Request that the Office of Energy Resources and the Division of Public Utilities and Carriers build on and refine the "visibility requirements" column of the Benefit-Cost Framework to identify a more specific set of functionalities and potential technology pathways necessary to achieve a future energy system.
- Hold appropriate technical meetings to review the potential scenarios of deployment of those functionalities on the Rhode Island system, including basic information about relative costs and benefits drawn from the Rhode Island system.

Distribution System Planning. Utilities play a critical role in identifying the value of investments made by the utility itself and by third parties on the distribution system. The Benefit-Cost Framework provides the conceptual framework to compare diverse distributed resources to each other and to conventional utility infrastructure solutions in the context of meeting overall power system, customer, and societal needs. The question remains open, however, of how the utility can best apply the Framework within updated planning and investment decision-making processes that leverage programmatic investments and third-party market activity to yield a least-cost, optimized overall portfolio.

Recommendations:

Through collaboration in the policy development process with other agencies and with stakeholders,

Request that the Office of Energy Resources and the Division of Public Utilities and Carriers
work with stakeholders and the utility to recommend updates to the process and
implementation of distribution system planning in order to fully align utility and third-

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 21 of 44

party investment decisions with the goal of a least-cost and reliable utility system that achieves public policy objectives.

Beneficial Electrification. Discussion of the existing and future state of the electric grid appropriately occurs within the context of current industry trends of limited load growth. However, stakeholders recognize that there are tangible opportunities to significantly increase the growth of electric load through adoption of electric vehicles and electrification of space heating. The future needs of the electric system for distribution system planning, compensation and rate design should all reflect and enable these two new industry trends in order to make the electric system function with overall greater efficiency, reliability and contribute to a lower carbon energy system.

Recommendations:

Define a framework for what the Commission would need and how it would review
proposals from the electric utility for electric vehicle infrastructure deployment and
integration. Many of the considerations applicable to electric vehicles will also apply to
electrification of heating, which is another clean energy strategy of importance to Rhode
Island.

Valuing Distributed Generation. Rhode Island policy envisions that our future electric system will include more resources invested in, installed, and operated by non-utility parties, including customers and new energy services businesses. That future grid could be more of a transactional arena than a subscription service from a single provider. The component attributes and effects of all resources must be evaluated for the net value that they offer to the power grid, customer, and society. Until such value is recognized, Rhode Island programs and policies will not send accurate market signals to customers and value will remain unrealized.

Recommendations:

The Working Group has provided several examples of comprehensive valuation methodologies that could be applied in Rhode Island. The Benefit-Cost Framework in Chapter 2 should be applied through a Methodology that:

- Identifies and justifies preferred characterization and quantification methods for each component attribute or effect.
- Addresses uncertainty and the appropriate adjustments for less than comprehensive
- Establishes the timeframe for assessing component attributes and effects, and the cost and benefit impacts perspective that should be used for each (e.g., impacts on participants, non-participants, the utility, and society at large).
- Integrates these decisions into a unified methodology, and includes instructions for its use.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 22 of 44

Existing programs and policies should inform but not circumscribe the strategies to achieve the value revealed through this comprehensive methodology for valuing distributed energy resources. New and better-designed policies and programs may also be encouraged to more effectively achieve such value.

Although each of these five topics is individually complex, discussions within Docket 4600 have made apparent that they are also highly interdependent. As a result, stakeholders recommend an integrated approach to address these topics, allowing stakeholders an opportunity to calibrate their input on any one topic based on the emergent recommendations in another.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 23 of 44

Appendix A: Lead Representatives and Alternates

Organization	Representative	Alternate	Second Alternate
Acadia Center	Abigail Anthony	Mark Lebel	
Conservation Law Foundation	Jerry Elmer		
Direct Energy	Marc Hanks	Chris Kallaher	
George Wiley Center	John Willumsen- Friedman	Camilo Viveiros	
National Grid	Tim Roughan	Jeanne Lloyd	Meghan McGuinness
New Energy Rhode Island	Seth Handy	Karl R. Rábago (Consultant/PACE)	Fred Unger
Northeast Clean Energy Council	Janet Gail Besser	Jamie Dickerson	
People's Power & Light	Kat Burnham		
RI Division of Public Utilities & Carriers	Macky McCleary	Jonathan Schrag	Tim Woolf (Consultant/Synapse)
RI Energy Efficiency and Resource Management Council	Scudder Parker	Kate Desrochers	Mike Guerard
RI Office of Energy Resources	Danny Musher		
RI Public Utilities Commission (Ex Officio)	Todd Bianco	Cynthia Wilson-Frias	
The Energy Council of Rhode Island (TEC-RI)	Butch Roberts	Doug Gablinske	

Appendix B: Benefit-Cost Framework

	Mixed Cost-Benefit, Cost, or	System Attribute Benefit/Cost	Candidate Methodologies (Includes options with increasing specificity	Potential Visibility Requirements
	Benefit Category	Driver	where multiple methods per driver)	
			AESC Seasonal On- & Off-Peak	
			Energy Price Forecasts	
	Fnergy Supply & Transmission	Bids, Offers, Marginal Losses,	Expected Time- & Location-specific	Requires interval or advanced
	Operating Value of Energy Drovided	Constraints, & Scarcity in Time &	Bulk Power LMP for forecast period	metering functionality & Tracking of
	or Saved (Time, 8, 1 ocation specific	Location specific LMP (+ Reactive	of resource operation	ISO Nodal Prices
		Power requirements & Impacts on	Expected Time-, Location-, &	
	LIVIT)	Distribution Assets in DLMP)	Product-specific Distribution LMP	motoring functionality 8, analysis of
			for forecast period of resource	metering famicionality & analysis of
			operation	actual power flows
Гече	Renewable Energy Credit Cost / Value	Cost of REC Obligation or REC Revenue Received	AESC Forecast of REC prices	
w		Differential between retail prices	Absent AMI + dynamic retail pricing,	
əţs	Retail Supplier Risk Premium	and ISO market prices * retail	AESC estimate or risk adjusted	Quantitative estimation requires
sλs		purchases	observed differentials	detailed ecollolliic Illodelliig
j Je		Whether an FCM Qualified	Estimate of likely FCA Auction bid	Sodingor acitemitae evitetitaeno
M		Resource &, if so, FCA bid and	capacity from FCM Qualified	detailed economic modeling
οд	tions of maintains	Provision of Qualified Capacity	Resources	detailed ecollolliic illodelliig
	Value	Change in Demand reflected (~4 vr.	Review of FCM capacity	
		later) in a Bevision of ECM forecast	requirements & estimate of likely	Quantitative estimation requires
		Capacity Requirements	future impacts (Same as Capacity DRIPE below)	detailed economic modeling
	Formary Commitment: Augista	Whether it is a Qualified Ancillary	Forecasts of AS requirements /	
	Ancillary Sociation Walling	Service Resource &, if so, Qualified	Provision of AS net of Energy	
	Alicilialy selvices value	Capacity	supplied * Forecast AS prices	
		Direct Cost of New Non-customer		
	Hility / Third Party Developer	Resources (Capital & Operating		
	Renewable Fneray Efficiency or	costs of resources) + Customer	Cost Estimates	
	DER costs	Program costs (Participant		
		recruitment, administrative,		
		1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

Requirements	lanning	lanning	ation requires modeling		ation requires modeling
Potential Visibility Requirements	Requires detailed planning studies	Requires detailed planning studies	Quantitative estimation requires detailed economic modeling		Quantitative estimation requires detailed economic modeling
Candidate Methodologies (Includes options with increasing specificity where multiple methods per driver)	Annualized statewide transmission capacity value associated with load growth * change in net demand (ICF) Forecast impacts of specific resources on transmission planning requirements	Direct cost estimates for remotely sited resources (e.g. offshore wind)	Use proxy value for ability of system to respond to disruptive events Model system with additional flexible resources	Use proxy values for size and locational and resource diversity.	Portfolio analysis with risk assessment technique
System Attribute Benefit/Cost Driver	Change in transmission capacity requirements associated in change in resource mix	Cost to develop new transmission (For peak output + any contingency requirement)	Flexible DERs (storage, flexible demand) can reduce risk by enabling the system to respond to disruptive events	DERs need to be studied to determine if they reduce or	increase utility system risk based on their locational, resource, and performance diversity.
Mixed Cost-Benefit, Cost, or Benefit Category	Electric Transmission Capacity Costs / Value	Electric transmission infrastructure costs for Site Specific Resources	Ner risk benefits to utility system operations (generation, transmission, distribution) from 1) Ability of flexible resources to adapt, and 2) Resource diversity	that limits impacts, taking into account that DER need to be studied to determine if they	reduce or increase utility system risk based on their locational, resource, and performance diversity
	ləvə	System L	Power		

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 26 of 44

	Mixed Cost-Benefit, Cost, or Benefit Category	System Attribute Benefit/Cost Driver	Candidate Methodologies (Includes options with increasing specificity where multiple methods per driver)	Potential Visibility Requirements
			Estimates of impacts of one resource on the costs of others	Quantitative estimation requires detailed economic modeling
ləve	Option value of individual resources	Impacts of individual resources on the cost of other potential	Option value calculation based on scenario analysis of potential future resource choices.	Quantitative estimation requires detailed economic modeling
tem re			Portfolio analysis - comparison of alternative portfolios	Quantitative estimation requires detailed economic modeling
Power Sys	Investment under Uncertainty: Real Options Cost / Value	Impacts of reduced flexibility / discovery of new information	Scenario analysis: calculation of real option value associated with different decision times & resources	Quantitative estimation requires detailed economic modeling
	Energy Demand Reduction	Change in Energy price, Net of	AESC Estimate of DRIPE (Need to clarify whether accounts for impact on Net CONE)	
	Induced Price Effect	Any Capacity Cost Change Hom Net CONE	Estimate of Energy Price change with an adjustment of impacts on Net CONE in ISO FCM	Quantitative estimation requires detailed economic modeling

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 27 of 44

'	Mixed Cost-Benefit, Cost, or Benefit Category	System Attribute Benefit/Cost Driver Forecast prices under RGGI and other market-based	Candidate Methodologies (Includes options with increasing specificity where multiple methods per driver) Forecasts of RGGI and CPP prices +	Potential Visibility Requirements Quantitative estimation
_	Greenhouse gas compliance	Plan) + changes other compliance costs under likely environmental regulations	estimates of likely compliance costs under any other GHG regulation	requires detailed economic modeling
	costs	Forecast compliance costs associated with meeting the GHG emission targets in the Resilient Rhode Island Act	Estimates of likely compliance costs under RI GHG regulation	Quantitative estimation requires detailed economic modeling
		Net marginal emissions or emissions avoided from changes in resource use	Forecast of net emissions impacts from change in regional dispatch and resource mix	Quantitative estimation requires detailed economic modeling
	Criteria air pollutant and other environmental	Changes in forecast compliance costs under air pollution or other environmental regulations	Forecasts of the costs of compliance under affected environmental regulations	Quantitative estimation requires detailed economic modeling
	compliance costs	Net marginal emissions or emissions avoided from changes in resource use	Forecast of net environmental impacts from change in regional dispatch and resource mix	Quantitative estimation requires detailed economic modeling
	Innovation and Learning by Doing	Experimentation Costs	Direct costs of innovation / demonstration programs	

	Potential Visibility Requirements		Requires detailed planning studies	Requires detailed planning studies	Requires detailed planning studies	Requires interval or advanced metering functionality, modeling, and planning studies	Requires interval or advanced metering functionality & analysis of actual power flows
Qualitative assessment	Candidate Methodologies (Includes options with increasing specificity where multiple methods per driver)	Annualized statewide distribution capacity value associated with load growth * change in net demand (ICF)	Distribution planning studies	Analysis of capability to host DER with existing and already- planned facilities	Distribution planning studies	Dynamic, multi-layered forecasts as a basis for circuit specific DER and Distribution System Plans	Analysis of time-, location-, and product-specific DLMP value, potentially leading toward DLMP markets
Anticipated rate of cost reduction or performance Qui	System Attribute Benefit/Cost Driver	Change in distribution capacity requirements generally with change in resources	Forecasted change peak distribution circuit requirements	Location-specific DER hosting capacity	Impacts on system performance, thermal and reactive power constraints, and associated investment and operating costs	Location-specific distribution	constraints, losses, equipment cycling, DLMP
	Mixed Cost-Benefit, Cost, or Benefit Category			Distribution capacity costs			Distribution delivery costs
				em revel	Power Sys		

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 29 of 44

			Candidate Mathodological Includes	
	Mixed Cost-Benefit, Cost, or Benefit Category	System Attribute Benefit/Cost Driver	options with increasing specificity	Potential Visibility Requirements
			where multiple methods per driver)	
	Distribution system	Changes in risks, real-time information	Qualitative Assessment, Tracking	Distribution system safety
	safety loss/gain	on system conditions, and training	and Assessment of Safety Metrics	loss/gain
		Performance metrics include: voltage		
ı		stability and equalization,		Boarring to the property of th
ĮδΛ	Distribution system	conservation voltage reduction,	Distribution planning and	functionality and / or
ēη	performance	operational flexibility, fault current /	benchmarking to best practices	dictribution concord
шŧ		arc flash avoidance, and effective		distribution sensors
9 15/		asset management		
ίς .		Energy efficiency impacts on reducing	Married in the state of the sta	
ıθν		utility arrearage carrying costs,	managerial militares on arreal ages,	
۸٥٫		uncollectibles, customer service and	discollectibles, alld other utility	
d		collection costs	COSES	
		Incremental utility costs for low	Circuit of the state of the sta	
	Offiity low income	income efficiency programs net of	Direct costs fiet of system general	
		system energy cost savings	system benefits	
		Tomoton and aforement portoons	Vilamo romon par opertov	Requires advanced metering
		באליכינים וווולמרני חון במזנחוופו	Voltage alla powel quality	functionality and / or
		voltages and power quality	measurement and assessments	distribution sensors

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 30 of 44

Mixed Cost-B Benefit Benefit Clistribution syst customer reliabli mpacts	Mixed Cost-Benefit, Cost, or Benefit Category Jistribution system and customer reliability / resilience	System Attribute Benefit/Cost Driver Customer-specific & critical facility outage costs and value of uninterrupted service Expected impacts on the probability of outage Expected impacts on the duration of outages Expected impacts on customer voltages and power quality	Candidate Methodologies (Includes options with increasing specificity where multiple methods perdriver) US DOE Interruption Cost Estimator Customer value of uninterrupted service studies Distribution system risk assessment studies Distribution system / microgrid resilience studies Voltage and power quality measurement and assessments	Potential Visibility Requirements Requires customer surveys Requires detailed planning studies Requires detailed planning studies Requires advanced metering	
		Costs of distribution	Distribution planning and	distribution sensors Requires detailed planning	
		improvements & microgrids	costing	studies	
<u> </u>	Distribution system sofety	Changes in risks, real-time	Qualitative Assessment, Tracking		
, (2)	tion system safety	information on system	and Assessment of Safety		
ioss/gaiii		conditions, and training	Metrics		

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 31 of 44

Potential Visibility Requirements	Requires customer surveys			Requires customer surveys
Candidate Methodologies (Includes options with increasing specificity where multiple methods per driver)	Estimates of net direct costs Qualitative assessment Willingness to accept / pay estimates (observation or surveys)	Qualitative value Deemed Benefits Not Reflected in Other Categories - Efficiency Technical Reference Manual Willingness to pay estimates (observation or surveys)	AESC Estimate of Avoided Natural Gas, Oil, and Other Fuel Costs	Estimate of Net Costs or Cost Savings
System Attribute Benefit/Cost Driver	Direct participant / prosumer cost of technology, investment, and/or program participation costs Participant indirect costs (includes required behavioral changes and inconvenience costs)	Participant non-energy impacts (includes value of improvements in quality of life)	Value of Energy and Water Savings / Requirements	
Mixed Cost-Benefit, Cost, or Benefit Category	Program participant / prosumer benefits / costs		Participant non-energy costs/benefits: Oil, Gas,	Water, Waste Water
	r Level	emotsu2		

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 32 of 44

Potential Visibility Requirements		May require interval or advanced metering functionality		May require interval or advanced metering functionality
	ode Island			l i
Candidate Methodologies (includes options with increasing specificity where multiple methods per driver)	Begin with values from Rhode Island		Qualitative Assessment	Long-term rate and bill analysis Analysis of non-participant usage, price elasticity, and income patterns
System Attribute Benefit/Cost Driver	Improved comfort, reduced noise, increased property value, increased property durability, lower maintenance costs.	improved health, and reduced tenant complaints.	Retail Competition, Facilitation of Flexible Demand, Integration of Commodity & Energy Services, Development of Platform Market, & Third Party DER Development	Utility revenue requirements, cost allocation and rate design
Mixed Cost-Benefit, Cost, or Benefit Category	Low-Income Participant		Consumer Empowerment & Choice	Non-participant (equity) rate and bill impacts
	ŀ	uer Leve	notsuJ	

	Mixed Cost-Benefit, Cost,	System Attribute Benefit/Cost Driver	Candidate Methodologies (Includes	Potential Vicibility Requirements
	or Benefit Category	System Attibate Deficitly Cost Dilver	where multiple methods per driver)	roteiitiai visibiitiy kequii eiiteiits
			Customer willingness to pay for	
		GHG Externality Value net of RGGI	reductions in excess of compliance	Requires customer surveys
		costs	levels (observation or WTP surveys)	
	Greennouse gas		Societal cost estimates	
	externality costs	Net marginal emissions or	Forecast of net emissions impacts	000:1000
		emissions avoided from changes in	from change in regional dispatch	Qualiticative estimation requires
		the use of resources	and resource mix	detailed ecollollis illodellis
-		Criteria Pollutant (e.g. Fine	Customer willingness to pay for	
		Particulates) and other	reductions in excess of compliance	Requires customer surveys
	4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2	Environmental Externality Value	levels (observation or WTP surveys)	
	other environmental	Net of any Emission Allowance /	Societal cost estimates	
	externality costs	EIIIISSIOII CIEdil Valde		
	בעובווומווול בחפרפ	Net marginal emissions or	Forecast of net environmental	2011.1202 201+cmi+20 001+c+i+2010
		emissions avoided from changes in	impacts from change in regional	dualiticative estilliation requires
		the use of resources	dispatch and resource mix	
_		Land use impacts (net of property	Value of carbon sink per acre	
		costs for resource deployments):	Environmental and historical	
	Conservation and	Loss of sink, habitat, historical value, sense of place	conservation easement cost	
	community benefits		Qualitative assessment	
		Equity in distribution of narmful or	MW of infrastructure per acre, \$ of	
		nuisance initastructure	infrastructure per value of property	

	Mixed Cost-Benefit, Cost, or Benefit Category	System Attribute Benefit/Cost Driver	Candidate Methodologies (Includes options with increasing specificity where multiple methods per driver)	Potential Visibility Requirements
	Non-energy costs/benefits: Economic Development	Estimate of Impacts on State Product or Employment, Effects of land use change on property tax revenue	Qualitative Assessment Economic modeling (e.g. input / output life-cycle analysis, property tax base studies)	Quantitative estimation requires detailed economic modeling
etal Level	Innovation and knowledge spillover (Related to demonstration projects and other RD&D preceding larger scale deployment)	RD&D, Strength of innovation ecosystem, knowledge capture & sharing from public / utility/private sector funded initiatives	Qualitative Assessment	
iooδ	Societal Low-Income Impacts	Poverty alleviation, reduced energy burden, reduced involuntary disconnections from service, reductions in the cost of other social services, local economic benefits, etc.	Qualitative assessment or Adder Direct estimate of cost savings Alternate input factor in modeling of local economic impacts	Quantitative estimation requires detailed economic modeling
	Public Health	Indoor air quality, heating, cooling, and noise impacts of efficiency programs (Additional environmental and economic impacts on vulnerable customers addressed elsewhere)	Qualitative Assessment	
	National Security and US international influence	Impacts on oil imports	Analysis of oil imports into Rhode Island and the region	

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 35 of 44

Appendix C: Background Information from National Grid

The Narragansett Electric Company d/b/a National Grid In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600 Issued on February 1, 2017

Informal Division 1-1

Request:

Please provide the average annual number of customers for each rate class for each of the years 2012-2016.

Response:

Please see Attachment DIV 1-1.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 36 of 44

> The Narragansett Electric Company d/b/a National Grid Division's Informal Questions in the Context of RIPUC Docket No. 4600 Attachment DIV 1-1 Page 1 of 1

12 Month Average Customer Counts by Year

		<u>A-16</u>	<u>A-60</u>	C-06/C-08	<u>G-02</u>	B-32 / G-32	<u>B-62 / G-62</u>	<u>M1</u>	<u>S</u>	-05	<u>S-06</u>	<u>S-10</u>	<u>S-14</u>	<u>X-1</u>	
	Customer Counts:														
(1)	2012	389,732	43,068	47,748	8,451	1,071	13		3	-	-	2,446	362	1	
(2)	2013	392,904	42,138	49,028	8,460	1,083	15		3	-	-	2,575	376	1	
(3)	2014	392,581	43,147	49,210	8,357	1,069	13		3	-	-	2,515	380	1	
(4)	2015	393,599	46,157	49,716	8,402	1,069	12		3	-	-	2,469	377	1	
(5)	2016	401,314	36,605	49,847	8,402	1,065	13		3	1	-	2,382	368	1	

^{(1) - (5)} Per Company Revenue Reports

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 37 of 44

The Narragansett Electric Company d/b/a National Grid
In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600
Issued on February 1, 2017

Informal Division 1-2

Request:

For each rate class, please provide the number and percentage of customers that currently participate in any one of the following rate offerings:

- a. Flat energy rates
- b. Inclining block rates
- c. Declining block rates
- d. Seasonal rates
- e. Time of use rates
- f. Peak time rebates
- g. Critical peak pricing
- h. Real-time prices

Response:

Please see Attachment DIV 1-2, for the number of active customers as of January 2017 who currently participate in the rate offerings listed above.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 38 of 44

The Narragansett Electric Company d/b/a National Grid Division's Informal Questions in the Context of RIPUC Docket No. 4600 Attachment DIV 1-2 Page 1 of 1

Customer (Count as of January 201	17											
	• • • • • • • • • • • • • • • • • • •		16	<u>A</u>	<u>-60</u>	<u>C-06</u>	/C-08	G	-02	B-32	/ G-32	B-62	/ G-62
(1)	Customer Counts:		412,354		35,040		51,184		8,675		1,083		14
		#	%	#	%	#	%	#	%	#	%	#	%
a.	Flat energy rates	412,354	100.00%	35,040	100.00%	51,184	100.00%	8,675	100.00%	1,083	100.00%	14	100.00%
	Inclining block rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
	Declining block rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
	Seasonal rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
e.	Time of use rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
f.	Peak time rebates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
g.	Critical peak pricing	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
h.	Real-time prices	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
		<u>N</u>	<u>11</u>	<u>S</u> -	<u>-05</u>	<u>S</u> .	<u>-06</u>	<u>S</u> .	<u>-10</u>	<u>S</u> -	<u>-14</u>	<u>X</u>	<u>(-1</u>
(2)	Customer Counts:		3		2		2		2,336		362		1
		#	%	#	%	#	%	#	%	#	%	#	%
a.	Flat energy rates	3	100.00%	2	100.00%	2	100.00%	2,336	100.00%	362	100.00%	1	100.00%
b.	Inclining block rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
c.	Declining block rates	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
d.		-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
e.		-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
f.		-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
g.		-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
h.	Real-time prices	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%

^{(1) &}amp; (2) Per Company Revenue Reports for January 2017

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 39 of 44

The Narragansett Electric Company d/b/a National Grid
In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600
Issued on February 1, 2017

Informal Division 1-3

Request:

For each rate class, please provide the number and percentage of customers that currently have meters that would allow the Company to offer any one of the following rate options:

- a. Demand charges
- b. Time-of-use rates: two periods per day
- c. Time-of-use rates: more than two periods per day
- d. Peak time rebates
- e. Critical peak pricing
- f. Real-time prices

Response:

Please see Attachment DIV 1-2, for the number of customers who currently have installed meters that are capable of recording usage in 5- or 15-minute intervals. Although these meters are capable of recording the data necessary for the various pricing options listed above (a. through f.), please note that, to implement any of these different pricing options, the Company would need to make changes to its back office processes, such as meter reading, data collection and processing, billing systems, and customer support. Additionally, the 230 meters in the Rate A-16/A-60 class, 156 meters in Rate C-06 class, and 209 meters in Rate G-02 class noted as being capable of recording the data necessary for the various pricing methods listed above (a. through f.) are interval data recorders, or IDRs, currently installed at customer locations for load research purposes only and are rotated periodically.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 40 of 44

> The Narragansett Electric Company d/b/a National Grid Division's Informal Questions in the Context of RIPUC Docket No. 4600 Attachment DIV 1-3 Page 1 of 1

		<u>A-16 / A</u>	A60*	<u>C-06/C</u>	C-08*	<u>G-(</u>)2*	B-32	/ G-32	<u>B-62</u>	<u>G-62</u>
(1)	Customer Counts:		447,394		51,184		8,675		1,083		14
							_				
	Customers with meters allowing:	#	%	#	%	#	%	#	%	#	%
	Demand charges	230	0.05%	156	0.30%	8,675	100.00%	1,083	100.00%	14	100.00%
	Time-of-use rates: two periods per day	230	0.05%	156	0.30%	209	2.41%	1,083	100.00%	14	100.00%
	Time-of-use rates: more than two periods per day	230	0.05%	156	0.30%	209	2.41%	1,083	100.00%	14	100.00%
d.	Peak time rebates	230	0.05%	156	0.30%	209	2.41%	1,083	100.00%	14	100.00%
e.	Critical peak pricing	230	0.05%	156	0.30%	209	2.41%	1,083	100.00%	14	100.00%
f.	Real-time prices	230	0.05%	156	0.30%	209	2.41%	1,083	100.00%	14	100.00%
		<u>S-0.</u>	<u>5</u>	<u>S-0</u>	<u>16</u>	<u>S-</u>	<u>10</u>	<u>S-</u>	<u>14</u>	<u>X</u>	<u>-1</u>
(1)	Customer Counts:		2		2		2,336		362		1
	Customers with meters allowing:	#	%	#	%	#	%	#	%	#	%
a.	Demand charges	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1	100.00%
b.	Time-of-use rates: two periods per day	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1	100.00%
c.	Time-of-use rates: more than two periods per day	-	0.00%	-	0.00%	-	0.00%	-	0.00%	1	100.00%
d.	Peak time rebates	-	0.00%	_	0.00%	-	0.00%	_	0.00%	1	100.00%
e.	Critical peak pricing	-	0.00%	_	0.00%	-	0.00%	_	0.00%	1	100.00%
	Real-time prices	_	0.00%	_	0.00%	_	0.00%	_	0.00%	1	100,00%
•••	I				2.5070		2.3070		5070	•	

⁽¹⁾ Per Company Revenue Reports for January 2017

* The 230 meters in A-16/A-60, 156 in C-06 and 209 in G-02 are IDRs in the field for Load Data Research purposes and are rotated periodically.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 41 of 44

The Narragansett Electric Company d/b/a National Grid
In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600
Issued on February 1, 2017

Informal Division 1-4

Request:

For each rate class, please provide the following information for all meters NOT capable of interval metering currently installed on the Company's system:

- a. Average meter book life
- b. Average assumed meter operating life
- c. Average meter age
- d. Average expected meter life remaining

Response:

- a. The average meter book life is 18 years for all meters regardless of rate class. The Company does not have the breakdown of non-interval and interval meters in its plant accounting system.
- b. The average meter operating life is assumed to be 30 years for all meters regardless of rate class.
- c.-d. Please refer to the table below for the average meter age and average expected meter life remaining for non-interval meters for each rate class.

Rate Group	Non Interval Meters	Avg Non Interval Meter Age (YRS)	Avg Non Interval Meter Life Remaining (YRS)
A16	414,149	12.7	17.3
A60	34,573	12.6	17.4
C06	53,659	11.7	18.3
G02	8,343	10.9	19.1

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 42 of 44

The Narragansett Electric Company d/b/a National Grid In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600 Issued on February 1, 2017

Informal Division 1-5

Request:

For each rate class, please provide the following information for all meters capable of interval metering currently installed on the Company's system:

- a. Average meter book life
- b. Average assumed meter operating life
- c. Average meter age
- d. Average expected meter life remaining

Response:

- a. Please see the response to Division 1-4.
- b. Please see the response to Division 1-4.
- c.-d. Interval meters are used for load research purposes for all rate classes and the B32, G32, G 62, M1, and X1 rates require interval metering for billing. Please see the table below.

Rate Group	Interval Meters	Avg Interval Meter Age (YRS)	Avg Interval Meter Life Remaining (YRS)
A16	247	9.76	20.24
A60	15	9.51	20.5
B32	7	4.62	25.4
C06	237	7.23	22.8
G02	361	7.29	22.7
G32	1,071	8.23	21.8
G62	13	4.54	25.5
M1	3	11.66	18.3
X01	1	4.22	25.8

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 43 of 44

The Narragansett Electric Company d/b/a National Grid
In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600
Issued on February 1, 2017

Informal Division 1-6

For each rate class, please provide the number and percentage of customers that currently have each of the following behind-the-meter technologies installed:

- a. Photovoltaics
- b. Combined heat and power
- c. Other types of DG
- d. Plug-in electric vehicles
- e. Batteries or other storage devices

Response:

Please see table below:

Rate Class	Photovoltaic	Combined Heat and Power	Wind	Other DG	Plug-in Electric Vehicles	Battery or Other Storage Devices
A-16	1391	2	8	0	750	0
% of Custs	0.286	0	0.002	0	0.2	0
A-60	22	0	0	0	0	0
% of Custs	0.005	0	0	0	0	0
B-32/G-32	27	6	4	1	0	0
% of Custs	0.006	0.001	0.001	0	0	0
B-62/G-62	3	3	2	0	0	0
% of Custs	0.001	0.001	0	0	0	0
C-06	93	2	3	2	0	0
% of Custs	0.019	0	0.001	0	0	0
G-02	51	5	5	1	0	0
% of Custs	0.010	0.001	0.001	0	0	0
Grand Total	1587	18	22	4	750	0
% of Custs	0.327	0.004	0.005	0.001	0.2	0

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-3 Page 44 of 44

The Narragansett Electric Company d/b/a National Grid
In Re: Division's Informal Questions in the Context of RIPUC Docket No. 4600
Issued on February 1, 2017

Informal Division 1-6, page 2

The Company does not track electric vehicles. However, the Company understands that approximately 750 electric vehicles have been registered in the State and has assumed they are all garaged at residential customer locations. The Company is currently evaluating proposals for two solar and storage projects at residential customer locations, but these are not yet interconnected to the distribution system.

THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID RIPUC Docket No. 4770 Attachment DIV 14-48-4 Page 1 of 1

National Grid Rate Design Principles

- 1 **Reflect cost-causation and minimize cross-subsidization:** Rates should be designed to reflect how costs actually incur on the system. For example, fixed costs should be recovered from fixed charges. Rates should also minimize cross-subsidization and result in customers paying in accordance with the costs that they impose on the system.
- 2 Encourage efficient behavior: Rates should help to keep system costs (and thus customer bills) low in the long-term by encouraging customers to consume energy in a way that maximizes the efficiency of the system (as well as encouraging development of technologies that facilitate this response), promoting high load factors and reducing the need for peak-driven capacity investments.
- 3 **Provide an effective vehicle for cost recovery:** Distribution/delivery rate design must provide the opportunity for a utility to recover prudently-incurred costs associated with services it provides, and enable efficient regulation that reduces reliance on adjustment mechanisms or frequent rate cases.
- 4 **Be sustainable as the system evolves:** Distribution/delivery rate design should be robust under current and potential future business models. They should be reflective of utility costs so that utilities can recover those costs in an appropriate manner and customers can make long-term decisions on consumption that enables savings based upon an expectation that rates will provide value over the long-term.
- 5 *Must reflect recovery of all societal program costs:* Rate design must provide the opportunity for a utility to recover prudently-incurred costs associated with legislatively mandated societal programs (i.e., energy efficiency, renewable energy programs, etc.) funds, and enable efficient regulation that reduces reliance on adjustment mechanisms or frequent rate cases.
- 6 Be simple enough for customers to understand and enable them to make economic decisions in response. Any changes in rate structures should be implemented gradually in order to allow ample time for customers to understand new rates and to lessen immediate bill impacts.

Narragansett Electric Rate Classes

Rate Class	Description
A16 Regular Residential	Domestic consumption in individual dwelling or apartment, and churches if not separated by public way
A60 – Low Income	Residential customers receiving eligible means tested benefits
C06-Small C&I	Customers less than 200 kW; No demand metering; includes unmetered service
G02-General C&I	10kW < Demand <200 kW
G32- Lg Demand	Demand > 200 kW
G62-Opt Lg Demand	Optional for Demand > 5 MW
Outdoor Lighting (S-05,S-06,S-10,S-14)	Company and Customer Owned
Back-up Service (B-32, B-62, CHP Minimum Demand)	Customer who receive all or a portion of requirements from non-emergency, non-renewable on-site generation





RIPUC Docket No. 4770

Attachment DIV 14-48-5

Page 2 of 5

		Page 2
		Delivery Service Charges Apply to All Customers
Customer Charge	Per Month	Fixed monthly fee that recovers cost of meter, meter reading, billing services, etc
LIHEAP Enhancement Charge	Per Month	Fund created by Henry Shelton Act to provide assistance to low income customers
Re-Growth Charge	Per Month	Recovers cost of Renewable Energy Growth Program
Distribution Demand & Energy	Per kW/kWh	Recovers investment in distribution facilities and annual operating expenses
Energy Efficiency Programs	Per kWh	Recovers cost of energy efficiency programs (Electric charge includes Renewables Fund charge)
Renewable Energy Distribution Charge	Per kWh	Recovers cost of net metering and long-term contracts with renewable generators
Transmission Charge	Per kW/kWh	Recovers costs of the high voltage transmission system billed by transmission providers
Transition Charge	Per kWh	Recovers residual generation-related stranded costs

Page 3 of 5

		Pag
Supply Services	"pass-thi	to customers purchasing commodity from National Grid. Commodity costs are a rough" to customers, i.e. National Grid makes no profit on commodity sales
	P	After "Restructuring", all customers may choose a 3 rd party supplier
Base Standard Offer Service		Supply provided through combination of load following contracts procured through competitive solicitation and "spot market" purchases pursuant to annual procurement plan approved by the PUC
Charge		Three customer groups: Residential; Commercial; Industrial with separate procurement strategies and pricing methodologies
Reconciling Adjustment Charge	Per kWh Charge combined as a single line item on	Annual filing to reconcile revenue and expense with over/ under balance collected / refunded through factor applicable to each customer group
Renewable Energy Standard Charge	customer bills	Cost of complying with Renewable Energy Standard
SOS Admin		Administrative costs, including bad debt, associated with arranging for Standard Offer Service

Base Distribution Rates

Rate Class	Distribution Rate Design					
A16 – Reg. Res	Monthly Customer Charge / per kWh Charge					
A60 – Low Inc.	per kWh Charge (designed to provide 50% discount from A-16)					
C06- Small C&I	Customer/location Charge / Per kWh charge					
G02-Gen. C&I	 Monthly Customer Charge (incl. minimum demand for G02 (10kW) and G32 (200kW) 					
G32- Lg Demand	 Demand Charge -kW / 90%kVA / 75% ratchet -Peak period applies to G32/62 					
G62- Opt Lg Demand	-Optional Determination of Demand -Voltage Discounts • Per kWh charge (except G-62) • Back-up Rates					

Cost Recovery Mechanisms

Attachment DIV 14-48-5

Page 5 of 5

		Page _l
Filing Due Date	Effective Date of Rate Change	
October 15	January 1	LIHEAP Enhancement Plan Charge
October 15/November 1 for new triennial Plan	January 1	Energy Efficiency ("EE") Charge
November 15/May 15	Jan 1/ Jul 1	Long-Term Contracting Charge
Oct 15/Jan 15/Apr 15/July 15	Jan1/April1/Jul 1/Oct 1	Standard Offer Service ("SOS") Procurement Filing - Residential, Commercial and Industrial Groups
December 31	April 1	Infrastructure, Safety and Reliability ("ISR") Fiscal Year Plan Filing
by February 15	April 1	Annual Reconciliation Filing (SOS, Transmission, Transition, Net Metering)
By February 28	April 1	Renewable Energy Standard Charge and Reconciliation
May 15	July 1	Revenue Decoupling Adjustment Factor Filing
By June 30	Oct 1	Re-Growth Annual Charge Filing and Reconciliation
August 1	October 1	ISR Reconciliation Adjustment Filing

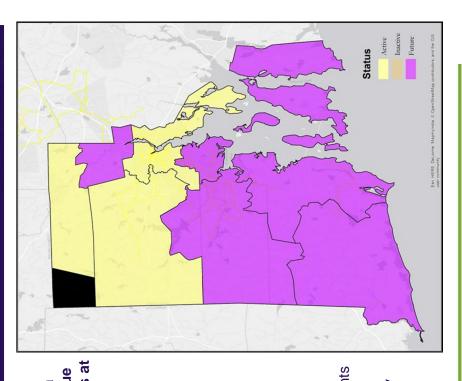
The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-48-6 Page 1 of 5

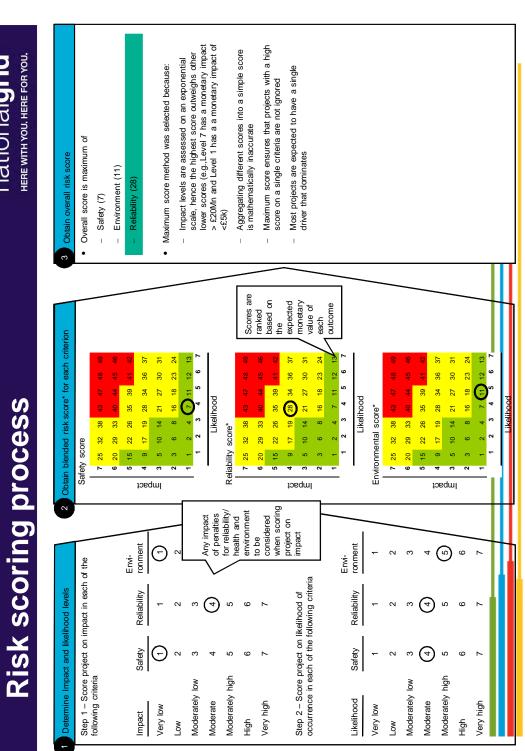
How Capital Investments are Identified

national**grid** HERE WITH YOU, HERE FOR YOU.

The Company identifies capital investments to address either a "Mandatory" business need or a "Discretionary" system problem in order to continue providing safe and reliable service to our customers at a low cost.

- Area Studies identify multiple "Discretionary" investments
- Investments address Capacity, Voltage, Reliability, Asset Condition, Fault Duty/Coordination, Operational Efficiencies typically over a 15-year period
- Non-Wires Alternatives analysis is completed, when applicable
- Alternatives to address these issues are reviewed and a preferred plan chosen
- All other "Mandatory" and "Discretionary" investments are initiated to address a focused or localized issue
- Includes Distributed Generation and other fully reimbursed investments





national**gric**

Scores are grouped and colour coded for ease of viewing (40 and above - red, 16-39 - yellow and 15 and below - green)

5-Year ISR Plan Capital Budget

national**grid** HERE WITH YOU, HERE FOR YOU.

The Infrastructure, Safety and Reliability Plan

- The Capital Work Plan for the upcoming fiscal year is discussed and generally agreed upon with the RI Division prior to filing with the PUC for approval.
- Discussions may result in deferral or advancement of project schedules for "In-Flight", "New", and "Shelved"
 Discretionary Investments.
- Generally, only mature work is included in the upcoming annual work plan.
- Allows for recovery of Capital Rate Base Additions, Cost of Removal, and O&M costs for Vegetation Management and Inspections & Maintenance programs.

Capital investments are considered during the process that builds the next 5-Year ISR Plan Budget

- "In-Flight" Mandatory and Discretionary investments are included.
- "Predicted" Mandatory investments to meet Customer/Public requirements and restore Damage/Failed equipment are included.
- "New" and "Shelved" Discretionary investments that address Asset Replacement, System Capacity & Performance, and Non-Infrastructure problems are considered for inclusion
- Priority score, resource availability, project maturity, and the total budget level are the main considerations

က

Current Metering System

national**grid** HERE WITH YOU. HERE FOR YOU.

- Back in the late 1990s, the Company reviewed its metering system to for residential and small C/I customers:
- reduction/elimination of estimated reads, and reduction of theft Goal to reduce costs, gain more accuracy in billing, of service
- with radios read via a 'drive-by' system, or automatic meter At the time, the economic choice was a metering platform reading (AMR) system
- Installed radios in all meters, modified meter reading data collection system
- Decision was made internally and later reviewed in a rate case and approved as prudent



national**grid**

Studies are conducted for all proposed DG

DG interconnection costs

- adversely affect the power quality of neighboring customers Needed to assure that one customer's DG system will not
- If study results in need for infrastructure modifications, DG customer pays for modifications
- Only direct costs caused by DG can be charged to the DG customer
- If, during the cost estimation process, the Company discovers other needs in area, those costs are considered system improvement not chargeable to the DG developer
- E.g., if a pole needs to be replaced with a taller pole due to new safety codes, and original pole is in poor condition, the pole will be replaced at no charge to DG customer

2

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Responses to Division's Fourteenth Set of Data Requests Issued January 22, 2018

Division 14-49

Request:

Please provide a copy of:

- a. All assessments of the impact of the transition to the full residential customer charge to A60 customers;
- b. Separately provide a detailed description of how, in Year 4 and beyond, the three-year phase-in of the transition assists A60 customers.

Response:

The Company is defining low income customers as those customers who receive service on any of its low income rate schedules.

- a. The assessment Narragansett Electric performed in evaluating the impact of the transition to the full residential customer charge is presented in Schedule HSG-5-B, Schedule HSG-5-B1, and Schedule HSG-5-B2 to the pre-filed direct testimony of Company Witnes Howard S. Gorman in this proceeding.
- b. Evaluating the implementation of the residential customer charge for Rate A-60 customers over three years, as proposed by Narragansett Electric, should be considered with the other elements of Narragansett Electric's proposal to change the manner by which it provides bill assistance to Rate A-60 customers. Through Narragansett Electric's proposal to provide a low income discount at 15 percent of the total amount billed, the approach is to ensure that as rate levels and usage change over time, the value of the discount as a percent of a bill based on full residential rates is preserved, which is not done under the current structure. The Company's proposal is also intended to provide all low income customers that same percentage value of a discount regardless of these variables, which also does not occur today. Currently, the value of the discount to individual customers depends on rate levels and usage, which results in the effective discount percentage being higher for low use customers and lower for high use customers.

Regarding the assistance Narragansett Electric's proposal would provide its low income customers and the benefit of the proposed phase-in of the customer charge, please see Attachment DIV 14-49. This attachment illustrates the difference in total charges to the Rate A-60 rate class under Narragansett Electric's proposal and a hypothetical rate design for base distribution rates for Rate A-60 under the current structure. Page 1 of Attachment DIV 14-49 reflects that the phase-in of the full residential customer charge provides Rate A-60 customers with a real benefit in the first two years, as shown on Line

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Responses to Division's Fourteenth Set of Data Requests Issued January 22, 2018

(25). The phase-in of the full residential customer charge also provides essentially the same benefit in the third year based upon the rate levels and rate year usage beginning in the third year, when the Rate A-60 customer charge is at the full residential rate.

To illustrate how this value would change as a result of changes in rate levels, on page 2 of Attachment DIV 14-49, Narragansett Electric has prepared a similar illustration, but with changes to the Standard Offer Service (SOS) rates. Lines (1) through (10) replicate the analysis shown on Page 1. Lines (11) through (19) revise the analysis for a change in the SOS rate on Line (12). The SOS rate on Line (12) for the period April 2018 through September 2018 reflects the base SOS rate that Narragansett Electric filed on January 18, 2018 in RIPUC Docket No. 4692. As shown on Line (19), increasing the SOS rate in this analysis results in an increase in the value of Narragansett Electric's phase in of the full residential customer charge and, in the third year, an increase in the value of Narragansett Electric's proposal for the low income discount as compared to the current structure. In Lines (20) through (28), Narragansett Electric is replicating the same analysis but with different SOS rates. In Lines (20) and (21), Narragansett Electric is reflecting SOS rates from the prior year. As seen on Line (28), there is still significant value to Rate A-60 customers in the first two years from the proposed customer charge phase in, and in year 3, the proposed low income discount provides the class slightly more value than under the current structure. Narragansett Electric is only varying the SOS rates in this analysis as the residential SOS rate changes semi-annually and has the potential to change by the greatest amount.

To illustrate how this value would change as a result of changes in billing determinants (usage and number of bills), on Page 3, Narragansett Electric has prepared a similar illustration, but with a 10 percent and 20 percent increase in the rate year billing units shown in Column (a). In the pre-filed direct testimony of Company Witness John F. Isberg (Bates Pages 85-148 of Book 4), Narragansett Electric's proposals are intended, in part, to increase customer enrollment on Narragansett Electric's low income rate classes. Therefore, conservatively illustrating potential growth in billing units at 10 percent and 20 percent is reasonable in presenting this analysis. Narragansett Electric is only showing the comparison of the third year Rate A-60 proposed rates and the hypothetical Rate A-60 base distribution charges under the current structure, and applying each set of rates to the three levels of usage in Columns (a) through (c). The resulting total class charges under Narragansett Electric's proposal appear in Columns (f) through (h), and the total class charges under the hypothetical rate design are in Columns (i) through (k). As shown on Line (25), the two structures result in comparable value.

Finally, on Page 4 of Attachment DIV 14-49, Narragansett Electric is presenting an analysis that illustrates the impact on the differences in Narragansett Electric's proposal and the current structure based on a combination of increasing Rate A-60 billing units as shown on Page 3 and one of the SOS rate changes shown on Page 2. Again, as indicated

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Responses to Division's Fourteenth Set of Data Requests Issued January 22, 2018

on Line (25), based upon these assumptions, the net charges assessed the Rate A-60 classes are less than the charges under the current structure.

One last consideration worthy of note is that, through the 15 percent total bill discount, Rate A-60 customers will, in effect, not be subject to the full residential customer charge, but rather 85 percent of the full residential customer charge, or, as proposed by Narragansett Electric, 85 percent of \$8.50, or \$7.23.

Narragansett Electric Benefit of Transition to Full Customer Charge with 15% Low Income Discount

	Rate Year		Rate A-6	60 Rates			Rate A-60	Charges	
	Rate A-60		Proposed		Illustrative		Proposed		Illustrative
	Units	Year 1	Year 2	Year 3 & After	Existing Structure	Year 1	Year 2	Year 3 & After	Existing Structure
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Customer Charge	437,171	\$2.75	\$5.50	\$8.50	\$0.00	\$1,202,221	\$2,404,441	\$3,715,955	\$0
RE Growth Factor	437,171	\$0.78	\$0.78	\$0.78	\$0.78	\$340,993	\$340,993	\$340,993	\$340,993
LIHEAP Enhancement Surcharge	437,171	\$0.81	\$0.81	\$0.81	\$0.81	\$354,109	\$354,109	\$354,109	\$354,109
Distribution kWh Charge	223,496,800	\$0.04438	\$0.04438	\$0.04438	\$0.03119	\$9,918,788	\$9,918,788	\$9,918,788	\$6,970,865
ISR CapEx Factor	223,496,800	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0	\$0	\$0	\$0
ISR CapEx Reconciliation Factor	223,496,800	(\$0.00135)	(\$0.00135)	(\$0.00135)	(\$0.00135)	(\$301,721)	(\$301,721)	(\$301,721)	(\$301,721)
ISR O&M Factor	223,496,800	\$0.00163	\$0.00163	\$0.00163	\$0.00163	\$364,300	\$364,300	\$364,300	\$364,300
ISR O&M Reconciliation Factor	223,496,800	(\$0.00001)	(\$0.00001)	(\$0.00001)	(\$0.00001)	(\$2,235)	(\$2,235)	(\$2,235)	(\$2,235)
Pension/PBOP Factor	223,496,800	(\$0.00085)	(\$0.00085)	(\$0.00085)	(\$0.00085)	(\$189,972)	(\$189,972)	(\$189,972)	(\$189,972)
Revenue Decoupling Mechanism Adjustment Factor	223,496,800	\$0.00118	\$0.00118	\$0.00118	\$0.00118	\$263,726	\$263,726	\$263,726	\$263,726
	223,496,800	\$0.00288	\$0.00288	\$0.00288	\$0.00288	\$643,671	\$643,671	\$643,671	\$643,671
Low Income Discount Recovery Factor		\$0.00000	\$0.00000	\$0.00000	n/a				n/a
Subtotal Distribution Energy Charge	, ,					\$10,696,557	\$10,696,557	\$10,696,557	\$7,748,634
Transmission Charge	223,496,800	\$0.03180	\$0.03180	\$0.03180	\$0.03180	\$7,107,198	\$7,107,198	\$7,107,198	\$7,107,198
Transition Charge	223,496,800	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$127,393	\$127,393	\$127,393	\$127,393
Energy Efficiency Program Charge	223,496,800	\$0.01154	\$0.01154	\$0.01154	\$0.01154	\$2,579,153	\$2,579,153	\$2,579,153	\$2,579,153
Renewable Energy Distribution Charge	223,496,800	\$0.00688	\$0.00688	\$0.00688	\$0.00688	\$1,537,658	\$1,537,658	\$1,537,658	\$1,537,658
Total Delivery Service Charges						\$23,945,282	\$25,147,502	\$26,459,016	\$19,795,138
"Winter" SOS Charge (October 2017 - March 2018)	108,217,729	\$0.09518	\$0.09518	\$0.09518	\$0.09518	\$10,300,163	\$10,300,163	\$10,300,163	\$10,300,163
"Summer" SOS Charge (April 2017-September 2017)	115,279,071	\$0.06231	\$0.06231	\$0.06231	\$0.06231	\$7,183,039	\$7,183,039	\$7,183,039	\$7,183,039
Total SOS Charges	223,496,800					\$17,483,202	\$17,483,202	\$17,483,202	\$17,483,202
Total						\$41,428,485	\$42,630,704	\$43,942,218	\$37,278,340
Low Income Discount		15.0%	15.0%	15.0%		(\$6,214,273)	(\$6,394,606)	(\$6,591,333)	<u>n/a</u>
Illustrative Bill Charges After Discount						\$35,214,212	\$36,236,098	\$37,350,885	\$37,278,340
Illustrative Bill Charges After Discount-Proposal vs. Ex	ricting Structure					(\$2,064,128)	(\$1,042,242)	\$72,545	
RL CIRR T TER T L	EE Growth Factor IHEAP Enhancement Surcharge Distribution kWh Charge SR CapEx Factor SR O&M Factor SR O&M Factor SR O&M Reconciliation Factor GR O&M Factor Levenue Decoupling Mechanism Adjustment Factor Levenue De	### Additional Company of the Interior of the	### Action	### RE Growth Factor	### REGrowth Factor	### A	EE Growth Factor 437,171 \$0.78 \$0.78 \$0.78 \$0.78 \$0.78 \$340,993 \$141EAP Enhancement Surcharge 437,171 \$0.81	## Agr. 171	HE Growth Factor 437,171 50.78 50.78 50.78 50.78 534.093 \$340,993

(23)

(24)

Line (22) + Line (23)

Columns (b) thru (d), Line (23) x Columns (f) thru (h), Line (22)

Column (a) x Columns (b) thru (e)

(f) - (i)

Narragansett Electric Illustrative Benefit of Transition to Full Customer Charge with 15% Low Income Discount Effect of Change in Standard Offer Service Rates

		Rate Year		Rate A-60	Charges		
		Rate A-60		Proposed		Illustrative	
		Units (a)	<u>Year 1</u> (b)	<u>Year 2</u> (c)	Year 3 & After (d)	Existing Structure (e)	Total (f)
(1)	Total Delivery Service Charges		\$23,945,282	\$25,147,502	\$26,459,016	\$19,795,138	
	April 2017 - March 2018 Standard Offer Service Rates						
(2)	"Winter" SOS Rate (October 2017 - March 2018) "Summer" SOS Rate (April 2017-September 2017)		\$0.09518 \$0.06231	\$0.09518 \$0.06231	\$0.09518 \$0.06231	\$0.09518 \$0.06231	
(4)	"Winter" SOS Charges (October 2017 - March 2018)	108,217,729	\$10,300,163	\$10,300,163	\$10,300,163	\$10,300,163	
(5) (6)	"Summer" SOS Charges (April 2017-September 2017) Total SOS Charges	115,279,071 223,496,800	\$7,183,039 \$17,483,202	\$7,183,039 \$17,483,202	\$7,183,039 \$17,483,202	\$7,183,039 \$17,483,202	
(7)	Total		\$41,428,484	\$42,630,704	\$43,942,218	\$37,278,340	
(8)	Low Income Discount	15.0%	(\$6,214,273)		(\$6,591,333)		
(9)	Illustrative Bill Charges After Discount		\$35,214,211	\$36,236,098	\$37,350,885	\$37,278,340	
(10)	Illustrative Bill Charges After Discount-Proposal vs. Existing Structure		(\$2,064,129)	(\$1,042,242)	\$72,545		(\$3,033,826)
	October 2017 - September 2018 Standard Offer Service Rates						
(11)	"Winter" SOS Rate (October 2017 - March 2018)		\$0.09518	\$0.09518	\$0.09518	\$0.09518	
(12)	Proposed "Summer" SOS Rate (April 2018-September 2018)		\$0.08041	\$0.08041	\$0.08041	\$0.08041	
(13)	"Winter" SOS Charges (October 2017 - March 2018)	108,217,729	\$10,300,163	\$10,300,163	\$10,300,163	\$10,300,163	
(14)	"Summer" SOS Charges (April 2018-September 2018)	115,279,071	\$9,269,590	\$9,269,590	\$9,269,590	\$9,269,590	
(15)	Total SOS Charges	223,496,800	<u>\$19,569,753</u>	\$19,569,753	\$19,569,753	\$19,569,753	
(16)	Total		\$43,515,035	\$44,717,255	\$46,028,769	\$39,364,891	
(17)	Low Income Discount	15.0%	(\$6,527,255)	(\$6,707,588)	(\$6,904,315)	<u>n/a</u>	
(18)	Illustrative Bill Charges After Discount		\$36,987,780	\$38,009,667	\$39,124,454	\$39,364,891	
(19)	Illustrative Bill Charges After Discount-Proposal vs. Existing Structure		(\$2,377,111)	(\$1,355,224)	(\$240,437)	1	(\$3,972,772)
	April 2016 - March 2017 Standard Offer Service Rates						
(20)	"Winter" SOS Rate (October 2016 - March 2017)		\$0.08179	\$0.08179	\$0.08179	\$0.08179	
(21)	"Summer" SOS Rate (April 2016-September 2016)		\$0.08679	\$0.08679	\$0.08679	\$0.08679	
(22)	"Winter" SOS Charges (October 2017 - March 2018)	108,217,729	\$8,851,128	\$8,851,128	\$8,851,128	\$8,851,128	
(23)	"Summer" SOS Charges (April 2018-September 2018)	115,279,071	\$10,005,071	\$10,005,071	\$10,005,071	\$10,005,071	
(24)	Total SOS Charges	223,496,800	\$18,856,199	\$18,856,199	\$18,856,199	\$18,856,199	
(25)	Total		\$42,801,481	\$44,003,701	\$45,315,215	\$38,651,337	
(26)	Low Income Discount	15.0%	(\$6,420,222)	(\$6,600,555)	(\$6,797,282)	<u>n/a</u>	
(27)	Illustrative Bill Charges After Discount		\$36,381,259	\$37,403,146	\$38,517,933	\$38,651,337	
(28)	Illustrative Bill Charges After Discount-Proposal vs. Existing Structure		(\$2,270,078)	(\$1,248,191)	(\$133,404)		(\$3,651,673)
(a)	Page 2, Columns (f) thru (i)						
(1)	Page 2, Line (18)		(16)	Line (1) + Line (15))		
(2) - (3)	Page 2, Column (b), Lines (19) & (20)		(17)	Column (a), Line (1		thru (d), Line (16)	
(4) - (5)	Page 2, Columns (f) thru (i), Lines (19) & (20)			Line (16) + Line (1			
(6)	Line (4) + Line (5)		(19)	Line (18), Columns	(b) thru (d) vs. Lii	ne (18), Column (e)	
(7)	Line (1) + Line (6)		(20)	RIPUC No. 2096, E	Effective April 1, 2	016	
(8)	Column (a), Line (8) x Columns (b) thru (d), Line (7)		(21)	RIPUC No. 2096, E	Effective October 1	, 2016	
(9)	Line (7) + Line (8)		(22)	Column (a), Line (2	2) x Line (20)		
(10)	Line (9), Columns (b) thru (d) vs. Line (9), Column (e)		(23)	Column (a), Line (2	3) x Line (21)		
(11)	Line (2)		(24)	Line (22) + Line (23)			
(12)	Line (3) - base SOS rate + Jan 18, 2018 Filing in Docket 4692, Att 1, p 3, Li	ine (10), Col (g)	(25)	Line (1) + Line (24)			
(13)	Column (a), Line (13) x Line (11)		(26)	Column (a), Line (2	, , ,	thru (d), Line (25)	
(14)	Column (a), Line (14) x Line (12)			Line (25) + Line (26)		(27) (2.1	
(15)	Line (13) + Line (14)		(28)	Line (27), Columns	(b) thru (d) vs. Li	ne (27), Column (e)	

Narragansett Electric Illustrative Benefit of Transition to Full Customer Charge with 15% Low Income Discount Effect of Growth in Rate A-60 Billing Units

Rate A-60 Growth in Rate A-60 Units Units 10% 20% (b) (c) (d) (e) (e) (f) (g) (h) (i) (i) (i) (i) (j) (k) (k) (k) (l)		Rate Year				Poto A	60 Patas			Pata A 6	O Chargas		
Classificacy Clas				Growth in Pat	a A 60 Units			Dec	posed Veer 2 & A			rativa Evicting Str	ucture
Columner Charge			_						1				
All Convoluments 437,171 400,888 534,695 58,78 59,78 53,499 5375,993 5316,993 5													
All Convoluments 437,171 400,888 534,695 58,78 59,78 53,499 5375,993 5316,993 5	(1)		405.151	400.000	524 505	40.50	***	#2.515.055	04.005.540	\$4.450.142		00	0.0
ABURDAN Exhibition AWh Charge		•	,		,								
Distribution I Wn Charge			,		,								
SS Cugles Factor	(3)	LIHEAP Enhancement Surcharge	437,171	480,888	524,605	\$0.81	\$0.81	\$354,109	\$389,519	\$424,930	\$354,109	\$389,519	\$424,930
Column C	(4)	Distribution kWh Charge	223,496,800	245,846,480	268,196,160	\$0.04438	\$0.03119	\$9,918,788	\$10,910,667	\$11,902,546	\$6,970,865	\$7,667,952	\$8,365,038
SR O&M Factor	(5)	ISR CapEx Factor	223,496,800	245,846,480	268,196,160	\$0.00000	\$0.00000	\$0	\$0	\$0	\$0	\$0	\$0
SIS ORAM Reconciliation Funct	(6)	ISR CapEx Reconciliation Factor	223,496,800	245,846,480	268,196,160	(\$0.00135)	(\$0.00135)	(\$301,721)	(\$331,893)	(\$362,065)	(\$301,721)	(\$331,893)	(\$362,065)
Pension/PROF Factor	(7)	ISR O&M Factor	223,496,800	245,846,480	268,196,160	\$0.00163	\$0.00163	\$364,300	\$400,730	\$437,160	\$364,300	\$400,730	\$437,160
Pension/PROF Factor	(8)	ISR O&M Reconciliation Factor	223,496,800	245,846,480	268,196,160	(\$0.00001)	(\$0.00001)	(\$2,235)	(\$2,458)	(\$2,682)	(\$2,235)	(\$2,458)	(\$2,682)
Column C													
1													
Low Income Discount Recovery Factor 223,496,800 245,846,480 268,196,160 \$0,00000 na \$0,0000 \$10,000,577 \$11,760,213 \$12,2813,868 \$7,784,614 \$85,223,498 \$92,983,500 \$10,00000000000000000000000000000000000						· ·							
13 Subtral Distribution Energy Charge		*				· ·	*						
Transmission Charge 223,496,800 245,846,480 268,196,160 50,03180 50,03180 57,107,198 57,817,918 58,528,638 57,107,198 57,817,918 58,528,638 157,0719		•	223,490,800	243,640,460	208,190,100	\$0.00000	II/a	_					
1.5 Transition Charge 223.496.800 245.846.480 268.196.160 50.00057 50.00057 512.7393 514.0132 515.2872 512.7393 514.0132 515.2872 512.7393 514.0132 515.2872 512.7393 514.0132 515.2872 512.7393 514.0132 515.2872 512.7393 514.0132 515.2872 512.7393 514.0132 515.2872 510.00058 510.000	(13)	Subtotal Distribution Energy Charge						\$10,696,557	\$11,766,213	\$12,835,868	\$7,748,634	\$8,523,498	\$9,298,360
(ii) Energy Efficiency Program Charge 223,496,800 245,846,480 268,196,160 (7) Renewable Energy Distribution Charge 223,496,800 245,846,480 268,196,160 (8) \$0.00688 \$		Transmission Charge	223,496,800	245,846,480		\$0.03180				\$8,528,638	\$7,107,198	\$7,817,918	
Column (a) x (1 + 0.10) Column (b), Lines 4, 5, 6 Column (a) x (1 + 0.10) Column (b), Lines 4, 5, 6 Column (a) x (1 + 0.10) Column (b), Lines 4, 5, 6 Column (a) x (1 + 0.10) Column (b), Lines 4, 5, 6 Column (a) x (1 + 0.10) Column (b) (b) Column (d) (c) Column (d) (c) (c) Column (d) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	(15)	Transition Charge	223,496,800	245,846,480	268,196,160	\$0.00057	\$0.00057	\$127,393	\$140,132	\$152,872	\$127,393	\$140,132	\$152,872
(18) Total Delivery Service Charges (19) "Winter" SOS Charge (October 2017 - March 2018) 108.217,7729 119.039.502 129.861.275 50.09518 \$0.09518 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.330.180 \$12.360.196 \$10.300.163 \$11.300.180 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$12.360.196 \$10.300.163 \$11.300.180 \$10.300.163 \$11.300.180 \$11.3	(16)	Energy Efficiency Program Charge	223,496,800	245,846,480	268,196,160	\$0.01154	\$0.01154	\$2,579,153	\$2,837,068	\$3,094,984	\$2,579,153	\$2,837,068	\$3,094,984
Winter SOS Charge (October 2017 - March 2018) 108,217,729 119,039,502 129,861,275 20,071 126,806,978 138,334,885 20,06231 20,	(17)	Renewable Energy Distribution Charge	223,496,800	245,846,480	268,196,160	\$0.00688	\$0.00688	\$1,537,658	\$1,691,424	\$1,845,190	<u>\$1,537,658</u>	\$1,691,424	\$1,845,190
Summer* SOS Charge (April 2017-September 2017) 115.279.071 126.806.978 138,334.885 S0.06231 S0.06231 S7.183.039 S7.001.343 S8.619.647 S7.183.039 S7.201.343 S7.201.343 S8.619.647 S7.183.039 S7.201.343 S7.201.	(18)	Total Delivery Service Charges						\$26,459,016	\$29,104,915	\$31,750,817	\$19,795,138	\$21,774,652	\$23,754,166
Summer* SOS Charge (April 2017-September 2017) 115.279.071 126.806.978 138,334.885 S0.06231 S0.06231 S7.183.039 S7.001.343 S8.619.647 S7.183.039 S7.201.343 S7.201.343 S8.619.647 S7.183.039 S7.201.343 S7.201.	(19)	"Winter" SOS Charge (October 2017 - March 2018)	108.217.729	119.039.502	129.861.275	\$0.09518	\$0.09518	\$10.300.163	\$11.330.180	\$12,360,196	\$10,300,163	\$11.330.180	\$12,360,196
Str. 483,202 Str. 484,21,061 Str. 483,202 Str. 482,206 Str. 483,202 S		•											
Schedule HSG-4-A			<u> </u>			40100=01	70100=01		<u></u>	<u></u>	· · · · · · · · · · · · · · · · · · ·	<u></u>	·
15.0% 15.0	(21)	Total SOS Charges	223,490,800	243,840,480	208,190,100			\$17,483,202	\$19,231,323	\$20,979,843	\$17,483,202	\$19,231,323	\$20,979,843
(24) Illustrative Bill Charges After Discount (a) Schedule HSG-4-A (b) Column (a) x (1 + 0.10) (c) Column (a) x (1 + 0.20) (d) Schedule HSG-4-I, Column (b), Lines 4, 5, 6 (4)(d) Schedule HSG-4-I, Column (b), Lines 9, 10, 11 (20) Page 1, Line (19) (4)(d) Workpaper HSG-5, Page 2, Column (c) (e) Illustrative design of Rate A-60 Customer and Distribution kWh Charges assuming old rate structure (f) Columns (a) thru (c) x Column (d) thru (c) x Column (e) (22) Line (19) + Line (23) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (24) Line (22) + Line (23)	(22)	Total						\$43,942,219	\$48,336,438	\$52,730,660	\$37,278,340	\$41,006,175	\$44,734,009
(25) Illustrative Bill Charges After Discount-Proposal vs. Existing Structure (a) Schedule HSG-4-A (b) Column (a) x (1 + 0.10) (c) Column (a) x (1 + 0.20) (l) (d) Schedule HSG-4-I, Column (b), Lines 4, 5, 6 (l) Page 1, Line (19) (4) (d) Schedule HSG-4-I, Column (b), Lines 9, 10, 11 (d) Workpaper HSG-5, Page 2, Column (c) (e) Illustrative design of Rate A-60 Customer and Distribution kWh Charges assuming old rate structure (f) - (h) Columns (a) thru (c) x Column (d) (20) Line (19) + Line (20) (21) Line (19) + Line (20) (22) Line (18) + Line (21) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (i) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)	(23)	Low Income Discount				15.0%		(\$6,591,333)	(\$7,250,466)	(\$7,909,599)	n/a	<u>n/a</u>	<u>n/a</u>
(a) Schedule HSG-4A (12) Proposing A-60 exempt from Low Income Discount Recovery Factor (b) Column (a) x (1 + 0.10) (13) Sum of Lines (4) thru (12) (14) (15) Sum of Lines (4) thru (12) (16) Schedule HSG-41, Column (b), Lines 4, 5, 6 (19) Page 1, Line (19) Page 1, Line (19) (10) Schedule HSG-41, Column (b), Lines 9, 10, 11 (20) Page 1, Line (20) (21) Line (19) + Line (20) (21) Line (19) + Line (20) (22) Line (18) + Line (21) (23) Column (a) thru (c) x Column (d) (23) Column (d), Lines (23) x Columns (f) thru (h), Line (22) (10) (24) Line (22) + Line (23)	(24)	Illustrative Bill Charges After Discount						\$37,350,886	\$41,085,972	\$44,821,061	\$37,278,340	\$41,006,175	\$44,734,009
(b) Column (a) x (1 + 0.10) (13) Sum of Lines (4) thru (12) (c) Column (a) x (1 + 0.20) (18) Sum of Lines (1) thru (3) + Line (13) + Sum of Lines (14) thru (17) (1) (d) Schedule HSG-4-I, Column (b), Lines 9, 10, 11 (20) Page 1, Line (20) (d) Workpaper HSG-5, Page 2, Column (c) (21) Line (19) + Line (20) (e) Illustrative design of Rate A-60 Customer and Distribution kWh Charges assuming old rate structure (22) Line (18) + Line (21) (f) - (h) Columns (a) thru (c) x Column (d) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (i) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)	(25)	Illustrative Bill Charges After Discount-Proposal vs. Ex	sisting Structure					\$72,546	\$79,797	\$87,052			
(b) Column (a) x (1 + 0.10) (13) Sum of Lines (4) thru (12) (c) Column (a) x (1 + 0.20) (18) Sum of Lines (1) thru (3) + Line (13) + Sum of Lines (14) thru (17) (1) (d) Schedule HSG-4-I, Column (b), Lines 9, 10, 11 (20) Page 1, Line (20) (d) Workpaper HSG-5, Page 2, Column (c) (21) Line (19) + Line (20) (e) Illustrative design of Rate A-60 Customer and Distribution kWh Charges assuming old rate structure (22) Line (18) + Line (21) (f) - (h) Columns (a) thru (c) x Column (d) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (i) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)													
(c) Column (a) x (1 + 0.20) (18) Sum of Lines (1) thru (3) + Line (13) + Sum of Lines (14) thru (17) (1)(d) Schedule HSG-41, Column (b), Lines 4, 5, 6 (19) Page 1, Line (19) (4)(d) Schedule HSG-41, Column (b), Lines 9, 10, 11 (20) Page 1, Line (20) (d) Workpaper HSG-5, Page 2, Column (c) (21) Line (19) + Line (20) (e) Illustrative design of Rate A-60 Customer and Distribution kWh Charges assuming old rate structure (22) Line (18) + Line (21) (f) - (h) Columns (a) thru (c) x Column (d) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (i) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)								•	ome Discount Rec	overy Factor			
(1)(d) Schedule HSG-4-I, Column (b), Lines 4, 5, 6 (19) Page 1, Line (19) (4)(d) Schedule HSG-4-I, Column (b), Lines 9, 10, 11 (20) Page 1, Line (20) (d) Workpaper HSG-5, Page 2, Column (c) (21) Line (19) + Line (20) (e) Illustrative design of Rate A-60 Customer and Distribution kWh Charges assuming old rate structure (22) Line (18) + Line (21) (f) - (h) Columns (a) thru (c) x Column (d) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (i) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)													
(4)(d) Schedule HSG-4-I, Column (b), Lines 9, 10, 11 (20) Page 1, Line (20) (d) Workpaper HSG-5, Page 2, Column (c) (21) Line (19) + Line (20) (e) Illustrative design of Rate A-60 Customer and Distribution kWh Charges assuming old rate structure (22) Line (18) + Line (21) (f) - (h) Columns (a) thru (c) x Column (d) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (i) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)	(c)	Column (a) $x (1 + 0.20)$				(18)	Sum of Lines (1) th	nru (3) + Line (13)	+ Sum of Lines (14	l) thru (17)			
(d) Workpaper HSG-5, Page 2, Column (c) (21) Line (19) + Line (20) (e) Illustrative design of Rate A-60 Customer and Distribution kWh Charges assuming old rate structure (22) Line (18) + Line (21) (f) - (h) Columns (a) thru (c) x Column (d) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (i) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)	(1)(d)	Schedule HSG-4-I, Column (b), Lines 4, 5, 6				(19)	Page 1, Line (19)						
(e) Illustrative design of Rate A-60 Customer and Distribution kWh Charges assuming old rate structure (f) - (h) Columns (a) thru (c) x Column (d) (i) - (k) Columns (a) thru (c) x Column (e) (22) Line (18) + Line (21) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (ii) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)	(4)(d)	Schedule HSG-4-I, Column (b), Lines 9, 10, 11				(20)	Page 1, Line (20)						
(e) Illustrative design of Rate A-60 Customer and Distribution kWh Charges assuming old rate structure (f) - (h) Columns (a) thru (c) x Column (d) (i) - (k) Columns (a) thru (c) x Column (e) (22) Line (18) + Line (21) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (ii) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)	(d)	Workpaper HSG-5, Page 2, Column (c)				(21)	Line (19) + Line (2	0)					
(f) - (h) Columns (a) thru (c) x Column (d) (23) Column (d), Line (23) x Columns (f) thru (h), Line (22) (1) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)			ion kWh Charges	assuming old rate	e structure								
(i) - (k) Columns (a) thru (c) x Column (e) (24) Line (22) + Line (23)		<u> </u>	3						hru (h), Line (22)				
									.,, ., -,				
	(-) ()	(-)				` '	. ,	*	lumns (i) thru (k), l	Line (24)			

Narragansett Electric Illustrative Benefit of Transition to Full Customer Charge with 15% Low Income Discount Effect on Change in Standard Offer Service Rates and Rate A-60 Billing Units

	Rate Year				Rate A-	60 Rates	Rate A-60 Charges					
		Rate A-60	Growth in Rate	e A-60 Units	Proposed	Illustrative	Pro	posed Year 3 & Aft	er	Illustr	ative - Existing Str	ucture
		Units	10%	20%	Year 3 & After	Existing Structure	Rate Year Units	Rate Year + 10%	Rate Year + 20%	Rate Year Units	Rate Year + 10%	Rate Year + 20%
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)		
(1)	Customer Charge	437,171	480,888	524,605	\$8.50	\$0.00	\$3,715,955	\$4,087,548	\$4,459,143	\$0	\$0	\$0
(2)	RE Growth Factor	437,171	480,888	524,605	\$0.78	\$0.78	\$340,993	\$375,093	\$409,192	\$340,993	\$375,093	\$409,192
(3)	LIHEAP Enhancement Surcharge	437,171	480,888	524,605	\$0.81	\$0.81	\$354,109	\$389,519	\$424,930	\$354,109	\$389,519	\$424,930
740	Division 1881 Cl	222 404 000	245.046.400	260 106 160	#0.04420	#0.02110	60.010.700	#10.010.cc#	011 002 546	#< 050 0<5	фП ««П 052	#0.265.020
(4)	Distribution kWh Charge	223,496,800	245,846,480	268,196,160	\$0.04438	\$0.03119	\$9,918,788	\$10,910,667	\$11,902,546	\$6,970,865	\$7,667,952	\$8,365,038
(5) (6)	ISR CapEx Factor ISR CapEx Reconciliation Factor	223,496,800 223,496,800	245,846,480 245,846,480	268,196,160 268,196,160	\$0.00000 (\$0.00135)	\$0.00000 (\$0.00135)	\$0 (\$301,721)	\$0 (\$331,893)	\$0 (\$362,065)	\$0 (\$301,721)	\$0 (\$331,893)	\$0 (\$362,065)
	ISR O&M Factor											
(7) (8)	ISR O&M Factor ISR O&M Reconciliation Factor	223,496,800	245,846,480	268,196,160	\$0.00163	\$0.00163 (\$0.00001)	\$364,300	\$400,730	\$437,160 (\$2,682)	\$364,300	\$400,730	\$437,160
		223,496,800	245,846,480	268,196,160	(\$0.00001)	**	(\$2,235)	(\$2,458)		(\$2,235)	(\$2,458)	(\$2,682)
(9)	Pension/PBOP Factor	223,496,800	245,846,480	268,196,160	(\$0.00085)		(\$189,972)	(\$208,970)	(\$227,967)	(\$189,972)	(\$208,970)	(\$227,967)
(10)	Revenue Decoupling Mechanism Adjustment Factor	223,496,800	245,846,480	268,196,160	\$0.00118	\$0.00118	\$263,726	\$290,099	\$316,471	\$263,726	\$290,099	\$316,471
(11)	Storm Fund Replenishment Factor	223,496,800	245,846,480	268,196,160	\$0.00288	\$0.00288	\$643,671	\$708,038	\$772,405	\$643,671	\$708,038	\$772,405
(12)	Low Income Discount Recovery Factor	223,496,800	245,846,480	268,196,160	\$0.00000	n/a	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
(13)	Subtotal Distribution Energy Charge						\$10,696,557	\$11,766,213	\$12,835,868	\$7,748,634	\$8,523,498	\$9,298,360
(14)	Transmission Charge	223,496,800	245,846,480	268,196,160	\$0.03180	\$0.03180	\$7,107,198	\$7,817,918	\$8,528,638	\$7,107,198	\$7,817,918	\$8,528,638
(15)	Transition Charge	223,496,800	245,846,480	268,196,160	\$0.00057	\$0.00057	\$127,393	\$140,132	\$152,872	\$127,393	\$140,132	\$152,872
(16)	Energy Efficiency Program Charge	223,496,800	245,846,480	268,196,160	\$0.01154	\$0.01154	\$2,579,153	\$2,837,068	\$3,094,984	\$2,579,153	\$2,837,068	\$3,094,984
(17)	Renewable Energy Distribution Charge	223,496,800	245,846,480	268,196,160	\$0.00688	\$0.00688	\$1,537,658	\$1,691,424	\$1,845,190	\$1,537,658	\$1,691,424	\$1,845,190
				, ,								
(18)	Total Delivery Service Charges						\$26,459,016	\$29,104,915	\$31,750,817	\$19,795,138	\$21,774,652	\$23,754,166
(19)	"Winter" SOS Charge (October 2017 - March 2018)	108,217,729	119,039,502	129,861,275	\$0.09518	\$0.09518	\$10,300,163	\$11,330,180	\$12,360,196	\$10,300,163	\$11,330,180	\$12,360,196
(20)	Proposed "Summer" SOS Charge (April 2018-September 2018)	115,279,071	126,806,978	138,334,885	\$0.08041	\$0.08041	\$9,269,590	\$10,196,549	\$11,123,508	\$9,269,590	\$10,196,549	\$11,123,508
(21)	Total SOS Charges	223,496,800	245,846,480	268,196,160			\$19,569,754	\$21,526,729	\$23,483,704	\$19,569,753	\$21,526,729	\$23,483,704
(21)	Total Bob Charges	223,470,000	243,040,400	200,170,100			917,507,754	<u>Ψ21,520,725</u>	923,403,704	917,507,755	921,320,723	<u>\$25,465,764</u>
(22)	Total						\$46,028,770	\$50,631,644	\$55,234,521	\$39,364,891	\$43,301,381	\$47,237,870
(23)	Low Income Discount				15.0%		(\$6,904,315)	(\$7,594,747)	(\$8,285,178)	n/a	n/a	n/a
												_
(24)	Illustrative Bill Charges After Discount						\$39,124,455	\$43,036,897	\$46,949,343	\$39,364,891	\$43,301,381	\$47,237,870
(25)	Illustrative Bill Charges After Discount-Proposal vs. Existing Stru	cture					(\$240,436)	(\$264,484)	(\$288,527)			
				•			•					
(a)	Schedule HSG-4-A				(12)	Proposing A-60 ex	empt from Low Inc	ome Discount Reco	very Factor			
(b)	Column (a) $x (1 + 0.10)$				(13)	Sum of Lines (4) th	•		•			
(c)	Column (a) x (1 + 0.20)				(18)		ru (3) + Line (13) +	- Sum of Lines (14)	thru (17)			
(1)(d)	Schedule HSG-4-I, Column (b), Lines 4, 5, 6				(19)	Page 1, Line (19)	.,		,			
(4)(d)	Schedule HSG-4-I, Column (b), Lines 9, 10, 11				(20)	Page 2, Line (12)						
(d)	Workpaper HSG-5, Page 2, Column (c)				(21)	Line (19) + Line (2	20)					
(e)	Illustrative design of Rate A-60 Customer and Distribution kWh C	harges assuming	old rate structure		(22)	Line (18) + Line (2						
(f) - (h)	Columns (a) thru (c) x Column (d)	3			(23)		23) x Columns (f) tl	nru (h), Line (22)				
(i) - (k)	Columns (a) thru (c) x Column (e)				(24)	Line (22) + Line (2		,				
					(25)	Columns (f) thru (h	n), Line (24) vs. Col	umns (i) thru (k), Li	ne (24)			

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Responses to Division's Fourteenth Set of Data Requests Issued January 22, 2018

Division 14-50

Request:

For the following five usage levels, provide an illustration of the existing A60 discount (without LIHEAP or LIHEAP matching grants) in sufficient detail to allow replication:

- a. 50% of average (mean) residential usage;
- b. 75% of average (mean) residential usage;
- c. 125% of average (mean) residential usage;
- d. 100% of average (mean) residential usage;
- e. 100% of median residential usage.

Response:

Please see Attachment DIV 14-50 for the requested information.

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-50 Page 1 of 6

		Curre	ent Deliver	y of Low In	come Disco	ount
(1)	A60 mean residential usage:	540	540	540	540	n/a
(2)	% of Mean	50%	75%	125%	100%	Median
(3)	kWh Deliveries	270	405	675	540	416
		(a)	(b)	(c)	(d)	(e)
(4)	Total Rate A-16 Bill	\$59.45	\$85.75	\$138.33	\$112.04	\$87.89
(5)	Total Rate A-60 Bill	\$50.45	\$74.85	\$123.65	\$99.26	\$76.83
(6)	Bill Reduction from Discount	(\$9.00)	(\$10.90)	(\$14.68)	(\$12.78)	(\$11.06)
(7)	% Reduction	-15.1%	-12.7%	-10.6%	-11.4%	-12.6%

- (1) Pages (2) (6), Line (1)
- (2) Usage level requested
- (3) Pages (2) (6), Line (2)
- (4) Pages (2) (6), Line (14), Column (b)
- (5) Pages (2) (6), Line (14), Column (d)
- (6) Line (5) Line (6)
- (7) Line (6) \div Line (4)

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-50 Page 2 of 6

A60 mean residential usage: 540
 50% of mean usage: 270

			A-16 Current <u>Rates</u> (a)	A-16 Bill <u>Calculation</u> (b)	A-60 Current <u>Rates</u> (c)	A-60 Bill <u>Calculation</u> (d)
	Description	Per				
(3)	Customer Charge	Bill	\$5.00	\$5.00	\$0.00	\$0.00
(4)	LIHEAP Enhancement Charge	Bill	\$0.81	\$0.81	\$0.81	\$0.81
(5)	Distribution Energy Charge	kWh	\$0.04300	\$11.61	\$0.02953	\$7.97
(6)	Renewable Energy Charge	kWh	\$0.00645	\$1.74	\$0.00645	\$1.74
(7)	Transmission Charge	kWh	\$0.03179	\$8.58	\$0.03179	\$8.58
(8)	Transition Charge	kWh	\$0.00057	\$0.15	\$0.00057	\$0.15
(9)	Energy Efficiency Programs	kWh	\$0.01002	\$2.71	\$0.01002	\$2.71
(10)	RE Growth Program	Bill	\$0.78	\$0.78	\$0.78	\$0.78
(11)	Energy Charge	kWh	\$0.09515	\$25.69	\$0.09515	\$25.69
(12)	Subtotal			\$57.07		\$48.43
(13)	Gross Earnings Tax		4.166667%	\$2.38	4.166667%	\$2.02
(14)	Total			\$59.45		\$50.45
(15)	Dollar Discount					(\$9.00)
(16)	Discount Percent					-15.1%

Per PUC 1-88, page (2), line (1) (1) (2) Line (1) x 50% Lines (3) - (11) (a) Workpaper HSG-5, Page (1), Column (a) Column (a) times 1 (for per bill) or Column (a) times line (2) (for per kWh charges) Lines (3) - (11) (b) Workpaper HSG-5, Page (2), Column (a) Lines (3) - (11) (c) Column (c) times 1 (for per bill) or Column (c) times line (2) (for per kWh charges) Lines (3) - (11) (d) (12)Sum of Lines (3) through (11) (13) Line (12) x 4.166667% Line (12) + Line (13)(14) Line (14) (d) - Line (14) (b) (15)Line (14) $(d) \div Line (13)$ (b)(16)

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-50 Page 3 of 6

A60 mean residential usage: 540
 75% of mean usage: 405

			A-16 Current	A-16 Bill	A-60 Current	A-60 Bill
			Rates	<u>Calculation</u>	Rates	<u>Calculation</u>
			(a)	(b)	(c)	(d)
	Description	Per				
(3)	Customer Charge	Bill	\$5.00	\$5.00	\$0.00	\$0.00
(4)	LIHEAP Enhancement Charge	Bill	\$0.81	\$0.81	\$0.81	\$0.81
(5)	Distribution Energy Charge	kWh	\$0.04300	\$17.42	\$0.02953	\$11.96
(6)	Renewable Energy Charge	kWh	\$0.00645	\$2.61	\$0.00645	\$2.61
(7)	Transmission Charge	kWh	\$0.03179	\$12.87	\$0.03179	\$12.87
(8)	Transition Charge	kWh	\$0.00057	\$0.23	\$0.00057	\$0.23
(9)	Energy Efficiency Programs	kWh	\$0.01002	\$4.06	\$0.01002	\$4.06
(10)	RE Growth Program	Bill	\$0.78	\$0.78	\$0.78	\$0.78
(11)	Energy Charge	kWh	\$0.09515	\$38.54	\$0.09515	\$38.54
(12)	Subtotal			\$82.32		\$71.86
(13)	Gross Earnings Tax		4.166667%	\$3.43	4.166667%	\$2.99
(14)	Total			\$85.75		\$74.85
(15)	Dollar Discount					(\$10.90)
(16)	Discount Percent					-12.7%

Per PUC 1-88, page (2), line (1) (1) (2) Line (1) x 75% Lines (3) - (11) (a) Workpaper HSG-5, Page (1), Column (a) Column (a) times 1 (for per bill) or Column (a) times line (2) (for per kWh charges) Lines (3) - (11) (b) Workpaper HSG-5, Page (2), Column (a) Lines (3) - (11)(c)Column (c) times 1 (for per bill) or Column (c) times line (2) (for per kWh charges) Lines (3) - (11) (d) (12)Sum of Lines (3) through (11) (13) Line (12) x 4.166667% Line (12) + Line (13)(14) Line (14) (d) - Line (14) (b) (15)Line (14) $(d) \div Line (13)$ (b)(16)

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-50 Page 4 of 6

A60 mean residential usage: 540
 125% of mean usage: 675

			A-16	A-16	A-60	A-60
			Current Rates	Bill Calculation	Current <u>Rates</u>	Bill <u>Calculation</u>
			(a)	(b)	(c)	(d)
	Description	Per				
(3)	Customer Charge	Bill	\$5.00	\$5.00	\$0.00	\$0.00
(4)	LIHEAP Enhancement Charge	Bill	\$0.81	\$0.81	\$0.81	\$0.81
(5)	Distribution Energy Charge	kWh	\$0.04300	\$29.03	\$0.02953	\$19.93
(6)	Renewable Energy Charge	kWh	\$0.00645	\$4.35	\$0.00645	\$4.35
(7)	Transmission Charge	kWh	\$0.03179	\$21.46	\$0.03179	\$21.46
(8)	Transition Charge	kWh	\$0.00057	\$0.38	\$0.00057	\$0.38
(9)	Energy Efficiency Programs	kWh	\$0.01002	\$6.76	\$0.01002	\$6.76
(10)	RE Growth Program	Bill	\$0.78	\$0.78	\$0.78	\$0.78
(11)	Energy Charge	kWh	\$0.09515	\$64.23	\$0.09515	\$64.23
(12)	Subtotal			\$132.80		\$118.70
(13)	Gross Earnings Tax		4.166667%	\$5.53	4.166667%	\$4.95
(14)	Total			\$138.33		\$123.65
(15)	Dollar Discount					(\$14.68)
(16)	Discount Percent					-10.6%

Per PUC 1-88, page (2), line (1) (1) (2) Line (1) x 125% Lines (3) - (11) (a) Workpaper HSG-5, Page (1), Column (a) Column (a) times 1 (for per bill) or Column (a) times line (2) (for per kWh charges) Lines (3) - (11) (b) Workpaper HSG-5, Page (2), Column (a) Lines (3) - (11)(c)Column (c) times 1 (for per bill) or Column (c) times line (2) (for per kWh charges) Lines (3) - (11) (d) (12)Sum of Lines (3) through (11) (13) Line (12) x 4.166667% Line (12) + Line (13)(14) Line (14) (d) - Line (14) (b) (15)Line (14) $(d) \div Line (13)$ (b)(16)

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-50 Page 5 of 6

A60 mean residential usage: 540
 100% of mean usage: 540

			A-16 Current <u>Rates</u> (a)	A-16 Bill <u>Calculation</u> (b)	A-60 Current <u>Rates</u> (c)	A-60 Bill <u>Calculation</u> (d)
	Description	Per				
(3)	Customer Charge	Bill	\$5.00	\$5.00	\$0.00	\$0.00
(4)	LIHEAP Enhancement Charge	Bill	\$0.81	\$0.81	\$0.81	\$0.81
(5)	Distribution Energy Charge	kWh	\$0.04300	\$23.22	\$0.02953	\$15.95
(6)	Renewable Energy Charge	kWh	\$0.00645	\$3.48	\$0.00645	\$3.48
(7)	Transmission Charge	kWh	\$0.03179	\$17.17	\$0.03179	\$17.17
(8)	Transition Charge	kWh	\$0.00057	\$0.31	\$0.00057	\$0.31
(9)	Energy Efficiency Programs	kWh	\$0.01002	\$5.41	\$0.01002	\$5.41
(10)	RE Growth Program	Bill	\$0.78	\$0.78	\$0.78	\$0.78
(11)	Energy Charge	kWh	\$0.09515	\$51.38	\$0.09515	\$51.38
(12)	Subtotal			\$107.56		\$95.29
(13)	Gross Earnings Tax		4.166667%	\$4.48	4.166667%	\$3.97
(14)	Total			\$112.04		\$99.26
(15)	Dollar Discount					(\$12.78)
(16)	Discount Percent					-11.4%

(1) Per PUC 1-88, page (2), line (1) (2) Line (1) Lines (3) - (11) (a) Workpaper HSG-5, Page (1), Column (a) Column (a) times 1 (for per bill) or Column (a) times line (2) (for per kWh charges) Lines (3) - (11) (b) Workpaper HSG-5, Page (2), Column (a) Lines (3) - (11)(c)Column (c) times 1 (for per bill) or Column (c) times line (2) (for per kWh charges) Lines (3) - (11) (d) (12)Sum of Lines (3) through (11) (13) Line (12) x 4.166667% Line (12) + Line (13)(14) Line (14) (d) - Line (14) (b) (15)Line (14) $(d) \div Line (13)$ (b)(16)

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-50 Page 6 of 6

(1) A60 median residential usage: 416
 (2) 100% of median residential usage: 416

			A-16	A-16	A-60	A-60
			Current <u>Rates</u>	Bill Calculation	Current <u>Rates</u>	Bill Calculation
			(a)	(b)	(c)	(d)
	Description	Per				
(3)	Customer Charge	Bill	\$5.00	\$5.00	\$0.00	\$0.00
(4)	LIHEAP Enhancement Charge	Bill	\$0.81	\$0.81	\$0.81	\$0.81
(5)	Distribution Energy Charge	kWh	\$0.04300	\$17.89	\$0.02953	\$12.28
(6)	Renewable Energy Charge	kWh	\$0.00645	\$2.68	\$0.00645	\$2.68
(7)	Transmission Charge	kWh	\$0.03179	\$13.22	\$0.03179	\$13.22
(8)	Transition Charge	kWh	\$0.00057	\$0.24	\$0.00057	\$0.24
(9)	Energy Efficiency Programs	kWh	\$0.01002	\$4.17	\$0.01002	\$4.17
(10)	RE Growth Program	Bill	\$0.78	\$0.78	\$0.78	\$0.78
(11)	Energy Charge	kWh	\$0.09515	\$39.58	\$0.09515	\$39.58
(12)	Subtotal			\$84.37		\$73.76
(13)	Gross Earnings Tax		4.166667%	\$3.52	4.166667%	\$3.07
(14)	Total			\$87.89		\$76.83
(15)	Dollar Discount					(\$11.06)
(16)	Discount Percent					-12.6%

(1) Per PUC 1-88, page (2), line (1) (2) Line (1) Lines (3) - (11) (a) Workpaper HSG-5, Page (1), Column (a) Column (a) times 1 (for per bill) or Column (a) times line (2) (for per kWh charges) Lines (3) - (11) (b) Workpaper HSG-5, Page (2), Column (a) Lines (3) - (11) (c) Lines (3) - (11) (d) Column (c) times 1 (for per bill) or Column (c) times line (2) (for per kWh charges) (12)Sum of Lines (3) through (11) (13) Line (12) x 4.166667% Line (12) + Line (13)(14) Line (14) (d) - Line (14) (b) (15)Line (14) $(d) \div Line (13)$ (b)(16)

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Responses to Division's Fourteenth Set of Data Requests Issued January 22, 2018

Division 14-51

Request:

For each year 2013 through 2017 inclusive, please provide:

- a. The sum of the cost of the A60 discount;
- b. All workpapers used to derive the response to "a";
- c. The average per kWh charge to ratepayers through which those costs were recovered;
- d. All workpapers used to derive the response to "c";
- e. The average monthly bill impact to ratepayers in recovering those costs;
- f. All workpapers used to derive the response to "d".

Response:

Please see Attachment DIV 14-51.

- a. The annual cost of the Rate A-60 discount is calculated on page 1, line (9).
- b. All workpapers used to derive the response to part a. above are included in Attachment DIV 14-51.
- c. The average per-kWh charge to customers through which those costs were recovered are shown on Page 2, Section 3, for each of the Company's rate classes.
- d. All workpapers used to derive the response to part c. above are included in Attachment DIV 14-51.
- e. The average monthly bill impacts to at various usage levels for the Company's rate classes to illustrate the impact to customers in recovering those costs are presented on Pages 3 through 32.
- f. All workpapers used to derive the response to part d. above are included in Attachment DIV 14-51.

The Narragansett Electric Company Low Income Rate Subsidy

		2013 (a)	2014 (b)	2015 (c)	2016 (d)	2017 (e)
(1)	A-60 Distribution Charges	\$6,743,324	\$6,821,316	\$7,286,799	\$5,532,095	\$4,828,910
(2)	Number of A-60 Bills	504,255	516,498	548,457	436,348	387,999
(3)	A-60 kWh deliveries	296,166,153	294,402,953	314,542,793	238,873,632	208,428,442
(4)	Rate A-16 Customer charge	\$4.89	\$5.00	\$5.00	\$5.00	\$5.00
(5)	Rate A-16 Distribution energy charge	\$0.03640	\$0.03664	\$0.03664	\$0.03664	\$0.03664
(6)	Estimated A60 Charges at A16 Rates	\$13,249,217	\$13,369,414	\$14,267,133	\$10,934,070	\$9,576,813
(7)	Estimated Low Income Discount	\$6,505,893	\$6,548,098	\$6,980,334	\$5,401,975	\$4,747,903
(8)	Low Income Rate Subsidy in Base Rates	\$6,250,997	\$6,446,453	\$6,446,453	\$6,446,453	\$6,446,453
(9)	Difference from Low Income Discount, to Subsidy in Base rates	\$254,896	\$101,645	\$533,881	(\$1,044,478)	(\$1,698,550)
(10)	Forecasted kWh Deliveries	7,634,597,128	7,831,696,280	7,711,865,412	7,623,573,886	7,389,559,226
(11)	Additional kWh Charge to all Customers	\$0.00003	\$0.00001	\$0.00006	(\$0.00013)	(\$0.00022)

- (1) Company billing records(2) Company billing records
- (3) Company billing records
- (4) (a) Per tariff 2095: 1 month at \$3.75; 11 months at \$5.00
- (4) (b) (e) Per tariff 2095 (5) (a) Per tariff 2095: 1 month at \$0.3416; 11 months at \$0.03664
- (5) (b) (e) Per tariff 2095

- (6) Line (2) x Line (4) + Line (3) x Line (5) (7) Line (6) Line (1)
- (8) (a) One month at rate case 4065 rate, 11 months at rate case 4323 rate
- (8) (b) (e) Per rate case 4323, Schedule JAL-4, page (2), Line(39)
- (9) Line (7) Line (8)
- (10) per company forecast for the period July through June of the relevant RDM recovery period
 (11) Line (9) ÷ Line (10), truncated to 5 decimal places

		Section 1				
Docket 4065	A-16	\$ Subsidy (a) \$2,101,000	<u>kWh</u> (b) 2,842,813,980	per kWh Charge (c) \$0.00074	<u>kW</u> (d)	per kW Charge (e)
(2)	C-06	\$382,000	552,412,265	\$0.00069		
(3) (4)	G-02 G-32	\$630,000 \$579,000	1,371,693,627 2,041,538,285	\$0.00046 \$0.00028		
(5)	G-62	\$169,000	n/a	n/a	1,301,916	\$0.13
(6)	Streetlighting	\$229,000				
(7) (8)	X-01 Total	\$17,000 \$4,107,000	25,935,238	\$0.00066		
(6)	Total	\$4,107,000				
(1) - (7) (a) (1) - (7) (b) (1) - (7) (c)	RIPUC Docket 4065 Schedule HSG-4 (C)-Amended , lines (46) and (48) RIPUC Docket 4065 Schedule HSG-6 (C)-Amended Column (a) \div Column (b)		(5) (d) (5) (e) (8) (a)	RIPUC Docket 4065 S Column (d) ÷ Column Sum of Lines (1) throu	(a)	C)-Amended
		Section 2				
Docket 4323		\$ Subsidy	<u>kWh</u>	per kWh Charge	<u>kW</u>	per kW Charge
(0)		(a)	(b)	(c)	(d)	(e)
(9) (10)	A-16 C-06	\$3,421,093 \$621,874	2,830,141,506 597,988,653	\$0.00121 \$0.00104		
(11)	G-02	\$910,282	1,297,414,309	\$0.00070		
(12)	G-32	\$885,532	2,221,229,723	\$0.00040		
(13)	G-62	\$214,035	n/a	n/a	1,241,100	\$0.17
(14) (15)	Streetlighting X-01	\$375,669 \$17,968	22,848,413	\$0.00079		
(16)	Total	\$6,446,453	22,010,113	\$0.0007		
(9) - (15) (b)	RIPUC Docket 4323 Schedule JAL-1 line (3) RIPUC Docket 4323 Schedule JAL-4 Column (a) ÷ Column (b)		(13) (d) (13) (e) (13) (a)	RIPUC Docket 4323 S Column (d) ÷ Column Sum of Lines (9) throu	(a)	
		Section 3				
		2013	2014	<u>2015</u>	2016	2017
	A16	(a)	(b)	(c)	(d)	(e)
(17)	kWh Charge in Subsidy	\$0.00117	\$0.00121	\$0.00121	\$0.00121	\$0.00121
(18) (19)	Estimated Incremental kWh Charge in RDM for Low Income Component Total Subsidy Charge	\$0.00003 \$0.00120	\$0.00001 \$0.00122	\$0.00006 \$0.00127	\$0.0013) \$0.00108	(\$0.00022) \$0.00099
	C-06					
(20)	kWh Charge in Subsidy	\$0.00101	\$0.00104	\$0.00104	\$0.00104	\$0.00104
(21)	Estimated Incremental kWh Charge in RDM for Low Income Component	\$0.00003	\$0.00001	\$0.00006	(\$0.00013)	(\$0.00022)
(22)	Total Subsidy Charge	\$0.00104	\$0.00105	\$0.00110	\$0.00091	\$0.00082
(22)	G-02	#0.000¢0	¢0.00070	¢0.00070	60 00070	#0.00070
(23) (24)	kWh Charge in Subsidy Estimated Incremental kWh Charge in RDM for Low Income Component	\$0.00068 \$0.00003	\$0.00070 \$0.00001	\$0.00070 \$0.00006	\$0.00070 (\$0.00013)	\$0.00070 (\$0.00022)
(25)	Total Subsidy Charge	\$0.00071	\$0.00071	\$0.00076	\$0.00057	\$0.00048
	G-32					
(26)	kWh Charge in Subsidy	\$0.00039	\$0.00040	\$0.00040	\$0.00040	\$0.00040
(27)	Estimated Incremental kWh Charge in RDM for Low Income Component	\$0.00003	\$0.00001 \$0.00041	\$0.00006	(\$0.00013) \$0.00027	(\$0.00022)
(28)	Total Subsidy Charge	\$0.00042	\$0.00041	\$0.00046	\$0.00027	\$0.00018
	G-62		4.4		4	
(29) (30)	kW Charge in Subsidy Estimated Incremental kWh Charge in RDM for Low Income Component	\$0.17 \$0.00003	\$0.17 \$0.00001	\$0.17 \$0.00006	\$0.17 (\$0.00013)	\$0.17 (\$0.00022)
(50)		90.00003	φυ.υυυυ1	\$0.0000	(\$0.00013)	(#0.00022)
(21)	X-01	60.000=0	60.00070	60.00070	60.00070	£0.00070
(31) (32)	kWh Charge in Subsidy Estimated Incremental kWh Charge in RDM for Low Income Component	\$0.00078 \$0.00003	\$0.00079 \$0.00001	\$0.00079 \$0.00006	\$0.00079 (\$0.00013)	\$0.00079 (\$0.00022)
(33)	Total Subsidy Charge	\$0.00081	\$0.00080	\$0.00085	\$0.00066	\$0.00057
	Line (1) Column (c) ÷ 12 + Line (9) Column (c) ÷ 12 X 11 Line (9) Column (c)		. , , , ,	Line (4) Column (c) ÷ Line (12) Column (c)	- 12 + Line (12) Co	olumn (c) ÷ 12 X 11
(18)	Page (1), Line (11)		(27)	Page (1), Line (11)		
	Line (17) + Line (18)			Line (26) + Line (27)	12 - 1 - (12) =	h (1) : 12 77 55
	Line (2) Column (c) ÷ 12 + Line (10) Column (c) ÷ 12 X 11 Line (10) Column (c)			Line (5) Column (e) ÷ Line (12) Column (e)	- 12 + Line (13) Co	oiumn (e) ÷ 12 X 11
	Page (1), Line (11)			Page (1), Line (11)		
(22)	Line (20) + Line (21)		(31) (a)	Line (7) Column (c) ÷	- 12 + Line (15) Co	olumn (c) ÷ 12 X 11
	Line (3) Column (c) ÷ 12 + Line (11) Column (c) ÷ 12 X 11			Line (15) Column (c)		
	Line (11) Column (c) Page (1), Line (11)			Page (1), Line (11) Line (31) + Line (32)		
) Page (1), Line (11)) Line (23) + Line (24)		(33)	Line (31) + Lille (32)		
. /						

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to A-16 Rate Customers

	2013 Avera	age Rates Witho	ut Low Income S	Subsidy		2013 Averag	ge Rates]	Impact of Low Ir	come Subsidy		Low	Income Subsidy	as a % of Total	Bill
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
150	\$15.84	\$10.75	\$1.11	\$27.70	\$16.02	\$10.75	\$1.12	\$27.89	\$0.18	\$0.00	\$0.01	\$0.19	0.6%	0.0%	0.0%	0.7%
300	\$25.95	\$21.50	\$1.98	\$49.43	\$26.31	\$21.50	\$1.99	\$49.80	\$0.36	\$0.00	\$0.01	\$0.37	0.7%	0.0%	0.0%	0.7%
400	\$32.69	\$28.67	\$2.56	\$63.92	\$33.17	\$28.67	\$2.58	\$64.42	\$0.48	\$0.00	\$0.02	\$0.50	0.8%	0.0%	0.0%	0.8%
500	\$39.43	\$35.84	\$3.14	\$78.41	\$40.03	\$35.84	\$3.16	\$79.03	\$0.60	\$0.00	\$0.02	\$0.62	0.8%	0.0%	0.0%	0.8%
600	\$46.17	\$43.01	\$3.72	\$92.90	\$46.89	\$43.01	\$3.75	\$93.65	\$0.72	\$0.00	\$0.03	\$0.75	0.8%	0.0%	0.0%	0.8%
700	\$52.91	\$50.18	\$4.30	\$107.39	\$53.75	\$50.18	\$4.33	\$108.26	\$0.84	\$0.00	\$0.03	\$0.87	0.8%	0.0%	0.0%	0.8%
1,200	\$86.61	\$86.02	\$7.19	\$179.82	\$88.05	\$86.02	\$7.25	\$181.32	\$1.44	\$0.00	\$0.06	\$1.50	0.8%	0.0%	0.0%	0.8%
2,000	\$140.53	\$143.36	\$11.83	\$295.72	\$142.93	\$143.36	\$11.93	\$298.22	\$2.40	\$0.00	\$0.10	\$2.50	0.8%	0.0%	0.0%	0.8%

2013 Averag	ge Rates Without Low I	ncome Subsidy	2013 Average Rates	Line Item on Bill
		(n)	(0)	
(1) Distribution Customer Charge		\$4.90	\$4.90	Customer Charge
(2) LIHEAP Enhancement Charge		\$0.83	\$0.83	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge		\$0.00	\$0.00	RE Growth Program
(4) Distribution Charge (per kWh)		\$0.03526	\$0.03643	_
(5) Operating & Maintenance Expense Charge		\$0.00182	\$0.00182	
(6) Operating & Maintenance Expense Reconciliation Factor		\$0.00000	\$0.00000	
(7) CapEx Factor Charge		\$0.00004	\$0.00004	Distribution Energy Charge
(8) CapEx Reconciliation Factor		(\$0.00002)	(\$0.00002)	Distribution Energy Charge
(9) Revenue Decoupling Adjustment Factor		(\$0.00032)	(\$0.00029)	
(10) Pension Adjustment Factor		\$0.00000	\$0.00000	
(11) Storm Fund Replenishment Factor		\$0.00000	\$0.00000	
(12) Long-term Contracting for Renewable Energy Charge		\$0.00006	\$0.00006	Renewable Energy Distribution Charge
(13) Net Metering Charge		\$0.00003	\$0.00003	Renewable Energy Distribution Charge
(14) Base Transmission Charge		\$0.02091	\$0.02091	_
(15) Transmission Adjustment Factor		(\$0.00102)	(\$0.00102)	Transmission Charge
(16) Transmission Uncollectible Factor		\$0.00023	\$0.00023	
(17) Base Transition Charge		\$0.00126	\$0.00126	Transition Charge
(18) Transition Adjustment		\$0.00010	\$0.00010	Transition Charge
(19) Energy Efficiency Program Charge		\$0.00905	\$0.00905	Energy Efficiency Programs
(20) Standard Offer Service Base Charge		\$0.06674	\$0.06674	
(21) SOS Adjustment Factor		(\$0.00061)	(\$0.00061)	Supply Services Energy Charge
(22) SOS Adminstrative Cost Adjustment Factor		\$0.00108	\$0.00108	Supply Services Energy Charge
(23) Renewable Energy Standard Charge		\$0.00447	\$0.00447	
Line Item on Bill				
(24) Customer Charge		\$4.90	\$4.90	
(25) LIHEAP Enhancement Charge		\$0.83	\$0.83	
(26) RE Growth Program		\$0.00	\$0.00	
(27) Transmission Charge	kWh x	\$0.02012	\$0.02012	
(28) Distribution Energy Charge	kWh x	\$0.03678	\$0.03798	
(29) Transition Charge	kWh x	\$0.00136	\$0.00136	
(30) Energy Efficiency Programs	kWh x	\$0.00905	\$0.00905	
(31) Renewable Energy Distribution Charge	kWh x	\$0.00009	\$0.00009	
(32) Supply Services Energy Charge	kWh x	\$0.07168	\$0.07168	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to A-60 Rate Customers

	2013 Ave	rage Rates Witho	ut Low Income S	ubsidy		2013 Avera	ge Rates			Impact of Low Ir	ncome Subsidy		Lov	w Income Subsidy	as a % of Total	Bill
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
150	\$9.09	\$10.75	\$0.83	\$20.67	\$9.10	\$10.75	\$0.83	\$20.68	\$0.01	\$0.00	\$0.00	\$0.01	0.0%	0.0%	0.0%	0.0%
300	\$17.35	\$21.50	\$1.62	\$40.47	\$17.36	\$21.50	\$1.62	\$40.48	\$0.01	\$0.00	\$0.00	\$0.01	0.0%	0.0%	0.0%	0.0%
400	\$22.86	\$28.67	\$2.15	\$53.68	\$22.87	\$28.67	\$2.15	\$53.69	\$0.01	\$0.00	\$0.00	\$0.01	0.0%	0.0%	0.0%	0.0%
500	\$28.37	\$35.84	\$2.68	\$66.89	\$28.39	\$35.84	\$2.68	\$66.91	\$0.02	\$0.00	\$0.00	\$0.02	0.0%	0.0%	0.0%	0.0%
600	\$33.88	\$43.01	\$3.20	\$80.09	\$33.90	\$43.01	\$3.20	\$80.11	\$0.02	\$0.00	\$0.00	\$0.02	0.0%	0.0%	0.0%	0.0%
700	\$39.39	\$50.18	\$3.73	\$93.30	\$39.41	\$50.18	\$3.73	\$93.32	\$0.02	\$0.00	\$0.00	\$0.02	0.0%	0.0%	0.0%	0.0%
1,200	\$66.93	\$86.02	\$6.37	\$159.32	\$66.96	\$86.02	\$6.37	\$159.35	\$0.03	\$0.00	\$0.00	\$0.03	0.0%	0.0%	0.0%	0.0%
2,000	\$110.99	\$143.36	\$10.60	\$264.95	\$111.05	\$143.36	\$10.60	\$265.01	\$0.06	\$0.00	\$0.00	\$0.06	0.0%	0.0%	0.0%	0.0%

	2013 Average Ra	ites Without Low Income Subsidy	2013 Average Rates	Line Item on Bill
		(n)	(0)	
(1)	Distribution Customer Charge	\$0.00	\$0.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.83	\$0.83	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge	\$0.00	\$0.00	Renewable Energy Growth Charge
(4)	Distribution Charge (per kWh)	\$0.02294	\$0.02294	
(5)	Operating & Maintenance Expense Charge	\$0.00182	\$0.00182	
(6)	Operating & Maintenance Expense Reconciliation Factor	\$0.00000	\$0.00000	
(7)	CapEx Factor Charge	\$0.00004	\$0.00004	Distribution Energy Charge
(8)	CapEx Reconciliation Factor	(\$0.00002)	(\$0.00002)	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor	(\$0.00032)	(\$0.00029)	
(10)	Pension Adjustment Factor	\$0.00000	\$0.00000	
(11)	Storm Fund Replenishment Factor	\$0.00000	\$0.00000	
(12)	Long-term Contracting for Renewable Energy Charge	\$0.00006	\$0.00006	Renewable Energy Distribution Charge
(13)	Net Metering Charge	\$0.00003	\$0.00003	Renewable Energy Distribution Charge
(14)	Base Transmission Charge	\$0.02091	\$0.02091	
(15)	Transmission Adjustment Factor	(\$0.00102)	(\$0.00102)	Transmission Charge
(16)	Transmission Uncollectible Factor	\$0.00023	\$0.00023	
(17)	Base Transition Charge	\$0.00126	\$0.00126	Transition Charge
(18)	Transition Adjustment	\$0.00010	\$0.00010	Transmon Charge
(19)	Energy Efficiency Program Charge	\$0.00905	\$0.00905	Energy Efficiency Programs
		\$0.06674	\$0.06674	
	SOS Adjustment Factor	(\$0.00061)	(\$0.00061)	Supply Services Energy Charge
	SOS Adminstrative Cost Adjustment Factor	\$0.00108	\$0.00108	24pp.) 241.1140.2116) 21116
(23)	Renewable Energy Standard Charge	\$0.00447	\$0.00447	
	Line Item on Bill			
(24)	Customer Charge	\$0.00	\$0.00	
	LIHEAP Enhancement Charge	\$0.83	\$0.83	
	RE Growth Program	\$0.00	\$0.00	
(27)	Transmission Charge	\$0.02012	\$0.02012	
(28)	Distribution Energy Charge	\$0.02446	\$0.02449	
	Transition Charge	\$0.00136	\$0.00136	
	Energy Efficiency Programs	\$0.00905	\$0.00905	
	Renewable Energy Distribution Charge	\$0.00009	\$0.00009	
(32)	Supply Services Energy Charge	\$0.07168	\$0.07168	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to C-06 Rate Customers

	2013 Aver	rage Rates Witho	ut Low Income S	Subsidy		2013 Avera	ge Rates			Impact of Low In	come Subsidy		Low	Income Subsidy	as a % of Total	Bill
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
250	\$26.87	\$18.28	\$1.88	\$47.03	\$27.13	\$18.28	\$1.89	\$47.30	\$0.26	\$0.00	\$0.01	\$0.27	0.6%	0.0%	0.0%	0.6%
500	\$43.08	\$36.56	\$3.32	\$82.96	\$43.60	\$36.56	\$3.34	\$83.50	\$0.52	\$0.00	\$0.02	\$0.54	0.6%	0.0%	0.0%	0.7%
1,000	\$75.50	\$73.11	\$6.19	\$154.80	\$76.54	\$73.11	\$6.24	\$155.89	\$1.04	\$0.00	\$0.05	\$1.09	0.7%	0.0%	0.0%	0.7%
1,500	\$107.92	\$109.67	\$9.07	\$226.66	\$109.48	\$109.67	\$9.13	\$228.28	\$1.56	\$0.00	\$0.06	\$1.62	0.7%	0.0%	0.0%	0.7%
2,000	\$140.34	\$146.22	\$11.94	\$298.50	\$142.42	\$146.22	\$12.03	\$300.67	\$2.08	\$0.00	\$0.09	\$2.17	0.7%	0.0%	0.0%	0.7%

10 Distribution Customer Charge	2013 Averas	ge Rates Without Low Income Subsidy	2013 Average Rates	Line Item on Bill
Column C		(n)	(0)	
Renewable Energy Growth Charge \$0.00 \$0.0021 Distribution Charge (per kWh) \$0.0021 Storphating & Maintenance Expense Charge \$0.00000 \$0.00000 Operating & Maintenance Expense Charge \$0.00000 \$0.00000 Operating & Maintenance Expense Reconciliation Factor \$0.000000 \$0.00000 Operating & Maintenance Expense Reconciliation Factor \$0.000001 \$0.000001 Operating Adjustment Factor \$0.000000 \$0.000000 Operating Adjustment Factor \$0.000000 \$0.000000 Operating Adjustment Factor \$0.000000 \$0.000000 Operating Replication Page \$0.00000 \$0.000000 Operating Replication Page \$0.000000 \$0.000000 Operating Replication Page \$0.000000 \$0.000000 \$0.000000 Operating Replication Page \$0.000000 \$0.000000 \$0.000000 \$0.000000 Operating Replication Page \$0.000000 \$0.000000 \$0.000000 \$0.000000 \$0.0000000 \$0.0000000 \$0.000000 \$0.000000 \$0.000000 \$0.000000 \$0.0000000000	(1) Distribution Customer Charge	\$9.83	\$9.83	Customer Charge
Distribution Charge (per kWh)	(2) LIHEAP Enhancement Charge	\$0.83	\$0.83	RE Growth Program
SO Operating & Maintenance Expense Charge	(3) Renewable Energy Growth Charge	\$0.00	\$0.00	LIHEAP Enhancement Charge
Comparing & Maintenance Expense Reconciliation Factor	(4) Distribution Charge (per kWh)	\$0.03152	\$0.03253	
CapEx Factor Charge	(5) Operating & Maintenance Expense Charge	\$0.00201	\$0.00201	
S CapEx Reconciliation Factor S S S S S S S S S	(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00000	\$0.00000	
(8) CapEx Reconcilation Factor (80.00001) (80.00001) (9) Revenue Decoupling Adjustment Factor \$0.00000 \$0.00000 (11) Pension Adjustment Factor \$0.00000 \$0.00000 (12) Long-term Contracting for Renewable Energy Charge \$0.00000 \$0.00000 (13) Net Metering Charge \$0.00003 \$0.00003 (14) Base Transmission Charge \$0.00015 \$0.00015 (15) Transmission Adjustment Factor \$0.00015 \$0.00015 (16) Transmission Uncollectible Factor \$0.00012 \$0.00024 (17) Base Transition Charge \$0.00126 \$0.00016 (18) Transmission Adjustment \$0.00010 \$0.00016 (18) Transmission Adjustment \$0.00010 \$0.00016 (19) Energy Efficiency Program Charge \$0.00010 \$0.00016 (19) Energy Efficiency Program Charge \$0.00904 \$0.00904 Energy Efficiency Programs (20) Standard Offer Service Base Charge \$0.00644 \$0.0016 Supply Services Energy Charge (21) SOS Adjustment Factor \$0.0016 \$0.0016 Supply Services Energy Charge (22) SOS Administrative Cost Adjustment Factor<	(7) CapEx Factor Charge	\$0.00004	\$0.00004	Distribution Energy Charge
Pension Adjustment Factor	(8) CapEx Reconciliation Factor	(\$0.00001)	(\$0.00001)	Distribution Energy Charge
Storm Fund Replenishment Factor \$0.000000 \$0.000000 \$0.000000 \$0.000000 \$0.0000000 \$0.0000000 \$0.0000000000	(9) Revenue Decoupling Adjustment Factor	(\$0.00032)	(\$0.00029)	
Composition	(10) Pension Adjustment Factor	\$0.0000	\$0.00000	
Net Metering Charge \$0,00003 \$0,00003 \$0,00003 (14) Base Transmission Charge \$0,02072 \$0,02072 (15) Transmission Adjustment Factor \$0,00015 \$0,00015 \$0,00015 (16) Transmission Uncollectible Factor \$0,000124 \$0,000124 (17) Base Transition Charge \$0,00126 \$0,00126 Transition Charge (18) Transition Adjustment \$0,00010 \$0,00010 (19) Energy Efficiency Program Charge \$0,00014 \$0,00010 (19) Energy Efficiency Program Charge \$0,00014 \$0,00014 (20) Standard Offer Service Base Charge \$0,00014 \$0,00014 (21) SOS Adjustment Factor \$0,00114 \$0,00114 \$0,00114 (22) SOS Administrative Cost Adjustment Factor \$0,00147 \$0,00014 (23) Renewable Energy Standard Charge \$0,0047 \$0,00014 (24) Customer Charge \$0,0047 \$0,00047 (25) Lithelf Perhancement Charge \$0,83 \$0,83 (26) RE Growth Program \$0,00 \$0,0001 (27) Transmission Charge \$0,0011 \$0,0011 (28) Distribution Energy Charge \$0,00136 \$0,0016 (28) Distribution Energy Charge \$0,00136 \$0,0016 (28) Distribution Energy Charge \$0,00136 \$0,0016 (29) Transition Charge \$0,00136 \$0,0016 (29) Transition Charge \$0,00136 \$0,0016 (20) Transition Charge \$0,00136 \$0,0016 (20) Transition Charge \$0,00136 \$0,0016 (21) Transition Charge \$0,00094 \$0,00096 (22) Transition Charge \$0,00096 \$0,000096 (23) Transition Charge \$0,000096 \$0,000096 (24) Transition Charge \$0,000096 \$0,000096 (25) Transition Charge \$0,000096 \$0,000096 (26) Transition Charge \$0,000096 \$0,000096 (27) Transition Charge \$0,000096 \$0,000096 (28) Transition Charge \$0,000096 (29) Transition	(11) Storm Fund Replenishment Factor	\$0.0000	\$0.00000	
13 Net Metering Charge \$0.00003 \$0.00003 \$0.00003 14 Base Transmission Charge \$0.02072 \$0.02072 15 Transmission Adjustment Factor \$0.00015 \$0.00015 Transmission Charge 16 Transmission Uncollectible Factor \$0.00024 \$0.00024 17 Base Transmission Uncollectible Factor \$0.00024 \$0.00024 18 Transmission Uncollectible Factor \$0.00010 \$0.00010 Transition Charge 18 Transmission Adjustment \$0.00010 \$0.00010 Transition Charge 19 Energy Efficiency Program Charge \$0.0004 \$0.00004 Energy Efficiency Programs 10 Energy Efficiency Program Charge \$0.00644 \$0.00014 Energy Efficiency Programs 10 Standard Offer Service Base Charge \$0.00644 \$0.0016 Supply Services Energy Charge 10 Sock Adjustment Factor \$0.00116 \$0.00114 Supply Services Energy Charge 11 Energy Efficiency Program Charge \$0.0047 \$0.0047 12 Customer Charge \$0.0047 \$0.0047 13 Customer Charge \$0.83 \$0.83 \$0.83 14 Element Bill \$0.00014 \$0.00014 \$0.00014 15 Element Bill \$0.00014 \$0.00014 \$0.00014 \$0.00014 \$0.00014 16 Element Bill \$0.00014 \$0	(12) Long-term Contracting for Renewable Energy Charge	\$0.00006	\$0.00006	Danayahla Enargy Distribution Charge
Transmission Adjustment Factor \$0.00015 \$0.00024	(13) Net Metering Charge	\$0.00003	\$0.00003	Renewable Energy Distribution Charge
16 Transmission Uncollectible Factor \$0.00024 \$0.00024 \$0.00024 \$1.00024 \$	(14) Base Transmission Charge	\$0.02072	\$0.02072	
Rase Transition Charge	(15) Transmission Adjustment Factor	\$0.00015	\$0.00015	Transmission Charge
Transition Adjustment \$0.00010 \$0.00010 \$1.00010 \$1.00010 \$1.00010 \$1.00010 \$1.00010 \$1.00010 \$1.0001000 \$1.0001000 \$1.0001000 \$1.00010000 \$1.00010000 \$1.000100000 \$1.0001000000 \$1.0001000000000 \$1.000100000000000000000000000000000000	(16) Transmission Uncollectible Factor	\$0.00024	\$0.00024	
Sample S	(17) Base Transition Charge	\$0.00126	\$0.00126	Torracition Channel
Standard Offer Service Base Charge \$0.06644 \$0.00116 \$0.00116 \$0.00116 \$0.00116 \$0.00116 \$0.00116 \$0.00116 \$0.00116 \$0.00116 \$0.00116 \$0.00104 \$0.00	(18) Transition Adjustment	\$0.00010	\$0.00010	Transition Charge
(21) SOS Adjustment Factor \$0.00116 \$0.00116 Supply Services Energy Charge (22) SOS Adminstrative Cost Adjustment Factor \$0.00104 \$0.00104 Supply Services Energy Charge (23) Renewable Energy Standard Charge \$0.00447 \$0.00447 \$0.00447 Line Item on Bill (24) Customer Charge \$9.83 \$9.83 (25) LIHEAP Enhancement Charge \$0.83 \$0.83 (26) RE Growth Program \$0.00 \$0.00 (27) Transmission Charge \$0.02111 \$0.02111 (28) Distribution Energy Charge \$0.03324 \$0.03428 (29) Transition Charge \$0.0036 \$0.0036 (30) Energy Efficiency Programs \$0.00904 \$0.00904 (31) Renewable Energy Distribution Charge \$0.00099 \$0.00099				Energy Efficiency Programs
Supply Services Energy Charge Supply Services Energy Charge Supply Services Supply S			******	
(22) SOS Adminstrative Cost Adjustment Factor \$0.00104 \$0.00104 (23) Renewable Energy Standard Charge \$0.00447 \$0.00447 Line Item on Bill \$0.00447 \$0.00447 (24) Customer Charge \$9.83 \$9.83 (25) LIHEAP Enhancement Charge \$0.83 \$0.00 (26) RE Growth Program \$0.00 \$0.00 (27) Transmission Charge \$0.02111 \$0.02111 (28) Distribution Energy Charge \$0.03324 \$0.03428 (29) Transition Charge \$0.00136 \$0.00136 (30) Energy Efficiency Programs \$0.00904 \$0.00904 (31) Renewable Energy Distribution Charge \$0.00099 \$0.00009		*****	*****	Supply Services Energy Charge
Line Item on Bill \$9.83 \$9.83 (24) Customer Charge \$9.83 \$9.83 (25) LIHEAP Enhancement Charge \$0.83 \$0.83 (26) RE Growth Program \$0.00 \$0.00 (27) Transmission Charge \$0.02111 \$0.02111 (28) Distribution Energy Charge \$0.03324 \$0.03428 (29) Transition Charge \$0.00136 \$0.00136 (30) Energy Efficiency Programs \$0.00904 \$0.00904 (31) Renewable Energy Distribution Charge \$0.00099 \$0.00009	` /			and the state of t
(24) Customer Charge \$9.83 \$9.83 (25) LIHEAP Enhancement Charge \$0.83 \$0.83 (26) RE Growth Program \$0.00 \$0.00 (27) Transmission Charge \$0.02111 \$0.02111 (28) Distribution Energy Charge \$0.03324 \$0.0428 (29) Transition Charge \$0.00136 \$0.00136 (30) Energy Efficiency Programs \$0.00904 \$0.00904 (31) Renewable Energy Distribution Charge \$0.00099 \$0.00009	(23) Renewable Energy Standard Charge	\$0.00447	\$0.00447	
(25) LIHEAP Enhancement Charge \$0.83 \$0.83 (26) RE Growth Program \$0.00 \$0.00 (27) Transmission Charge \$0.02111 \$0.02111 (28) Distribution Energy Charge \$0.03324 \$0.03428 (29) Transition Charge \$0.00136 \$0.00136 (30) Energy Efficiency Programs \$0.00904 \$0.00904 (31) Renewable Energy Distribution Charge \$0.00099 \$0.00009	Line Item on Bill			
(26) RE Growth Program \$0.00 (27) Transmission Charge \$0.02111 (28) Distribution Energy Charge \$0.03324 (29) Transition Charge \$0.00136 (30) Energy Efficiency Programs \$0.00904 (31) Renewable Energy Distribution Charge \$0.00099	(24) Customer Charge	\$9.83	\$9.83	
(27) Transmission Charge \$0.02111 \$0.02111 (28) Distribution Energy Charge \$0.03324 \$0.03428 (29) Transition Charge \$0.00136 \$0.00136 (30) Energy Efficiency Programs \$0.00904 \$0.00904 (31) Renewable Energy Distribution Charge \$0.0009 \$0.00099	(25) LIHEAP Enhancement Charge	\$0.83	\$0.83	
(28) Distribution Energy Charge \$0.0324 \$0.03428 (29) Transition Charge \$0.00136 \$0.00136 (30) Energy Efficiency Programs \$0.0094 \$0.00904 (31) Renewable Energy Distribution Charge \$0.00099 \$0.00009	(26) RE Growth Program	\$0.00	\$0.00	
(29) Transition Charge \$0.00136 (30) Energy Efficiency Programs \$0.00904 (31) Renewable Energy Distribution Charge \$0.00099	(27) Transmission Charge	\$0.02111	\$0.02111	
(30) Energy Efficiency Programs \$0.00904 (31) Renewable Energy Distribution Charge \$0.00099 \$0.0009	(28) Distribution Energy Charge	\$0.03324	\$0.03428	
(31) Renewable Energy Distribution Charge \$0.00009 \$0.00009	(29) Transition Charge	\$0.00136	\$0.00136	
		\$0.00904	\$0.00904	
(32) Supply Services Energy Charge \$0.07311 \$0.07311	(31) Renewable Energy Distribution Charge	\$0.00009	\$0.00009	
	(32) Supply Services Energy Charge	\$0.07311	\$0.07311	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-02 Rate Customers

			2013 Aver	age Rates Withou	t Low Income S	lubsidy		2013 Averag	ge Rates			Impact of Low Ir	come Subsidy		Lo	w Income Subsidy	as a % of Total I	3ill
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
20	200	4,000	\$332.75	\$292.44	\$26.05	\$651.24	\$335.60	\$292.44	\$26.17	\$654.21	\$2.85	\$0.00	\$0.12	\$2.97	0.4%	0.0%	0.0%	0.5%
50	200	10,000	\$701.99	\$731.10	\$59.71	\$1,492.80	\$709.10	\$731.10	\$60.01	\$1,500.21	\$7.11	\$0.00	\$0.30	\$7.41	0.5%	0.0%	0.0%	0.5%
100	200	20,000	\$1,317.37	\$1,462.20	\$115.82	\$2,895.39	\$1,331.60	\$1,462.20	\$116.41	\$2,910.21	\$14.23	\$0.00	\$0.59	\$14.82	0.5%	0.0%	0.0%	0.5%
150	200	30,000	\$1,932.76	\$2,193.30	\$171.92	\$4,297.98	\$1,954.10	\$2,193.30	\$172.81	\$4,320.21	\$21.34	\$0.00	\$0.89	\$22.23	0.5%	0.0%	0.0%	0.5%
20	300	6,000	\$379.03	\$438.66	\$34.07	\$851.76	\$383.30	\$438.66	\$34.25	\$856.21	\$4.27	\$0.00	\$0.18	\$4.45	0.5%	0.0%	0.0%	0.5%
50	300	15,000	\$817.68	\$1,096.65	\$79.76	\$1,994.09	\$828.35	\$1,096.65	\$80.21	\$2,005.21	\$10.67	\$0.00	\$0.45	\$11.12	0.5%	0.0%	0.0%	0.6%
100	300	30,000	\$1,548.76	\$2,193.30	\$155.92	\$3,897.98	\$1,570.10	\$2,193.30	\$156.81	\$3,920.21	\$21.34	\$0.00	\$0.89	\$22.23	0.5%	0.0%	0.0%	0.6%
150	300	45,000	\$2,279.84	\$3,289.95	\$232.07	\$5,801.86	\$2,311.85	\$3,289.95	\$233.41	\$5,835.21	\$32.01	\$0.00	\$1.34	\$33.35	0.6%	0.0%	0.0%	0.6%
20	400	8,000	\$425.31	\$584.88	\$42.09	\$1,052.28	\$431.00	\$584.88	\$42.33	\$1,058.21	\$5.69	\$0.00	\$0.24	\$5.93	0.5%	0.0%	0.0%	0.6%
50	400	20,000	\$933.37	\$1,462.20	\$99.82	\$2,495.39	\$947.60	\$1,462.20	\$100.41	\$2,510.21	\$14.23	\$0.00	\$0.59	\$14.82	0.6%	0.0%	0.0%	0.6%
100	400	40,000	\$1,780.14	\$2,924.40	\$196.02	\$4,900.56	\$1,808.60	\$2,924.40	\$197.21	\$4,930.21	\$28.46	\$0.00	\$1.19	\$29.65	0.6%	0.0%	0.0%	0.6%
150	400	60,000	\$2,626.91	\$4,386.60	\$292.23	\$7,305.74	\$2,669.60	\$4,386.60	\$294.01	\$7,350.21	\$42.69	\$0.00	\$1.78	\$44.47	0.6%	0.0%	0.0%	0.6%
20	500	10,000	\$471.59	\$731.10	\$50.11	\$1,252.80	\$478.70	\$731.10	\$50.41	\$1,260.21	\$7.11	\$0.00	\$0.30	\$7.41	0.6%	0.0%	0.0%	0.6%
50	500	25,000	\$1,049.06	\$1,827.75	\$119.87	\$2,996.68	\$1,066.85	\$1,827.75	\$120.61	\$3,015.21	\$17.79	\$0.00	\$0.74	\$18.53	0.6%	0.0%	0.0%	0.6%
100	500	50,000	\$2,011.53	\$3,655.50	\$236.13	\$5,903.16	\$2,047.10	\$3,655.50	\$237.61	\$5,940.21	\$35.57	\$0.00	\$1.48	\$37.05	0.6%	0.0%	0.0%	0.6%
150	500	75,000	\$2,973.99	\$5,483.25	\$352.39	\$8,809.63	\$3,027.35	\$5,483.25	\$354.61	\$8,865.21	\$53.36	\$0.00	\$2.22	\$55.58	0.6%	0.0%	0.0%	0.6%
20	600	12,000	\$517.86	\$877.32	\$58.13	\$1,453.31	\$526.40	\$877.32	\$58.49	\$1,462.21	\$8.54	\$0.00	\$0.36	\$8.90	0.6%	0.0%	0.0%	0.6%
50	600	30,000	\$1,164.76	\$2,193.30	\$139.92	\$3,497.98	\$1,186.10	\$2,193.30	\$140.81	\$3,520.21	\$21.34	\$0.00	\$0.89	\$22.23	0.6%	0.0%	0.0%	0.6%
100	600	60,000	\$2,242.91	\$4,386.60	\$276.23	\$6,905.74	\$2,285.60	\$4,386.60	\$278.01	\$6,950.21	\$42.69	\$0.00	\$1.78	\$44.47	0.6%	0.0%	0.0%	0.6%
150	600	90,000	\$3,321.07	\$6,579.90	\$412.54	\$10,313.51	\$3,385.10	\$6,579.90	\$415.21	\$10,380.21	\$64.03	\$0.00	\$2.67	\$66.70	0.6%	0.0%	0.0%	0.6%

	2013 Average Rates Without Low Income Subsidy	2013 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$134.17	\$134.17	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.83	\$0.83	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$0.00	\$0.00	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 10kW)	\$4.83	\$4.83	Distribution Demand Charge
Distribution Charge (per kWh)	\$0.00412	\$0.00480	
(6) Operating & Maintenance Expense Charge	\$0.00143	\$0.00143	
(7) Operating & Maintenance Expense Reconciliation Factor	\$0.00000	\$0.00000	
(8) CapEx Factor Demand Charge (per kW > 10kW)	\$0.01	\$0.01	Distribution Energy Charge
(9) CapEx Reconciliation Factor	(\$0.00003)	(\$0.00003)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	(\$0.00032)	(\$0.00029)	
(11) Pension Adjustment Factor	\$0.00000	\$0.00000	
(12) Storm Fund Replenishment Factor	\$0.00000	\$0.00000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00006	\$0.00006	P
(14) Net Metering Charge	\$0.00003	\$0.00003	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$2.84	\$2.84	Transmission Demand Charge
(16) Base Transmission Charge	\$0.00856	\$0.00856	<u> </u>
(17) Transmission Adjustment Factor	(\$0.00130)	(\$0.00130)	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00019	\$0.00019	•
(19) Base Transition Charge	\$0.00126	\$0.00126	Transition Charge
(20) Transition Adjustment	\$0.00010	\$0.00010	Transition Charge
(21) Energy Efficiency Program Charge	\$0.00904	\$0.00904	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.06644	\$0.06644	
(23) SOS Adjustment Factor	\$0.00116	\$0.00116	Supply Services Energy Charge
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00104	\$0.00104	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00447	\$0.00447	
Line Item on Bill			
(26) Customer Charge	\$134.17	\$134.17	
(28) LIHEAP Enhancement Charge	\$134.17 \$0.83	\$134.17	
(27) RE Growth Program	\$0.83	\$0.83	
(29) Transmission Adjustment	\$0.00 \$0.00745	\$0.00 \$0.00745	
(30) Distribution Energy Charge	\$0.00743 \$0.00520	\$0.00743 \$0.00591	
(31) Distribution Demand Charge (32) Transmission Demand Charge	\$4.84 \$2.84	\$4.84 \$2.84	
(31) Transition Charge	\$0.00136	\$0.00136	
(32) Energy Efficiency Programs	\$0.00904 \$0.00009	\$0.00904	
(33) Renewable Energy Distribution Charge		\$0.00009	
(34) Supply Services Energy Charge	\$0.07311	\$0.07311	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-32 Rate Customers

			2013 Aver	age Rates Withou	ut Low Income	Subsidy		2013 Avera	ge Rates			Impact of Low In	come Subsidy		Low	Income Subsidy	as a % of Total B	ill
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
200	200	40,000	\$2,420.82	\$2,682.00	\$212.62	\$5,315.44	\$2,437.58	\$2,682.00	\$213.32	\$5,332.90	\$16.76	\$0.00	\$0.70	\$17.46	0.3%	0.0%	0.0%	0.3%
750	200	150,000	\$8,794.13	\$10,057.50	\$785.48	\$19,637.11	\$8,856.99	\$10,057.50	\$788.10	\$19,702.59	\$62.86	\$0.00	\$2.62	\$65.48	0.3%	0.0%	0.0%	0.3%
1,000	200	200,000	\$11,691.09	\$13,410.00	\$1,045.88	\$26,146.97	\$11,774.91	\$13,410.00	\$1,049.37	\$26,234.28	\$83.82	\$0.00	\$3.49	\$87.31	0.3%	0.0%	0.0%	0.3%
1,500	200	300,000	\$17,485.01	\$20,115.00	\$1,566.67	\$39,166.68	\$17,610.74	\$20,115.00	\$1,571.91	\$39,297.65	\$125.73	\$0.00	\$5.24	\$130.97	0.3%	0.0%	0.0%	0.3%
2,500	200	500,000	\$29,072.86	\$33,525.00	\$2,608.24	\$65,206.10	\$29,282.40	\$33,525.00	\$2,616.98	\$65,424.38	\$209.54	\$0.00	\$8.74	\$218.28	0.3%	0.0%	0.0%	0.3%
200	300	60,000	\$2,906.44	\$4,023.00	\$288.73	\$7,218.17	\$2,931.58	\$4,023.00	\$289.77	\$7,244.35	\$25.14	\$0.00	\$1.04	\$26.18	0.3%	0.0%	0.0%	0.4%
750	300	225,000	\$10,615.20	\$15,086.25	\$1,070.89	\$26,772.34	\$10,709.49	\$15,086.25	\$1,074.82	\$26,870.56	\$94.29	\$0.00	\$3.93	\$98.22	0.4%	0.0%	0.0%	0.4%
1,000	300	300,000	\$14,119.18	\$20,115.00	\$1,426.42	\$35,660.60	\$14,244.91	\$20,115.00	\$1,431.66	\$35,791.57	\$125.73	\$0.00	\$5.24	\$130.97	0.4%	0.0%	0.0%	0.4%
1,500	300	450,000	\$21,127.15	\$30,172.50	\$2,137.49	\$53,437.14	\$21,315.74	\$30,172.50	\$2,145.34	\$53,633.58	\$188.59	\$0.00	\$7.85	\$196.44	0.4%	0.0%	0.0%	0.4%
2,500	300	750,000	\$35,143.09	\$50,287.50	\$3,559.61	\$88,990.20	\$35,457.40	\$50,287.50	\$3,572.70	\$89,317.60	\$314.31	\$0.00	\$13.09	\$327.40	0.4%	0.0%	0.0%	0.4%
200	400	80,000	\$3,392.05	\$5,364.00	\$364.84	\$9,120.89	\$3,425.58	\$5,364.00	\$366.23	\$9,155.81	\$33.53	\$0.00	\$1.39	\$34.92	0.4%	0.0%	0.0%	0.4%
750	400	300,000	\$12,436.27	\$20,115.00	\$1,356.30	\$33,907.57	\$12,561.99	\$20,115.00	\$1,361.54	\$34,038.53	\$125.72	\$0.00	\$5.24	\$130.96	0.4%	0.0%	0.0%	0.4%
1,000	400	400,000	\$16,547.28	\$26,820.00	\$1,806.97	\$45,174.25	\$16,714.91	\$26,820.00	\$1,813.95	\$45,348.86	\$167.63	\$0.00	\$6.98	\$174.61	0.4%	0.0%	0.0%	0.4%
1,500	400	600,000	\$24,769.29	\$40,230.00	\$2,708.30	\$67,707.59	\$25,020.74	\$40,230.00	\$2,718.78	\$67,969.52	\$251.45	\$0.00	\$10.48	\$261.93	0.4%	0.0%	0.0%	0.4%
2,500	400	1,000,000	\$41,213.32	\$67,050.00	\$4,510.97	\$112,774.29	\$41,632.40	\$67,050.00	\$4,528.43	\$113,210.83	\$419.08	\$0.00	\$17.46	\$436.54	0.4%	0.0%	0.0%	0.4%
200	500	100,000	\$3,877.67	\$6,705.00	\$440.94	\$11,023.61	\$3,919.58	\$6,705.00	\$442.69	\$11,067.27	\$41.91	\$0.00	\$1.75	\$43.66	0.4%	0.0%	0.0%	0.4%
750	500	375,000	\$14,257.34	\$25,143.75	\$1,641.71	\$41,042.80	\$14,414.49	\$25,143.75	\$1,648.26	\$41,206.50	\$157.15	\$0.00	\$6.55	\$163.70	0.4%	0.0%	0.0%	0.4%
1,000	500	500,000	\$18,975.37	\$33,525.00	\$2,187.52	\$54,687.89	\$19,184.91	\$33,525.00	\$2,196.25	\$54,906.16	\$209.54	\$0.00	\$8.73	\$218.27	0.4%	0.0%	0.0%	0.4%
1,500	500	750,000	\$28,411.43	\$50,287.50	\$3,279.12	\$81,978.05	\$28,725.74	\$50,287.50	\$3,292.22	\$82,305.46	\$314.31	\$0.00	\$13.10	\$327.41	0.4%	0.0%	0.0%	0.4%
2,500	500	1,250,000	\$47,283.55	\$83,812.50	\$5,462.34	\$136,558.39	\$47,807.40	\$83,812.50	\$5,484.16	\$137,104.06	\$523.85	\$0.00	\$21.82	\$545.67	0.4%	0.0%	0.0%	0.4%
200	600	120,000	\$4,363.29	\$8,046.00	\$517.05	\$12,926.34	\$4,413.58	\$8,046.00	\$519.15	\$12,978.73	\$50.29	\$0.00	\$2.10	\$52.39	0.4%	0.0%	0.0%	0.4%
750	600	450,000	\$16,078.41	\$30,172.50	\$1,927.12	\$48,178.03	\$16,266.99	\$30,172.50	\$1,934.98	\$48,374.47	\$188.58	\$0.00	\$7.86	\$196.44	0.4%	0.0%	0.0%	0.4%
1,000	600	600,000	\$21,403.46	\$40,230.00	\$2,568.06	\$64,201.52	\$21,654.91	\$40,230.00	\$2,578.54	\$64,463.45	\$251.45	\$0.00	\$10.48	\$261.93	0.4%	0.0%	0.0%	0.4%
1,500	600	900,000	\$32,053.57	\$60,345.00	\$3,849.94	\$96,248.51	\$32,430.74	\$60,345.00	\$3,865.66	\$96,641.40	\$377.17	\$0.00	\$15.72	\$392.89	0.4%	0.0%	0.0%	0.4%
2,500	600	1,500,000	\$53,353.78	\$100,575.00	\$6,413.70	\$160,342.48	\$53,982.40	\$100,575.00	\$6,439.89	\$160,997.29	\$628.62	\$0.00	\$26.19	\$654.81	0.4%	0.0%	0.0%	0.4%

	2013 Average Rates Without Low Income Subsidy	2013 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$818.75	\$818.75	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.83	\$0.83	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$0.00	\$0.00	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 200kW)	\$3.57	\$3.57	
(5) Distribution Charge (per kWh)	\$0.00534	\$0.00573	
(6) Operating & Maintenance Expense Charge	\$0.00085	\$0.00085	
(7) Operating & Maintenance Expense Reconciliation Factor	\$0.00000	\$0.00000	
(8) CapEx Factor Demand Charge (per kW > 10kW)	\$0.01	\$0.01	Division F CI
(9) CapEx Reconciliation Factor	\$0.00000	\$0.0000	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	(\$0.00032)	(\$0.00029)	
(11) Pension Adjustment Factor	\$0.0000	\$0.00000	
(12) Storm Fund Replenishment Factor	\$0.0000	\$0.0000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.0006	\$0.0006	
(14) Net Metering Charge	\$0.0003	\$0.00003	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.15	\$3.15	
(16) Base Transmission Charge	\$0.00753	\$0.00753	
(17) Transmission Adjustment Factor	\$0.00020	\$0.00020	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00019	\$0.00019	
(19) Base Transition Charge	\$0.00126	\$0.00126	
(20) Transition Adjustment	\$0.00010	\$0.00010	Transition Charge
(21) Energy Efficiency Program Charge	\$0.00904	\$0.00904	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.06630	\$0.06630	
(23) SOS Adjustment Factor	(\$0.00448)	(\$0.00448)	
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00076	\$0.00076	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00447	\$0.00447	
(25) Tenerable Energy Sumand Change	90.00117	50.00117	
Line Item on Bill			
(26) Customer Charge	\$818.75	\$818.75	
(27) LIHEAP Enhancement Charge	\$0.83	\$0.83	
(28) RE Growth Program	\$0.00	\$0.00	
(29) Transmission Adjustment	\$0.00792	\$0.00792	
(30) Distribution Energy Charge	\$0.00587	\$0.00629	
(31) Distribution Demand Charge	\$3.58	\$3.58	
(32) Transmission Demand Charge	\$3.15	\$3.15	
(31) Transition Charge	\$0.00136	\$0.00136	
(32) Energy Efficiency Programs	\$0.00904	\$0.00904	
(33) Renewable Energy Distribution Charge	\$0.0009	\$0.0009	
(34) Supply Services Energy Charge	\$0.06705	\$0.06705	
(a.) ankl.) annum muse) pumpe	WO.00702	\$0.00703	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-62 Rate Customers

			2013 Ave	rage Rates Witho	ut Low Income	Subsidy		2013 Avera	ge Rates			Impact of Low In	come Subsidy		Lov	v Income Subsidy	as a % of Total B	11
Monthly Power			Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
3,000	200	600000	\$46,104.12	\$40,230.00	\$3,597.26	\$89,931.38	\$46,628.83	\$40,230.00	\$3,619.12	\$90,477.95	\$524.71	\$0.00	\$21.86	\$546.57	0.6%	0.0%	0.0%	0.6%
5,000	200	1000000	\$65,506.32	\$67,050.00	\$5,523.18	\$138,079.50	\$66,380.83	\$67,050.00	\$5,559.62	\$138,990.45	\$874.51	\$0.00	\$36.44	\$910.95	0.6%	0.0%	0.0%	0.7%
7,500	200	1500000	\$89,759.07	\$100,575.00	\$7,930.59	\$198,264.66	\$91,070.83	\$100,575.00	\$7,985.24	\$199,631.07	\$1,311.76	\$0.00	\$54.65	\$1,366.41	0.7%	0.0%	0.0%	0.7%
10,000	200	2000000	\$114,011.81	\$134,100.00	\$10,337.99	\$258,449.80	\$115,760.83	\$134,100.00	\$10,410.87	\$260,271.70	\$1,749.02	\$0.00	\$72.88	\$1,821.90	0.7%	0.0%	0.0%	0.7%
20,000	200	4000000	\$211,022.80	\$268,200.00	\$19,967.62	\$499,190.42	\$214,520.83	\$268,200.00	\$20,113.37	\$502,834.20	\$3,498.03	\$0.00	\$145.75	\$3,643.78	0.7%	0.0%	0.0%	0.7%
3,000	300	900000	\$51,234.12	\$60,345.00	\$4,649.13	\$116,228.25	\$51,767.83	\$60,345.00	\$4,671.37	\$116,784.20	\$533.71	\$0.00	\$22.24	\$555.95	0.5%	0.0%	0.0%	0.5%
5,000	300	1500000	\$74,056.32	\$100,575.00	\$7,276.31	\$181,907.63	\$74,945.83	\$100,575.00	\$7,313.37	\$182,834.20	\$889.51	\$0.00	\$37.06	\$926.57	0.5%	0.0%	0.0%	0.5%
7,500	300	2250000	\$102,584.07	\$150,862.50	\$10,560.27	\$264,006.84	\$103,918.33	\$150,862.50	\$10,615.87	\$265,396.70	\$1,334.26	\$0.00	\$55.60	\$1,389.86	0.5%	0.0%	0.0%	0.5%
10,000	300	3000000	\$131,111.81	\$201,150.00	\$13,844.24	\$346,106.05	\$132,890.83	\$201,150.00	\$13,918.37	\$347,959.20	\$1,779.02	\$0.00	\$74.13	\$1,853.15	0.5%	0.0%	0.0%	0.5%
20,000	300	6000000	\$245,222.80	\$402,300.00	\$26,980.12	\$674,502.92	\$248,780.83	\$402,300.00	\$27,128.37	\$678,209.20	\$3,558.03	\$0.00	\$148.25	\$3,706.28	0.5%	0.0%	0.0%	0.5%
3,000	400	1200000	\$56,364.12	\$80,460.00	\$5,701.01	\$142,525.13	\$56,906.83	\$80,460.00	\$5,723.62	\$143,090.45	\$542.71	\$0.00	\$22.61	\$565.32	0.4%	0.0%	0.0%	0.4%
5,000	400	2000000	\$82,606.32	\$134,100.00	\$9,029.43	\$225,735.75	\$83,510.83	\$134,100.00	\$9,067.12	\$226,677.95	\$904.51	\$0.00	\$37.69	\$942.20	0.4%	0.0%	0.0%	0.4%
7,500	400	3000000	\$115,409.07	\$201,150.00	\$13,189.96	\$329,749.03	\$116,765.83	\$201,150.00	\$13,246.49	\$331,162.32	\$1,356.76	\$0.00	\$56.53	\$1,413.29	0.4%	0.0%	0.0%	0.4%
10,000	400	4000000	\$148,211.81	\$268,200.00	\$17,350.49	\$433,762.30	\$150,020.83	\$268,200.00	\$17,425.87	\$435,646.70	\$1,809.02	\$0.00	\$75.38	\$1,884.40	0.4%	0.0%	0.0%	0.4%
20,000	400	8000000	\$279,422.80	\$536,400.00	\$33,992.62	\$849,815.42	\$283,040.83	\$536,400.00	\$34,143.37	\$853,584.20	\$3,618.03	\$0.00	\$150.75	\$3,768.78	0.4%	0.0%	0.0%	0.4%
3,000	500	1500000	\$61,494.12	\$100,575.00	\$6,752.88	\$168,822.00	\$62,045.83	\$100,575.00	\$6,775.87	\$169,396.70	\$551.71	\$0.00	\$22.99	\$574.70	0.3%	0.0%	0.0%	0.3%
5,000	500	2500000	\$91,156.32	\$167,625.00	\$10,782.56	\$269,563.88	\$92,075.83	\$167,625.00	\$10,820.87	\$270,521.70	\$919.51	\$0.00	\$38.31	\$957.82	0.3%	0.0%	0.0%	0.4%
7,500	500	3750000	\$128,234.07	\$251,437.50	\$15,819.65	\$395,491.22	\$129,613.33	\$251,437.50	\$15,877.12	\$396,927.95	\$1,379.26	\$0.00	\$57.47	\$1,436.73	0.3%	0.0%	0.0%	0.4%
10,000	500	5000000	\$165,311.81	\$335,250.00	\$20,856.74	\$521,418.55	\$167,150.83	\$335,250.00	\$20,933.37	\$523,334.20	\$1,839.02	\$0.00	\$76.63	\$1,915.65	0.4%	0.0%	0.0%	0.4%
20,000	500	10000000	\$313,622.80	\$670,500.00	\$41,005.12	\$1,025,127.92	\$317,300.83	\$670,500.00	\$41,158.37	\$1,028,959.20	\$3,678.03	\$0.00	\$153.25	\$3,831.28	0.4%	0.0%	0.0%	0.4%
3,000	600	1800000	\$66,624.12	\$120,690.00	\$7,804.76	\$195,118.88	\$67,184.83	\$120,690.00	\$7,828.12	\$195,702.95	\$560.71	\$0.00	\$23.36	\$584.07	0.3%	0.0%	0.0%	0.3%
5,000	600	3000000	\$99,706.32	\$201,150.00	\$12,535.68	\$313,392.00	\$100,640.83	\$201,150.00	\$12,574.62	\$314,365.45	\$934.51	\$0.00	\$38.94	\$973.45	0.3%	0.0%	0.0%	0.3%
7,500	600	4500000	\$141,059.07	\$301,725.00	\$18,449.34	\$461,233.41	\$142,460.83	\$301,725.00	\$18,507.74	\$462,693.57	\$1,401.76	\$0.00	\$58.40	\$1,460.16	0.3%	0.0%	0.0%	0.3%
10,000	600	6000000	\$182,411.81	\$402,300.00	\$24,362.99	\$609,074.80	\$184,280.83	\$402,300.00	\$24,440.87	\$611,021.70	\$1,869.02	\$0.00	\$77.88	\$1,946.90	0.3%	0.0%	0.0%	0.3%
20,000	600	12000000	\$347,822.80	\$804,600.00	\$48,017.62	\$1,200,440.42	\$351,560.83	\$804,600.00	\$48,173.37	\$1,204,334.20	\$3,738.03	\$0.00	\$155.75	\$3,893.78	0.3%	0.0%	0.0%	0.3%

	2013 Average Rates Without Low Income Subsidy	2013 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$17,000.00	\$17,000.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.83	\$0.83	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$0.00	\$0.00	RE Growth Program
(4) Base Distribution Demand Charge per kW	\$2.79	\$2.96	Distribution Demand Charge
(5) Distribution Charge (per kWh)	\$0.0000	\$0.00000	
(6) Operating & Maintenance Expense Charge per KW	\$0.33	\$0.33	
(7) Operating & Maintenance Expense Reconciliation Factor	\$0.00000	\$0.00000	
(8) CapEx Factor Demand Charge per kW	\$0.01	\$0.01	Division Cl
(9) CapEx Reconciliation Factor	\$0.00000	\$0.00000	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	(\$0.00032)	(\$0.00029)	
(11) Pension Adjustment Factor	\$0.00000	\$0.00000	
(12) Storm Fund Replenishment Factor	\$0.0000	\$0.00000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.0006	\$0.0006	
(14) Net Metering Charge	\$0.0003	\$0.00003	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.15	\$3.15	
(16) Base Transmission Charge	\$0.00782	\$0.00782	
(17) Transmission Adjustment Factor	(\$0.00105)	(\$0.00105)	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00016	\$0.00016	, and the second se
(19) Base Transition Charge	\$0.00126	\$0.00126	
(20) Transition Adjustment	\$0.00010	\$0.00010	Transition Charge
(21) Energy Efficiency Program Charge	\$0.00904	\$0.00904	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.06630	\$0.06630	
(23) SOS Adjustment Factor	(\$0.00448)	(\$0.00448)	
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00076	\$0.00076	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00447	\$0.00447	
(),			
Line Item on Bill			
(26) Customer Charge	\$17,000.00	\$17,000.00	
(27) LIHEAP Enhancement Charge	\$0.83	\$0.83	
(28) RE Growth Program	\$0.00	\$0.00	
(29) Transmission Adjustment	\$0.00693	\$0.00693	
(30) Distribution Energy Charge	(\$0,00032)	(\$0.00029)	
(31) Distribution Demand Charge	\$3.13	\$3.30	
(32) Transmission Demand Charge	\$3.15	\$3.15	
(31) Transition Charge	\$0.00136	\$0.00136	
(32) Energy Efficiency Programs	\$0.00904	\$0.00904	
(33) Renewable Energy Distribution Charge	\$0.0009	\$0.0009	
(34) Supply Services Energy Charge	\$0.06705	\$0.06705	
(a.) anti-) and man and a sum Be	\$0.00703	30.00703	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to A-16 Rate Customers

	2014 Aver	age Rates Witho	ut Low Income S	Subsidy		2014 Averag	ge Rates		I	mpact of Low In	come Subsidy		Low	Income Subsidy a	as a % of Total I	Bill
Monthly kWh	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
150	\$16.13	\$13.04	\$1.22	\$30.39	\$16.32	\$13.04	\$1.22	\$30.58	\$0.19	\$0.00	\$0.00	\$0.19	0.6%	0.0%	0.0%	0.6%
300	\$26.54	\$26.07	\$2.19	\$54.80	\$26.90	\$26.07	\$2.21	\$55.18	\$0.36	\$0.00	\$0.02	\$0.38	0.7%	0.0%	0.0%	0.7%
400	\$33.47	\$34.76	\$2.84	\$71.07	\$33.96	\$34.76	\$2.86	\$71.58	\$0.49	\$0.00	\$0.02	\$0.51	0.7%	0.0%	0.0%	0.7%
500	\$40.41	\$43.45	\$3.49	\$87.35	\$41.02	\$43.45	\$3.52	\$87.99	\$0.61	\$0.00	\$0.03	\$0.64	0.7%	0.0%	0.0%	0.7%
600	\$47.34	\$52.14	\$4.15	\$103.63	\$48.07	\$52.14	\$4.18	\$104.39	\$0.73	\$0.00	\$0.03	\$0.76	0.7%	0.0%	0.0%	0.7%
700	\$54.28	\$60.83	\$4.80	\$119.91	\$55.13	\$60.83	\$4.83	\$120.79	\$0.85	\$0.00	\$0.03	\$0.88	0.7%	0.0%	0.0%	0.7%
1,200	\$88.95	\$104.28	\$8.05	\$201.28	\$90.41	\$104.28	\$8.11	\$202.80	\$1.46	\$0.00	\$0.06	\$1.52	0.7%	0.0%	0.0%	0.8%
2,000	\$144.43	\$173.80	\$13.26	\$331.49	\$146.87	\$173.80	\$13.36	\$334.03	\$2.44	\$0.00	\$0.10	\$2.54	0.7%	0.0%	0.0%	0.8%

2014 Average R	ates Without Low I	ncome Subsidy	2014 Average Rates	Line Item on Bill
		(n)	(0)	
(1) Distribution Customer Charge		\$5.00	\$5.00	Customer Charge
(2) LIHEAP Enhancement Charge		\$0.73	\$0.73	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge		\$0.00	\$0.00	RE Growth Program
(4) Distribution Charge (per kWh)		\$0.03543	\$0.03664	
(5) Operating & Maintenance Expense Charge		\$0.00165	\$0.00165	
(6) Operating & Maintenance Expense Reconciliation Factor		(\$0.00004)	(\$0.00004)	
(7) CapEx Factor Charge		\$0.00020	\$0.00020	Distribution France Character
(8) CapEx Reconciliation Factor		(\$0.00012)	(\$0.00012)	Distribution Energy Charge
(9) Revenue Decoupling Adjustment Factor		(\$0.00023)	(\$0.00022)	
(10) Pension Adjustment Factor		\$0.00000	\$0.00000	
(11) Storm Fund Replenishment Factor		\$0.00000	\$0.0000	
(12) Long-term Contracting for Renewable Energy Charge		\$0.00017	\$0.00017	Renewable Energy Distribution Charge
(13) Net Metering Charge		\$0.00001	\$0.00001	Renewable Energy Distribution Charge
(14) Base Transmission Charge		\$0.02207	\$0.02207	
(15) Transmission Adjustment Factor		(\$0.00060)	(\$0.00060)	Transmission Charge
(16) Transmission Uncollectible Factor		\$0.00028	\$0.00028	
(17) Base Transition Charge		\$0.00095	\$0.00095	Transition Charge
(18) Transition Adjustment		\$0.00017	\$0.00017	Hanshion Charge
(19) Energy Efficiency Program Charge		\$0.00941	\$0.00941	Energy Efficiency Programs
(20) Standard Offer Service Base Charge		\$0.07954	\$0.07954	
(21) SOS Adjustment Factor		\$0.00106	\$0.00106	Supply Services Energy Charge
(22) SOS Adminstrative Cost Adjustment Factor		\$0.00142	\$0.00142	
(23) Renewable Energy Standard Charge		\$0.00488	\$0.00488	
Line Item on Bill				
(24) Customer Charge		\$5.00	\$5.00	
(25) LIHEAP Enhancement Charge		\$0.73	\$0.73	
(26) RE Growth Program		\$0.00	\$0.00	
(27) Transmission Charge	kWh x	\$0.02175	\$0.02175	
(28) Distribution Energy Charge	kWh x	\$0.03689	\$0.03811	
(29) Transition Charge	kWh x	\$0.00112	\$0.00112	
(30) Energy Efficiency Programs	kWh x	\$0.00941	\$0.00941	
(31) Renewable Energy Distribution Charge	kWh x	\$0.00018	\$0.00018	
(32) Supply Services Energy Charge	kWh x	\$0.08690	\$0.08690	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to A-60 Rate Customers

	2014 Ave	age Rates Withou	ut Low Income Si	ıbsidy		2014 Avera	ge Rates			Impact of Low In	come Subsidy		Lov	v Income Subsidy	as a % of Total I	Bill
Monthly	Delivery	Supply	op.m	m . 1	Delivery	Supply	orm.		Delivery	Supply	or.	m . 1	Delivery	Supply	arm.	m . 1
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
150	\$9.29	\$13.04	\$0.93	\$23.26	\$9.30	\$13.04	\$0.93	\$23.27	\$0.01	\$0.00	\$0.00	\$0.01	0.0%	0.0%	0.0%	0.0%
300	\$17.85	\$26.07	\$1.83	\$45.75	\$17.86	\$26.07	\$1.83	\$45.76	\$0.01	\$0.00	\$0.00	\$0.01	0.0%	0.0%	0.0%	0.0%
400	\$23.56	\$34.76	\$2.43	\$60.75	\$23.57	\$34.76	\$2.43	\$60.76	\$0.01	\$0.00	\$0.00	\$0.01	0.0%	0.0%	0.0%	0.0%
500	\$29.27	\$43.45	\$3.03	\$75.75	\$29.28	\$43.45	\$3.03	\$75.76	\$0.01	\$0.00	\$0.00	\$0.01	0.0%	0.0%	0.0%	0.0%
600	\$34.97	\$52.14	\$3.63	\$90.74	\$34.99	\$52.14	\$3.63	\$90.76	\$0.02	\$0.00	\$0.00	\$0.02	0.0%	0.0%	0.0%	0.0%
700	\$40.68	\$60.83	\$4.23	\$105.74	\$40.70	\$60.83	\$4.23	\$105.76	\$0.02	\$0.00	\$0.00	\$0.02	0.0%	0.0%	0.0%	0.0%
1,200	\$69.21	\$104.28	\$7.23	\$180.72	\$69.25	\$104.28	\$7.23	\$180.76	\$0.04	\$0.00	\$0.00	\$0.04	0.0%	0.0%	0.0%	0.0%
2,000	\$114.87	\$173.80	\$12.03	\$300.70	\$114.93	\$173.80	\$12.03	\$300.76	\$0.06	\$0.00	\$0.00	\$0.06	0.0%	0.0%	0.0%	0.0%

		2014 Average Rates Without Low Income Subsidy	2014 Average Rates	Line Item on Bill
		(n)	(0)	
(1)	Distribution Customer Charge	\$0.00	\$0.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge	\$0.00	\$0.00	Renewable Energy Growth Charge
(4)	Distribution Charge (per kWh)	\$0.02317	\$0.02317	
(5)	Operating & Maintenance Expense Charge	\$0.00165	\$0.00165	
(6)	Operating & Maintenance Expense Reconciliation	on Factor (\$0.00004)	(\$0.00004)	
(7)	CapEx Factor Charge	\$0.00020	\$0.00020	Distribution Energy Charge
(8)	CapEx Reconciliation Factor	(\$0.00012)	(\$0.00012)	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor	(\$0.00025)	(\$0.00022)	
(10)	Pension Adjustment Factor	\$0.0000	\$0.0000	
(11)	Storm Fund Replenishment Factor	\$0.00000	\$0.00000	
(12)	Long-term Contracting for Renewable Energy C	harge \$0.00017	\$0.00017	Renewable Energy Distribution Charge
(13)	Net Metering Charge	\$0.00001	\$0.00001	Renewable Energy Distribution Charge
(14)	Base Transmission Charge	\$0.02207	\$0.02207	
(15)	Transmission Adjustment Factor	(\$0.00060)	(\$0.00060)	Transmission Charge
(16)	Transmission Uncollectible Factor	\$0.00028	\$0.00028	
(17)	Base Transition Charge	\$0.00095	\$0.00095	Transition Charge
(18)	Transition Adjustment	\$0.00017	\$0.00017	Transition Charge
(19)	Energy Efficiency Program Charge	\$0.00941	\$0.00941	Energy Efficiency Programs
(20)	Standard Offer Service Base Charge	\$0.07954	\$0.07954	
(21)	SOS Adjustment Factor	\$0.00106	\$0.00106	Supply Services Energy Charge
(22)	SOS Adminstrative Cost Adjustment Factor	\$0.00142	\$0.00142	
(23)	Renewable Energy Standard Charge	\$0.00488	\$0.00488	
	Line Item on Bill			
(24)	Customer Charge	\$0.00	\$0.00	
	LIHEAP Enhancement Charge	\$0.73	\$0.73	
(26)	RE Growth Program	\$0.00	\$0.00	
	Transmission Charge	\$0.02175	\$0.02175	
	Distribution Energy Charge	\$0.02461	\$0.02464	
(29)		\$0.00112	\$0.00112	
(30)		\$0.00941	\$0.00941	
(31)	Renewable Energy Distribution Charge Supply Services Energy Charge	\$0.00018 \$0.08690	\$0.00018 \$0.08690	
(32)	Supply Scivices Energy Charge	20.02030	\$0.08090	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to C-06 Rate Customers

	2014 Aver	age Rates Withou	ut Low Income S	Subsidy		2014 Avera	ge Rates			Impact of Low In	come Subsidy		Low	Income Subsidy	as a % of Total	Bill
Monthly kWh (a)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)	Total (m)
250	\$26.57	\$23.14	\$2.07	\$51.78	\$27.09	\$23.14	\$2.09	\$52.32	\$0.52	\$0.00	\$0.02	\$0.54	1.0%	0.0%	0.0%	1.0%
500	\$42.42	\$46.27	\$3.70	\$92.39	\$43.46	\$46.27	\$3.74	\$93.47	\$1.04	\$0.00	\$0.04	\$1.08	1.1%	0.0%	0.0%	1.2%
1,000	\$74.10	\$92.54	\$6.94	\$173.58	\$76.18	\$92.54	\$7.03	\$175.75	\$2.08	\$0.00	\$0.09	\$2.17	1.2%	0.0%	0.1%	1.3%
1,500	\$105.79	\$138.81	\$10.19	\$254.79	\$108.91	\$138.81	\$10.32	\$258.04	\$3.12	\$0.00	\$0.13	\$3.25	1.2%	0.0%	0.1%	1.3%
2,000	\$137.47	\$185.08	\$13.44	\$335.99	\$141.63	\$185.08	\$13.61	\$340.32	\$4.16	\$0.00	\$0.17	\$4.33	1.2%	0.0%	0.1%	1.3%

	2014 Average Rates Wi	thout Low Income Subsidy	2014 Average Rates	Line Item on Bill
		(n)	(0)	
(1)	Distribution Customer Charge	\$10.00	\$10.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.73	\$0.73	RE Growth Program
(3)	Renewable Energy Growth Charge	\$0.00	\$0.00	LIHEAP Enhancement Charge
(4)	Distribution Charge (per kWh)	\$0.03149	\$0.03253	
(5)	Operating & Maintenance Expense Charge	\$0.00184	\$0.00184	
(6)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00004)	(\$0.00004)	
(7)	CapEx Factor Charge	\$0.00020	\$0.00020	Distribution Energy Charge
(8)	CapEx Reconciliation Factor	(\$0.00010)	(\$0.00010)	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor	(\$0.00126)	(\$0.00022)	
(10)	Pension Adjustment Factor	\$0.00000	\$0.00000	
(11)	Storm Fund Replenishment Factor	\$0.00000	\$0.00000	
(12)	Long-term Contracting for Renewable Energy Charge	\$0.00017	\$0.00017	Renewable Energy Distribution Charge
(13)	Net Metering Charge	\$0.00001	\$0.00001	Renewable Energy Distribution Charge
(14)	Base Transmission Charge	\$0.02217	\$0.02217	
(15)	Transmission Adjustment Factor	(\$0.00190)	(\$0.00190)	Transmission Charge
(16)	Transmission Uncollectible Factor	\$0.00026	\$0.00026	
(17)	Base Transition Charge	\$0.00095	\$0.00095	Townsides Observe
(18)	Transition Adjustment	\$0.00017	\$0.00017	Transition Charge
	Energy Efficiency Program Charge	\$0.00941	\$0.00941	Energy Efficiency Programs
	Standard Offer Service Base Charge	\$0.08319	\$0.08319	<u>-</u>
	SOS Adjustment Factor	\$0.00301	\$0.00301	Supply Services Energy Charge
	SOS Adminstrative Cost Adjustment Factor	\$0.00146	\$0.00146	2,5
(23)	Renewable Energy Standard Charge	\$0.00488	\$0.00488	
	Line Item on Bill			
(24)	Customer Charge	\$10.00	\$10.00	
	LIHEAP Enhancement Charge	\$0.73	\$0.73	
	RE Growth Program	\$0.00	\$0.00	
(27)	Transmission Charge	\$0.02053	\$0.02053	
(28)	Distribution Energy Charge	\$0.03213	\$0.03421	
(29)	Transition Charge	\$0.00112	\$0.00112	
(30)	Energy Efficiency Programs	\$0.00941	\$0.00941	
(31)	Renewable Energy Distribution Charge	\$0.00018	\$0.00018	
(32)	Supply Services Energy Charge	\$0.09254	\$0.09254	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-02 Rate Customers

			2014 Aver	age Rates Withou	t Low Income S	ubsidy		2014 Averag	e Rates			Impact of Low In	come Subsidy		Lo	w Income Subsidy	as a % of Total E	ill .
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
20	200	4,000	\$337.36	\$370.16	\$29.48	\$737.00	\$340.21	\$370.16	\$29.60	\$739.97	\$2.85	\$0.00	\$0.12	\$2.97	0.4%	0.0%	0.0%	0.4%
50	200	10,000	\$713.31	\$925.40	\$68.28	\$1,706.99	\$720.43	\$925.40	\$68.58	\$1,714.41	\$7.12	\$0.00	\$0.30	\$7.42	0.4%	0.0%	0.0%	0.4%
100	200	20,000	\$1,339.90	\$1,850.80	\$132.95	\$3,323.65	\$1,354.13	\$1,850.80	\$133.54	\$3,338.47	\$14.23	\$0.00	\$0.59	\$14.82	0.4%	0.0%	0.0%	0.4%
150	200	30,000	\$1,966.48	\$2,776.20	\$197.61	\$4,940.29	\$1,987.83	\$2,776.20	\$198.50	\$4,962.53	\$21.35	\$0.00	\$0.89	\$22.24	0.4%	0.0%	0.0%	0.5%
20	300	6,000	\$383.78	\$555.24	\$39.13	\$978.15	\$388.05	\$555.24	\$39.30	\$982.59	\$4.27	\$0.00	\$0.17	\$4.44	0.4%	0.0%	0.0%	0.5%
50	300	15,000	\$829.36	\$1,388.10	\$92.39	\$2,309.85	\$840.03	\$1,388.10	\$92.84	\$2,320.97	\$10.67	\$0.00	\$0.45	\$11.12	0.5%	0.0%	0.0%	0.5%
100	300	30,000	\$1,571.98	\$2,776.20	\$181.17	\$4,529.35	\$1,593.33	\$2,776.20	\$182.06	\$4,551.59	\$21.35	\$0.00	\$0.89	\$22.24	0.5%	0.0%	0.0%	0.5%
150	300	45,000	\$2,314.61	\$4,164.30	\$269.95	\$6,748.86	\$2,346.63	\$4,164.30	\$271.29	\$6,782.22	\$32.02	\$0.00	\$1.34	\$33.36	0.5%	0.0%	0.0%	0.5%
20	400	8,000	\$430.20	\$740.32	\$48.77	\$1,219.29	\$435.89	\$740.32	\$49.01	\$1,225.22	\$5.69	\$0.00	\$0.24	\$5.93	0.5%	0.0%	0.0%	0.5%
50	400	20,000	\$945.40	\$1,850.80	\$116.51	\$2,912.71	\$959.63	\$1,850.80	\$117.10	\$2,927.53	\$14.23	\$0.00	\$0.59	\$14.82	0.5%	0.0%	0.0%	0.5%
100	400	40,000	\$1,804.07	\$3,701.60	\$229.40	\$5,735.07	\$1,832.53	\$3,701.60	\$230.59	\$5,764.72	\$28.46	\$0.00	\$1.19	\$29.65	0.5%	0.0%	0.0%	0.5%
150	400	60,000	\$2,662.73	\$5,552.40	\$342.30	\$8,557.43	\$2,705.43	\$5,552.40	\$344.08	\$8,601.91	\$42.70	\$0.00	\$1.78	\$44.48	0.5%	0.0%	0.0%	0.5%
20	500	10,000	\$476.61	\$925.40	\$58.42	\$1,460.43	\$483.73	\$925.40	\$58.71	\$1,467.84	\$7.12	\$0.00	\$0.29	\$7.41	0.5%	0.0%	0.0%	0.5%
50	500	25,000	\$1,061.44	\$2,313.50	\$140.62	\$3,515.56	\$1,079.23	\$2,313.50	\$141.36	\$3,534.09	\$17.79	\$0.00	\$0.74	\$18.53	0.5%	0.0%	0.0%	0.5%
100	500	50,000	\$2,036.15	\$4,627.00	\$277.63	\$6,940.78	\$2,071.73	\$4,627.00	\$279.11	\$6,977.84	\$35.58	\$0.00	\$1.48	\$37.06	0.5%	0.0%	0.0%	0.5%
150	500	75,000	\$3,010.86	\$6,940.50	\$414.64	\$10,366.00	\$3,064.23	\$6,940.50	\$416.86	\$10,421.59	\$53.37	\$0.00	\$2.22	\$55.59	0.5%	0.0%	0.0%	0.5%
20	600	12,000	\$523.03	\$1,110.48	\$68.06	\$1,701.57	\$531.57	\$1,110.48	\$68.42	\$1,710.47	\$8.54	\$0.00	\$0.36	\$8.90	0.5%	0.0%	0.0%	0.5%
50	600	30,000	\$1,177.48	\$2,776.20	\$164.74	\$4,118.42	\$1,198.83	\$2,776.20	\$165.63	\$4,140.66	\$21.35	\$0.00	\$0.89	\$22.24	0.5%	0.0%	0.0%	0.5%
100	600	60,000	\$2,268.23	\$5,552.40	\$325.86	\$8,146.49	\$2,310.93	\$5,552.40	\$327.64	\$8,190.97	\$42.70	\$0.00	\$1.78	\$44.48	0.5%	0.0%	0.0%	0.5%
150	600	90,000	\$3,358.98	\$8,328.60	\$486.98	\$12,174.56	\$3,423.03	\$8,328.60	\$489.65	\$12,241.28	\$64.05	\$0.00	\$2.67	\$66.72	0.5%	0.0%	0.0%	0.5%

	2014 Average Rate	s Without Low Income Subsidy	2014 Average Rates	Line Item on Bill
		(n)	(0)	
(1) Distribution Customer Charge		\$135.00	\$135.00	Customer Charge
(2) LIHEAP Enhancement Charge		\$0.73	\$0.73	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge		\$0.00	\$0.00	RE Growth Program
(4) Base Distribution Demand Charge	(per kW > 10kW)	\$4.85	\$4.85	Distribution Demand Charge
(5) Distribution Charge (per kWh)		\$0.00398	\$0.00468	
(6) Operating & Maintenance Expense	Charge	\$0.00131	\$0.00131	
(7) Operating & Maintenance Expense	Reconciliation Factor	(\$0.00004)	(\$0.00004)	
(8) CapEx Factor Demand Charge (per	kW > 10kW)	\$0.05	\$0.05	Distribution Energy Charge
(9) CapEx Reconciliation Factor		(\$0.00007)	(\$0.00007)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment F	actor	(\$0.00023)	(\$0.00022)	
(11) Pension Adjustment Factor		\$0.0000	\$0.0000	
(12) Storm Fund Replenishment Factor		\$0.00000	\$0.00000	
(13) Long-term Contracting for Renewa	ble Energy Charge	\$0.00017	\$0.00017	Renewable Energy Distribution Charge
(14) Net Metering Charge		\$0.00001	\$0.00001	Renewable Energy Distribution Charge
(15) Transmission Demand Charge		\$2.99	\$2.99	Transmission Demand Charge
(16) Base Transmission Charge		\$0.00890	\$0.00890	
(17) Transmission Adjustment Factor		(\$0.00159)	(\$0.00159)	Transmission Adjustment
(18) Transmission Uncollectible Factor		\$0.00024	\$0.00024	
(19) Base Transition Charge		\$0.00095	\$0.00095	Transition Charge
(20) Transition Adjustment		\$0.00017	\$0.00017	Transition Charge
(21) Energy Efficiency Program Charge		\$0.00941	\$0.00941	Energy Efficiency Programs
(22) Standard Offer Service Base Charg	e	\$0.08319	\$0.08319	
(23) SOS Adjustment Factor		\$0.00301	\$0.00301	Supply Services Energy Charge
(24) SOS Adminstrative Cost Adjustme	nt Factor	\$0.00146	\$0.00146	Supply Services Energy Charge
(25) Renewable Energy Standard Charg	e	\$0.00488	\$0.00488	
Line Item on Bill		6125.00	6125.00	
(26) Customer Charge		\$135.00	\$135.00	
(28) LIHEAP Enhancement Charge		\$0.73	\$0.73	
(27) RE Growth Program		\$0.00	\$0.00	
(29) Transmission Adjustment		\$0.00755	\$0.00755	
(30) Distribution Energy Charge		\$0.00495	\$0.00566	
(31) Distribution Demand Charge		\$4.90	\$4.90	
(32) Transmission Demand Charge		\$2.99	\$2.99	
(31) Transition Charge		\$0.00112	\$0.00112	
(32) Energy Efficiency Programs		\$0.00941	\$0.00941	
(33) Renewable Energy Distribution Ch	arge	\$0.00018	\$0.00018	
(34) Supply Services Energy Charge		\$0.09254	\$0.09254	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-32 Rate Customers

			2014 Ave	rage Rates Withou	ut Low Income	Subsidy		2014 Averag	ge Rates		1	Impact of Low In	come Subsidy		Low	Income Subsidy	as a % of Total B	ill
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
200	200	40,000	\$2,466.98	\$3,559.60	\$251.11	\$6,277.69	\$2,483.33	\$3,559.60	\$251.79	\$6,294.72	\$16.35	\$0.00	\$0.68	\$17.03	0.3%	0.0%	0.0%	0.3%
750	200	150,000	\$9,042.93	\$13,348.50	\$932.98	\$23,324.41	\$9,104.23	\$13,348.50	\$935.53	\$23,388.26	\$61.30	\$0.00	\$2.55	\$63.85	0.3%	0.0%	0.0%	0.3%
1,000	200	200,000	\$12,032.00	\$17,798.00	\$1,242.92	\$31,072.92	\$12,113.73	\$17,798.00	\$1,246.32	\$31,158.05	\$81.73	\$0.00	\$3.40	\$85.13	0.3%	0.0%	0.0%	0.3%
1,500	200	300,000	\$18,010.13	\$26,697.00	\$1,862.80	\$46,569.93	\$18,132.73	\$26,697.00	\$1,867.91	\$46,697.64	\$122.60	\$0.00	\$5.11	\$127.71	0.3%	0.0%	0.0%	0.3%
2,500	200	500,000	\$29,966.40	\$44,495.00	\$3,102.56	\$77,563.96	\$30,170.73	\$44,495.00	\$3,111.07	\$77,776.80	\$204.33	\$0.00	\$8.51	\$212.84	0.3%	0.0%	0.0%	0.3%
200	300	60,000	\$2,951.61	\$5,339.40	\$345.46	\$8,636.47	\$2,976.13	\$5,339.40	\$346.48	\$8,662.01	\$24.52	\$0.00	\$1.02	\$25.54	0.3%	0.0%	0.0%	0.3%
750	300	225,000	\$10,860.28	\$20,022.75	\$1,286.79	\$32,169.82	\$10,952.23	\$20,022.75	\$1,290.62	\$32,265.60	\$91.95	\$0.00	\$3.83	\$95.78	0.3%	0.0%	0.0%	0.3%
1,000	300	300,000	\$14,455.13	\$26,697.00	\$1,714.67	\$42,866.80	\$14,577.73	\$26,697.00	\$1,719.78	\$42,994.51	\$122.60	\$0.00	\$5.11	\$127.71	0.3%	0.0%	0.0%	0.3%
1,500	300	450,000	\$21,644.83	\$40,045.50	\$2,570.43	\$64,260.76	\$21,828.73	\$40,045.50	\$2,578.09	\$64,452.32	\$183.90	\$0.00	\$7.66	\$191.56	0.3%	0.0%	0.0%	0.3%
2,500	300	750,000	\$36,024.23	\$66,742.50	\$4,281.95	\$107,048.68	\$36,330.73	\$66,742.50	\$4,294.72	\$107,367.95	\$306.50	\$0.00	\$12.77	\$319.27	0.3%	0.0%	0.0%	0.3%
200	400	80,000	\$3,436.24	\$7,119.20	\$439.81	\$10,995.25	\$3,468.93	\$7,119.20	\$441.17	\$11,029.30	\$32.69	\$0.00	\$1.36	\$34.05	0.3%	0.0%	0.0%	0.3%
750	400	300,000	\$12,677.63	\$26,697.00	\$1,640.61	\$41,015.24	\$12,800.23	\$26,697.00	\$1,645.72	\$41,142.95	\$122.60	\$0.00	\$5.11	\$127.71	0.3%	0.0%	0.0%	0.3%
1,000	400	400,000	\$16,878.26	\$35,596.00	\$2,186.43	\$54,660.69	\$17,041.73	\$35,596.00	\$2,193.24	\$54,830.97	\$163.47	\$0.00	\$6.81	\$170.28	0.3%	0.0%	0.0%	0.3%
1,500	400	600,000	\$25,279.53	\$53,394.00	\$3,278.06	\$81,951.59	\$25,524.73	\$53,394.00	\$3,288.28	\$82,207.01	\$245.20	\$0.00	\$10.22	\$255.42	0.3%	0.0%	0.0%	0.3%
2,500	400	1,000,000	\$42,082.06	\$88,990.00	\$5,461.34	\$136,533.40	\$42,490.73	\$88,990.00	\$5,478.36	\$136,959.09	\$408.67	\$0.00	\$17.02	\$425.69	0.3%	0.0%	0.0%	0.3%
200	500	100,000	\$3,920.86	\$8,899.00	\$534.16	\$13,354.02	\$3,961.73	\$8,899.00	\$535.86	\$13,396.59	\$40.87	\$0.00	\$1.70	\$42.57	0.3%	0.0%	0.0%	0.3%
750	500	375,000	\$14,494.98	\$33,371.25	\$1,994.43	\$49,860.66	\$14,648.23	\$33,371.25	\$2,000.81	\$50,020.29	\$153.25	\$0.00	\$6.38	\$159.63	0.3%	0.0%	0.0%	0.3%
1,000	500	500,000	\$19,301.40	\$44,495.00	\$2,658.18	\$66,454.58	\$19,505.73	\$44,495.00	\$2,666.70	\$66,667.43	\$204.33	\$0.00	\$8.52	\$212.85	0.3%	0.0%	0.0%	0.3%
1,500	500	750,000	\$28,914.23	\$66,742.50	\$3,985.70	\$99,642.43	\$29,220.73	\$66,742.50	\$3,998.47	\$99,961.70	\$306.50	\$0.00	\$12.77	\$319.27	0.3%	0.0%	0.0%	0.3%
2,500	500	1,250,000	\$48,139.90	\$111,237.50	\$6,640.73	\$166,018.13	\$48,650.73	\$111,237.50	\$6,662.01	\$166,550.24	\$510.83	\$0.00	\$21.28	\$532.11	0.3%	0.0%	0.0%	0.3%
200	600	120,000	\$4,405.49	\$10,678.80	\$628.51	\$15,712.80	\$4,454.53	\$10,678.80	\$630.56	\$15,763.89	\$49.04	\$0.00	\$2.05	\$51.09	0.3%	0.0%	0.0%	0.3%
750	600	450,000	\$16,312.33	\$40,045.50	\$2,348.24	\$58,706.07	\$16,496.23	\$40,045.50	\$2,355.91	\$58,897.64	\$183.90	\$0.00	\$7.67	\$191.57	0.3%	0.0%	0.0%	0.3%
1,000	600	600,000	\$21,724.53	\$53,394.00	\$3,129.94	\$78,248.47	\$21,969.73	\$53,394.00	\$3,140.16	\$78,503.89	\$245.20	\$0.00	\$10.22	\$255.42	0.3%	0.0%	0.0%	0.3%
1,500	600	900,000	\$32,548.93	\$80,091.00	\$4,693.33	\$117,333.26	\$32,916.73	\$80,091.00	\$4,708.66	\$117,716.39	\$367.80	\$0.00	\$15.33	\$383.13	0.3%	0.0%	0.0%	0.3%
2,500	600	1,500,000	\$54,197.73	\$133,485.00	\$7,820.11	\$195,502.84	\$54,810.73	\$133,485.00	\$7,845.66	\$196,141.39	\$613.00	\$0.00	\$25.55	\$638.55	0.3%	0.0%	0.0%	0.3%

	2014 Average Rates Without Low Income Subsidy	2014 Average Rates	Line Item on Bill
	(n)	(o)	
(1) Distribution Customer Charge	\$825.00	\$825.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$0.00	\$0.00	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 200kW)	\$3.70	\$3.70	<u> </u>
(5) Distribution Charge (per kWh)	\$0.00511	\$0.00551	
(6) Operating & Maintenance Expense Charge	\$0.00081	\$0.00081	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.00004)	(\$0.00004)	
(8) CapEx Factor Demand Charge (per kW > 10kW)	\$0.05	\$0.05	military management
(9) CapEx Reconciliation Factor	(\$0.00004)	(\$0.00004)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	(\$0.00023)	(\$0.00022)	
(11) Pension Adjustment Factor	\$0.0000	\$0.00000	
(12) Storm Fund Replenishment Factor	\$0.0000	\$0.0000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00017	\$0.00017	
(14) Net Metering Charge	\$0.00001	\$0.00001	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.36	\$3.36	
(16) Base Transmission Charge	\$0.00802	\$0.00802	
(17) Transmission Adjustment Factor	(\$0.00033)	(\$0.00033)	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00022	\$0.00022	, , , , , , , , , , , , , , , , , , ,
(19) Base Transition Charge	\$0.00095	\$0.00095	
(20) Transition Adjustment	\$0.00017	\$0.00017	Transition Charge
(21) Energy Efficiency Program Charge	\$0.00941	\$0.00941	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.08681	\$0.08681	
(23) SOS Adjustment Factor	(\$0.00391)	(\$0.00391)	
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00121	\$0.00121	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00488	\$0.00488	
(==)	***************************************	***************************************	
Line Item on Bill			
(26) Customer Charge	\$825.00	\$825.00	
(27) LIHEAP Enhancement Charge	\$0.73	\$0.73	
(28) RE Growth Program	\$0.00	\$0.00	
(29) Transmission Adjustment	\$0.00791	\$0.00791	
(30) Distribution Energy Charge	\$0.00561	\$0.00602	
(31) Distribution Demand Charge	\$3.75	\$3.75	
(32) Transmission Demand Charge	\$3.36	\$3.36	
(31) Transition Charge	\$0.00112	\$0.00112	
(32) Energy Efficiency Programs	\$0.00941	\$0.00941	
(33) Renewable Energy Distribution Charge	\$0.00018	\$0.00018	
(34) Supply Services Energy Charge	\$0.08899	\$0.08899	
(/ FF /	*******	********	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-62 Rate Customers

			2014 Ave	rage Rates Witho	out Low Income	Subsidy		2014 Avera	ge Rates			Impact of Low Inc	come Subsidy		Low	Income Subsidy	as a % of Total B	11
Monthly Power			Delivery	Supply			Delivery	Supply			Delivery	Supply	•		Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
3,000	200	600000	\$47,791.36	\$53,394.00	\$4,216.06	\$105,401.42	\$48,314.73	\$53,394.00	\$4,237.86	\$105,946.59	\$523.37	\$0.00	\$21.80	\$545.17	0.5%	0.0%	0.0%	0.5%
5,000	200	1000000	\$68,318.45	\$88,990.00	\$6,554.52	\$163,862.97	\$69,190.73	\$88,990.00	\$6,590.86	\$164,771.59	\$872.28	\$0.00	\$36.34	\$908.62	0.5%	0.0%	0.0%	0.6%
7,500	200	1500000	\$93,977.31	\$133,485.00	\$9,477.60	\$236,939.91	\$95,285.73	\$133,485.00	\$9,532.11	\$238,302.84	\$1,308.42	\$0.00	\$54.51	\$1,362.93	0.6%	0.0%	0.0%	0.6%
10,000	200	2000000	\$119,636.17	\$177,980.00	\$12,400.67	\$310,016.84	\$121,380.73	\$177,980.00	\$12,473.36	\$311,834.09	\$1,744.56	\$0.00	\$72.69	\$1,817.25	0.6%	0.0%	0.0%	0.6%
20,000	200	4000000	\$222,271.62	\$355,960.00	\$24,092.99	\$602,324.61	\$225,760.73	\$355,960.00	\$24,238.37	\$605,959.10	\$3,489.11	\$0.00	\$145.38	\$3,634.49	0.6%	0.0%	0.0%	0.6%
3,000	300	900000	\$53,845.36	\$80,091.00	\$5,580.68	\$139,517.04	\$54,371.73	\$80,091.00	\$5,602.61	\$140,065.34	\$526.37	\$0.00	\$21.93	\$548.30	0.4%	0.0%	0.0%	0.4%
5,000	300	1500000	\$78,408.45	\$133,485.00	\$8,828.89	\$220,722.34	\$79,285.73	\$133,485.00	\$8,865.45	\$221,636.18	\$877.28	\$0.00	\$36.56	\$913.84	0.4%	0.0%	0.0%	0.4%
7,500	300	2250000	\$109,112.31	\$200,227.50	\$12,889.16	\$322,228.97	\$110,428.23	\$200,227.50	\$12,943.99	\$323,599.72	\$1,315.92	\$0.00	\$54.83	\$1,370.75	0.4%	0.0%	0.0%	0.4%
10,000	300	3000000	\$139,816.17	\$266,970.00	\$16,949.43	\$423,735.60	\$141,570.73	\$266,970.00	\$17,022.53	\$425,563.26	\$1,754.56	\$0.00	\$73.10	\$1,827.66	0.4%	0.0%	0.0%	0.4%
20,000	300	6000000	\$262,631.62	\$533,940.00	\$33,190.49	\$829,762.11	\$266,140.73	\$533,940.00	\$33,336.70	\$833,417.43	\$3,509.11	\$0.00	\$146.21	\$3,655.32	0.4%	0.0%	0.0%	0.4%
3,000	400	1200000	\$59,899.36	\$106,788.00	\$6,945.31	\$173,632.67	\$60,428.73	\$106,788.00	\$6,967.36	\$174,184.09	\$529.37	\$0.00	\$22.05	\$551.42	0.3%	0.0%	0.0%	0.3%
5,000	400	2000000	\$88,498.45	\$177,980.00	\$11,103.27	\$277,581.72	\$89,380.73	\$177,980.00	\$11,140.03	\$278,500.76	\$882.28	\$0.00	\$36.76	\$919.04	0.3%	0.0%	0.0%	0.3%
7,500	400	3000000	\$124,247.31	\$266,970.00	\$16,300.72	\$407,518.03	\$125,570.73	\$266,970.00	\$16,355.87	\$408,896.60	\$1,323.42	\$0.00	\$55.15	\$1,378.57	0.3%	0.0%	0.0%	0.3%
10,000	400	4000000	\$159,996.17	\$355,960.00	\$21,498.18	\$537,454.35	\$161,760.73	\$355,960.00	\$21,571.70	\$539,292.43	\$1,764.56	\$0.00	\$73.52	\$1,838.08	0.3%	0.0%	0.0%	0.3%
20,000	400	8000000	\$302,991.62	\$711,920.00	\$42,287.99	\$1,057,199.61	\$306,520.73	\$711,920.00	\$42,435.03	\$1,060,875.76	\$3,529.11	\$0.00	\$147.04	\$3,676.15	0.3%	0.0%	0.0%	0.3%
3,000	500	1500000	\$65,953.36	\$133,485.00	\$8,309.93	\$207,748.29	\$66,485.73	\$133,485.00	\$8,332.11	\$208,302.84	\$532.37	\$0.00	\$22.18	\$554.55	0.3%	0.0%	0.0%	0.3%
5,000	500	2500000	\$98,588.45	\$222,475.00	\$13,377.64	\$334,441.09	\$99,475.73	\$222,475.00	\$13,414.61	\$335,365.34	\$887.28	\$0.00	\$36.97	\$924.25	0.3%	0.0%	0.0%	0.3%
7,500	500	3750000	\$139,382.31	\$333,712.50	\$19,712.29	\$492,807.10	\$140,713.23	\$333,712.50	\$19,767.74	\$494,193.47	\$1,330.92	\$0.00	\$55.45	\$1,386.37	0.3%	0.0%	0.0%	0.3%
10,000	500	5000000	\$180,176.17	\$444,950.00	\$26,046.93	\$651,173.10	\$181,950.73	\$444,950.00	\$26,120.87	\$653,021.60	\$1,774.56	\$0.00	\$73.94	\$1,848.50	0.3%	0.0%	0.0%	0.3%
20,000	500	10000000	\$343,351.62	\$889,900.00	\$51,385.49	\$1,284,637.11	\$346,900.73	\$889,900.00	\$51,533.37	\$1,288,334.10	\$3,549.11	\$0.00	\$147.88	\$3,696.99	0.3%	0.0%	0.0%	0.3%
3,000	600	1800000	\$72,007.36	\$160,182.00	\$9,674.56	\$241,863.92	\$72,542.73	\$160,182.00	\$9,696.86	\$242,421.59	\$535.37	\$0.00	\$22.30	\$557.67	0.2%	0.0%	0.0%	0.2%
5,000	600	3000000	\$108,678.45	\$266,970.00	\$15,652.02	\$391,300.47	\$109,570.73	\$266,970.00	\$15,689.20	\$392,229.93	\$892.28	\$0.00	\$37.18	\$929.46	0.2%	0.0%	0.0%	0.2%
7,500	600	4500000	\$154,517.31	\$400,455.00	\$23,123.85	\$578,096.16	\$155,855.73	\$400,455.00	\$23,179.62	\$579,490.35	\$1,338.42	\$0.00	\$55.77	\$1,394.19	0.2%	0.0%	0.0%	0.2%
10,000	600	6000000	\$200,356.17	\$533,940.00	\$30,595.68	\$764,891.85	\$202,140.73	\$533,940.00	\$30,670.03	\$766,750.76	\$1,784.56	\$0.00	\$74.35	\$1,858.91	0.2%	0.0%	0.0%	0.2%
20,000	600	12000000	\$383,711.62	\$1,067,880.00	\$60,482.99	\$1,512,074.61	\$387,280.73	\$1,067,880.00	\$60,631.70	\$1,515,792.43	\$3,569.11	\$0.00	\$148.71	\$3,717.82	0.2%	0.0%	0.0%	0.2%

	2014 Average Rates Without Low Income Subsidy	2014 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$17,000.00	\$17,000.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$0.00	\$0.00	RE Growth Program
(4) Base Distribution Demand Charge per kW	\$2.82	\$2.99	Distribution Demand Charge
(5) Distribution Charge (per kWh)	\$0.00000	\$0.00000	
(6) Operating & Maintenance Expense Charge per KW	\$0.31	\$0.31	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.00004)	(\$0.00004)	
(8) CapEx Factor Demand Charge per kW	\$0.03	\$0.03	Division F
(9) CapEx Reconciliation Factor	(\$0.00004)	(\$0.00004)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	(\$0.00023)	(\$0.00022)	
(11) Pension Adjustment Factor	\$0.0000	\$0.00000	
(12) Storm Fund Replenishment Factor	\$0.00000	\$0.00000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00017	\$0.00017	
(14) Net Metering Charge	\$0.0001	\$0.00001	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.07	\$3.07	
(16) Base Transmission Charge	\$0.00912	\$0.00912	
(17) Transmission Adjustment Factor	\$0.00045	\$0.00045	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00021	\$0.00021	· ·
(19) Base Transition Charge	\$0.00095	\$0.00095	
(20) Transition Adjustment	\$0.00017	\$0.00017	Transition Charge
(21) Energy Efficiency Program Charge	\$0.00941	\$0.00941	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.08681	\$0.08681	
(23) SOS Adjustment Factor	(\$0.00391)	(\$0.00391)	
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00121	\$0.00121	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00488	\$0.00488	
(=-)	4		
Line Item on Bill			
(26) Customer Charge	\$17,000.00	\$17,000.00	
(27) LIHEAP Enhancement Charge	\$0.73	\$0.73	
(28) RE Growth Program	\$0.00	\$0.00	
(29) Transmission Adjustment	\$0.00978	\$0.00978	
(30) Distribution Energy Charge	(\$0.00031)	(\$0.00030)	
(31) Distribution Demand Charge	\$3.16	\$3.33	
(32) Transmission Demand Charge	\$3.07	\$3.07	
(31) Transition Charge	\$0.00112	\$0.00112	
(32) Energy Efficiency Programs	\$0.00941	\$0.00941	
(33) Renewable Energy Distribution Charge	\$0.00018	\$0.00018	
(34) Supply Services Energy Charge	\$0.08899	\$0.08899	
(* ·)	\$0.00077	90.000	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to A-16 Rate Customers

	2015 Aver	age Rates Witho	ut Low Income S	Subsidy		2015 Averag	ge Rates]	Impact of Low Ir	ncome Subsidy		Low	Income Subsidy a	as a % of Total I	3ill
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
150	\$16.57	\$15.73	\$1.35	\$33.65	\$16.76	\$15.73	\$1.35	\$33.84	\$0.19	\$0.00	\$0.00	\$0.19	0.6%	0.0%	0.0%	0.6%
300	\$27.33	\$31.46	\$2.45	\$61.24	\$27.71	\$31.46	\$2.47	\$61.64	\$0.38	\$0.00	\$0.02	\$0.40	0.6%	0.0%	0.0%	0.7%
400	\$34.50	\$41.94	\$3.19	\$79.63	\$35.00	\$41.94	\$3.21	\$80.15	\$0.50	\$0.00	\$0.02	\$0.52	0.6%	0.0%	0.0%	0.7%
500	\$41.67	\$52.43	\$3.92	\$98.02	\$42.30	\$52.43	\$3.95	\$98.68	\$0.63	\$0.00	\$0.03	\$0.66	0.6%	0.0%	0.0%	0.7%
600	\$48.83	\$62.91	\$4.66	\$116.40	\$49.60	\$62.91	\$4.69	\$117.20	\$0.77	\$0.00	\$0.03	\$0.80	0.7%	0.0%	0.0%	0.7%
700	\$56.00	\$73.40	\$5.39	\$134.79	\$56.89	\$73.40	\$5.43	\$135.72	\$0.89	\$0.00	\$0.04	\$0.93	0.7%	0.0%	0.0%	0.7%
1,200	\$91.85	\$125.82	\$9.07	\$226.74	\$93.37	\$125.82	\$9.13	\$228.32	\$1.52	\$0.00	\$0.06	\$1.58	0.7%	0.0%	0.0%	0.7%
2,000	\$149.20	\$209.70	\$14.95	\$373.85	\$151.74	\$209.70	\$15.06	\$376.50	\$2.54	\$0.00	\$0.11	\$2.65	0.7%	0.0%	0.0%	0.7%

	2015 Average Rates	Without Low I	ncome Subsidy	2015 Average Rates	Line Item on Bill
			(n)	(0)	
(1)	Distribution Customer Charge		\$5.00	\$5.00	Customer Charge
(2)	LIHEAP Enhancement Charge		\$0.73	\$0.73	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge		\$0.09	\$0.09	RE Growth Program
(4)	Distribution Charge (per kWh)		\$0.03543	\$0.03664	
(5)	Operating & Maintenance Expense Charge		\$0.00176	\$0.00176	
(6)	Operating & Maintenance Expense Reconciliation Factor		(\$0.00004)	(\$0.00004)	
(7)	CapEx Factor Charge		\$0.00121	\$0.00121	Distribution Forms Change
(8)	CapEx Reconciliation Factor		(\$0.00004)	(\$0.00004)	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor		\$0.00039	\$0.00045	
(10)	Pension Adjustment Factor		\$0.00002	\$0.00002	
(11)	Storm Fund Replenishment Factor		\$0.00000	\$0.00000	
(12)	Long-term Contracting for Renewable Energy Charge		\$0.00123	\$0.00123	December Francisco Distribution Channel
(13)	Net Metering Charge		\$0.00001	\$0.00001	Renewable Energy Distribution Charge
(14)	Base Transmission Charge		\$0.02247	\$0.02247	
(15)	Transmission Adjustment Factor		\$0.00039	\$0.00039	Transmission Charge
(16)	Transmission Uncollectible Factor		\$0.00029	\$0.00029	
(17)	Base Transition Charge		(\$0.00120)	(\$0.00120)	T W O
(18)	Transition Adjustment		(\$0.00006)	(\$0.00006)	Transition Charge
(19)	Energy Efficiency Program Charge		\$0.00983	\$0.00983	Energy Efficiency Programs
(20)	Standard Offer Service Base Charge		\$0.09922	\$0.09922	
	SOS Adjustment Factor		\$0.00084	\$0.00084	Supply Services Energy Charge
	SOS Adminstrative Cost Adjustment Factor		\$0.00139	\$0.00139	Supply Services Energy Charge
(23)	Renewable Energy Standard Charge		\$0.00340	\$0.00340	
	Line Item on Bill				
(24)	Customer Charge		\$5.00	\$5.00	
	LIHEAP Enhancement Charge		\$0.73	\$0.73	
	RE Growth Program		\$0.09	\$0.09	
	Transmission Charge	kWh x	\$0.02315	\$0.02315	
	Distribution Energy Charge	kWh x	\$0.03873	\$0.04000	
	Transition Charge	kWh x	(\$0.00126)	(\$0.00126)	
	Energy Efficiency Programs	kWh x	\$0.00983	\$0.00983	
	Renewable Energy Distribution Charge	kWh x	\$0.00124	\$0.00124	
(32)	Supply Services Energy Charge	kWh x	\$0.10485	\$0.10485	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to A-60 Rate Customers

	2015 Aver	age Rates Withou	ut Low Income S	ubsidy		2015 Avera	ge Rates			Impact of Low Ir	ncome Subsidy		Lov	Income Subsidy	as a % of Total F	Bill
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
150	\$9.73	\$15.73	\$1.06	\$26.52	\$9.74	\$15.73	\$1.06	\$26.53	\$0.01	\$0.00	\$0.00	\$0.01	0.0%	0.0%	0.0%	0.0%
300	\$18.65	\$31.46	\$2.09	\$52.20	\$18.67	\$31.46	\$2.09	\$52.22	\$0.02	\$0.00	\$0.00	\$0.02	0.0%	0.0%	0.0%	0.0%
400	\$24.59	\$41.94	\$2.77	\$69.30	\$24.62	\$41.94	\$2.77	\$69.33	\$0.03	\$0.00	\$0.00	\$0.03	0.0%	0.0%	0.0%	0.0%
500	\$30.54	\$52.43	\$3.46	\$86.43	\$30.57	\$52.43	\$3.46	\$86.46	\$0.03	\$0.00	\$0.00	\$0.03	0.0%	0.0%	0.0%	0.0%
600	\$36.48	\$62.91	\$4.14	\$103.53	\$36.51	\$62.91	\$4.14	\$103.56	\$0.03	\$0.00	\$0.00	\$0.03	0.0%	0.0%	0.0%	0.0%
700	\$42.42	\$73.40	\$4.83	\$120.65	\$42.46	\$73.40	\$4.83	\$120.69	\$0.04	\$0.00	\$0.00	\$0.04	0.0%	0.0%	0.0%	0.0%
1,200	\$72.14	\$125.82	\$8.25	\$206.21	\$72.21	\$125.82	\$8.25	\$206.28	\$0.07	\$0.00	\$0.00	\$0.07	0.0%	0.0%	0.0%	0.0%
2,000	\$119.68	\$209.70	\$13.72	\$343.10	\$119.80	\$209.70	\$13.73	\$343.23	\$0.12	\$0.00	\$0.01	\$0.13	0.0%	0.0%	0.0%	0.0%

		2015 Average Rates Without Low Income Subsidy	2015 Average Rates	Line Item on Bill
		(n)	(0)	
(1)	Distribution Customer Charge	\$0.00	\$0.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge	\$0.09	\$0.09	Renewable Energy Growth Charge
(4)	Distribution Charge (per kWh)	\$0.02317	\$0.02317	
(5)	Operating & Maintenance Expense Charge	\$0.00176	\$0.00176	
(6)	Operating & Maintenance Expense Reconciliat	ion Factor (\$0.00004)	(\$0.00004)	
(7)	CapEx Factor Charge	\$0.00121	\$0.00121	Distribution Energy Charge
(8)	CapEx Reconciliation Factor	(\$0.00004)	(\$0.00004)	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor	\$0.00039	\$0.00045	
(10)	Pension Adjustment Factor	\$0.00002	\$0.00002	
(11)	Storm Fund Replenishment Factor	\$0.0000	\$0.00000	
(12)	Long-term Contracting for Renewable Energy	Charge \$0.00123	\$0.00123	Renewable Energy Distribution Charge
(13)	Net Metering Charge	\$0.00001	\$0.00001	Renewable Energy Distribution Charge
(14)	Base Transmission Charge	\$0.02247	\$0.02247	
(15)	Transmission Adjustment Factor	\$0.00039	\$0.00039	Transmission Charge
(16)	Transmission Uncollectible Factor	\$0.00029	\$0.00029	
(17)	Base Transition Charge	(\$0.00120)	(\$0.00120)	Transition Charge
(18)	Transition Adjustment	(\$0.00006)	(\$0.00006)	Transition Charge
(19)	Energy Efficiency Program Charge	\$0.00983	\$0.00983	Energy Efficiency Programs
(20)	Standard Offer Service Base Charge	\$0.09922	\$0.09922	
	SOS Adjustment Factor	\$0.00084	\$0.00084	Supply Services Energy Charge
(22)		\$0.00139	\$0.00139	Supply Services Energy Change
(23)	Renewable Energy Standard Charge	\$0.00340	\$0.00340	
	Line Item on Bill			
(24)	Customer Charge	\$0.00	\$0.00	
	LIHEAP Enhancement Charge	\$0.73	\$0.73	
	RE Growth Program	\$0.09	\$0.09	
(27)	Transmission Charge	\$0.02315	\$0.02315	
(28)		\$0.02647	\$0.02653	
(29)		(\$0.00126)	(\$0.00126)	
(30)		\$0.00983	\$0.00983	
	Renewable Energy Distribution Charge	\$0.00124	\$0.00124 \$0.10485	
(32)	Supply Services Energy Charge	\$0.10485	\$0.10485	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to C-06 Rate Customers

	2015 Ave	rage Rates Witho	out Low Income	Subsidy		2015 Avera	ge Rates			Impact of Low Ir	ncome Subsidy		Low	Income Subsidy	as a % of Total l	Bill
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
250	\$27.18	\$26.23	\$2.23	\$55.64	\$27.46	\$26.23	\$2.24	\$55.93	\$0.28	\$0.00	\$0.01	\$0.29	0.5%	0.0%	0.0%	0.5%
500	\$43.50	\$52.46	\$4.00	\$99.96	\$44.05	\$52.46	\$4.02	\$100.53	\$0.55	\$0.00	\$0.02	\$0.57	0.6%	0.0%	0.0%	0.6%
1,000	\$76.14	\$104.91	\$7.54	\$188.59	\$77.24	\$104.91	\$7.59	\$189.74	\$1.10	\$0.00	\$0.05	\$1.15	0.6%	0.0%	0.0%	0.6%
1,500	\$108.78	\$157.37	\$11.09	\$277.24	\$110.43	\$157.37	\$11.16	\$278.96	\$1.65	\$0.00	\$0.07	\$1.72	0.6%	0.0%	0.0%	0.6%
2,000	\$141.42	\$209.82	\$14.64	\$365.88	\$143.62	\$209.82	\$14.73	\$368.17	\$2.20	\$0.00	\$0.09	\$2.29	0.6%	0.0%	0.0%	0.6%

	2015 Average Rates	Without Low Income Subsidy	2015 Average Rates	Line Item on Bill
		(n)	(o)	
(1)	Distribution Customer Charge	\$10.00	\$10.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.73	\$0.73	RE Growth Program
(3)	Renewable Energy Growth Charge	\$0.13	\$0.13	LIHEAP Enhancement Charge
(4)	Distribution Charge (per kWh)	\$0.03149	\$0.03253	
(5)	Operating & Maintenance Expense Charge	\$0.00193	\$0.00193	
(6)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00004)	(\$0.00004)	
(7)	CapEx Factor Charge	\$0.00119	\$0.00119	Distribution Energy Charge
(8)	CapEx Reconciliation Factor	(\$0.00005)	(\$0.00005)	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor	\$0.00039	\$0.00045	
(10)	Pension Adjustment Factor	\$0.00002	\$0.00002	
(11)	Storm Fund Replenishment Factor	\$0.00000	\$0.00000	
(12)	Long-term Contracting for Renewable Energy Charge	\$0.00123	\$0.00123	Renewable Energy Distribution Charge
(13)	Net Metering Charge	\$0.00001	\$0.00001	Renewable Energy Distribution Charge
(14)	Base Transmission Charge	\$0.02257	\$0.02257	
(15)	Transmission Adjustment Factor	(\$0.00229)	(\$0.00229)	Transmission Charge
(16)	Transmission Uncollectible Factor	\$0.00026	\$0.00026	
(17)	Base Transition Charge	(\$0.00120)	(\$0.00120)	Transition Charge
(18)	Transition Adjustment	(\$0.00006)	(\$0.00006)	Transition Charge
	Energy Efficiency Program Charge	\$0.00983	\$0.00983	Energy Efficiency Programs
	Standard Offer Service Base Charge	\$0.09688	\$0.09688	
	SOS Adjustment Factor	\$0.00304	\$0.00304	Supply Services Energy Charge
	SOS Adminstrative Cost Adjustment Factor	\$0.00159	\$0.00159	Supply Services Energy Change
(23)	Renewable Energy Standard Charge	\$0.00340	\$0.00340	
	Line Item on Bill			
(24)	Customer Charge	\$10.00	\$10.00	
(25)	LIHEAP Enhancement Charge	\$0.73	\$0.73	
(26)	RE Growth Program	\$0.13	\$0.13	
	Transmission Charge	\$0.02054	\$0.02054	
(28)	Distribution Energy Charge	\$0.03493	\$0.03603	
(29)	Transition Charge	(\$0.00126)	(\$0.00126)	
(30)	Energy Efficiency Programs	\$0.00983	\$0.00983	
(31)	Renewable Energy Distribution Charge	\$0.00124	\$0.00124	
	Supply Services Energy Charge	\$0.10491	\$0.10491	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-02 Rate Customers

			2015 Aver	age Rates Withou	t Low Income S	lubsidy		2015 Averag	ge Rates			Impact of Low Ir	come Subsidy		Lo	w Income Subsidy	as a % of Total E	sil1
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		l.
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
20	200	4,000	\$345.61	\$419.64	\$31.89	\$797.14	\$348.66	\$419.64	\$32.01	\$800.31	\$3.05	\$0.00	\$0.12	\$3.17	0.4%	0.0%	0.0%	0.4%
50	200	10,000	\$735.84	\$1,049.10	\$74.37	\$1,859.31	\$743.46	\$1,049.10	\$74.69	\$1,867.25	\$7.62	\$0.00	\$0.32	\$7.94	0.4%	0.0%	0.0%	0.4%
100	200	20,000	\$1,386.23	\$2,098.20	\$145.18	\$3,629.61	\$1,401.46	\$2,098.20	\$145.82	\$3,645.48	\$15.23	\$0.00	\$0.64	\$15.87	0.4%	0.0%	0.0%	0.4%
150	200	30,000	\$2,036.61	\$3,147.30	\$216.00	\$5,399.91	\$2,059.46	\$3,147.30	\$216.95	\$5,423.71	\$22.85	\$0.00	\$0.95	\$23.80	0.4%	0.0%	0.0%	0.4%
20	300	6,000	\$393.99	\$629.46	\$42.64	\$1,066.09	\$398.56	\$629.46	\$42.83	\$1,070.85	\$4.57	\$0.00	\$0.19	\$4.76	0.4%	0.0%	0.0%	0.4%
50	300	15,000	\$856.79	\$1,573.65	\$101.27	\$2,531.71	\$868.21	\$1,573.65	\$101.74	\$2,543.60	\$11.42	\$0.00	\$0.47	\$11.89	0.5%	0.0%	0.0%	0.5%
100	300	30,000	\$1,628.11	\$3,147.30	\$198.98	\$4,974.39	\$1,650.96	\$3,147.30	\$199.93	\$4,998.19	\$22.85	\$0.00	\$0.95	\$23.80	0.5%	0.0%	0.0%	0.5%
150	300	45,000	\$2,399.44	\$4,720.95	\$296.68	\$7,417.07	\$2,433.71	\$4,720.95	\$298.11	\$7,452.77	\$34.27	\$0.00	\$1.43	\$35.70	0.5%	0.0%	0.0%	0.5%
20	400	8,000	\$442.37	\$839.28	\$53.40	\$1,335.05	\$448.46	\$839.28	\$53.66	\$1,341.40	\$6.09	\$0.00	\$0.26	\$6.35	0.5%	0.0%	0.0%	0.5%
50	400	20,000	\$977.73	\$2,098.20	\$128.16	\$3,204.09	\$992.96	\$2,098.20	\$128.80	\$3,219.96	\$15.23	\$0.00	\$0.64	\$15.87	0.5%	0.0%	0.0%	0.5%
100	400	40,000	\$1,870.00	\$4,196.40	\$252.77	\$6,319.17	\$1,900.46	\$4,196.40	\$254.04	\$6,350.90	\$30.46	\$0.00	\$1.27	\$31.73	0.5%	0.0%	0.0%	0.5%
150	400	60,000	\$2,762.26	\$6,294.60	\$377.37	\$9,434.23	\$2,807.96	\$6,294.60	\$379.27	\$9,481.83	\$45.70	\$0.00	\$1.90	\$47.60	0.5%	0.0%	0.0%	0.5%
20	500	10,000	\$490.74	\$1,049.10	\$64.16	\$1,604.00	\$498.36	\$1,049.10	\$64.48	\$1,611.94	\$7.62	\$0.00	\$0.32	\$7.94	0.5%	0.0%	0.0%	0.5%
50	500	25,000	\$1,098.67	\$2,622.75	\$155.06	\$3,876.48	\$1,117.71	\$2,622.75	\$155.85	\$3,896.31	\$19.04	\$0.00	\$0.79	\$19.83	0.5%	0.0%	0.0%	0.5%
100	500	50,000	\$2,111.88	\$5,245.50	\$306.56	\$7,663.94	\$2,149.96	\$5,245.50	\$308.14	\$7,703.60	\$38.08	\$0.00	\$1.58	\$39.66	0.5%	0.0%	0.0%	0.5%
150	500	75,000	\$3,125.09	\$7,868.25	\$458.06	\$11,451.40	\$3,182.21	\$7,868.25	\$460.44	\$11,510.90	\$57.12	\$0.00	\$2.38	\$59.50	0.5%	0.0%	0.0%	0.5%
20	600	12,000	\$539.12	\$1,258.92	\$74.92	\$1,872.96	\$548.26	\$1,258.92	\$75.30	\$1,882.48	\$9.14	\$0.00	\$0.38	\$9.52	0.5%	0.0%	0.0%	0.5%
50	600	30,000	\$1,219.61	\$3,147.30	\$181.95	\$4,548.86	\$1,242.46	\$3,147.30	\$182.91	\$4,572.67	\$22.85	\$0.00	\$0.96	\$23.81	0.5%	0.0%	0.0%	0.5%
100	600	60,000	\$2,353.76	\$6,294.60	\$360.35	\$9,008.71	\$2,399.46	\$6,294.60	\$362.25	\$9,056.31	\$45.70	\$0.00	\$1.90	\$47.60	0.5%	0.0%	0.0%	0.5%
150	600	90,000	\$3,487.91	\$9,441.90	\$538.74	\$13,468.55	\$3,556.46	\$9,441.90	\$541.60	\$13,539.96	\$68.55	\$0.00	\$2.86	\$71.41	0.5%	0.0%	0.0%	0.5%

	2015 Average Rates Without Low Income Subsidy	2015 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$135.00	\$135.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$1.23	\$1.23	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 10kW)	\$4.85	\$4.85	Distribution Demand Charge
(5) Distribution Charge (per kWh)	\$0.00398	\$0.00468	
(6) Operating & Maintenance Expense Charge	\$0.00142	\$0.00142	
(7) Operating & Maintenance Expense Reconciliation Fa	etor (\$0.00004)	(\$0.00004)	
(8) CapEx Factor Demand Charge (per kW > 10kW)	\$0.30	\$0.30	Distribution Energy Charge
(9) CapEx Reconciliation Factor	(\$0.00002)	(\$0.00002)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00039	\$0.00045	
(11) Pension Adjustment Factor	\$0.00002	\$0.00002	
(12) Storm Fund Replenishment Factor	\$0.0000	\$0.00000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00123	\$0.00123	Promotel Francisco Distriction Characteristics
(14) Net Metering Charge	\$0.00001	\$0.00001	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.02	\$3.02	Transmission Demand Charge
(16) Base Transmission Charge	\$0.00914	\$0.00914	
(17) Transmission Adjustment Factor	(\$0.00077)	(\$0.00077)	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00026	\$0.00026	
(19) Base Transition Charge	(\$0.00120)	(\$0.00120)	Tidi Cl
(20) Transition Adjustment	(\$0.00006)	(\$0.00006)	Transition Charge
(21) Energy Efficiency Program Charge	\$0.00983	\$0.00983	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.09688	\$0.09688	
(23) SOS Adjustment Factor	\$0.00304	\$0.00304	Supply Services Energy Charge
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00159	\$0.00159	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00340	\$0.00340	
Line Item on Bill			
(26) Customer Charge	\$135.00	\$135.00	
(28) LIHEAP Enhancement Charge	\$0.73	\$0.73	
(27) RE Growth Program	\$1.23	\$1.23	
(29) Transmission Adjustment	\$0.00863	\$0.00863	
(30) Distribution Energy Charge	\$0.00575	\$0.00651	
(31) Distribution Demand Charge	\$5.15	\$5.15	
(32) Transmission Demand Charge	\$3.02	\$3.02	
(31) Transition Charge	(\$0.00126)	(\$0.00126)	
(32) Energy Efficiency Programs	\$0.00983	\$0.00983	
(33) Renewable Energy Distribution Charge	\$0.00124	\$0.00124	
(34) Supply Services Energy Charge	\$0.10491	\$0.10491	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-32 Rate Customers

			2015 Aver	age Rates Withou	ut Low Income	Subsidy		2015 Averag	ge Rates			Impact of Low In	come Subsidy		Low	Income Subsidy	as a % of Total Bi	ill
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply	•		Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
200	200	40,000	\$2,515.47	\$3,850.00	\$265.23	\$6,630.70	\$2,533.82	\$3,850.00	\$265.99	\$6,649.81	\$18.35	\$0.00	\$0.76	\$19.11	0.3%	0.0%	0.0%	0.3%
750	200	150,000	\$9,348.82	\$14,437.50	\$991.10	\$24,777.42	\$9,417.62	\$14,437.50	\$993.96	\$24,849.08	\$68.80	\$0.00	\$2.86	\$71.66	0.3%	0.0%	0.0%	0.3%
1,000	200	200,000	\$12,454.89	\$19,250.00	\$1,321.04	\$33,025.93	\$12,546.62	\$19,250.00	\$1,324.86	\$33,121.48	\$91.73	\$0.00	\$3.82	\$95.55	0.3%	0.0%	0.0%	0.3%
1,500	200	300,000	\$18,667.02	\$28,875.00	\$1,980.92	\$49,522.94	\$18,804.62	\$28,875.00	\$1,986.65	\$49,666.27	\$137.60	\$0.00	\$5.73	\$143.33	0.3%	0.0%	0.0%	0.3%
2,500	200	500,000	\$31,091.29	\$48,125.00	\$3,300.68	\$82,516.97	\$31,320.62	\$48,125.00	\$3,310.23	\$82,755.85	\$229.33	\$0.00	\$9.55	\$238.88	0.3%	0.0%	0.0%	0.3%
200	300	60,000	\$3,015.90	\$5,775.00	\$366.29	\$9,157.19	\$3,043.42	\$5,775.00	\$367.43	\$9,185.85	\$27.52	\$0.00	\$1.14	\$28.66	0.3%	0.0%	0.0%	0.3%
750	300	225,000	\$11,225.42	\$21,656.25	\$1,370.07	\$34,251.74	\$11,328.62	\$21,656.25	\$1,374.37	\$34,359.24	\$103.20	\$0.00	\$4.30	\$107.50	0.3%	0.0%	0.0%	0.3%
1,000	300	300,000	\$14,957.02	\$28,875.00	\$1,826.33	\$45,658.35	\$15,094.62	\$28,875.00	\$1,832.07	\$45,801.69	\$137.60	\$0.00	\$5.74	\$143.34	0.3%	0.0%	0.0%	0.3%
1,500	300	450,000	\$22,420.22	\$43,312.50	\$2,738.86	\$68,471.58	\$22,626.62	\$43,312.50	\$2,747.46	\$68,686.58	\$206.40	\$0.00	\$8.60	\$215.00	0.3%	0.0%	0.0%	0.3%
2,500	300	750,000	\$37,346.62	\$72,187.50	\$4,563.92	\$114,098.04	\$37,690.62	\$72,187.50	\$4,578.26	\$114,456.38	\$344.00	\$0.00	\$14.34	\$358.34	0.3%	0.0%	0.0%	0.3%
200	400	80,000	\$3,516.33	\$7,700.00	\$467.35	\$11,683.68	\$3,553.02	\$7,700.00	\$468.88	\$11,721.90	\$36.69	\$0.00	\$1.53	\$38.22	0.3%	0.0%	0.0%	0.3%
750	400	300,000	\$13,102.02	\$28,875.00	\$1,749.04	\$43,726.06	\$13,239.62	\$28,875.00	\$1,754.78	\$43,869.40	\$137.60	\$0.00	\$5.74	\$143.34	0.3%	0.0%	0.0%	0.3%
1,000	400	400,000	\$17,459.15	\$38,500.00	\$2,331.63	\$58,290.78	\$17,642.62	\$38,500.00	\$2,339.28	\$58,481.90	\$183.47	\$0.00	\$7.65	\$191.12	0.3%	0.0%	0.0%	0.3%
1,500	400	600,000	\$26,173.42	\$57,750.00	\$3,496.81	\$87,420.23	\$26,448.62	\$57,750.00	\$3,508.28	\$87,706.90	\$275.20	\$0.00	\$11.47	\$286.67	0.3%	0.0%	0.0%	0.3%
2,500	400	1,000,000	\$43,601.95	\$96,250.00	\$5,827.17	\$145,679.12	\$44,060.62	\$96,250.00	\$5,846.28	\$146,156.90	\$458.67	\$0.00	\$19.11	\$477.78	0.3%	0.0%	0.0%	0.3%
200	500	100,000	\$4,016.75	\$9,625.00	\$568.41	\$14,210.16	\$4,062.62	\$9,625.00	\$570.32	\$14,257.94	\$45.87	\$0.00	\$1.91	\$47.78	0.3%	0.0%	0.0%	0.3%
750	500	375,000	\$14,978.62	\$36,093.75	\$2,128.02	\$53,200.39	\$15,150.62	\$36,093.75	\$2,135.18	\$53,379.55	\$172.00	\$0.00	\$7.16	\$179.16	0.3%	0.0%	0.0%	0.3%
1,000	500	500,000	\$19,961.29	\$48,125.00	\$2,836.93	\$70,923.22	\$20,190.62	\$48,125.00	\$2,846.48	\$71,162.10	\$229.33	\$0.00	\$9.55	\$238.88	0.3%	0.0%	0.0%	0.3%
1,500	500	750,000	\$29,926.62	\$72,187.50	\$4,254.76	\$106,368.88	\$30,270.62	\$72,187.50	\$4,269.09	\$106,727.21	\$344.00	\$0.00	\$14.33	\$358.33	0.3%	0.0%	0.0%	0.3%
2,500	500	1,250,000	\$49,857.29	\$120,312.50	\$7,090.41	\$177,260.20	\$50,430.62	\$120,312.50	\$7,114.30	\$177,857.42	\$573.33	\$0.00	\$23.89	\$597.22	0.3%	0.0%	0.0%	0.3%
200	600	120,000	\$4,517.18	\$11,550.00	\$669.47	\$16,736.65	\$4,572.22	\$11,550.00	\$671.76	\$16,793.98	\$55.04	\$0.00	\$2.29	\$57.33	0.3%	0.0%	0.0%	0.3%
750	600	450,000	\$16,855.22	\$43,312.50	\$2,506.99	\$62,674.71	\$17,061.62	\$43,312.50	\$2,515.59	\$62,889.71	\$206.40	\$0.00	\$8.60	\$215.00	0.3%	0.0%	0.0%	0.3%
1,000	600	600,000	\$22,463.42	\$57,750.00	\$3,342.23	\$83,555.65	\$22,738.62	\$57,750.00	\$3,353.69	\$83,842.31	\$275.20	\$0.00	\$11.46	\$286.66	0.3%	0.0%	0.0%	0.3%
1,500	600	900,000	\$33,679.82	\$86,625.00	\$5,012.70	\$125,317.52	\$34,092.62	\$86,625.00	\$5,029.90	\$125,747.52	\$412.80	\$0.00	\$17.20	\$430.00	0.3%	0.0%	0.0%	0.3%
2,500	600	1,500,000	\$56,112.62	\$144,375.00	\$8,353.65	\$208,841.27	\$56,800.62	\$144,375.00	\$8,382.32	\$209,557.94	\$688.00	\$0.00	\$28.67	\$716.67	0.3%	0.0%	0.0%	0.3%

	2015 Average Rates Without Low Income Subsidy	2015 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$825.00	\$825.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$8.89	\$8.89	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 200kW)	\$3.70	\$3.70	<u> </u>
(5) Distribution Charge (per kWh)	\$0.00511	\$0.00551	
(6) Operating & Maintenance Expense Charge	\$0.00087	\$0.00087	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.0004)	(\$0.00004)	
(8) CapEx Factor Demand Charge (per kW > 10kW)	\$0.32	\$0.32	military management
(9) CapEx Reconciliation Factor	(\$0.00003)	(\$0.00003)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00039	\$0.00045	
(11) Pension Adjustment Factor	\$0.00002	\$0.0002	
(12) Storm Fund Replenishment Factor	\$0.00000	\$0.0000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00123	\$0.00123	
(14) Net Metering Charge	\$0.00001	\$0.00001	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.40	\$3.40	
(16) Base Transmission Charge	\$0.00820	\$0.00820	
(17) Transmission Adjustment Factor	\$0.00045	\$0.00045	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00024	\$0.00024	, , , , , , , , , , , , , , , , , , ,
(19) Base Transition Charge	(\$0.00120)	(\$0.00120)	
(20) Transition Adjustment	(\$0.0006)	(\$0.00006)	Transition Charge
(21) Energy Efficiency Program Charge	\$0.00983	\$0.00983	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.09165	\$0.09165	
(23) SOS Adjustment Factor	(\$0.00045)	(\$0.00045)	
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00165	\$0.00165	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00340	\$0.00340	
(==)			
Line Item on Bill			
(26) Customer Charge	\$825.00	\$825.00	
(27) LIHEAP Enhancement Charge	\$0.73	\$0.73	
(28) RE Growth Program	\$8.89	\$8.89	
(29) Transmission Adjustment	\$0.00889	\$0.00889	
(30) Distribution Energy Charge	\$0.00632	\$0.00678	
(31) Distribution Demand Charge	\$4.02	\$4.02	
(32) Transmission Demand Charge	\$3.40	\$3.40	
(31) Transition Charge	(\$0.00126)	(\$0.00126)	
(32) Energy Efficiency Programs	\$0.00983	\$0.00983	
(33) Renewable Energy Distribution Charge	\$0.00124	\$0.00124	
(34) Supply Services Energy Charge	\$0.09625	\$0.09625	
(* · / *-PF-) *	90.07025	\$0.07025	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-62 Rate Customers

			2015 Ave	rage Rates Witho	out Low Income	Subsidy		2015 Avera	ge Rates			Impact of Low In	come Subsidy		Low	Income Subsidy	as a % of Total B	ill
Monthly Power			Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
3,000	200	600000	\$49,962.90	\$57,750.00	\$4,488.04	\$112,200.94	\$50,516.27	\$57,750.00	\$4,511.09	\$112,777.36	\$553.37	\$0.00	\$23.05	\$576.42	0.5%	0.0%	0.0%	0.5%
5,000	200	1000000	\$71,821.99	\$96,250.00	\$7,003.00	\$175,074.99	\$72,744.27	\$96,250.00	\$7,041.43	\$176,035.70	\$922.28	\$0.00	\$38.43	\$960.71	0.5%	0.0%	0.0%	0.5%
7,500	200	1500000	\$99,145.85	\$144,375.00	\$10,146.70	\$253,667.55	\$100,529.27	\$144,375.00	\$10,204.35	\$255,108.62	\$1,383.42	\$0.00	\$57.65	\$1,441.07	0.5%	0.0%	0.0%	0.6%
10,000	200	2000000	\$126,469.71	\$192,500.00	\$13,290.41	\$332,260.12	\$128,314.27	\$192,500.00	\$13,367.26	\$334,181.53	\$1,844.56	\$0.00	\$76.85	\$1,921.41	0.6%	0.0%	0.0%	0.6%
20,000	200	4000000	\$235,765.16	\$385,000.00	\$25,865.22	\$646,630.38	\$239,454.27	\$385,000.00	\$26,018.93	\$650,473.20	\$3,689.11	\$0.00	\$153.71	\$3,842.82	0.6%	0.0%	0.0%	0.6%
3,000	300	900000	\$56,625.90	\$86,625.00	\$5,968.79	\$149,219.69	\$57,197.27	\$86,625.00	\$5,992.60	\$149,814.87	\$571.37	\$0.00	\$23.81	\$595.18	0.4%	0.0%	0.0%	0.4%
5,000	300	1500000	\$82,926.99	\$144,375.00	\$9,470.92	\$236,772.91	\$83,879.27	\$144,375.00	\$9,510.60	\$237,764.87	\$952.28	\$0.00	\$39.68	\$991.96	0.4%	0.0%	0.0%	0.4%
7,500	300	2250000	\$115,803.35	\$216,562.50	\$13,848.58	\$346,214.43	\$117,231.77	\$216,562.50	\$13,908.10	\$347,702.37	\$1,428.42	\$0.00	\$59.52	\$1,487.94	0.4%	0.0%	0.0%	0.4%
10,000	300	3000000	\$148,679.71	\$288,750.00	\$18,226.24	\$455,655.95	\$150,584.27	\$288,750.00	\$18,305.60	\$457,639.87	\$1,904.56	\$0.00	\$79.36	\$1,983.92	0.4%	0.0%	0.0%	0.4%
20,000	300	6000000	\$280,185.16	\$577,500.00	\$35,736.88	\$893,422.04	\$283,994.27	\$577,500.00	\$35,895.60	\$897,389.87	\$3,809.11	\$0.00	\$158.72	\$3,967.83	0.4%	0.0%	0.0%	0.4%
3,000	400	1200000	\$63,288.90	\$115,500.00	\$7,449.54	\$186,238.44	\$63,878.27	\$115,500.00	\$7,474.10	\$186,852.37	\$589.37	\$0.00	\$24.56	\$613.93	0.3%	0.0%	0.0%	0.3%
5,000	400	2000000	\$94,031.99	\$192,500.00	\$11,938.83	\$298,470.82	\$95,014.27	\$192,500.00	\$11,979.76	\$299,494.03	\$982.28	\$0.00	\$40.93	\$1,023.21	0.3%	0.0%	0.0%	0.3%
7,500	400	3000000	\$132,460.85	\$288,750.00	\$17,550.45	\$438,761.30	\$133,934.27	\$288,750.00	\$17,611.85	\$440,296.12	\$1,473.42	\$0.00	\$61.40	\$1,534.82	0.3%	0.0%	0.0%	0.3%
10,000	400	4000000	\$170,889.71	\$385,000.00	\$23,162.07	\$579,051.78	\$172,854.27	\$385,000.00	\$23,243.93	\$581,098.20	\$1,964.56	\$0.00	\$81.86	\$2,046.42	0.3%	0.0%	0.0%	0.4%
20,000	400	8000000	\$324,605.16	\$770,000.00	\$45,608.55	\$1,140,213.71	\$328,534.27	\$770,000.00	\$45,772.26	\$1,144,306.53	\$3,929.11	\$0.00	\$163.71	\$4,092.82	0.3%	0.0%	0.0%	0.4%
3,000	500	1500000	\$69,951.90	\$144,375.00	\$8,930.29	\$223,257.19	\$70,559.27	\$144,375.00	\$8,955.60	\$223,889.87	\$607.37	\$0.00	\$25.31	\$632.68	0.3%	0.0%	0.0%	0.3%
5,000	500	2500000	\$105,136.99	\$240,625.00	\$14,406.75	\$360,168.74	\$106,149.27	\$240,625.00	\$14,448.93	\$361,223.20	\$1,012.28	\$0.00	\$42.18	\$1,054.46	0.3%	0.0%	0.0%	0.3%
7,500	500	3750000	\$149,118.35	\$360,937.50	\$21,252.33	\$531,308.18	\$150,636.77	\$360,937.50	\$21,315.60	\$532,889.87	\$1,518.42	\$0.00	\$63.27	\$1,581.69	0.3%	0.0%	0.0%	0.3%
10,000	500	5000000	\$193,099.71	\$481,250.00	\$28,097.91	\$702,447.62	\$195,124.27	\$481,250.00	\$28,182.26	\$704,556.53	\$2,024.56	\$0.00	\$84.35	\$2,108.91	0.3%	0.0%	0.0%	0.3%
20,000	500	10000000	\$369,025.16	\$962,500.00	\$55,480.22	\$1,387,005.38	\$373,074.27	\$962,500.00	\$55,648.93	\$1,391,223.20	\$4,049.11	\$0.00	\$168.71	\$4,217.82	0.3%	0.0%	0.0%	0.3%
3,000	600	1800000	\$76,614.90	\$173,250.00	\$10,411.04	\$260,275.94	\$77,240.27	\$173,250.00	\$10,437.10	\$260,927.37	\$625.37	\$0.00	\$26.06	\$651.43	0.2%	0.0%	0.0%	0.3%
5,000	600	3000000	\$116,241.99	\$288,750.00	\$16,874.67	\$421,866.66	\$117,284.27	\$288,750.00	\$16,918.10	\$422,952.37	\$1,042.28	\$0.00	\$43.43	\$1,085.71	0.2%	0.0%	0.0%	0.3%
7,500	600	4500000	\$165,775.85	\$433,125.00	\$24,954.20	\$623,855.05	\$167,339.27	\$433,125.00	\$25,019.35	\$625,483.62	\$1,563.42	\$0.00	\$65.15	\$1,628.57	0.3%	0.0%	0.0%	0.3%
10,000	600	6000000	\$215,309.71	\$577,500.00	\$33,033.74	\$825,843.45	\$217,394.27	\$577,500.00	\$33,120.60	\$828,014.87	\$2,084.56	\$0.00	\$86.86	\$2,171.42	0.3%	0.0%	0.0%	0.3%
20,000	600	12000000	\$413,445.16	\$1,155,000.00	\$65,351.89	\$1,633,797.05	\$417,614.27	\$1,155,000.00	\$65,525.60	\$1,638,139.87	\$4,169.11	\$0.00	\$173.71	\$4,342.82	0.3%	0.0%	0.0%	0.3%

	2015 Average Rates Without Low Income Subsidy	2015 Average Rates	Line Item on Bill
	(n)	(o)	
(1) Distribution Customer Charge	\$17,000.00	\$17,000.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$173.54	\$173.54	RE Growth Program
(4) Base Distribution Demand Charge per kW	\$2.82	\$2.99	Distribution Demand Charge
(5) Distribution Charge (per kWh)	\$0.0000	\$0.00000	
(6) Operating & Maintenance Expense Charge per KW	\$0.32	\$0.32	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.00004)	(\$0.00004)	
(8) CapEx Factor Demand Charge per kW	\$0.18	\$0.18	Division E Cl
(9) CapEx Reconciliation Factor	(\$0.00002)	(\$0.00002)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00039	\$0.00045	
(11) Pension Adjustment Factor	\$0.00002	\$0.00002	
(12) Storm Fund Replenishment Factor	\$0.00000	\$0.0000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00123	\$0.00123	
(14) Net Metering Charge	\$0.0001	\$0.00001	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.17	\$3.17	
(16) Base Transmission Charge	\$0.00920	\$0.00920	
(17) Transmission Adjustment Factor	\$0.00258	\$0.00258	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00024	\$0.00024	*
(19) Base Transition Charge	(\$0.00120)	(\$0.00120)	m 22 m
(20) Transition Adjustment	(\$0.0006)	(\$0.00006)	Transition Charge
(21) Energy Efficiency Program Charge	\$0.00986	\$0.00986	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.09165	\$0.09165	<u> </u>
(23) SOS Adjustment Factor	(\$0.00045)	(\$0.00045)	a 1 a : n a
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00165	\$0.00165	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00340	\$0.00340	
. ,			
Line Item on Bill			
(26) Customer Charge	\$17,000.00	\$17,000.00	
(27) LIHEAP Enhancement Charge	\$0.73	\$0.73	
(28) RE Growth Program	\$173.54	\$173.54	
(29) Transmission Adjustment	\$0.01202	\$0.01202	
(30) Distribution Energy Charge	\$0.00035	\$0.00041	
(31) Distribution Demand Charge	\$3.32	\$3.49	
(32) Transmission Demand Charge	\$3.17	\$3.17	
(31) Transition Charge	(\$0.00126)	(\$0.00126)	
(32) Energy Efficiency Programs	\$0.00986	\$0.00986	
(33) Renewable Energy Distribution Charge	\$0.00124	\$0.00124	
(34) Supply Services Energy Charge	\$0.09625	\$0.09625	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to A-16 Rate Customers

	2016 Aver	age Rates Witho	ut Low Income S	Subsidy		2016 Averaş	ge Rates]	Impact of Low In	come Subsidy		Low	Income Subsidy a	as a % of Total I	Bill
Monthly kWh	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
150	\$18.00	\$12.91	\$1.29	\$32.20	\$18.16	\$12.91	\$1.29	\$32.36	\$0.16	\$0.00	\$0.00	\$0.16	0.5%	0.0%	0.0%	0.5%
300	\$30.09	\$25.83	\$2.33	\$58.25	\$30.42	\$25.83	\$2.34	\$58.59	\$0.33	\$0.00	\$0.01	\$0.34	0.6%	0.0%	0.0%	0.6%
400	\$38.15	\$34.44	\$3.02	\$75.61	\$38.59	\$34.44	\$3.04	\$76.07	\$0.44	\$0.00	\$0.02	\$0.46	0.6%	0.0%	0.0%	0.6%
500	\$46.22	\$43.05	\$3.72	\$92.99	\$46.76	\$43.05	\$3.74	\$93.55	\$0.54	\$0.00	\$0.02	\$0.56	0.6%	0.0%	0.0%	0.6%
600	\$54.28	\$51.65	\$4.41	\$110.34	\$54.92	\$51.65	\$4.44	\$111.01	\$0.64	\$0.00	\$0.03	\$0.67	0.6%	0.0%	0.0%	0.6%
700	\$62.34	\$60.26	\$5.11	\$127.71	\$63.09	\$60.26	\$5.14	\$128.49	\$0.75	\$0.00	\$0.03	\$0.78	0.6%	0.0%	0.0%	0.6%
1,200	\$102.64	\$103.31	\$8.58	\$214.53	\$103.94	\$103.31	\$8.64	\$215.89	\$1.30	\$0.00	\$0.06	\$1.36	0.6%	0.0%	0.0%	0.6%
2,000	\$167.13	\$172.18	\$14.14	\$353.45	\$169.29	\$172.18	\$14.23	\$355.70	\$2.16	\$0.00	\$0.09	\$2.25	0.6%	0.0%	0.0%	0.69

	2016 Average Rates	Without Low I	ncome Subsidy	2016 Average Rates	Line Item on Bill
			(n)	(0)	
(1)	Distribution Customer Charge		\$5.00	\$5.00	Customer Charge
(2)	LIHEAP Enhancement Charge		\$0.73	\$0.73	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge		\$0.18	\$0.18	RE Growth Program
(4)	Distribution Charge (per kWh)		\$0.03543	\$0.03664	
(5)	Operating & Maintenance Expense Charge		\$0.00161	\$0.00161	
(6)	Operating & Maintenance Expense Reconciliation Factor		(\$0.00010)	(\$0.00010)	
(7)	CapEx Factor Charge		\$0.00268	\$0.00268	Distribution Energy Charge
(8)	CapEx Reconciliation Factor		\$0.00050	\$0.00050	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor		\$0.00101	\$0.00088	
(10)	Pension Adjustment Factor		\$0.00031	\$0.00031	
(11)	Storm Fund Replenishment Factor		\$0.00000	\$0.00000	
(12)	Long-term Contracting for Renewable Energy Charge		\$0.00284	\$0.00284	Demonstration Distribution Characteristics
(13)	Net Metering Charge		\$0.00005	\$0.00005	Renewable Energy Distribution Charge
(14)	Base Transmission Charge		\$0.02510	\$0.02510	
(15)	Transmission Adjustment Factor		\$0.00071	\$0.00071	Transmission Charge
(16)	Transmission Uncollectible Factor		\$0.00033	\$0.00033	
(17)	Base Transition Charge		(\$0.00038)	(\$0.00038)	m :: di
(18)	Transition Adjustment		(\$0.00055)	(\$0.00055)	Transition Charge
(19)	Energy Efficiency Program Charge		\$0.01107	\$0.01107	Energy Efficiency Programs
(20)	Standard Offer Service Base Charge		\$0.08293	\$0.08293	
(21)	SOS Adjustment Factor		(\$0.00224)	(\$0.00224)	Supply Services Energy Charge
	SOS Adminstrative Cost Adjustment Factor		\$0.00251	\$0.00251	Supply Scivices Energy Change
(23)	Renewable Energy Standard Charge		\$0.00289	\$0.00289	
	Line Item on Bill				
(24)	Customer Charge		\$5.00	\$5.00	
	LIHEAP Enhancement Charge		\$0.73	\$0.73	
	RE Growth Program		\$0.18	\$0.18	
	Transmission Charge	kWh x	\$0.02614	\$0.02614	
	Distribution Energy Charge	kWh x	\$0.04144	\$0.04252	
	Transition Charge	kWh x	(\$0.00093)	(\$0.00093)	
	Energy Efficiency Programs	kWh x	\$0.01107	\$0.01107	
	Renewable Energy Distribution Charge	kWh x	\$0.00289	\$0.00289	
	Supply Services Energy Charge	kWh x	\$0.08609	\$0.08609	
` '					

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to A-60 Rate Customers

	2016 Aver	age Rates Witho	ut Low Income S	ubsidy		2016 Avera	ge Rates			Impact of Low Ir	ncome Subsidy		Low Income Subsidy as a % of Total Bill				
Monthly kWh	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total	
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)	
150	\$11.16	\$12.91	\$1.00	\$25.07	\$11.14	\$12.91	\$1.00	\$25.05	(\$0.02)	\$0.00	\$0.00	(\$0.02)	-0.1%	0.0%	0.0%	-0.1%	
300	\$21.42	\$25.83	\$1.97	\$49.22	\$21.38	\$25.83	\$1.97	\$49.18	(\$0.04)	\$0.00	\$0.00	(\$0.04)	-0.1%	0.0%	0.0%	-0.1%	
400	\$28.25	\$34.44	\$2.61	\$65.30	\$28.20	\$34.44	\$2.61	\$65.25	(\$0.05)	\$0.00	\$0.00	(\$0.05)	-0.1%	0.0%	0.0%	-0.1%	
500	\$35.09	\$43.05	\$3.26	\$81.40	\$35.02	\$43.05	\$3.25	\$81.32	(\$0.07)	\$0.00	(\$0.01)	(\$0.08)	-0.1%	0.0%	0.0%	-0.1%	
600	\$41.92	\$51.65	\$3.90	\$97.47	\$41.84	\$51.65	\$3.90	\$97.39	(\$0.08)	\$0.00	\$0.00	(\$0.08)	-0.1%	0.0%	0.0%	-0.1%	
700	\$48.76	\$60.26	\$4.54	\$113.56	\$48.66	\$60.26	\$4.54	\$113.46	(\$0.10)	\$0.00	\$0.00	(\$0.10)	-0.1%	0.0%	0.0%	-0.1%	
1,200	\$82.93	\$103.31	\$7.76	\$194.00	\$82.77	\$103.31	\$7.75	\$193.83	(\$0.16)	\$0.00	(\$0.01)	(\$0.17)	-0.1%	0.0%	0.0%	-0.1%	
2,000	\$137.61	\$172.18	\$12.91	\$322.70	\$137.35	\$172.18	\$12.90	\$322.43	(\$0.26)	\$0.00	(\$0.01)	(\$0.27)	-0.1%	0.0%	0.0%	-0.1%	

10 Distribution Customer Charge \$0.00		2016 Averag	e Rates Without Low Income Subsidy	2016 Average Rates	Line Item on Bill
Common C			(n)	(0)	
Serial Renewable Energy Growth Charge \$0.18 \$0.18 \$0.0317 \$0.0317 \$0.0317 \$0.0317 \$0.0317 \$0.0317 \$0.0317 \$0.0317 \$0.0317 \$0.0317 \$0.0317 \$0.0317 \$0.00161 \$0.00161 \$0.00161 \$0.00161 \$0.00161 \$0.00161 \$0.00161 \$0.00161 \$0.00161 \$0.00161 \$0.00161 \$0.00161 \$0.001628 \$0.00268	(1)	Distribution Customer Charge	\$0.00	\$0.00	Customer Charge
Distribution Charge (per kWh) S0.02317 S0.02317 S0.02317 S0.02317 S0.02317 S0.00161 S0.00162	(2)	LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
S Operating & Maintenance Expense Charge	(3)	Renewable Energy Growth Charge	\$0.18	\$0.18	Renewable Energy Growth Charge
Comparing & Maintenance Expense Reconciliation Factor S0,00010 S0,00010 S0,00010 S0,00010 S0,00050	(4)	Distribution Charge (per kWh)	\$0.02317	\$0.02317	
CapEx Factor Charge	(5)	Operating & Maintenance Expense Charge	\$0.00161	\$0.00161	
S CapEx Reconciliation Factor \$0.00050	(6)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00010)	(\$0.00010)	
(8) CapEx Reconcilitation Factor	(7)	CapEx Factor Charge	\$0.00268	\$0.00268	Distribution Energy Charge
Company Comp	(8)	CapEx Reconciliation Factor	\$0.00050	\$0.00050	Distribution Energy Charge
Storm Fund Replenishment Factor \$0.00000 \$0.00000 Cl2 Long-term Contracting for Renewable Energy Charge \$0.000284 \$0.000284 Renewable Energy Distribution Charge \$0.00005 \$0.00005 \$0.00005 Cl3 Base Transmission Charge \$0.000071 \$0.00071 Transmission Charge \$0.00017 \$0.00071 Transmission Charge \$0.00033 \$0.	(9)	Revenue Decoupling Adjustment Factor	\$0.00101	\$0.00088	
Computer Contracting for Renewable Energy Charge S0.00284 S0.00005 S0.00007 S0.0007 S0.0007 Transmission Charge S0.0007 S0.0007 Transmission Charge S0.00033 S0.00035 S0.000	(10)	Pension Adjustment Factor	\$0.00031	\$0.00031	
13 Net Metering Charge \$0,00005 \$0,00005 \$0,00005 14 Base Transmission Charge \$0,002510 \$0,002510 \$0,002510 \$0,00071 \$0,00071 \$1,00007	(11)	Storm Fund Replenishment Factor	\$0.00000	\$0.00000	
13 Net Metering Charge \$0,0005 \$0,0005 \$0,0005 14 Base Transmission Charge \$0,00071 \$0,00071 \$0,00071 \$0,00071 \$0,00071 \$1,000	(12)	Long-term Contracting for Renewable Energy Charge	\$0.00284	\$0.00284	Panavabla Enargy Distribution Charge
15 Transmission Adjustment Factor \$0,00071 \$0,00071 \$0,00071 \$0,00071 \$0,00071 \$1,000	(13)	Net Metering Charge	\$0.00005	\$0.00005	Renewable Energy Distribution Charge
Transmission Uncollectible Factor \$0,00033 \$0,00033 \$0,00033 \$1,00035 \$1,000	(14)	Base Transmission Charge	\$0.02510	\$0.02510	
Transition Charge	(15)	Transmission Adjustment Factor	\$0.00071	\$0.00071	Transmission Charge
Transition Adjustment	(16)	Transmission Uncollectible Factor	\$0.00033	\$0.00033	
(18) Transition Adjustment (\$0.00055) \$0.00055 (19) Energy Efficiency Program Charge \$0.01107 Energy Efficiency Programs (20) Standard Offer Service Base Charge \$0.08293 \$0.08293 (21) SOS Adjustment Factor \$0.00224 \$0.00224 (22) SOS Administrative Cost Adjustment Factor \$0.00251 \$0.00251 (23) Renewable Energy Standard Charge \$0.00289 \$0.00289 Line Item on Bill \$0.00289 \$0.00 (24) Customer Charge \$0.00 \$0.00 (25) LIHEAP Enhancement Charge \$0.73 \$0.73 (26) RE Growth Program \$0.18 \$0.18 (27) Transmission Charge \$0.02614 \$0.02614 (28) Distribution Energy Charge \$0.02918 \$0.02905 (29) Transition Charge \$0.00918 \$0.00093 (29) Transition Charge \$0.00093 \$0.00093 (30) Energy Efficiency Programs \$0.01107 \$0.01107 (31) Renewable Energy Distribution Charge \$0.00289 \$0.00289	(17)	Base Transition Charge	(\$0.00038)	(\$0.00038)	Transition Charge
Standard Offer Service Base Charge \$0.08293 \$0.08293 \$0.08293 \$0.00224 \$0.00224 \$0.00224 \$0.00224 \$0.00224 \$0.00224 \$0.00225 \$0.00251 \$0.00259 \$0.00259 \$0.00259 \$0.00259 \$0.00259 \$0.00259 \$0.00259 \$0.00259 \$0.00259 \$0.00259 \$0.00251 \$0.00	(18)	Transition Adjustment	(\$0.00055)	(\$0.00055)	Transition Charge
C21 SOS Adjustment Factor (\$0.00224) Supply Services Energy Charge	(19)	Energy Efficiency Program Charge	\$0.01107	\$0.01107	Energy Efficiency Programs
(22) SOS Administrative Cost Adjustment Factor \$0.00251 \$0.00251 Supply Services Energy Charge (23) Renewable Energy Standard Charge \$0.00289 \$0.00289 Line Item on Bill (24) Customer Charge \$0.00 \$0.00 (25) LiHEAP Enhancement Charge \$0.73 \$0.73 (26) RE Growth Program \$0.18 \$0.18 (27) Transmission Charge \$0.0214 \$0.02614 (28) Distribution Energy Charge \$0.02918 \$0.02905 (29) Transition Charge \$0.00093 \$0.00093 (29) Energy Efficiency Programs \$0.01107 \$0.01107 (31) Renewable Energy Distribution Charge \$0.00289 \$0.00289	(20)	Standard Offer Service Base Charge	\$0.08293	\$0.08293	
20					Supply Services Energy Charge
Line Item on Bill (24) Customer Charge \$0.00 \$0.00 (25) LIHEAP Enhancement Charge \$0.73 \$0.73 (26) RE Growth Program \$0.18 \$0.18 (27) Transmission Charge \$0.02614 \$0.02614 (28) Distribution Energy Charge \$0.02918 \$0.02905 (29) Transition Charge \$0.00093 (30) Energy Efficiency Programs \$0.01107 (31) Renewable Energy Distribution Charge \$0.00289 \$0.00289					e-thirty construction and governing
(24) Customer Charge \$0.00 (25) LiHEAP Enhancement Charge \$0.73 (26) RE Growth Program \$0.18 (27) Transmission Charge \$0.02614 (28) Distribution Energy Charge \$0.02918 (29) Transition Charge \$0.0093) (29) Energy Efficiency Programs \$0.01017 (30) Energy Efficiency Programs \$0.00289 (31) Renewable Energy Distribution Charge \$0.00289	(23)	Renewable Energy Standard Charge	\$0.00289	\$0.00289	
(24) Customer Charge \$0.00 (25) LiHEAP Enhancement Charge \$0.73 (26) RE Growth Program \$0.18 (27) Transmission Charge \$0.02614 (28) Distribution Energy Charge \$0.02918 (29) Transition Charge \$0.0093) (29) Energy Efficiency Programs \$0.01017 (30) Energy Efficiency Programs \$0.00289 (31) Renewable Energy Distribution Charge \$0.00289		Line Item on Dill			
(25) LIHEAP Enhancement Charge \$0.73 \$0.73 (26) RE Growth Program \$0.18 \$0.18 (27) Transmission Charge \$0.02614 \$0.02614 (28) Distribution Energy Charge \$0.02918 \$0.02905 (29) Transition Charge \$0.00093 \$0.00093 (30) Energy Efficiency Programs \$0.0107 \$0.01107 (31) Renwable Energy Distribution Charge \$0.00289 \$0.00289	(24)		\$0.00	\$0.00	
(26) RE Growth Program \$0.18 \$0.18 (27) Transmission Charge \$0.02614 \$0.02614 (28) Distribution Energy Charge \$0.02918 \$0.02905 (29) Transition Charge \$0.00093) \$0.00093 (30) Energy Efficiency Programs \$0.01107 \$0.01107 (31) Renewable Energy Distribution Charge \$0.00289 \$0.00289					
(27) Transmission Charge \$0.02614 \$0.02614 (28) Distribution Energy Charge \$0.02918 \$0.02905 (29) Transition Charge (\$0.00093) (\$0.00093) (30) Energy Efficiency Programs \$0.01107 \$0.01107 (31) Renewable Energy Distribution Charge \$0.00289 \$0.00289					
(29) Transition Charge (\$0.00093) (\$0.00093) (30) Energy Efficiency Programs \$0.01107 \$0.01107 (31) Renewable Energy Distribution Charge \$0.00289 \$0.00289	(27)	Transmission Charge	\$0.02614	\$0.02614	
(30) Energy Efficiency Programs \$0.01107 \$0.01107 (31) Renewable Energy Distribution Charge \$0.00289 \$0.00289	(28)	Distribution Energy Charge	\$0.02918	\$0.02905	
(31) Renewable Energy Distribution Charge \$0.00289 \$0.00289	(29)	Transition Charge	(\$0.00093)	(\$0.00093)	
	(30)	Energy Efficiency Programs	\$0.01107	\$0.01107	
(32) Supply Services Energy Charge \$0.08609 \$0.08609					
	(32)	Supply Services Energy Charge	\$0.08609	\$0.08609	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to C-06 Rate Customers

	2016 Aver	age Rates Witho	out Low Income S	Subsidy		2016 Average Rates				Impact of Low Ir	come Subsidy		Low Income Subsidy as a % of Total Bill				
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply			
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)	
250	\$29.72	\$20.91	\$2.11	\$52.74	\$29.95	\$20.91	\$2.12	\$52.98	\$0.23	\$0.00	\$0.01	\$0.24	0.4%	0.0%	0.0%	0.5%	
500	\$48.44	\$41.81	\$3.76	\$94.01	\$48.89	\$41.81	\$3.78	\$94.48	\$0.45	\$0.00	\$0.02	\$0.47	0.5%	0.0%	0.0%	0.5%	
1,000	\$85.86	\$83.62	\$7.06	\$176.54	\$86.77	\$83.62	\$7.10	\$177.49	\$0.91	\$0.00	\$0.04	\$0.95	0.5%	0.0%	0.0%	0.5%	
1,500	\$123.29	\$125.43	\$10.36	\$259.08	\$124.65	\$125.43	\$10.42	\$260.50	\$1.36	\$0.00	\$0.06	\$1.42	0.5%	0.0%	0.0%	0.5%	
2,000	\$160.71	\$167.24	\$13.66	\$341.61	\$162.53	\$167.24	\$13.74	\$343.51	\$1.82	\$0.00	\$0.08	\$1.90	0.5%	0.0%	0.0%	0.6%	

	2016 Average Rates	Without Low Income Subsidy	2016 Average Rates	Line Item on Bill
		(n)	(o)	
(1)	Distribution Customer Charge	\$10.00	\$10.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.73	\$0.73	RE Growth Program
(3)	Renewable Energy Growth Charge	\$0.28	\$0.28	LIHEAP Enhancement Charge
(4)	Distribution Charge (per kWh)	\$0.03149	\$0.03253	
(5)	Operating & Maintenance Expense Charge	\$0.00170	\$0.00170	
(6)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00010)	(\$0.00010)	
(7)	CapEx Factor Charge	\$0.00253	\$0.00253	Distribution Energy Charge
(8)	CapEx Reconciliation Factor	\$0.00046	\$0.00046	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor	\$0.00101	\$0.00088	
(10)	Pension Adjustment Factor	\$0.00031	\$0.00031	
(11)	Storm Fund Replenishment Factor	\$0.00000	\$0.00000	
(12)	Long-term Contracting for Renewable Energy Charge	\$0.00284	\$0.00284	Renewable Energy Distribution Charge
(13)	Net Metering Charge	\$0.00005	\$0.00005	Renewable Energy Distribution Charge
(14)	Base Transmission Charge	\$0.02521	\$0.02521	
(15)	Transmission Adjustment Factor	(\$0.00109)	(\$0.00109)	Transmission Charge
(16)	Transmission Uncollectible Factor	\$0.00030	\$0.00030	
(17)	Base Transition Charge	(\$0.00038)	(\$0.00038)	Transition Charge
(18)	Transition Adjustment	(\$0.00055)	(\$0.00055)	Transition Charge
	Energy Efficiency Program Charge	\$0.01107	\$0.01107	Energy Efficiency Programs
	Standard Offer Service Base Charge	\$0.07600	\$0.07600	
	SOS Adjustment Factor	\$0.00225	\$0.00225	Supply Services Energy Charge
	SOS Adminstrative Cost Adjustment Factor	\$0.00248	\$0.00248	Supply Services Energy Charge
(23)	Renewable Energy Standard Charge	\$0.00289	\$0.00289	
	Line Item on Bill			
(24)	Customer Charge	\$10.00	\$10.00	
	LIHEAP Enhancement Charge	\$0.73	\$0.73	
	RE Growth Program	\$0.28	\$0.28	
	Transmission Charge	\$0.02442	\$0.02442	
	Distribution Energy Charge	\$0.03740	\$0.03831	
	Transition Charge	(\$0.00093)	(\$0.00093)	
	Energy Efficiency Programs	\$0.01107	\$0.01107	
(31)	Renewable Energy Distribution Charge	\$0.00289	\$0.00289	
	Supply Services Energy Charge	\$0.08362	\$0.08362	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-02 Rate Customers

			2016 Ave	rage Rates Withou	ut Low Income S	Subsidy		2016 Averag	ge Rates			Impact of Low In	come Subsidy		Lov	v Income Subsidy	as a % of Total Bi	11
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
20	200	4,000	\$382.67	\$334.48	\$29.88	\$747.03	\$384.96	\$334.48	\$29.98	\$749.42	\$2.29	\$0.00	\$0.10	\$2.39	0.3%	0.0%	0.0%	0.3%
50	200	10,000	\$831.40	\$836.20	\$69.48	\$1,737.08	\$837.12	\$836.20	\$69.72	\$1,743.04	\$5.72	\$0.00	\$0.24	\$5.96	0.3%	0.0%	0.0%	0.3%
100	200	20,000	\$1,579.29	\$1,672.40	\$135.49	\$3,387.18	\$1,590.72	\$1,672.40	\$135.96	\$3,399.08	\$11.43	\$0.00	\$0.47	\$11.90	0.3%	0.0%	0.0%	0.4%
150	200	30,000	\$2,327.17	\$2,508.60	\$201.49	\$5,037.26	\$2,344.32	\$2,508.60	\$202.21	\$5,055.13	\$17.15	\$0.00	\$0.72	\$17.87	0.3%	0.0%	0.0%	0.4%
20	300	6,000	\$442.85	\$501.72	\$39.36	\$983.93	\$446.28	\$501.72	\$39.50	\$987.50	\$3.43	\$0.00	\$0.14	\$3.57	0.3%	0.0%	0.0%	0.4%
50	300	15,000	\$981.85	\$1,254.30	\$93.17	\$2,329.32	\$990.42	\$1,254.30	\$93.53	\$2,338.25	\$8.57	\$0.00	\$0.36	\$8.93	0.4%	0.0%	0.0%	0.4%
100	300	30,000	\$1,880.17	\$2,508.60	\$182.87	\$4,571.64	\$1,897.32	\$2,508.60	\$183.58	\$4,589.50	\$17.15	\$0.00	\$0.71	\$17.86	0.4%	0.0%	0.0%	0.4%
150	300	45,000	\$2,778.50	\$3,762.90	\$272.56	\$6,813.96	\$2,804.22	\$3,762.90	\$273.63	\$6,840.75	\$25.72	\$0.00	\$1.07	\$26.79	0.4%	0.0%	0.0%	0.4%
20	400	8,000	\$503.03	\$668.96	\$48.83	\$1,220.82	\$507.60	\$668.96	\$49.02	\$1,225.58	\$4.57	\$0.00	\$0.19	\$4.76	0.4%	0.0%	0.0%	0.4%
50	400	20,000	\$1,132.29	\$1,672.40	\$116.86	\$2,921.55	\$1,143.72	\$1,672.40	\$117.34	\$2,933.46	\$11.43	\$0.00	\$0.48	\$11.91	0.4%	0.0%	0.0%	0.4%
100	400	40,000	\$2,181.06	\$3,344.80	\$230.24	\$5,756.10	\$2,203.92	\$3,344.80	\$231.20	\$5,779.92	\$22.86	\$0.00	\$0.96	\$23.82	0.4%	0.0%	0.0%	0.4%
150	400	60,000	\$3,229.82	\$5,017.20	\$343.63	\$8,590.65	\$3,264.12	\$5,017.20	\$345.06	\$8,626.38	\$34.30	\$0.00	\$1.43	\$35.73	0.4%	0.0%	0.0%	0.4%
20	500	10,000	\$563.20	\$836.20	\$58.31	\$1,457.71	\$568.92	\$836.20	\$58.55	\$1,463.67	\$5.72	\$0.00	\$0.24	\$5.96	0.4%	0.0%	0.0%	0.4%
50	500	25,000	\$1,282.73	\$2,090.50	\$140.55	\$3,513.78	\$1,297.02	\$2,090.50	\$141.15	\$3,528.67	\$14.29	\$0.00	\$0.60	\$14.89	0.4%	0.0%	0.0%	0.4%
100	500	50,000	\$2,481.94	\$4,181.00	\$277.62	\$6,940.56	\$2,510.52	\$4,181.00	\$278.81	\$6,970.33	\$28.58	\$0.00	\$1.19	\$29.77	0.4%	0.0%	0.0%	0.4%
150	500	75,000	\$3,681.15	\$6,271.50	\$414.69	\$10,367.34	\$3,724.02	\$6,271.50	\$416.48	\$10,412.00	\$42.87	\$0.00	\$1.79	\$44.66	0.4%	0.0%	0.0%	0.4%
20	600	12,000	\$623.38	\$1,003.44	\$67.78	\$1,694.60	\$630.24	\$1,003.44	\$68.07	\$1,701.75	\$6.86	\$0.00	\$0.29	\$7.15	0.4%	0.0%	0.0%	0.4%
50	600	30,000	\$1,433.17	\$2,508.60	\$164.24	\$4,106.01	\$1,450.32	\$2,508.60	\$164.96	\$4,123.88	\$17.15	\$0.00	\$0.72	\$17.87	0.4%	0.0%	0.0%	0.4%
100	600	60,000	\$2,782.82	\$5,017.20	\$325.00	\$8,125.02	\$2,817.12	\$5,017.20	\$326.43	\$8,160.75	\$34.30	\$0.00	\$1.43	\$35.73	0.4%	0.0%	0.0%	0.4%
150	600	90,000	\$4,132.47	\$7,525.80	\$485.76	\$12,144.03	\$4,183.92	\$7,525.80	\$487.91	\$12,197.63	\$51.45	\$0.00	\$2.15	\$53.60	0.4%	0.0%	0.0%	0.4%

	2016 Average Rates Without Low Income Subsidy	2016 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$135.00	\$135.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$2.69	\$2.69	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 10kW)	\$4.85	\$4.85	Distribution Demand Charge
(5) Distribution Charge (per kWh)	\$0.00398	\$0.00468	
(6) Operating & Maintenance Expense Charge	\$0.00124	\$0.00124	
(7) Operating & Maintenance Expense Reconciliation Facto	r (\$0.00010)	(\$0.00010)	
(8) CapEx Factor Demand Charge (per kW > 10kW)	\$0.64	\$0.64	Distribution Energy Charge
(9) CapEx Reconciliation Factor	\$0.00037	\$0.00037	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00101	\$0.00088	
(11) Pension Adjustment Factor	\$0.00031	\$0.00031	
(12) Storm Fund Replenishment Factor	\$0.0000	\$0.00000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00284	\$0.00284	Renewable Energy Distribution Charge
(14) Net Metering Charge	\$0.00005	\$0.00005	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.45	\$3.45	Transmission Demand Charge
(16) Base Transmission Charge	\$0.01003	\$0.01003	
(17) Transmission Adjustment Factor	(\$0.00007)	(\$0.00007)	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00029	\$0.00029	
(19) Base Transition Charge	(\$0.00038)	(\$0.00038)	Transition Charge
(20) Transition Adjustment	(\$0.00055)	(\$0.00055)	
(21) Energy Efficiency Program Charge	\$0.01107	\$0.01107	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.07600	\$0.07600	
(23) SOS Adjustment Factor	\$0.00225	\$0.00225	Supply Services Energy Charge
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00248	\$0.00248	supply services energy energe
(25) Renewable Energy Standard Charge	\$0.00289	\$0.00289	
Line Item on Bill			
(26) Customer Charge	\$135.00	\$135.00	
(28) LIHEAP Enhancement Charge	\$0.73	\$0.73	
(27) RE Growth Program	\$2.69	\$2.69	
(29) Transmission Adjustment	\$0.01025	\$0.01025	
(30) Distribution Energy Charge	\$0.00681	\$0.00738	
(31) Distribution Demand Charge	\$5.49	\$5.49	
(32) Transmission Demand Charge	\$3.45	\$3.45	
(31) Transition Charge	(\$0.00093)	(\$0.00093)	
(32) Energy Efficiency Programs	\$0.01107	\$0.01107	
(33) Renewable Energy Distribution Charge	\$0.00289	\$0.00289	
(34) Supply Services Energy Charge	\$0.08362	\$0.08362	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-32 Rate Customers

			2016 Aver	age Rates Withou	ut Low Income	Subsidy		2016 Averag	ge Rates		1	Impact of Low In	come Subsidy		Low	Income Subsidy	as a % of Total B	ill
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
200	200	40,000	\$2,828.44	\$2,445.60	\$219.75	\$5,493.79	\$2,839.19	\$2,445.60	\$220.20	\$5,504.99	\$10.75	\$0.00	\$0.45	\$11.20	0.2%	0.0%	0.0%	0.2%
750	200	150,000	\$10,680.39	\$9,171.00	\$827.14	\$20,678.53	\$10,720.69	\$9,171.00	\$828.82	\$20,720.51	\$40.30	\$0.00	\$1.68	\$41.98	0.2%	0.0%	0.0%	0.2%
1,000	200	200,000	\$14,249.46	\$12,228.00	\$1,103.23	\$27,580.69	\$14,303.19	\$12,228.00	\$1,105.47	\$27,636.66	\$53.73	\$0.00	\$2.24	\$55.97	0.2%	0.0%	0.0%	0.2%
1,500	200	300,000	\$21,387.59	\$18,342.00	\$1,655.40	\$41,384.99	\$21,468.19	\$18,342.00	\$1,658.76	\$41,468.95	\$80.60	\$0.00	\$3.36	\$83.96	0.2%	0.0%	0.0%	0.2%
2,500	200	500,000	\$35,663.86	\$30,570.00	\$2,759.74	\$68,993.60	\$35,798.19	\$30,570.00	\$2,765.34	\$69,133.53	\$134.33	\$0.00	\$5.60	\$139.93	0.2%	0.0%	0.0%	0.2%
200	300	60,000	\$3,437.07	\$3,668.40	\$296.06	\$7,401.53	\$3,453.19	\$3,668.40	\$296.73	\$7,418.32	\$16.12	\$0.00	\$0.67	\$16.79	0.2%	0.0%	0.0%	0.2%
750	300	225,000	\$12,962.74	\$13,756.50	\$1,113.30	\$27,832.54	\$13,023.19	\$13,756.50	\$1,115.82	\$27,895.51	\$60.45	\$0.00	\$2.52	\$62.97	0.2%	0.0%	0.0%	0.2%
1,000	300	300,000	\$17,292.59	\$18,342.00	\$1,484.77	\$37,119.36	\$17,373.19	\$18,342.00	\$1,488.13	\$37,203.32	\$80.60	\$0.00	\$3.36	\$83.96	0.2%	0.0%	0.0%	0.2%
1,500	300	450,000	\$25,952.29	\$27,513.00	\$2,227.72	\$55,693.01	\$26,073.19	\$27,513.00	\$2,232.76	\$55,818.95	\$120.90	\$0.00	\$5.04	\$125.94	0.2%	0.0%	0.0%	0.2%
2,500	300	750,000	\$43,271.69	\$45,855.00	\$3,713.61	\$92,840.30	\$43,473.19	\$45,855.00	\$3,722.01	\$93,050.20	\$201.50	\$0.00	\$8.40	\$209.90	0.2%	0.0%	0.0%	0.2%
200	400	80,000	\$4,045.70	\$4,891.20	\$372.37	\$9,309.27	\$4,067.19	\$4,891.20	\$373.27	\$9,331.66	\$21.49	\$0.00	\$0.90	\$22.39	0.2%	0.0%	0.0%	0.2%
750	400	300,000	\$15,245.09	\$18,342.00	\$1,399.46	\$34,986.55	\$15,325.69	\$18,342.00	\$1,402.82	\$35,070.51	\$80.60	\$0.00	\$3.36	\$83.96	0.2%	0.0%	0.0%	0.2%
1,000	400	400,000	\$20,335.72	\$24,456.00	\$1,866.32	\$46,658.04	\$20,443.19	\$24,456.00	\$1,870.80	\$46,769.99	\$107.47	\$0.00	\$4.48	\$111.95	0.2%	0.0%	0.0%	0.2%
1,500	400	600,000	\$30,516.99	\$36,684.00	\$2,800.04	\$70,001.03	\$30,678.19	\$36,684.00	\$2,806.76	\$70,168.95	\$161.20	\$0.00	\$6.72	\$167.92	0.2%	0.0%	0.0%	0.2%
2,500	400	1,000,000	\$50,879.52	\$61,140.00	\$4,667.48	\$116,687.00	\$51,148.19	\$61,140.00	\$4,678.67	\$116,966.86	\$268.67	\$0.00	\$11.19	\$279.86	0.2%	0.0%	0.0%	0.2%
200	500	100,000	\$4,654.32	\$6,114.00	\$448.68	\$11,217.00	\$4,681.19	\$6,114.00	\$449.80	\$11,244.99	\$26.87	\$0.00	\$1.12	\$27.99	0.2%	0.0%	0.0%	0.2%
750	500	375,000	\$17,527.44	\$22,927.50	\$1,685.62	\$42,140.56	\$17,628.19	\$22,927.50	\$1,689.82	\$42,245.51	\$100.75	\$0.00	\$4.20	\$104.95	0.2%	0.0%	0.0%	0.2%
1,000	500	500,000	\$23,378.86	\$30,570.00	\$2,247.87	\$56,196.73	\$23,513.19	\$30,570.00	\$2,253.47	\$56,336.66	\$134.33	\$0.00	\$5.60	\$139.93	0.2%	0.0%	0.0%	0.2%
1,500	500	750,000	\$35,081.69	\$45,855.00	\$3,372.36	\$84,309.05	\$35,283.19	\$45,855.00	\$3,380.76	\$84,518.95	\$201.50	\$0.00	\$8.40	\$209.90	0.2%	0.0%	0.0%	0.2%
2,500	500	1,250,000	\$58,487.36	\$76,425.00	\$5,621.35	\$140,533.71	\$58,823.19	\$76,425.00	\$5,635.34	\$140,883.53	\$335.83	\$0.00	\$13.99	\$349.82	0.2%	0.0%	0.0%	0.2%
200	600	120,000	\$5,262.95	\$7,336.80	\$524.99	\$13,124.74	\$5,295.19	\$7,336.80	\$526.33	\$13,158.32	\$32.24	\$0.00	\$1.34	\$33.58	0.2%	0.0%	0.0%	0.3%
750	600	450,000	\$19,809.79	\$27,513.00	\$1,971.78	\$49,294.57	\$19,930.69	\$27,513.00	\$1,976.82	\$49,420.51	\$120.90	\$0.00	\$5.04	\$125.94	0.2%	0.0%	0.0%	0.3%
1,000	600	600,000	\$26,421.99	\$36,684.00	\$2,629.42	\$65,735.41	\$26,583.19	\$36,684.00	\$2,636.13	\$65,903.32	\$161.20	\$0.00	\$6.71	\$167.91	0.2%	0.0%	0.0%	0.3%
1,500	600	900,000	\$39,646.39	\$55,026.00	\$3,944.68	\$98,617.07	\$39,888.19	\$55,026.00	\$3,954.76	\$98,868.95	\$241.80	\$0.00	\$10.08	\$251.88	0.2%	0.0%	0.0%	0.3%
2,500	600	1,500,000	\$66,095.19	\$91,710.00	\$6,575.22	\$164,380.41	\$66,498.19	\$91,710.00	\$6,592.01	\$164,800.20	\$403.00	\$0.00	\$16.79	\$419.79	0.2%	0.0%	0.0%	0.3%

	2016 Average Rates Without Low Income Subsidy	2016 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$825.00	\$825.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$19.46	\$19.46	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 200kW)	\$3.70	\$3.70	
(5) Distribution Charge (per kWh)	\$0.00511	\$0.00551	
(6) Operating & Maintenance Expense Charge	\$0.00077	\$0.00077	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.00010)	(\$0.00010)	
(8) CapEx Factor Demand Charge (per kW > 10kW)	\$0.66	\$0.66	product in the
(9) CapEx Reconciliation Factor	\$0.00013	\$0.00013	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00101	\$0.00088	
(11) Pension Adjustment Factor	\$0.00031	\$0.00031	
(12) Storm Fund Replenishment Factor	\$0.00000	\$0.0000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00284	\$0.00284	
(14) Net Metering Charge	\$0.00005	\$0.00005	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.83	\$3.83	
(16) Base Transmission Charge	\$0.00885	\$0.00885	
(17) Transmission Adjustment Factor	\$0.00105	\$0.00105	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00027	\$0.00027	
(19) Base Transition Charge	(\$0.00038)	(\$0.00038)	
(20) Transition Adjustment	(\$0.00055)	(\$0.00055)	Transition Charge
(21) Energy Efficiency Program Charge	\$0.01107	\$0.01107	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.06258	\$0.06258	
(23) SOS Adjustment Factor	(\$0.00745)	(\$0.00745)	
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00312	\$0.00312	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00289	\$0.00289	
(25) Renewable Energy bandana charge	0.0020	90.0020)	
Line Item on Bill			
(26) Customer Charge	\$825.00	\$825.00	
(27) LIHEAP Enhancement Charge	\$0.73	\$0.73	
(28) RE Growth Program	\$19.46	\$19.46	
(29) Transmission Adjustment	\$0.01017	\$0.01017	
(30) Distribution Energy Charge	\$0.00723	\$0.00750	
(31) Distribution Demand Charge	\$4.36	\$4.36	
(32) Transmission Demand Charge	\$3.83	\$3.83	
(31) Transition Charge	(\$0.00093)	(\$0.00093)	
(32) Energy Efficiency Programs	\$0.01107	\$0.01107	
(33) Renewable Energy Distribution Charge	\$0.00289	\$0.00289	
(34) Supply Services Energy Charge	\$0.06114	\$0.06114	
(a.) ankl.) annum muse) pumpe	90.00111	90.00111	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-62 Rate Customers

			2016 Ave	rage Rates Witho	out Low Income	Subsidy		2016 Avera	ge Rates			Impact of Low In	come Subsidy		Low	Income Subsidy	as a % of Total B	ill
Monthly Power			Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
3,000	200	600000	\$54,522.49	\$36,684.00	\$3,800.27	\$95,006.76	\$54,961.86	\$36,684.00	\$3,818.58	\$95,464.44	\$439.37	\$0.00	\$18.31	\$457.68	0.5%	0.0%	0.0%	0.5%
5,000	200	1000000	\$79,273.58	\$61,140.00	\$5,850.57	\$146,264.15	\$80,005.86	\$61,140.00	\$5,881.08	\$147,026.94	\$732.28	\$0.00	\$30.51	\$762.79	0.5%	0.0%	0.0%	0.5%
7,500	200	1500000	\$110,212.44	\$91,710.00	\$8,413.44	\$210,335.88	\$111,310.86	\$91,710.00	\$8,459.20	\$211,480.06	\$1,098.42	\$0.00	\$45.76	\$1,144.18	0.5%	0.0%	0.0%	0.5%
10,000	200	2000000	\$141,151.30	\$122,280.00	\$10,976.31	\$274,407.61	\$142,615.86	\$122,280.00	\$11,037.33	\$275,933.19	\$1,464.56	\$0.00	\$61.02	\$1,525.58	0.5%	0.0%	0.0%	0.6%
20,000	200	4000000	\$264,906.75	\$244,560.00	\$21,227.78	\$530,694.53	\$267,835.86	\$244,560.00	\$21,349.83	\$533,745.69	\$2,929.11	\$0.00	\$122.05	\$3,051.16	0.6%	0.0%	0.0%	0.6%
3,000	300	900000	\$62,889.49	\$55,026.00	\$4,913.15	\$122,828.64	\$63,289.86	\$55,026.00	\$4,929.83	\$123,245.69	\$400.37	\$0.00	\$16.68	\$417.05	0.3%	0.0%	0.0%	0.3%
5,000	300	1500000	\$93,218.58	\$91,710.00	\$7,705.36	\$192,633.94	\$93,885.86	\$91,710.00	\$7,733.16	\$193,329.02	\$667.28	\$0.00	\$27.80	\$695.08	0.3%	0.0%	0.0%	0.4%
7,500	300	2250000	\$131,129.94	\$137,565.00	\$11,195.62	\$279,890.56	\$132,130.86	\$137,565.00	\$11,237.33	\$280,933.19	\$1,000.92	\$0.00	\$41.71	\$1,042.63	0.4%	0.0%	0.0%	0.4%
10,000	300	3000000	\$169,041.30	\$183,420.00	\$14,685.89	\$367,147.19	\$170,375.86	\$183,420.00	\$14,741.50	\$368,537.36	\$1,334.56	\$0.00	\$55.61	\$1,390.17	0.4%	0.0%	0.0%	0.4%
20,000	300	6000000	\$320,686.75	\$366,840.00	\$28,646.95	\$716,173.70	\$323,355.86	\$366,840.00	\$28,758.16	\$718,954.02	\$2,669.11	\$0.00	\$111.21	\$2,780.32	0.4%	0.0%	0.0%	0.4%
3,000	400	1200000	\$71,256.49	\$73,368.00	\$6,026.02	\$150,650.51	\$71,617.86	\$73,368.00	\$6,041.08	\$151,026.94	\$361.37	\$0.00	\$15.06	\$376.43	0.2%	0.0%	0.0%	0.2%
5,000	400	2000000	\$107,163.58	\$122,280.00	\$9,560.15	\$239,003.73	\$107,765.86	\$122,280.00	\$9,585.24	\$239,631.10	\$602.28	\$0.00	\$25.09	\$627.37	0.3%	0.0%	0.0%	0.3%
7,500	400	3000000	\$152,047.44	\$183,420.00	\$13,977.81	\$349,445.25	\$152,950.86	\$183,420.00	\$14,015.45	\$350,386.31	\$903.42	\$0.00	\$37.64	\$941.06	0.3%	0.0%	0.0%	0.3%
10,000	400	4000000	\$196,931.30	\$244,560.00	\$18,395.47	\$459,886.77	\$198,135.86	\$244,560.00	\$18,445.66	\$461,141.52	\$1,204.56	\$0.00	\$50.19	\$1,254.75	0.3%	0.0%	0.0%	0.3%
20,000	400	8000000	\$376,466.75	\$489,120.00	\$36,066.12	\$901,652.87	\$378,875.86	\$489,120.00	\$36,166.50	\$904,162.36	\$2,409.11	\$0.00	\$100.38	\$2,509.49	0.3%	0.0%	0.0%	0.3%
3,000	500	1500000	\$79,623.49	\$91,710.00	\$7,138.90	\$178,472.39	\$79,945.86	\$91,710.00	\$7,152.33	\$178,808.19	\$322.37	\$0.00	\$13.43	\$335.80	0.2%	0.0%	0.0%	0.2%
5,000	500	2500000	\$121,108.58	\$152,850.00	\$11,414.94	\$285,373.52	\$121,645.86	\$152,850.00	\$11,437.33	\$285,933.19	\$537.28	\$0.00	\$22.39	\$559.67	0.2%	0.0%	0.0%	0.2%
7,500	500	3750000	\$172,964.94	\$229,275.00	\$16,760.00	\$418,999.94	\$173,770.86	\$229,275.00	\$16,793.58	\$419,839.44	\$805.92	\$0.00	\$33.58	\$839.50	0.2%	0.0%	0.0%	0.2%
10,000	500	5000000	\$224,821.30	\$305,700.00	\$22,105.06	\$552,626.36	\$225,895.86	\$305,700.00	\$22,149.83	\$553,745.69	\$1,074.56	\$0.00	\$44.77	\$1,119.33	0.2%	0.0%	0.0%	0.2%
20,000	500	10000000	\$432,246.75	\$611,400.00	\$43,485.28	\$1,087,132.03	\$434,395.86	\$611,400.00	\$43,574.83	\$1,089,370.69	\$2,149.11	\$0.00	\$89.55	\$2,238.66	0.2%	0.0%	0.0%	0.2%
3,000	600	1800000	\$87,990.49	\$110,052.00	\$8,251.77	\$206,294.26	\$88,273.86	\$110,052.00	\$8,263.58	\$206,589.44	\$283.37	\$0.00	\$11.81	\$295.18	0.1%	0.0%	0.0%	0.1%
5,000	600	3000000	\$135,053.58	\$183,420.00	\$13,269.73	\$331,743.31	\$135,525.86	\$183,420.00	\$13,289.41	\$332,235.27	\$472.28	\$0.00	\$19.68	\$491.96	0.1%	0.0%	0.0%	0.1%
7,500	600	4500000	\$193,882.44	\$275,130.00	\$19,542.19	\$488,554.63	\$194,590.86	\$275,130.00	\$19,571.70	\$489,292.56	\$708.42	\$0.00	\$29.51	\$737.93	0.1%	0.0%	0.0%	0.2%
10,000	600	6000000	\$252,711.30	\$366,840.00	\$25,814.64	\$645,365.94	\$253,655.86	\$366,840.00	\$25,854.00	\$646,349.86	\$944.56	\$0.00	\$39.36	\$983.92	0.1%	0.0%	0.0%	0.2%
20,000	600	12000000	\$488,026.75	\$733,680.00	\$50,904.45	\$1,272,611.20	\$489,915.86	\$733,680.00	\$50,983.16	\$1,274,579.02	\$1,889.11	\$0.00	\$78.71	\$1,967.82	0.1%	0.0%	0.0%	0.2%

	2016 Average Rates Without Low Income Subsidy	2016 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$17,000.00	\$17,000.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.73	\$0.73	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$395.13	\$395.13	RE Growth Program
(4) Base Distribution Demand Charge per kW	\$2.82	\$2.99	Distribution Demand Charge
(5) Distribution Charge (per kWh)	\$0.00000	\$0.00000	
(6) Operating & Maintenance Expense Charge per KW	\$0.31	\$0.31	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.00010)	(\$0.00010)	
(8) CapEx Factor Demand Charge per kW	\$0.45	\$0.45	Distribution Energy Charge
(9) CapEx Reconciliation Factor	\$0.00020	\$0.00020	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00101	\$0.00088	
(11) Pension Adjustment Factor	\$0.00031	\$0.00031	
(12) Storm Fund Replenishment Factor	\$0.00000	\$0.00000	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00284	\$0.00284	B 11 B B1 2 C
(14) Net Metering Charge	\$0.00005	\$0.00005	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.22	\$3.22	
(16) Base Transmission Charge	\$0.01063	\$0.01063	
(17) Transmission Adjustment Factor	\$0.00254	\$0.00254	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00027	\$0.00027	, and the second se
(19) Base Transition Charge	(\$0.00038)	(\$0.00038)	
(20) Transition Adjustment	(\$0.00055)	(\$0.00055)	Transition Charge
(21) Energy Efficiency Program Charge	\$0.01107	\$0.01107	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.06258	\$0.06258	7 7
(23) SOS Adjustment Factor	(\$0.00745)	(\$0.00745)	a 1 a : E a
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00312	\$0.00312	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00289	\$0.00289	
()			
Line Item on Bill			
(26) Customer Charge	\$17,000.00	\$17,000.00	
(27) LIHEAP Enhancement Charge	\$0.73	\$0.73	
(28) RE Growth Program	\$395.13	\$395.13	
(29) Transmission Adjustment	\$0.01344	\$0.01344	
(30) Distribution Energy Charge	\$0.00142	\$0.00129	
(31) Distribution Demand Charge	\$3.58	\$3.75	
(32) Transmission Demand Charge	\$3.22	\$3.22	
(31) Transition Charge	(\$0.00093)	(\$0.00093)	
(32) Energy Efficiency Programs	\$0.01107	\$0.01107	
(33) Renewable Energy Distribution Charge	\$0.00289	\$0.00289	
(34) Supply Services Energy Charge	\$0.06114	\$0.06114	
() FF)			

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to A-16 Rate Customers

	2017 Aver	age Rates Witho	ut Low Income S	Subsidy		2017 Averag	ge Rates		1	Impact of Low Ir	ncome Subsidy		Low	Income Subsidy a	as a % of Total I	Bill
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
150	\$19.97	\$11.31	\$1.30	\$32.58	\$20.12	\$11.31	\$1.31	\$32.74	\$0.15	\$0.00	\$0.01	\$0.16	0.5%	0.0%	0.0%	0.5%
300	\$33.78	\$22.61	\$2.35	\$58.74	\$34.07	\$22.61	\$2.36	\$59.04	\$0.29	\$0.00	\$0.01	\$0.30	0.5%	0.0%	0.0%	0.5%
400	\$42.98	\$30.15	\$3.05	\$76.18	\$43.37	\$30.15	\$3.06	\$76.58	\$0.39	\$0.00	\$0.01	\$0.40	0.5%	0.0%	0.0%	0.5%
500	\$52.18	\$37.69	\$3.74	\$93.61	\$52.68	\$37.69	\$3.77	\$94.14	\$0.50	\$0.00	\$0.03	\$0.53	0.5%	0.0%	0.0%	0.6%
600	\$61.38	\$45.22	\$4.44	\$111.04	\$61.98	\$45.22	\$4.47	\$111.67	\$0.60	\$0.00	\$0.03	\$0.63	0.5%	0.0%	0.0%	0.6%
700	\$70.58	\$52.76	\$5.14	\$128.48	\$71.28	\$52.76	\$5.17	\$129.21	\$0.70	\$0.00	\$0.03	\$0.73	0.5%	0.0%	0.0%	0.6%
1,200	\$116.60	\$90.44	\$8.63	\$215.67	\$117.78	\$90.44	\$8.68	\$216.90	\$1.18	\$0.00	\$0.05	\$1.23	0.5%	0.0%	0.0%	0.6%
2,000	\$190.21	\$150.74	\$14.21	\$355.16	\$192.19	\$150.74	\$14.29	\$357.22	\$1.98	\$0.00	\$0.08	\$2.06	0.6%	0.0%	0.0%	0.6%

	2017 Average Rate	s Without Low In	ncome Subsidy	2017 Average Rates	Line Item on Bill
			(n)	(0)	
(1)	Distribution Customer Charge		\$5.00	\$5.00	Customer Charge
(2)	LIHEAP Enhancement Charge		\$0.81	\$0.81	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge		\$0.36	\$0.36	RE Growth Program
(4)	Distribution Charge (per kWh)		\$0.03543	\$0.03664	
(5)	Operating & Maintenance Expense Charge		\$0.00160	\$0.00160	
(6)	Operating & Maintenance Expense Reconciliation Factor		(\$0.00016)	(\$0.00016)	
(7)	CapEx Factor Charge		\$0.00292	\$0.00292	Distribution Energy Charge
(8)	CapEx Reconciliation Factor		(\$0.00034)	(\$0.00034)	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor		\$0.00123	\$0.00101	
(10)	Pension Adjustment Factor		\$0.00047	\$0.00047	
(11)	Storm Fund Replenishment Factor		\$0.00144	\$0.00144	
(12)	Long-term Contracting for Renewable Energy Charge		\$0.00662	\$0.00662	Renewable Energy Distribution Charge
(13)	Net Metering Charge		\$0.00019	\$0.00019	Renewable Energy Distribution Charge
(14)	Base Transmission Charge		\$0.03046	\$0.03046	_
(15)	Transmission Adjustment Factor		(\$0.00003)	(\$0.00003)	Transmission Charge
(16)	Transmission Uncollectible Factor		\$0.00038	\$0.00038	
(17)	Base Transition Charge		\$0.00009	\$0.00009	Transition Charge
(18)	Transition Adjustment		\$0.00018	\$0.00018	Transition Charge
(19)	Energy Efficiency Program Charge		\$0.01154	\$0.01154	Energy Efficiency Programs
(20)	Standard Offer Service Base Charge		\$0.07680	\$0.07680	
	SOS Adjustment Factor		(\$0.00428)	(\$0.00428)	Supply Services Energy Charge
	SOS Adminstrative Cost Adjustment Factor		\$0.00183	\$0.00183	Supply Services Energy Change
(23)	Renewable Energy Standard Charge		\$0.00102	\$0.00102	
	Line Item on Bill				
	Customer Charge		\$5.00	\$5.00	
	LIHEAP Enhancement Charge		\$0.81	\$0.81	
	RE Growth Program		\$0.36	\$0.36	
	Transmission Charge	kWh x	\$0.03081	\$0.03081	
	Distribution Energy Charge	kWh x	\$0.04259	\$0.04358	
	Transition Charge	kWh x	\$0.00027	\$0.00027	
	Energy Efficiency Programs	kWh x	\$0.01154	\$0.01154	
	Renewable Energy Distribution Charge	kWh x	\$0.00681	\$0.00681	
(32)	Supply Services Energy Charge	kWh x	\$0.07537	\$0.07537	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to A-60 Rate Customers

	2017 Aver	age Rates Withou	ut Low Income S	ubsidy		2017 Avera	ge Rates			Impact of Low In	ncome Subsidy		Lov	v Income Subsidy	as a % of Total F	Bill
Monthly kWh	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total	Delivery Services	Supply Services	GET	Total
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
150	\$13.10	\$11.31	\$1.02	\$25.43	\$13.07	\$11.31	\$1.02	\$25.40	(\$0.03)	\$0.00	\$0.00	(\$0.03)	-0.1%	0.0%	0.0%	-0.1%
300	\$25.04	\$22.61	\$1.99	\$49.64	\$24.97	\$22.61	\$1.98	\$49.56	(\$0.07)	\$0.00	(\$0.01)	(\$0.08)	-0.1%	0.0%	0.0%	-0.2%
400	\$32.99	\$30.15	\$2.63	\$65.77	\$32.90	\$30.15	\$2.63	\$65.68	(\$0.09)	\$0.00	\$0.00	(\$0.09)	-0.1%	0.0%	0.0%	-0.1%
500	\$40.95	\$37.69	\$3.28	\$81.92	\$40.84	\$37.69	\$3.27	\$81.80	(\$0.11)	\$0.00	(\$0.01)	(\$0.12)	-0.1%	0.0%	0.0%	-0.1%
600	\$48.90	\$45.22	\$3.92	\$98.04	\$48.77	\$45.22	\$3.92	\$97.91	(\$0.13)	\$0.00	\$0.00	(\$0.13)	-0.1%	0.0%	0.0%	-0.1%
700	\$56.86	\$52.76	\$4.57	\$114.19	\$56.70	\$52.76	\$4.56	\$114.02	(\$0.16)	\$0.00	(\$0.01)	(\$0.17)	-0.1%	0.0%	0.0%	-0.1%
1,200	\$96.63	\$90.44	\$7.79	\$194.86	\$96.37	\$90.44	\$7.78	\$194.59	(\$0.26)	\$0.00	(\$0.01)	(\$0.27)	-0.1%	0.0%	0.0%	-0.1%
2,000	\$160.27	\$150.74	\$12.96	\$323.97	\$159.83	\$150.74	\$12.94	\$323.51	(\$0.44)	\$0.00	(\$0.02)	(\$0.46)	-0.1%	0.0%	0.0%	-0.1%

	2017 Average	Rates Without Low Income Subsidy	2017 Average Rates	Line Item on Bill
		(n)	(0)	
(1)	Distribution Customer Charge	\$0.00	\$0.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.81	\$0.81	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge	\$0.36	\$0.36	Renewable Energy Growth Charge
(4)	Distribution Charge (per kWh)	\$0.02317	\$0.02317	
(5)	Operating & Maintenance Expense Charge	\$0.00160	\$0.00160	
(6)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00016)	(\$0.00016)	
(7)	CapEx Factor Charge	\$0.00292	\$0.00292	Distribution Energy Charge
(8)	CapEx Reconciliation Factor	(\$0.00034)	(\$0.00034)	Distribution Energy Change
(9)	Revenue Decoupling Adjustment Factor	\$0.00123	\$0.00101	
(10)	Pension Adjustment Factor	\$0.00047	\$0.00047	
(11)	Storm Fund Replenishment Factor	\$0.00144	\$0.00144	
(12)	Long-term Contracting for Renewable Energy Charge	\$0.00662	\$0.00662	Renewable Energy Distribution Charge
(13)	Net Metering Charge	\$0.00019	\$0.00019	Renewable Energy Distribution Charge
(14)	Base Transmission Charge	\$0.03025	\$0.03025	
(15)	Transmission Adjustment Factor	(\$0.00003)	(\$0.00003)	Transmission Charge
(16)	Transmission Uncollectible Factor	\$0.00038	\$0.00038	
(17)	Base Transition Charge	\$0.00009	\$0.00009	Transition Charge
(18)	Transition Adjustment	\$0.00018	\$0.00018	Transition Charge
(19)	Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
(20)	Standard Offer Service Base Charge	\$0.07680	\$0.07680	
	SOS Adjustment Factor	(\$0.00428)	(\$0.00428)	Supply Services Energy Charge
	SOS Adminstrative Cost Adjustment Factor	\$0.00183	\$0.00183	
(23)	Renewable Energy Standard Charge	\$0.00102	\$0.00102	
	Line Item on Bill			
(24)	Customer Charge	\$0.00	\$0.00	
	LIHEAP Enhancement Charge	\$0.81	\$0.81	
(26)	RE Growth Program	\$0.36	\$0.36	
(27)	Transmission Charge	\$0.03060	\$0.03060	
	Distribution Energy Charge	\$0.03033	\$0.03011	
	Transition Charge	\$0.00027	\$0.00027	
	Energy Efficiency Programs	\$0.01154	\$0.01154	
	Renewable Energy Distribution Charge	\$0.00681	\$0.00681	
(32)	Supply Services Energy Charge	\$0.07537	\$0.07537	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to C-06 Rate Customers

Ī		2017 Aver	age Rates Witho	ut Low Income S	Subsidy		2017 Avera	ge Rates			Impact of Low Ir	come Subsidy		Low	Income Subsidy	as a % of Total l	Bill
	Monthly	Delivery	Supply	GET	Total	Delivery	Supply	GET	Total	Delivery	Supply	GET	T-4-1	Delivery	Supply	GET	T-4-1
	kWh (a)	Services (b)	Services (c)	(d)	(e)	Services (b)	Services (c)	(d)	(e)	Services (f)	Services (g)	(h)	Total (i)	Services (i)	Services (k)	(I)	Total (m)
	250	\$32.61	\$18.79	\$2.14	\$53.54	\$32.81	\$18.79	\$2.15	\$53.75	\$0.20	\$0.00	\$0.01	\$0.21	0.4%	0.0%	0.0%	0.4%
	500	\$53.82	\$37.58	\$3.81	\$95.21	\$54.23	\$37.58	\$3.83	\$95.64	\$0.41	\$0.00	\$0.02	\$0.43	0.4%	0.0%	0.0%	0.5%
	1,000	\$96.25	\$75.15	\$7.14	\$178.54	\$97.07	\$75.15	\$7.18	\$179.40	\$0.82	\$0.00	\$0.04	\$0.86	0.5%	0.0%	0.0%	0.5%
	1,500	\$138.68	\$112.73	\$10.48	\$261.89	\$139.91	\$112.73	\$10.53	\$263.17	\$1.23	\$0.00	\$0.05	\$1.28	0.5%	0.0%	0.0%	0.5%
	2,000	\$181.11	\$150.30	\$13.81	\$345.22	\$182.75	\$150.30	\$13.88	\$346.93	\$1.64	\$0.00	\$0.07	\$1.71	0.5%	0.0%	0.0%	0.5%

	2017 Average Rates Wi	thout Low Income Subsidy	2017 Average Rates	Line Item on Bill
		(n)	(0)	
(1)	Distribution Customer Charge	\$10.00	\$10.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.81	\$0.81	RE Growth Program
(3)	Renewable Energy Growth Charge	\$0.58	\$0.58	LIHEAP Enhancement Charge
(4)	Distribution Charge (per kWh)	\$0.03149	\$0.03253	
(5)	Operating & Maintenance Expense Charge	\$0.00166	\$0.00166	
(6)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00016)	(\$0.00016)	
(7)	CapEx Factor Charge	\$0.00273	\$0.00273	Distribution Energy Charge
(8)	CapEx Reconciliation Factor	(\$0.00032)	(\$0.00032)	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor	\$0.00123	\$0.00101	
(10)	Pension Adjustment Factor	\$0.00047	\$0.00047	
(11)	Storm Fund Replenishment Factor	\$0.00144	\$0.00144	
(12)	Long-term Contracting for Renewable Energy Charge	\$0.00662	\$0.00662	Renewable Energy Distribution Charge
(13)	Net Metering Charge	\$0.00019	\$0.00019	Renewable Energy Distribution Charge
(14)	Base Transmission Charge	\$0.03039	\$0.03039	_
(15)	Transmission Adjustment Factor	(\$0.00303)	(\$0.00303)	Transmission Charge
(16)	Transmission Uncollectible Factor	\$0.00034	\$0.00034	
(17)	Base Transition Charge	\$0.00009	\$0.00009	Tid Ch
(18)	Transition Adjustment	\$0.00018	\$0.00018	Transition Charge
	Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
	Standard Offer Service Base Charge	\$0.07428	\$0.07428	_
	SOS Adjustment Factor	(\$0.00176)	(\$0.00176)	Supply Services Energy Charge
	SOS Adminstrative Cost Adjustment Factor	\$0.00161	\$0.00161	supply services Energy change
(23)	Renewable Energy Standard Charge	\$0.00102	\$0.00102	
	Line Item on Bill			
(24)	Customer Charge	\$10.00	\$10.00	
(25)	LIHEAP Enhancement Charge	\$0.81	\$0.81	
(26)	RE Growth Program	\$0.58	\$0.58	
(27)	Transmission Charge	\$0.02770	\$0.02770	
(28)	Distribution Energy Charge	\$0.03854	\$0.03936	
(29)	Transition Charge	\$0.00027	\$0.00027	
(30)	Energy Efficiency Programs	\$0.01154	\$0.01154	
	Renewable Energy Distribution Charge	\$0.00681	\$0.00681	
(32)	Supply Services Energy Charge	\$0.07515	\$0.07515	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-02 Rate Customers

			2017 Avei	age Rates Withou	t Low Income S	lubsidy		2017 Averag	ge Rates			Impact of Low In	come Subsidy		Lo	w Income Subsidy	as a % of Total E	sil1
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
20	200	4,000	\$429.77	\$300.60	\$30.43	\$760.80	\$431.70	\$300.60	\$30.51	\$762.81	\$1.93	\$0.00	\$0.08	\$2.01	0.3%	0.0%	0.0%	0.3%
50	200	10,000	\$945.58	\$751.50	\$70.71	\$1,767.79	\$950.40	\$751.50	\$70.91	\$1,772.81	\$4.82	\$0.00	\$0.20	\$5.02	0.3%	0.0%	0.0%	0.3%
100	200	20,000	\$1,805.27	\$1,503.00	\$137.84	\$3,446.11	\$1,814.90	\$1,503.00	\$138.25	\$3,456.15	\$9.63	\$0.00	\$0.41	\$10.04	0.3%	0.0%	0.0%	0.3%
150	200	30,000	\$2,664.95	\$2,254.50	\$204.98	\$5,124.43	\$2,679.40	\$2,254.50	\$205.58	\$5,139.48	\$14.45	\$0.00	\$0.60	\$15.05	0.3%	0.0%	0.0%	0.3%
20	300	6,000	\$504.51	\$450.90	\$39.81	\$995.22	\$507.40	\$450.90	\$39.93	\$998.23	\$2.89	\$0.00	\$0.12	\$3.01	0.3%	0.0%	0.0%	0.3%
50	300	15,000	\$1,132.43	\$1,127.25	\$94.15	\$2,353.83	\$1,139.65	\$1,127.25	\$94.45	\$2,361.35	\$7.22	\$0.00	\$0.30	\$7.52	0.3%	0.0%	0.0%	0.3%
100	300	30,000	\$2,178.95	\$2,254.50	\$184.73	\$4,618.18	\$2,193.40	\$2,254.50	\$185.33	\$4,633.23	\$14.45	\$0.00	\$0.60	\$15.05	0.3%	0.0%	0.0%	0.3%
150	300	45,000	\$3,225.48	\$3,381.75	\$275.30	\$6,882.53	\$3,247.15	\$3,381.75	\$276.20	\$6,905.10	\$21.67	\$0.00	\$0.90	\$22.57	0.3%	0.0%	0.0%	0.3%
20	400	8,000	\$579.25	\$601.20	\$49.19	\$1,229.64	\$583.10	\$601.20	\$49.35	\$1,233.65	\$3.85	\$0.00	\$0.16	\$4.01	0.3%	0.0%	0.0%	0.3%
50	400	20,000	\$1,319.27	\$1,503.00	\$117.59	\$2,939.86	\$1,328.90	\$1,503.00	\$118.00	\$2,949.90	\$9.63	\$0.00	\$0.41	\$10.04	0.3%	0.0%	0.0%	0.3%
100	400	40,000	\$2,552.64	\$3,006.00	\$231.61	\$5,790.25	\$2,571.90	\$3,006.00	\$232.41	\$5,810.31	\$19.26	\$0.00	\$0.80	\$20.06	0.3%	0.0%	0.0%	0.3%
150	400	60,000	\$3,786.00	\$4,509.00	\$345.63	\$8,640.63	\$3,814.90	\$4,509.00	\$346.83	\$8,670.73	\$28.90	\$0.00	\$1.20	\$30.10	0.3%	0.0%	0.0%	0.3%
20	500	10,000	\$653.98	\$751.50	\$58.56	\$1,464.04	\$658.80	\$751.50	\$58.76	\$1,469.06	\$4.82	\$0.00	\$0.20	\$5.02	0.3%	0.0%	0.0%	0.3%
50	500	25,000	\$1,506.11	\$1,878.75	\$141.04	\$3,525.90	\$1,518.15	\$1,878.75	\$141.54	\$3,538.44	\$12.04	\$0.00	\$0.50	\$12.54	0.3%	0.0%	0.0%	0.4%
100	500	50,000	\$2,926.32	\$3,757.50	\$278.49	\$6,962.31	\$2,950.40	\$3,757.50	\$279.50	\$6,987.40	\$24.08	\$0.00	\$1.01	\$25.09	0.3%	0.0%	0.0%	0.4%
150	500	75,000	\$4,346.53	\$5,636.25	\$415.95	\$10,398.73	\$4,382.65	\$5,636.25	\$417.45	\$10,436.35	\$36.12	\$0.00	\$1.50	\$37.62	0.3%	0.0%	0.0%	0.4%
20	600	12,000	\$728.72	\$901.80	\$67.94	\$1,698.46	\$734.50	\$901.80	\$68.18	\$1,704.48	\$5.78	\$0.00	\$0.24	\$6.02	0.3%	0.0%	0.0%	0.4%
50	600	30,000	\$1,692.95	\$2,254.50	\$164.48	\$4,111.93	\$1,707.40	\$2,254.50	\$165.08	\$4,126.98	\$14.45	\$0.00	\$0.60	\$15.05	0.4%	0.0%	0.0%	0.4%
100	600	60,000	\$3,300.00	\$4,509.00	\$325.38	\$8,134.38	\$3,328.90	\$4,509.00	\$326.58	\$8,164.48	\$28.90	\$0.00	\$1.20	\$30.10	0.4%	0.0%	0.0%	0.4%
150	600	90,000	\$4,907.05	\$6,763.50	\$486.27	\$12,156.82	\$4,950.40	\$6,763.50	\$488.08	\$12,201.98	\$43.35	\$0.00	\$1.81	\$45.16	0.4%	0.0%	0.0%	0.4%

	2017 Average Rates Without Low Income Subsidy	2017 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$135.00	\$135.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.81	\$0.81	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$5.49	\$5.49	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 10kW)	\$4.85	\$4.85	Distribution Demand Charge
(5) Distribution Charge (per kWh)	\$0.00398	\$0.00468	
(6) Operating & Maintenance Expense Charge	\$0.00120	\$0.00120	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.00016)	(\$0.00016)	
(8) CapEx Factor Demand Charge (per kW > 10kW)	\$0.69	\$0.69	Distribution Energy Charge
(9) CapEx Reconciliation Factor	(\$0.00029)	(\$0.00029)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00123	\$0.00101	
(11) Pension Adjustment Factor	\$0.00047	\$0.00047	
(12) Storm Fund Replenishment Factor	\$0.00144	\$0.00144	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00662	\$0.00662	Renewable Energy Distribution Charge
(14) Net Metering Charge	\$0.00019	\$0.00019	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$4.18	\$4.18	Transmission Demand Charge
(16) Base Transmission Charge	\$0.01209	\$0.01209	
(17) Transmission Adjustment Factor	(\$0.00152)	(\$0.00152)	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00031	\$0.00031	
(19) Base Transition Charge	\$0.00009	\$0.00009	Transition Charge
(20) Transition Adjustment	\$0.00018	\$0.00018	Hanstion Charge
(21) Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.07428	\$0.07428	
(23) SOS Adjustment Factor	(\$0.00176)	(\$0.00176)	Supply Services Energy Charge
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00161	\$0.00161	Suppry Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00102	\$0.00102	
Line Item on Bill			
(26) Customer Charge	\$135.00	\$135.00	
(28) LIHEAP Enhancement Charge	\$0.81	\$0.81	
(27) RE Growth Program	\$5.49	\$5.49	
(29) Transmission Adjustment	\$0.01088	\$0.01088	
(30) Distribution Energy Charge	\$0.00787	\$0.00835	
(31) Distribution Demand Charge	\$5.54	\$5.54	
(32) Transmission Demand Charge	\$4.18	\$4.18	
(31) Transition Charge	\$0.00027	\$0.00027	
(32) Energy Efficiency Programs	\$0.01154	\$0.01154	
(33) Renewable Energy Distribution Charge	\$0.00681	\$0.00681	
(34) Supply Services Energy Charge	\$0.07515	\$0.07515	

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-32 Rate Customers

			2017 Aver	age Rates Withou	Vithout Low Income Subsidy 2017 Average Rates				Impact of Low Income Subsidy				Low Income Subsidy as a % of Total Bill					
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
200	200	40,000	\$3,300.74	\$2,512.00	\$242.20	\$6,054.94	\$3,307.89	\$2,512.00	\$242.50	\$6,062.39	\$7.15	\$0.00	\$0.30	\$7.45	0.1%	0.0%	0.0%	0.1%
750	200	150,000	\$12,427.59	\$9,420.00	\$910.32	\$22,757.91	\$12,454.39	\$9,420.00	\$911.43	\$22,785.82	\$26.80	\$0.00	\$1.11	\$27.91	0.1%	0.0%	0.0%	0.1%
1,000	200	200,000	\$16,576.16	\$12,560.00	\$1,214.01	\$30,350.17	\$16,611.89	\$12,560.00	\$1,215.50	\$30,387.39	\$35.73	\$0.00	\$1.49	\$37.22	0.1%	0.0%	0.0%	0.1%
1,500	200	300,000	\$24,873.29	\$18,840.00	\$1,821.39	\$45,534.68	\$24,926.89	\$18,840.00	\$1,823.62	\$45,590.51	\$53.60	\$0.00	\$2.23	\$55.83	0.1%	0.0%	0.0%	0.1%
2,500	200	500,000	\$41,467.56	\$31,400.00	\$3,036.15	\$75,903.71	\$41,556.89	\$31,400.00	\$3,039.87	\$75,996.76	\$89.33	\$0.00	\$3.72	\$93.05	0.1%	0.0%	0.0%	0.1%
200	300	60,000	\$4,067.17	\$3,768.00	\$326.47	\$8,161.64	\$4,077.89	\$3,768.00	\$326.91	\$8,172.80	\$10.72	\$0.00	\$0.44	\$11.16	0.1%	0.0%	0.0%	0.1%
750	300	225,000	\$15,301.69	\$14,130.00	\$1,226.32	\$30,658.01	\$15,341.89	\$14,130.00	\$1,228.00	\$30,699.89	\$40.20	\$0.00	\$1.68	\$41.88	0.1%	0.0%	0.0%	0.1%
1,000	300	300,000	\$20,408.29	\$18,840.00	\$1,635.35	\$40,883.64	\$20,461.89	\$18,840.00	\$1,637.58	\$40,939.47	\$53.60	\$0.00	\$2.23	\$55.83	0.1%	0.0%	0.0%	0.1%
1,500	300	450,000	\$30,621.49	\$28,260.00	\$2,453.40	\$61,334.89	\$30,701.89	\$28,260.00	\$2,456.75	\$61,418.64	\$80.40	\$0.00	\$3.35	\$83.75	0.1%	0.0%	0.0%	0.1%
2,500	300	750,000	\$51,047.89	\$47,100.00	\$4,089.50	\$102,237.39	\$51,181.89	\$47,100.00	\$4,095.08	\$102,376.97	\$134.00	\$0.00	\$5.58	\$139.58	0.1%	0.0%	0.0%	0.1%
200	400	80,000	\$4,833.60	\$5,024.00	\$410.73	\$10,268.33	\$4,847.89	\$5,024.00	\$411.33	\$10,283.22	\$14.29	\$0.00	\$0.60	\$14.89	0.1%	0.0%	0.0%	0.1%
750	400	300,000	\$18,175.79	\$18,840.00	\$1,542.32	\$38,558.11	\$18,229.39	\$18,840.00	\$1,544.56	\$38,613.95	\$53.60	\$0.00	\$2.24	\$55.84	0.1%	0.0%	0.0%	0.1%
1,000	400	400,000	\$24,240.42	\$25,120.00	\$2,056.68	\$51,417.10	\$24,311.89	\$25,120.00	\$2,059.66	\$51,491.55	\$71.47	\$0.00	\$2.98	\$74.45	0.1%	0.0%	0.0%	0.1%
1,500	400	600,000	\$36,369.69	\$37,680.00	\$3,085.40	\$77,135.09	\$36,476.89	\$37,680.00	\$3,089.87	\$77,246.76	\$107.20	\$0.00	\$4.47	\$111.67	0.1%	0.0%	0.0%	0.1%
2,500	400	1,000,000	\$60,628.22	\$62,800.00	\$5,142.84	\$128,571.06	\$60,806.89	\$62,800.00	\$5,150.29	\$128,757.18	\$178.67	\$0.00	\$7.45	\$186.12	0.1%	0.0%	0.0%	0.1%
200	500	100,000	\$5,600.02	\$6,280.00	\$495.00	\$12,375.02	\$5,617.89	\$6,280.00	\$495.75	\$12,393.64	\$17.87	\$0.00	\$0.75	\$18.62	0.1%	0.0%	0.0%	0.2%
750	500	375,000	\$21,049.89	\$23,550.00	\$1,858.33	\$46,458.22	\$21,116.89	\$23,550.00	\$1,861.12	\$46,528.01	\$67.00	\$0.00	\$2.79	\$69.79	0.1%	0.0%	0.0%	0.2%
1,000	500	500,000	\$28,072.56	\$31,400.00	\$2,478.02	\$61,950.58	\$28,161.89	\$31,400.00	\$2,481.75	\$62,043.64	\$89.33	\$0.00	\$3.73	\$93.06	0.1%	0.0%	0.0%	0.2%
1,500	500	750,000	\$42,117.89	\$47,100.00	\$3,717.41	\$92,935.30	\$42,251.89	\$47,100.00	\$3,723.00	\$93,074.89	\$134.00	\$0.00	\$5.59	\$139.59	0.1%	0.0%	0.0%	0.2%
2,500	500	1,250,000	\$70,208.56	\$78,500.00	\$6,196.19	\$154,904.75	\$70,431.89	\$78,500.00	\$6,205.50	\$155,137.39	\$223.33	\$0.00	\$9.31	\$232.64	0.1%	0.0%	0.0%	0.2%
200	600	120,000	\$6,366.45	\$7,536.00	\$579.27	\$14,481.72	\$6,387.89	\$7,536.00	\$580.16	\$14,504.05	\$21.44	\$0.00	\$0.89	\$22.33	0.1%	0.0%	0.0%	0.2%
750	600	450,000	\$23,923.99	\$28,260.00	\$2,174.33	\$54,358.32	\$24,004.39	\$28,260.00	\$2,177.68	\$54,442.07	\$80.40	\$0.00	\$3.35	\$83.75	0.1%	0.0%	0.0%	0.2%
1,000	600	600,000	\$31,904.69	\$37,680.00	\$2,899.36	\$72,484.05	\$32,011.89	\$37,680.00	\$2,903.83	\$72,595.72	\$107.20	\$0.00	\$4.47	\$111.67	0.1%	0.0%	0.0%	0.2%
1,500	600	900,000	\$47,866.09	\$56,520.00	\$4,349.42	\$108,735.51	\$48,026.89	\$56,520.00	\$4,356.12	\$108,903.01	\$160.80	\$0.00	\$6.70	\$167.50	0.1%	0.0%	0.0%	0.2%
2,500	600	1,500,000	\$79,788.89	\$94,200.00	\$7,249.54	\$181,238.43	\$80,056.89	\$94,200.00	\$7,260.70	\$181,517.59	\$268.00	\$0.00	\$11.16	\$279.16	0.1%	0.0%	0.0%	0.2%

	2017 Average Rates Without Low Income Subsidy	2017 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$825.00	\$825.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.81	\$0.81	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$40.08	\$40.08	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 200kW)	\$3.70	\$3.70	
(5) Distribution Charge (per kWh)	\$0.00511	\$0.00551	
(6) Operating & Maintenance Expense Charge	\$0.00077	\$0.00077	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.00016)	(\$0.00016)	
(8) CapEx Factor Demand Charge (per kW > 10kW)	\$0.72	\$0.72	Division E Cl
(9) CapEx Reconciliation Factor	(\$0.00020)	(\$0.00020)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00123	\$0.00101	
(11) Pension Adjustment Factor	\$0.00047	\$0.00047	
(12) Storm Fund Replenishment Factor	\$0.00144	\$0.00144	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00662	\$0.00662	
(14) Net Metering Charge	\$0.00019	\$0.00019	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$4.51	\$4.51	
(16) Base Transmission Charge	\$0.01105	\$0.01105	
(17) Transmission Adjustment Factor	(\$0.00030)	(\$0.00030)	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00029	\$0.00029	
(19) Base Transition Charge	\$0.0009	\$0.00009	
(20) Transition Adjustment	\$0.00018	\$0.00018	Transition Charge
(21) Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.06630	\$0.06630	
(23) SOS Adjustment Factor	(\$0.00633)	(\$0.00633)	
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00181	\$0.00181	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00102	\$0.00102	
(==)			
Line Item on Bill			
(26) Customer Charge	\$825.00	\$825.00	
(27) LIHEAP Enhancement Charge	\$0.81	\$0.81	
(28) RE Growth Program	\$40.08	\$40.08	
(29) Transmission Adjustment	\$0.01104	\$0.01104	
(30) Distribution Energy Charge	\$0.00866	\$0.00884	
(31) Distribution Demand Charge	\$4.42	\$4.42	
(32) Transmission Demand Charge	\$4.51	\$4.51	
(31) Transition Charge	\$0.00027	\$0.00027	
(32) Energy Efficiency Programs	\$0.01154	\$0.01154	
(33) Renewable Energy Distribution Charge	\$0.00681	\$0.00681	
(34) Supply Services Energy Charge	\$0.06280	\$0.06280	
. ,			

Calculation of Monthly Typical Bill Total Bill Impact of Proposed Rates Applicable to G-62 Rate Customers

			2017 Ave	rage Rates Witho	ut Low Income	Subsidy		2017 Avera	ge Rates			Impact of Low In	come Subsidy		Low	V Income Subsidy	as a % of Total B	all
Monthly Power			Delivery	Supply	-		Delivery	Supply			Delivery	Supply			Delivery	Supply		-
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
3,000	200	600000	\$60,971.94	\$37,680.00	\$4,110.50	\$102,762.44	\$61,357.31	\$37,680.00	\$4,126.55	\$103,163.86	\$385.37	\$0.00	\$16.05	\$401.42	0.4%	0.0%	0.0%	0.4%
5,000	200	1000000	\$89,695.03	\$62,800.00	\$6,353.96	\$158,848.99	\$90,337.31	\$62,800.00	\$6,380.72	\$159,518.03	\$642.28	\$0.00	\$26.76	\$669.04	0.4%	0.0%	0.0%	0.4%
7,500	200	1500000	\$125,598.89	\$94,200.00	\$9,158.29	\$228,957.18	\$126,562.31	\$94,200.00	\$9,198.43	\$229,960.74	\$963.42	\$0.00	\$40.14	\$1,003.56	0.4%	0.0%	0.0%	0.4%
10,000	200	2000000	\$161,502.75	\$125,600.00	\$11,962.62	\$299,065.37	\$162,787.31	\$125,600.00	\$12,016.14	\$300,403.45	\$1,284.56	\$0.00	\$53.52	\$1,338.08	0.4%	0.0%	0.0%	0.4%
20,000	200	4000000	\$305,118.20	\$251,200.00	\$23,179.93	\$579,498.13	\$307,687.31	\$251,200.00	\$23,286.97	\$582,174.28	\$2,569.11	\$0.00	\$107.04	\$2,676.15	0.4%	0.0%	0.0%	0.5%
3,000	300	900000	\$71,912.94	\$56,520.00	\$5,351.37	\$133,784.31	\$72,232.31	\$56,520.00	\$5,364.68	\$134,116.99	\$319.37	\$0.00	\$13.31	\$332.68	0.2%	0.0%	0.0%	0.2%
5,000	300	1500000	\$107,930.03	\$94,200.00	\$8,422.09	\$210,552.12	\$108,462.31	\$94,200.00	\$8,444.26	\$211,106.57	\$532.28	\$0.00	\$22.17	\$554.45	0.3%	0.0%	0.0%	0.3%
7,500	300	2250000	\$152,951.39	\$141,300.00	\$12,260.48	\$306,511.87	\$153,749.81	\$141,300.00	\$12,293.74	\$307,343.55	\$798.42	\$0.00	\$33.26	\$831.68	0.3%	0.0%	0.0%	0.3%
10,000	300	3000000	\$197,972.75	\$188,400.00	\$16,098.87	\$402,471.62	\$199,037.31	\$188,400.00	\$16,143.22	\$403,580.53	\$1,064.56	\$0.00	\$44.35	\$1,108.91	0.3%	0.0%	0.0%	0.3%
20,000	300	6000000	\$378,058.20	\$376,800.00	\$31,452.43	\$786,310.63	\$380,187.31	\$376,800.00	\$31,541.14	\$788,528.45	\$2,129.11	\$0.00	\$88.71	\$2,217.82	0.3%	0.0%	0.0%	0.3%
3,000	400	1200000	\$82,853.94	\$75,360.00	\$6,592.25	\$164,806.19	\$83,107.31	\$75,360.00	\$6,602.81	\$165,070.12	\$253.37	\$0.00	\$10.56	\$263.93	0.2%	0.0%	0.0%	0.2%
5,000	400	2000000	\$126,165.03	\$125,600.00	\$10,490.21	\$262,255.24	\$126,587.31	\$125,600.00	\$10,507.81	\$262,695.12	\$422.28	\$0.00	\$17.60	\$439.88	0.2%	0.0%	0.0%	0.2%
7,500	400	3000000	\$180,303.89	\$188,400.00	\$15,362.66	\$384,066.55	\$180,937.31	\$188,400.00	\$15,389.06	\$384,726.37	\$633.42	\$0.00	\$26.40	\$659.82	0.2%	0.0%	0.0%	0.2%
10,000	400	4000000	\$234,442.75	\$251,200.00	\$20,235.12	\$505,877.87	\$235,287.31	\$251,200.00	\$20,270.31	\$506,757.62	\$844.56	\$0.00	\$35.19	\$879.75	0.2%	0.0%	0.0%	0.2%
20,000	400	8000000	\$450,998.20	\$502,400.00	\$39,724.93	\$993,123.13	\$452,687.31	\$502,400.00	\$39,795.31	\$994,882.62	\$1,689.11	\$0.00	\$70.38	\$1,759.49	0.2%	0.0%	0.0%	0.2%
3,000	500	1500000	\$93,794.94	\$94,200.00	\$7,833.12	\$195,828.06	\$93,982.31	\$94,200.00	\$7,840.93	\$196,023.24	\$187.37	\$0.00	\$7.81	\$195.18	0.1%	0.0%	0.0%	0.1%
5,000	500	2500000	\$144,400.03	\$157,000.00	\$12,558.34	\$313,958.37	\$144,712.31	\$157,000.00	\$12,571.35	\$314,283.66	\$312.28	\$0.00	\$13.01	\$325.29	0.1%	0.0%	0.0%	0.1%
7,500	500	3750000	\$207,656.39	\$235,500.00	\$18,464.85	\$461,621.24	\$208,124.81	\$235,500.00	\$18,484.37	\$462,109.18	\$468.42	\$0.00	\$19.52	\$487.94	0.1%	0.0%	0.0%	0.1%
10,000	500	5000000	\$270,912.75	\$314,000.00	\$24,371.37	\$609,284.12	\$271,537.31	\$314,000.00	\$24,397.39	\$609,934.70	\$624.56	\$0.00	\$26.02	\$650.58	0.1%	0.0%	0.0%	0.1%
20,000	500	10000000	\$523,938.20	\$628,000.00	\$47,997.43	\$1,199,935.63	\$525,187.31	\$628,000.00	\$48,049.48	\$1,201,236.79	\$1,249.11	\$0.00	\$52.05	\$1,301.16	0.1%	0.0%	0.0%	0.1%
3,000	600	1800000	\$104,735.94	\$113,040.00	\$9,074.00	\$226,849.94	\$104,857.31	\$113,040.00	\$9,079.06	\$226,976.37	\$121.37	\$0.00	\$5.06	\$126.43	0.1%	0.0%	0.0%	0.1%
5,000	600	3000000	\$162,635.03	\$188,400.00	\$14,626.46	\$365,661.49	\$162,837.31	\$188,400.00	\$14,634.89	\$365,872.20	\$202.28	\$0.00	\$8.43	\$210.71	0.1%	0.0%	0.0%	0.1%
7,500	600	4500000	\$235,008.89	\$282,600.00	\$21,567.04	\$539,175.93	\$235,312.31	\$282,600.00	\$21,579.68	\$539,491.99	\$303.42	\$0.00	\$12.64	\$316.06	0.1%	0.0%	0.0%	0.1%
10,000	600	6000000	\$307,382.75	\$376,800.00	\$28,507.62	\$712,690.37	\$307,787.31	\$376,800.00	\$28,524.47	\$713,111.78	\$404.56	\$0.00	\$16.85	\$421.41	0.1%	0.0%	0.0%	0.1%
20,000	600	12000000	\$596,878.20	\$753,600.00	\$56,269.93	\$1,406,748.13	\$597,687.31	\$753,600.00	\$56,303.64	\$1,407,590.95	\$809.11	\$0.00	\$33.71	\$842.82	0.1%	0.0%	0.0%	0.1%

	2017 Average Rates Without Low Income Subsidy	2017 Average Rates	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$17,000.00	\$17,000.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.81	\$0.81	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$886.50	\$886.50	RE Growth Program
(4) Base Distribution Demand Charge per kW	\$2.82	\$2.99	Distribution Demand Charge
(5) Distribution Charge (per kWh)	\$0.00000	\$0.00000	
(6) Operating & Maintenance Expense Charge per KW	\$0.35	\$0.35	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.00016)	(\$0.00016)	
(8) CapEx Factor Demand Charge per kW	\$0.54	\$0.54	Distribution Energy Charge
(9) CapEx Reconciliation Factor	\$0.00000	\$0.00000	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00123	\$0.00101	
(11) Pension Adjustment Factor	\$0.00047	\$0.00047	
(12) Storm Fund Replenishment Factor	\$0.00144	\$0.00144	
(13) Long-term Contracting for Renewable Energy Charge	\$0.00662	\$0.00662	P 11 P 2013 1 0
(14) Net Metering Charge	\$0.00019	\$0.00019	Renewable Energy Distribution Charge
(15) Transmission Demand Charge	\$3.36	\$3.36	
(16) Base Transmission Charge	\$0.01348	\$0.01348	
(17) Transmission Adjustment Factor	\$0.00108	\$0.00108	Transmission Adjustment
(18) Transmission Uncollectible Factor	\$0.00031	\$0.00031	•
(19) Base Transition Charge	\$0,0009	\$0.00009	
(20) Transition Adjustment	\$0.00018	\$0.00018	Transition Charge
(21) Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
(22) Standard Offer Service Base Charge	\$0.06630	\$0.06630	
(23) SOS Adjustment Factor	(\$0.00633)	(\$0.00633)	0 10 : 5 0
(24) SOS Adminstrative Cost Adjustment Factor	\$0.00181	\$0.00181	Supply Services Energy Charge
(25) Renewable Energy Standard Charge	\$0.00102	\$0.00102	
()			
Line Item on Bill			
(26) Customer Charge	\$17,000.00	\$17,000.00	
(27) LIHEAP Enhancement Charge	\$0.81	\$0.81	
(28) RE Growth Program	\$886.50	\$886.50	
(29) Transmission Adjustment	\$0.01487	\$0.01487	
(30) Distribution Energy Charge	\$0.00298	\$0.00276	
(31) Distribution Demand Charge	\$3.71	\$3.88	
(32) Transmission Demand Charge	\$3.36	\$3.36	
(31) Transition Charge	\$0.00027	\$0.00027	
(32) Energy Efficiency Programs	\$0.01154	\$0.01154	
(33) Renewable Energy Distribution Charge	\$0.00681	\$0.00681	
(34) Supply Services Energy Charge	\$0.06280	\$0.06280	
() FF)			

Division 14-52

Request:

By month since October 2015 to present inclusive, provide:

- a. The number of A60 participants;
- b. The average bill to A60 participants at standard residential rates;
- c. The average bill to A60 participants given the A60 discount (not including LIHEAP or a LIHEAP matching grant);
- d. The average dollar amount of the A60 discount;
- e. A detailed explanation of why there is a difference, if any, if the response to "d" is not the response to "b" minus the response to "c";
- f. The aggregate dollar amount of the A60 discount (not including LIHIEAP matching grants).

Response:

Please see Attachment DIV 14-52.

- a. The number of Rate A-60 customers is shown on Line (1).
- b. The average bill to Rate A-60 customers billed at Rate A-16 rates (standard residential rates) is included on Line (26).
- c. The average bill to Rate A-60 customers billed at Rate A-60 rates is included on Line (38).
- d. The average Rate A-60 discount is included on Line (39).
- e. There is no difference between the response to part d and the difference in the responses to parts a and b.
- f. The aggregate dollar amount of the Rate A-60 discount is included on Line (65).

(1) No. of A60 participants	Oct-2015 45,272	Nov-2015 44,937	Dec-2015 44,708	<u>Jan-2016</u> 44,176	Feb-2016 45,522	Mar-2016 37,256	Apr-2016 33,800	May-2016 34,221	Jun-2016 35,127	Jul-2016 35,080
(2) A60 Distribution kWh	22,298,227	20,023,613	26,184,930	26,888,629	26,204,238	20,178,858	16,420,140	14,026,563	17,377,870	21,035,433
(3) Average Usage per Customer	492	445	585	608	575	541	485	409	494	599
(4) A-16 Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(5) A-60 Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(6) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73
(7) A-16 Distribution Energy Charge	\$0.04091	\$0.04164	\$0.04164	\$0.04164	\$0.04164	\$0.04164	\$0.04289	\$0.04289	\$0.04289	\$0.04283
(8) A-60 Distribution Energy Charge	\$0.02744	\$0.02817	\$0.02817	\$0.02817	\$0.02817	\$0.02817	\$0.02942	\$0.02942	\$0.02942	\$0.02936
(9) Renewable Energy Charge	\$0.00232	\$0.00232	\$0.00232	\$0.00233	\$0.00233	\$0.00233	\$0.00241	\$0.00241	\$0.00241	\$0.00344
(10) Transmission Charge	\$0.02348	\$0.02348	\$0.02348	\$0.02348	\$0.02348	\$0.02348	\$0.02705	\$0.02705	\$0.02705	\$0.02705
(11) Transition Charge	(\$0.00201)	(\$0.00201)	(\$0.00201)	(\$0.00201)	(\$0.00201)	(\$0.00201)	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)
(12) Energy Efficiency Programs	\$0.00983	\$0.00983	\$0.00983	\$0.01107	\$0.01107	\$0.01107	\$0.01107	\$0.01107	\$0.01107	\$0.01107
(13) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17
(14) Energy Charge	\$0.10415	\$0.10415	\$0.10415	\$0.08901	\$0.08901	\$0.08901	\$0.08679	\$0.08679	\$0.08679	\$0.08679
A-16 Bill Calculation										
(15) A-16 Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(16) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73
(17) A-16 Distribution Energy Charge	\$20.13	\$18.53	\$24.36	\$25.32	\$23.94	\$22.53	\$20.80	\$17.54	\$21.19	\$25.66
(18) Renewable Energy Charge	\$1.14	\$1.03	\$1.36	\$1.42	\$1.34	\$1.26	\$1.17	\$0.99	\$1.19	\$2.06
(19) Transmission Charge	\$11.55	\$10.45	\$13.74	\$14.28	\$13.50	\$12.70	\$13.12	\$11.06	\$13.36	\$16.20
(20) Transition Charge	(\$0.99)	(\$0.89)	(\$1.18)	(\$1.22)	(\$1.16)	(\$1.09)	(\$0.28)	(\$0.24)	(\$0.29)	(\$0.35)
(21) Energy Efficiency Programs	\$4.84	\$4.37	\$5.75	\$6.73	\$6.37	\$5.99	\$5.37	\$4.53	\$5.47	\$6.63
(22) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17
(23) Energy Charge	\$51.24	\$46.35	\$60.93	\$54.12	\$51.18	\$48.15	\$42.09	\$35.50	\$42.87	\$51.99
(24) Subtotal	\$93.81	\$85.74	\$110.86	\$106.55	\$101.07	\$95.44	\$88.17	\$75.28	\$89.69	\$108.09
(25) Gross Earnings Tax	\$3.91	\$3.57	\$4.62	\$4.44	\$4.21	\$3.98	\$3.67	\$3.14	\$3.74	\$4.50
(26) Total	\$97.72	\$89.31	\$115.48	\$110.99	\$105.28	\$99.42	\$91.84	\$78.42	\$93.43	\$112.59
A-60 Bill Calculation										
(27) A-60 Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(28) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73
(29) A-60 Distribution Energy Charge	\$13.50	\$12.54	\$16.48	\$17.13	\$16.20	\$15.24	\$14.27	\$12.03	\$14.53	\$17.59
(30) Renewable Energy Charge	\$1.14	\$1.03	\$1.36	\$1.42	\$1.34	\$1.26	\$1.17	\$0.99	\$1.19	\$2.06
(31) Transmission Charge	\$11.55	\$10.45	\$13.74	\$14.28	\$13.50	\$12.70	\$13.12	\$11.06	\$13.36	\$16.20
(32) Transition Charge	(\$0.99)	(\$0.89)	(\$1.18)	(\$1.22)	(\$1.16)	(\$1.09)	(\$0.28)	(\$0.24)	(\$0.29)	(\$0.35)
(33) Energy Efficiency Programs	\$4.84	\$4.37	\$5.75	\$6.73	\$6.37	\$5.99	\$5.37	\$4.53	\$5.47	\$6.63
(34) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17	\$0.17
(35) Energy Charge	\$51.24	\$46.35	\$60.93	\$54.12	\$51.18	\$48.15	\$42.09	\$35.50	\$42.87	\$51.99
(36) Subtotal	\$82.18	\$74.75	\$97.98	\$93.36	\$88.33	\$83.15	\$76.64	\$64.77	\$78.03	\$95.02
(37) Gross Earnings Tax	\$3.42	\$3.11	\$4.08	\$3.89	\$3.68	\$3.46	\$3.19	\$2.70	\$3.25	\$3.96
(38) Total	\$85.60	\$77.86	\$102.06	\$97.25	\$92.01	\$86.61	\$79.83	\$67.47	\$81.28	\$98.98
(20) D. H. a. D. C. annual but annual (0, 0, 1, 1, C. D. H.	(010.10)	(011.45)	(012.42)	(012.74)	(012.25)	(012.01)	(012.01)	(010.05)	(010.15)	(012.61)
(39) Dollar Difference between A-60 & A-16 Bills	(\$12.12)	(\$11.45)	(\$13.42)	(\$13.74)	(\$13.27)	(\$12.81)	(\$12.01)	(\$10.95)	(\$12.15)	(\$13.61)
(40) Percent Difference between A-60 & A-16 Bills	-12.4%	-12.8%	-11.6%	-12.4%	-12.6%	-12.9%	-13.1%	-14.0%	-13.0%	-12.1%

Page 2 of 6

	Oct-2015	Nov-2015	Dec-2015	Jan-2016	Feb-2016	Mar-2016	Apr-2016	May-2016	Jun-2016	Jul-2016	
A-16 Aggregate Calculation						· <u></u>		 _			
(41) A-16 Customer Charge	\$226,360.00	\$224,685.00	\$223,540.00	\$220,880.00	\$227,610.00	\$186,280.00	\$169,000.00	\$171,105.00	\$175,635.00	\$175,400.00	
(42) LIHEAP Enhancement Charge	\$33,048.56	\$32,804.01	\$32,636.84	\$32,248.48	\$33,231.06	\$27,196.88	\$24,674.00	\$24,981.33	\$25,642.71	\$25,608.40	
(43) A-16 Distribution Energy Charge	\$912,220.47	\$833,783.25	\$1,090,340.49	\$1,119,642.51	\$1,091,144.47	\$840,247.65	\$704,259.80	\$601,599.29	\$745,336.84	\$900,947.60	
(44) Renewable Energy Charge	\$51,731.89	\$46,454.78	\$60,749.04	\$62,650.51	\$61,055.87	\$47,016.74	\$39,572.54	\$33,804.02	\$41,880.67	\$72,361.89	
(45) Transmission Charge	\$523,562.37	\$470,154.43	\$614,822.16	\$631,345.01	\$615,275.51	\$473,799.59	\$444,164.79	\$379,418.53	\$470,071.38	\$569,008.46	
(46) Transition Charge	(\$44,819.44)	(\$40,247.46)	(\$52,631.71)	(\$54,046.14)	(\$52,670.52)	(\$40,559.50)	(\$9,523.68)	(\$8,135.41)	(\$10,079.16)	(\$12,200.55)	
(47) Energy Efficiency Programs	\$219,191.57	\$196,832.12	\$257,397.86	\$297,657.12	\$290,080.91	\$223,379.96	\$181,770.95	\$155,274.05	\$192,373.02	\$232,862.24	
(48) RE Growth Program	\$7,696.24	\$7,639.29	\$7,600.36	\$7,509.92	\$7,738.74	\$6,333.52	\$5,746.00	\$5,817.57	\$5,971.59	\$5,963.60	
(49) Energy Charge	\$2,322,360.34	\$2,085,459.29	\$2,727,160.46	\$2,393,356.87	\$2,332,439.22	\$1,796,120.15	\$1,425,103.95	\$1,217,365.40	\$1,508,225.34	\$1,825,665.23	
(50) Subtotal	\$4,251,352.00	\$3,857,564.71	\$4,961,615.50	\$4,711,244.28	\$4,605,905.26	\$3,559,814.99	\$2,984,768.35	\$2,581,229.78	\$3,155,057.39	\$3,795,616.87	
(51) Gross Earnings Tax	\$177,139.68	\$160,731.88	\$206,734.00	\$196,301.86	\$191,912.73	\$148,325.64	\$124,365.36	\$107,551.25	\$131,460.74	\$158,150.72	
(52) Total	\$4,428,491.68	\$4,018,296.59	\$5,168,349.50	\$4,907,546.14	\$4,797,817.99	\$3,708,140.63	\$3,109,133.71	\$2,688,781.03	\$3,286,518.13	\$3,953,767.59	
A-60 Aggregate Calculation											
(53) A-60 Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
(54) LIHEAP Enhancement Charge	\$33,048.56	\$32,804.01	\$32,636.84	\$32,248.48	\$33,231.06	\$27,196.88	\$24,674.00	\$24,981.33	\$25,642.71	\$25,608.40	
(55) A-60 Distribution Energy Charge	\$611,863.35	\$564,065.18	\$737,629.48	\$757,452.68	\$738,173.38	\$568,438.43	\$483,080.52	\$412,661.48	\$511,256.94	\$617,600.31	
(56) Renewable Energy Charge	\$51,731.89	\$46,454.78	\$60,749.04	\$62,650.51	\$61,055.87	\$47,016.74	\$39,572.54	\$33,804.02	\$41,880.67	\$72,361.89	
(57) Transmission Charge	\$523,562.37	\$470,154.43	\$614,822.16	\$631,345.01	\$615,275.51	\$473,799.59	\$444,164.79	\$379,418.53	\$470,071.38	\$569,008.46	
(58) Transition Charge	(\$44,819.44)	(\$40,247.46)	(\$52,631.71)	(\$54,046.14)	(\$52,670.52)	(\$40,559.50)	(\$9,523.68)	(\$8,135.41)	(\$10,079.16)	(\$12,200.55)	
(59) Energy Efficiency Programs	\$219,191.57	\$196,832.12	\$257,397.86	\$297,657.12	\$290,080.91	\$223,379.96	\$181,770.95	\$155,274.05	\$192,373.02	\$232,862.24	
(60) RE Growth Program	\$7,696.24	\$7,639.29	\$7,600.36	\$7,509.92	\$7,738.74	\$6,333.52	\$5,746.00	\$5,817.57	\$5,971.59	\$5,963.60	
(61) Energy Charge	\$2,322,360.34	\$2,085,459.29	\$2,727,160.46	\$2,393,356.87	\$2,332,439.22	\$1,796,120.15	\$1,425,103.95	\$1,217,365.40	\$1,508,225.34	\$1,825,665.23	
(62) Subtotal	\$3,724,634.88	\$3,363,161.64	\$4,385,364.49	\$4,128,174.45	\$4,025,324.17	\$3,101,725.77	\$2,594,589.07	\$2,221,186.97	\$2,745,342.49	\$3,336,869.58	
(63) Gross Earnings Tax	\$155,193.13	\$140,131.75	\$182,723.54	\$172,007.28	\$167,721.85	\$129,238.58	\$108,107.89	\$92,549.46	\$114,389.28	\$139,036.24	
(64) Total	\$3,879,828.01	\$3,503,293.39	\$4,568,088.03	\$4,300,181.73	\$4,193,046.02	\$3,230,964.35	\$2,702,696.96	\$2,313,736.43	\$2,859,731.77	\$3,475,905.82	
(65) Dollar Difference between A-60 & A-16 Bills	(\$548,663.67)	(\$515,003.20)	(\$600,261.47)	(\$607,364.41)	(\$604,771.97)	(\$477,176.28)	(\$406,436.75)	(\$375,044.60)	(\$426,786.36)	(\$477,861.77)	
(1) & (2) Per Company Billing Systems		(30) I	Line (9) x Line (3)		(48)	Line (13) x Line ((1)			
(3) Line (2) ÷ Line (1), truncated to 0 decimal places		(31) I	Line (10) x Line (3)							
(4) - (14) RIPUC Tariffs 2095 and 2096		(32) I	Line (11) x Line (3)		(50)	Sum of Lines (41) through (49)			
(15) Line (4) x 1		(33) I	Line (12) x Line (3)		(51)	Line (50) x 4.166	667%			
(16) Line (6) x 1		(34) I	Line (13) x 1			(52)	Line (50) + Line	(51)			
(17) Line (7) x Line (3)		(35) I	Line (14) x Line (3)		(53)	Line (5) x Line (1	1)			
(18) Line (9) x Line (3)		(36) \$	Sum of Lines (27)	through (35)		(54)	Line (6) x Line (1	1)			
(19) Line (10) x Line (3)		(37) I	Line (36) x 4.166	667%		(55)	Line (8) x Line (2	2)			
(20) Line (11) x Line (3)		(38) I	Line (36) + Line ((37)		(56)	Line (9) x Line (2	2)			
(21) Line (12) x Line (3)		(39) I	Line (38) - Line (2	26)		(57)	Line (10) x Line ((2)			
(22) Line (13) x 1		(40) I	Line (39) ÷ Line ((26)		(58)	Line (11) x Line ((2)			
(23) Line (14) x Line (3)		(41) I	Line (4) x Line (1)	(59) Line (12) x Line (2)						
(24) Sum of Lines (15) through (23)			Line (6) x Line (1	·			Line (13) x Line (` /			
(25) Line (24) x 4.166667%			Line (7) x Line (2	·	(61) Line (14) x Line (2)						
(26) Line (24) + Line (25)			Line (9) x Line (2	·	(62) Sum of Lines (53) through (61)						
(27) Line (5) x 1			Line (10) x Line ((63) Line (62) x 4.166667%						
(28) Line (6) x 1			Line (11) x Line ((64) Line (62) + Line (63)						
(29) Line (8) x Line (3)		(47) I	Line (12) x Line (2)		(65)	Line (64) - Line (52)			

	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	<u>Jan-2017</u>	Feb-2017	Mar-2017	Apr-2017	May-2017
(1) No. of A60 participants	34,946	34,517	34,783	34,504	32,416	33,909	33,542	31,591	32,580	35,339
(2) A60 Distribution kWh	25,257,610	22,359,260	16,270,586	15,217,176	17,635,481	20,779,372	18,795,178	17,159,044	17,236,272	15,059,950
(3) Average Usage per Customer	722	647	467	441	544	612	560	543	529	426
(4) A-16 Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(5) A-60 Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(6) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
(7) A-16 Distribution Energy Charge	\$0.04283	\$0.04283	\$0.04278	\$0.04278	\$0.04278	\$0.04278	\$0.04278	\$0.04278	\$0.04268	\$0.04268
(8) A-60 Distribution Energy Charge	\$0.02936	\$0.02936	\$0.02931	\$0.02931	\$0.02931	\$0.02931	\$0.02931	\$0.02931	\$0.02921	\$0.02921
(9) Renewable Energy Charge	\$0.00344	\$0.00344	\$0.00344	\$0.00344	\$0.00344	\$0.00674	\$0.00674	\$0.00674	\$0.00677	\$0.00677
(10) Transmission Charge	\$0.02705	\$0.02705	\$0.02705	\$0.02705	\$0.02705	\$0.02705	\$0.02705	\$0.02705	\$0.03179	\$0.03179
(11) Transition Charge	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)	\$0.00057	\$0.00057
(12) Energy Efficiency Programs	\$0.01107	\$0.01107	\$0.01107	\$0.01107	\$0.01107	\$0.01154	\$0.01154	\$0.01154	\$0.01154	\$0.01154
(13) RE Growth Program	\$0.17	\$0.17	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22
(14) Energy Charge	\$0.08679	\$0.08679	\$0.08179	\$0.08179	\$0.08179	\$0.08179	\$0.08179	\$0.08179	\$0.06228	\$0.06228
A-16 Bill Calculation										
(15) A-16 Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(16) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
(17) A-16 Distribution Energy Charge	\$30.92	\$27.71	\$19.98	\$18.87	\$23.27	\$26.18	\$23.96	\$23.23	\$22.58	\$18.18
(18) Renewable Energy Charge	\$2.48	\$2.23	\$1.61	\$1.52	\$1.87	\$4.12	\$3.77	\$3.66	\$3.58	\$2.88
(19) Transmission Charge	\$19.53	\$17.50	\$12.63	\$11.93	\$14.72	\$16.55	\$15.15	\$14.69	\$16.82	\$13.54
(20) Transition Charge	(\$0.42)	(\$0.38)	(\$0.27)	(\$0.26)	(\$0.32)	(\$0.35)	(\$0.32)	(\$0.31)	\$0.30	\$0.24
(21) Energy Efficiency Programs	\$7.99	\$7.16	\$5.17	\$4.88	\$6.02	\$7.06	\$6.46	\$6.27	\$6.10	\$4.92
(22) RE Growth Program	\$0.17	\$0.17	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22
(23) Energy Charge	\$62.66	\$56.15	\$38.20	\$36.07	\$44.49	\$50.06	\$45.80	\$44.41	\$32.95	\$26.53
(24) Subtotal	\$129.06	\$116.27	\$83.27	\$78.96	\$96.00	\$109.65	\$100.85	\$97.98	\$88.36	\$72.32
(25) Gross Earnings Tax	\$5.38	\$4.84	\$3.47	\$3.29	\$4.00	\$4.57	\$4.20	\$4.08	\$3.68	\$3.01
(26) Total	\$134.44	\$121.11	\$86.74	\$82.25	\$100.00	\$114.22	\$105.05	\$102.06	\$92.04	\$75.33
A-60 Bill Calculation										
(27) A-60 Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(28) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
(29) A-60 Distribution Energy Charge	\$21.20	\$19.00	\$13.69	\$12.93	\$15.94	\$17.94	\$16.41	\$15.92	\$15.45	\$12.44
(30) Renewable Energy Charge	\$2.48	\$2.23	\$1.61	\$1.52	\$1.87	\$4.12	\$3.77	\$3.66	\$3.58	\$2.88
(31) Transmission Charge	\$19.53	\$17.50	\$12.63	\$11.93	\$14.72	\$16.55	\$15.15	\$14.69	\$16.82	\$13.54
(32) Transition Charge	(\$0.42)	(\$0.38)	(\$0.27)	(\$0.26)	(\$0.32)	(\$0.35)	(\$0.32)	(\$0.31)	\$0.30	\$0.24
(33) Energy Efficiency Programs	\$7.99	\$7.16	\$5.17	\$4.88	\$6.02	\$7.06	\$6.46	\$6.27	\$6.10	\$4.92
(34) RE Growth Program	\$0.17	\$0.17	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22
(35) Energy Charge	\$62.66	\$56.15	\$38.20	\$36.07	\$44.49	\$50.06	\$45.80	\$44.41	\$32.95	\$26.53
(36) Subtotal	\$114.34	\$102.56	\$71.98	\$68.02	\$83.67	\$96.41	\$88.30	\$85.67	\$76.23	\$61.58
(37) Gross Earnings Tax	\$4.76	\$4.27	\$3.00	\$2.83	\$3.49	\$4.02	\$3.68	\$3.57	\$3.18	\$2.57
(38) Total	\$119.10	\$106.83	\$74.98	\$70.85	\$87.16	\$100.43	\$91.98	\$89.24	\$79.41	\$64.15
(39) Dollar Difference between A-60 & A-16 Bills	(\$15.34)	(\$14.28)	(\$11.76)	(\$11.40)	(\$12.84)	(\$13.79)	(\$13.07)	(\$12.82)	(\$12.63)	(\$11.18)
(40) Percent Difference between A-60 & A-16 Bills	-11.4%	-11.8%	-13.6%	-13.9%	-12.8%	-12.1%	-12.4%	-12.6%	-13.7%	-14.8%

Page 4 of 6

	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017
A-16 Aggregate Calculation										
(41) A-16 Customer Charge	\$174,730.00	\$172,585.00	\$173,915.00	\$172,520.00	\$162,080.00	\$169,545.00	\$167,710.00	\$157,955.00	\$162,900.00	\$176,695.00
(42) LIHEAP Enhancement Charge	\$25,510.58	\$25,197.41	\$25,391.59	\$25,187.92	\$23,663.68	\$27,466.29	\$27,169.02	\$25,588.71	\$26,389.80	\$28,624.59
(43) A-16 Distribution Energy Charge	\$1,081,783.44	\$957,647.11	\$696,055.67	\$650,990.79	\$754,445.88	\$888,941.53	\$804,057.71	\$734,063.90	\$735,644.09	\$642,758.67
(44) Renewable Energy Charge	\$86,886.18	\$76,915.85	\$55,970.82	\$52,347.09	\$60,666.05	\$140,052.97	\$126,679.50	\$115,651.96	\$116,689.56	\$101,955.86
(45) Transmission Charge	\$683,218.35	\$604,817.98	\$440,119.35	\$411,624.61	\$477,039.76	\$562,082.01	\$508,409.56	\$464,152.14	\$547,941.09	\$478,755.81
(46) Transition Charge	(\$14,649.41)	(\$12,968.37)	(\$9,436.94)	(\$8,825.96)	(\$10,228.58)	(\$12,052.04)	(\$10,901.20)	(\$9,952.25)	\$9,824.68	\$8,584.17
(47) Energy Efficiency Programs	\$279,601.74	\$247,517.01	\$180,115.39	\$168,454.14	\$195,224.77	\$239,793.95	\$216,896.35	\$198,015.37	\$198,906.58	\$173,791.82
(48) RE Growth Program	\$5,940.82	\$5,867.89	\$7,652.26	\$7,590.88	\$7,131.52	\$7,459.98	\$7,379.24	\$6,950.02	\$7,167.60	\$7,774.58
(49) Energy Charge	\$2,192,107.97	\$1,940,560.18	\$1,330,771.23	\$1,244,612.83	\$1,442,405.99	\$1,699,544.84	\$1,537,257.61	\$1,403,438.21	\$1,073,475.02	\$937,933.69
(50) Subtotal	\$4,515,129.67	\$4,018,140.06	\$2,900,554.37	\$2,724,502.30	\$3,112,429.07	\$3,722,834.53	\$3,384,657.79	\$3,095,863.06	\$2,878,938.42	\$2,556,874.19
(51) Gross Earnings Tax	\$188,130.42	\$167,422.52	\$120,856.44	\$113,520.94	\$129,684.55	\$155,118.12	\$141,027.42	\$128,994.30	\$119,955.78	\$106,536.43
(52) Total	\$4,703,260.09	\$4,185,562.58	\$3,021,410.81	\$2,838,023.24	\$3,242,113.62	\$3,877,952.65	\$3,525,685.21	\$3,224,857.36	\$2,998,894.20	\$2,663,410.62
A-60 Aggregate Calculation										
(53) A-60 Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(54) LIHEAP Enhancement Charge	\$25,510.58	\$25,197.41	\$25,391.59	\$25,187.92	\$23,663.68	\$27,466.29	\$27,169.02	\$25,588.71	\$26,389.80	\$28,624.59
(55) A-60 Distribution Energy Charge	\$741,563.43	\$656,467.87	\$476,890.88	\$446,015.43	\$516,895.95	\$609,043.39	\$550,886.67	\$502,931.58	\$503,471.51	\$439,901.14
(56) Renewable Energy Charge	\$86,886.18	\$76,915.85	\$55,970.82	\$52,347.09	\$60,666.05	\$140,052.97	\$126,679.50	\$115,651.96	\$116,689.56	\$101,955.86
(57) Transmission Charge	\$683,218.35	\$604,817.98	\$440,119.35	\$411,624.61	\$477,039.76	\$562,082.01	\$508,409.56	\$464,152.14	\$547,941.09	\$478,755.81
(58) Transition Charge	(\$14,649.41)	(\$12,968.37)	(\$9,436.94)	(\$8,825.96)	(\$10,228.58)	(\$12,052.04)	(\$10,901.20)	(\$9,952.25)	\$9,824.68	\$8,584.17
(59) Energy Efficiency Programs	\$279,601.74	\$247,517.01	\$180,115.39	\$168,454.14	\$195,224.77	\$239,793.95	\$216,896.35	\$198,015.37	\$198,906.58	\$173,791.82
(60) RE Growth Program	\$5,940.82	\$5,867.89	\$7,652.26	\$7,590.88	\$7,131.52	\$7,459.98	\$7,379.24	\$6,950.02	\$7,167.60	\$7,774.58
(61) Energy Charge	\$2,192,107.97	\$1,940,560.18	\$1,330,771.23	\$1,244,612.83	\$1,442,405.99	\$1,699,544.84	\$1,537,257.61	\$1,403,438.21	\$1,073,475.02	\$937,933.69
(62) Subtotal	\$4,000,179.66	\$3,544,375.82	\$2,507,474.58	\$2,347,006.94	\$2,712,799.14	\$3,273,391.39	\$2,963,776.75	\$2,706,775.74	\$2,483,865.84	\$2,177,321.66
(63) Gross Earnings Tax	\$166,674.17	\$147,682.34	\$104,478.12	\$97,791.96	\$113,033.31	\$136,391.32	\$123,490.71	\$112,782.33	\$103,494.42	\$90,721.74
(64) Total	\$4,166,853.83	\$3,692,058.16	\$2,611,952.70	\$2,444,798.90	\$2,825,832.45	\$3,409,782.71	\$3,087,267.46	\$2,819,558.07	\$2,587,360.26	\$2,268,043.40
(65) Dollar Difference between A-60 & A-16 Bills	(\$536,406.26)	(\$493,504.42)	(\$409,458.11)	(\$393,224.34)	(\$416,281.17)	(\$468,169.94)	(\$438,417.75)	(\$405,299.29)	(\$411,533.94)	(\$395,367.22)
(1) & (2) Per Company Billing Systems		(30) 1	Line (9) x Line (3)		(48)	Line (13) x Line (1)		
(3) Line (2) ÷ Line (1), truncated to 0 decimal places		(31) 1	Line (10) x Line (3)		(49)	Line (14) x Line (2)		
(4) - (14) RIPUC Tariffs 2095 and 2096		(32) 1	Line (11) x Line (3)		(50)	Sum of Lines (41)	through (49)		
(15) Line (4) x 1		(33) 1	Line (12) x Line (3)		(51)	Line (50) x 4.1666	667%		
(16) Line (6) x 1		(34) 1	Line (13) x 1			(52)	Line (50) + Line (51)		
(17) Line (7) x Line (3)		(35) 1	Line (14) x Line (3)		(53)	Line (5) x Line (1))		
(18) Line (9) x Line (3)		(36) \$	Sum of Lines (27)	through (35)		(54)	Line (6) x Line (1)		
(19) Line (10) x Line (3)		(37) 1	Line (36) x 4.1660	667%		(55)	Line (8) x Line (2)		
(20) Line (11) x Line (3)		(38) l	Line (36) + Line (37)		(56)	Line (9) x Line (2)		
(21) Line (12) x Line (3)		(39) 1	Line (38) - Line (2	26)		(57)	Line (10) x Line (2)		
(22) Line (13) x 1		(40) I	Line (39) ÷ Line (26)		(58)	Line (11) x Line (2)		
(23) Line (14) x Line (3)		(41) l	Line (4) x Line (1))		(59)	Line (12) x Line (2)		
(24) Sum of Lines (15) through (23)		(42) l	Line (6) x Line (1))			Line (13) x Line (·		
(25) Line (24) x 4.166667%			Line (7) x Line (2		(61) Line (14) x Line (2)					
(26) Line (24) + Line (25)			Line (9) x Line (2		(62) Sum of Lines (53) through (61)					
(27) Line (5) x 1			Line (10) x Line (Line (62) x 4.1666			
(28) Line (6) x 1		(46) l	Line (11) x Line (2)			Line (62) + Line (
(29) Line (8) x Line (3)		(47)]	Line (12) x Line (2)		(65)	Line (64) - Line (5	52)		

(1) No. of A60 participants	<u>Jun-2017</u> 35,515	<u>Jul-2017</u> 35,333	Aug-2017 34,615	Sep-2017 32,262	Oct-2017 29,606	Nov-2017 28,123	Dec-2017 25,584
(2) A60 Distribution kWh	16,491,327	21,980,550	21,320,244	17,851,227	14,079,927	13,588,220	14,087,131
(3) Average Usage per Customer	464	622	615	553	475	483	550
(5) Average Osage per Customer	101	022	013	333	173	103	220
(4) A-16 Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(5) A-60 Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(6) LIHEAP Enhancement Charge	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
(7) A-16 Distribution Energy Charge	\$0.04268	\$0.04589	\$0.04589	\$0.04589	\$0.04300	\$0.04300	\$0.04300
(8) A-60 Distribution Energy Charge	\$0.02921	\$0.03242	\$0.03242	\$0.03242	\$0.02953	\$0.02953	\$0.02953
(9) Renewable Energy Charge	\$0.00677	\$0.00687	\$0.00687	\$0.00687	\$0.00687	\$0.00687	\$0.00687
(10) Transmission Charge	\$0.03179	\$0.03179	\$0.03179	\$0.03179	\$0.03179	\$0.03179	\$0.03179
(11) Transition Charge	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00057
(12) Energy Efficiency Programs	\$0.01154	\$0.01154	\$0.01154	\$0.01154	\$0.01154	\$0.01154	\$0.01154
(13) RE Growth Program	\$0.22	\$0.22	\$0.22	\$0.22	\$0.78	\$0.78	\$0.78
(14) Energy Charge	\$0.06228	\$0.06228	\$0.06228	\$0.06228	\$0.09515	\$0.09515	\$0.09515
A-16 Bill Calculation							
(15) A-16 Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(16) LIHEAP Enhancement Charge	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
(17) A-16 Distribution Energy Charge	\$19.80	\$28.54	\$28.22	\$25.38	\$20.43	\$20.77	\$23.65
(18) Renewable Energy Charge	\$3.14	\$4.27	\$4.23	\$3.80	\$3.26	\$3.32	\$3.78
(19) Transmission Charge	\$14.75	\$19.77	\$19.55	\$17.58	\$15.10	\$15.35	\$17.48
(20) Transition Charge	\$0.26	\$0.35	\$0.35	\$0.32	\$0.27	\$0.28	\$0.31
(21) Energy Efficiency Programs	\$5.35	\$7.18	\$7.10	\$6.38	\$5.48	\$5.57	\$6.35
(22) RE Growth Program	\$0.22	\$0.22	\$0.22	\$0.22	\$0.78	\$0.78	\$0.33
(23) Energy Charge	\$28.90	\$38.74	\$38.30	\$34.44	\$45.20	\$45.96	\$52.33
(24) Subtotal	\$78.23	\$104.88	\$103.78	\$93.93	\$96.33	\$97.84	\$110.49
(25) Gross Earnings Tax	\$3.26	\$4.37	\$4.32	\$3.91	\$4.01	\$4.08	\$4.60
(26) Total	\$3.20 \$81.49	\$109.25	\$108.10	\$97.84	\$100.34	\$101.92	\$115.09
(20) Total	\$61.49	\$109.23	\$100.10	\$97.84	\$100.54	\$101.92	\$115.09
A-60 Bill Calculation							
(27) A-60 Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(28) LIHEAP Enhancement Charge	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
(29) A-60 Distribution Energy Charge	\$13.55	\$20.17	\$19.94	\$17.93	\$14.03	\$14.26	\$16.24
(30) Renewable Energy Charge	\$3.14	\$4.27	\$4.23	\$3.80	\$3.26	\$3.32	\$3.78
(31) Transmission Charge	\$14.75	\$19.77	\$19.55	\$17.58	\$15.10	\$15.35	\$17.48
(32) Transition Charge	\$0.26	\$0.35	\$0.35	\$0.32	\$0.27	\$0.28	\$0.31
(33) Energy Efficiency Programs	\$5.35	\$7.18	\$7.10	\$6.38	\$5.48	\$5.57	\$6.35
(34) RE Growth Program	\$0.22	\$0.22	\$0.22	\$0.22	\$0.78	\$0.78	\$0.78
(35) Energy Charge	\$28.90	\$38.74	\$38.30	\$34.44	\$45.20	\$45.96	\$52.33
(36) Subtotal	\$66.98	\$91.51	\$90.50	\$81.48	\$84.93	\$86.33	\$98.08
(37) Gross Earnings Tax	\$2.79	\$3.81	\$3.77	\$3.40	\$3.54	\$3.60	\$4.09
(38) Total	\$69.77	\$95.32	\$94.27	\$84.88	\$88.47	\$89.93	\$102.17
(39) Dollar Difference between A-60 & A-16 Bills	(\$11.72)	(\$13.93)	(\$13.83)	(\$12.96)	(\$11.87)	(\$11.99)	(\$12.92)
(40) Percent Difference between A-60 & A-16 Bills	-14.4%	-12.8%	-12.8%	-13.2%	-11.8%	-11.8%	-11.2%

	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	
A-16 Aggregate Calculation								
(41) A-16 Customer Charge	\$177,575.00	\$176,665.00	\$173,075.00	\$161,310.00	\$148,030.00	\$140,615.00	\$127,920.00	
(42) LIHEAP Enhancement Charge	\$28,767.15	\$28,619.73	\$28,038.15	\$26,132.22	\$23,980.86	\$22,779.63	\$20,723.04	
(43) A-16 Distribution Energy Charge	\$703,849.84	\$1,008,687.44	\$978,386.00	\$819,192.81	\$605,436.86	\$584,293.46	\$605,746.63	
(44) Renewable Energy Charge	\$111,646.28	\$151,006.38	\$146,470.08	\$122,637.93	\$96,729.10	\$93,351.07	\$96,778.59	
(45) Transmission Charge	\$524,259.29	\$698,761.68	\$677,770.56	\$567,490.51	\$447,600.88	\$431,969.51	\$447,829.89	
(46) Transition Charge	\$9,400.06	\$12,528.91	\$12,152.54	\$10,175.20	\$8,025.56	\$7,745.29	\$8,029.66	
(47) Energy Efficiency Programs	\$190,309.91	\$253,655.55	\$246,035.62	\$206,003.16	\$162,482.36	\$156,808.06	\$162,565.49	
(48) RE Growth Program	\$7,813.30	\$7,773.26	\$7,615.30	\$7,097.64	\$23,092.68	\$21,935.94	\$19,955.52	
(49) Energy Charge	\$1,027,079.85	\$1,368,948.65	\$1,327,824.80	\$1,111,774.42	\$1,339,705.05	\$1,292,919.13	\$1,340,390.51	
(50) Subtotal	\$2,780,700.68	\$3,706,646.60	\$3,597,368.05	\$3,031,813.89	\$2,855,083.35	\$2,752,417.09	\$2,829,939.33	
(51) Gross Earnings Tax	\$115,862.54	\$154,443.62	\$149,890.35	\$126,325.59	\$118,961.82	\$114,684.05	\$117,914.15	
(52) Total	\$2,896,563.22	\$3,861,090.22	\$3,747,258.40	\$3,158,139.48	\$2,974,045.17	\$2,867,101.14	\$2,947,853.48	
A-60 Aggregate Calculation								
(53) A-60 Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
(54) LIHEAP Enhancement Charge	\$28,767.15	\$28,619.73	\$28,038.15	\$26,132.22	\$23,980.86	\$22,779.63	\$20,723.04	
(55) A-60 Distribution Energy Charge	\$481,711.66	\$712,609.43	\$691,202.31	\$578,736.78	\$415,780.24	\$401,260.14	\$415,992.98	
(56) Renewable Energy Charge	\$111,646.28	\$151,006.38	\$146,470.08	\$122,637.93	\$96,729.10	\$93,351.07	\$96,778.59	
(57) Transmission Charge	\$524,259.29	\$698,761.68	\$677,770.56	\$567,490.51	\$447,600.88	\$431,969.51	\$447,829.89	
(58) Transition Charge	\$9,400.06	\$12,528.91	\$12,152.54	\$10,175.20	\$8,025.56	\$7,745.29	\$8,029.66	
(59) Energy Efficiency Programs	\$190,309.91	\$253,655.55	\$246,035.62	\$206,003.16	\$162,482.36	\$156,808.06	\$162,565.49	
(60) RE Growth Program	\$7,813.30	\$7,773.26	\$7,615.30	\$7,097.64	\$23,092.68	\$21,935.94	\$19,955.52	
(61) Energy Charge	\$1,027,079.85	\$1,368,948.65	\$1,327,824.80	\$1,111,774.42	\$1,339,705.05	\$1,292,919.13	\$1,340,390.51	
(62) Subtotal	\$2,380,987.50	\$3,233,903.59	\$3,137,109.36	\$2,630,047.86	\$2,517,396.73	\$2,428,768.77	\$2,512,265.68	
(63) Gross Earnings Tax	\$99,207.82	\$134,745.99	\$130,712.90	\$109,585.34	\$104,891.54	\$101,198.71	\$104,677.75	
(64) Total	\$2,480,195.32	\$3,368,649.58	\$3,267,822.26	\$2,739,633.20	\$2,622,288.27	\$2,529,967.48	\$2,616,943.43	
(65) Dollar Difference between A-60 & A-16 Bills	(\$416,367.90)	(\$492,440.64)	(\$479,436.14)	(\$418,506.28)	(\$351,756.90)	(\$337,133.66)	(\$330,910.05)	
(1) & (2) Per Company Billing Systems	(30)]	Line (9) x Line (3)		(48)	Line (13) x Line (1)	
(3) Line (2) ÷ Line (1), truncated to 0 decimal places	(31)	Line (10) x Line (3)		(49)	Line (14) x Line (2)	
(4) - (14) RIPUC Tariffs 2095 and 2096	(32)]	Line (11) x Line (3)		(50)	Sum of Lines (41)	through (49)	
(15) Line (4) x 1	(33)]	Line (12) x Line (3)		(51)	Line (50) x 4.166	667%	
(16) Line (6) x 1	(34)]	Line (13) x 1			(52)	Line (50) + Line ((51)	
(17) Line (7) x Line (3)	(35)]	Line (14) x Line (3)		(53)	Line (5) x Line (1)	
(18) Line (9) x Line (3)	(36)	Sum of Lines (27)	through (35)		(54)	Line (6) x Line (1)	
(19) Line (10) x Line (3)	(37)]	Line (36) x 4.166	667%		(55)	Line (8) x Line (2)	
(20) Line (11) x Line (3)	(38) Line (36) + Line (37) (56) Line (9) x Line (2)							
(21) Line (12) x Line (3)	(39) Line (38) - Line (26) (57) Line (10) x Line (2)							
(22) Line (13) x 1	(40)]	Line (39) ÷ Line (26)		(58)	Line (11) x Line (2)	
(23) Line (14) x Line (3)	(41) 1	Line (4) x Line (1)		(59)	Line (12) x Line (2)	
(24) Sum of Lines (15) through (23)	(42)]	Line (6) x Line (1)		(60)	Line (13) x Line (1)	
(25) Line (24) x 4.166667%	(43) 1	Line (7) x Line (2)			Line (14) x Line (
(26) Line (24) + Line (25)	(44)]	Line (9) x Line (2)		(62)	Sum of Lines (53)	through (61)	
(27) Line (5) x 1	(45)	Line (10) x Line (2)		(63)	Line (62) x 4.166	667%	
(28) Line (6) x 1	(46)]	Line (11) x Line (2)		(64)	Line (62) + Line ((63)	
(29) Line (8) x Line (3)	(47) 1	Line (12) x Line (2)		(65)	Line (64) - Line (5	52)	

Division 14-53

Request:

By month since October 2015 to present inclusive, provide:

- a. The number of new entrants into the A60 program;
- b. The total number of residential customers exiting the A60 program.

Response:

a. Please see the table below for the number of residential customers entering the A60 program as of January 25, 2018.

COUNT OF

	CUSTOMERS
	ENTERING THE A60
PERIOD	PROGRAM
201712	2860
201711	1328
201710	973
201709	951
201708	875
201707	838
201706	1181
201705	1429
201704	2767
201703	1410
201702	620
201701	589
201612	499
201611	518
201610	461
201609	595
201608	621
201607	510
201606	726
201605	821

	COUNT OF CUSTOMERS ENTERING THE A60
PERIOD	PROGRAM
201604	1594
201603	1864
201602	2278
201601	1890
201512	581
201511	600
201510	713

b. Please see the table below for the number of residential customers exiting the A60 program as of January 25, 2018.

	COUNT OF
	CUSTOMERS
	EXITING THE A60
)	PROGRAM

PERIOD	PROGRAM
201712	1020
201711	1604
201710	3409
201709	2392
201708	2410
201707	1119
201706	1123
201705	1075
201704	770
201703	759
201702	733
201701	682
201612	603
201611	553
201610	522
201609	557
201608	629
201607	538
201606	531
201605	513

201604	476
201603	1645
201602	0872
201601	526
201512	604
201511	648
201510	874

Division 14-54

Request:

By month since October 2015 to present inclusive, provide:

- a. The number of residential customers exiting the A60 program who remain customers of National Grid;
- b. The number of residential customers exiting the A60 program by reason of the exit; and
- c. The number of residential customers exiting the A60 program by whether the exit was voluntary or involuntary.

Response:

a. As of January 25, 2018, the number of residential customers exiting the A60 program who remained customers of the Company is included in the table below.

DEDIOD	EXITED A60 AND REMAINED
PERIOD	CUSTOMER
201712	717
201711	1308
201710	3065
201709	2016
201708	2021
201707	729
201706	653
201705	613
201704	463
201703	432
201702	449
201701	356
201612	197
201611	137
201610	196
201609	224

PERIOD	EXITED A60 AND REMAINED CUSTOMER
201608	150
201607	124
201606	162
201605	156
201604	145
201603	4,255
201602	10,464
201601	169
201512	157
201511	189
201510	411

- b. The Company does not maintain the data necessary to identify the reason a customer exits the A60 program.
- c. The Company does not maintain the data necessary to identify whether a customer exiting the A60 program was voluntary or involuntary.

Division 14-55

Request:

By year since 2013 to present inclusive, provide the number of A60 entrants by whether their enrollment in A60 came through:

- a. A company staff person or office;
- b. A community-based organization;
- c. The federal LIHEAP program through receipt of a LIHEAP basic grant;
- d. The federal LIHEAP program through receipt of a LIHEAP crisis grant;
- e. Some other (non-LIHEAP) federal or state agency program or staff.

Response:

Please note that National Grid's Customer Service System does not maintain information that identifies either the person or system requesting the rate change. Instead, National Grid maintains information regarding the assistance the customer is receiving that qualifies the customer for the A60 rate. This information is identified in National Grid's system as the Public Assistance Plan code.

National Grid receives requests to put customers on the A60 rate from customers, representatives from the Rhode Island Division of Public Utilities and Carriers, and customer assistance program (CAP) agencies (through e-mails, telephone calls, or LIHEAP files). National Grid does not capture any of this information in the Customer Service System as enrollment information.

- a. The Company does not maintain the data necessary to identify whether a customer who enrolled in the A60 program came through a company staff person or office.
- b. The Company does not maintain the data necessary to identify whether a customer who enrolled the A60 program came through a community-based organization.
 - Customers eligible for the A60 rate are placed on the rate throughout the year when they become eligible for a crisis or regular grant. The Company does not track the LIHEAP program year during which the customer participates in LIHEAP. Customers recertifying

for LIHEAP are placed on the rate the first year and remain on the rate as long as they recertify for the LIHEAP program.

- c. Please see below for the number of customers on the A60 rate for the respective years because the customer participated in the federal LIHEAP program by receiving a LIHEAP basic grant:
 - 2013 14,487 customers
 - 2014 15,810 customers
 - \bullet 2015 20,754 customers
 - 2016 21,605 customers
 - 2017 20,859 customers
- d. Please see below for the number of customers on the A60 rate for the respective years because the customer received a LIHEAP Crisis grant:
 - 2013 1,152 customers
 - 2014 2,334 customers
 - \bullet 2015 2,272 customers
 - 2016 2,427 customers
 - 2017 1,920 customers
- e. The Company does not maintain the data necessary to identify whether a customer who enrolls in the A60 program came through by other (non-LIHEAP) federal or state agency program or staff.

Division 14-56

Request:

By month since October 2015 to present inclusive, provide:

- a. The number of A60 participants who received a final notice of disconnection of service for nonpayment;
- b. The number of A60 participants who had their service disconnected for nonpayment;
- c. The number of A60 participants who had their service reconnected after a disconnection for nonpayment.

Response:

- a. Please refer to Attachment DIV 14-1 for the number of Rate A-60 customers who received a final notice of disconnection of service for nonpayment.
- b. Please refer to Attachment DIV 14-1 for the number of Rate A-60 customers who had their service disconnected for nonpayment.
- c. Please refer Attachment DIV 14-2 for the number of Rate A-60 customers who had their service reconnected after a disconnection for nonpayment.

Division 14-57

Request:

By month since October 2015 to present inclusive, provide:

- a. The number of A60 accounts in arrears;
- b. The dollars of arrears for A60 accounts in arrears;
- c. The number of A60 accounts in arrears by aging bucket (e.g., 0-30 days; 31-60 days; 61-90 days, etc.);
- d. The dollars of arrears for A60 accounts in arrears by aging bucket.

Response:

The Company does not solely track Rate A-60 arrearage on a monthly basis. The Company does, however, track low income data categorized by certain collections codes within the Customer Service System. Please refer to Attachment DIV 14-9 for the number of low income accounts in arrears, dollars of arrears for low income accounts in arrears, number of low income accounts in arrears by aging bucket, and dollars of arrears for low income accounts in arrears by aging bucket.

Division 14-58

Request:

By month since October 2015 to present inclusive, provide:

- a. The number of A60 participants receiving LIHEAP in that LIHEAP program year;
- b. The number of A60 participants who had NOT received LIHEAP in that LIHEAP program year;
- c. The number of residential customers who had received a LIHEAP grant but not enrolled in the A60 discount program.

Response:

a. The number of A60 participants receiving LIHEAP in that LIHEAP program year by month since October 2015 to the present, inclusive, is provided below:

<u>Month</u>	Participants
October-15	16,378
November-15	14,741
December-15	14,819
January-16	13,742
February-16	13,485
March-16	7,803
April-16	7,834
May-16	11,945
June-16	16,485
July-16	18,220
August-16	18,237
September-16	17,689
October-16	16,924
November-16	16,460
December-16	16,211
January-17	15,973
February-17	15,096
March-17	14,844
April-17	13,891
May-17	15,019
June-17	20,448
July-17	25,134
August-17	29,587
September-17	27,380

October-17 25,574 November-17 21,336 December-17 20,670

b. The number of A60 participants who had not received LIHEAP in that LIHEAP program year by month since October 2015 to the present, inclusive, is provided below:

<u>Month</u>	Participants
October-15	28,677
November-15	27,399
December-15	29,693
January-16	28,948
February-16	31,737
March-16	29,047
April-16	26,053
May-16	22,926
June-16	18,539
July-16	16,115
August-16	16,851
September-16	16,935
October-16	17,270
November-16	17,457
December-16	18,016
January-17	17,866
February-17	17,719
March-17	18,547
April-17	18,524
May-17	20,609
June-17	15,344
July-17	9,375
August-17	5,597
September-17	5,635
October-17	5,638
November-17	5,561
December-17	6,308

c. None. Customers receiving a LIHEAP grant are automatically enrolled in A60 rate upon processing the grant.

Division 14-59

Request:

By year since 2013 to present inclusive, provide:

- a. The total number of residential customers receiving a LIHEAP basic grant;
- b. The dollars of LIHEAP basic grants received;
- c. The total number of residential customers receiving a LIHEAP crisis grant;
- d. The dollars of LIHEAP crisis grants received;
- e. The extent to which there is a duplication between the numbers provided in response to "a" and "c" (i.e., those who received <u>both</u> a basic grant <u>and</u> a crisis grant).

Response:

a. The total number of residential customers receiving a LIHEAP basic grant:

2013 - 14,487

2014 - 15,810

2015 - 20,754

2016 - 21,605

2017 - 20,859

b. The dollars of LIHEAP basic grants received:

2013 - \$5,869,475.42

2014 - \$1,217,623.67

2015 - \$6,986,696.45

2016 - \$9,596,833.71

2017 - \$9,149,461.15

c. The total number of residential customers receiving a LIHEAP crisis grant:

2013 - 1,152 2014 - 2,334 2015 - 2,272 2016 - 2,427

2017 - 1,920

d. The dollars of LIHEAP crisis grants received:

2013 - \$367,973.32 2014 - \$862,987.17 2015 - \$914,475.37 2016 - \$988,298.92 2017 - \$794,860.56

e. The extent to which there is a duplication between the numbers provided in response to "a" and "c" (i.e., those who received <u>both</u> a basic grant <u>and</u> a crisis grant).

All customers receiving a crisis grant will receive a regular grant - there is 100 percent duplication.

Division 14-60

Request:

By year since 2013 to present inclusive, provide:

- a. The number of A60 participants receiving LIHEAP matching grants;
- b. The average LIHEAP matching grant (of those receiving grants);
- c. The average bill at standard residential rates of customers receiving a LIHEAP matching grant;
- d. The total dollar cost of providing LIHEAP matching grants;
- e. The average per kWh charge to ratepayers through which those costs were recovered;
- f. The average monthly bill impact to ratepayers in recovering those costs;
- g. All workpapers used to derive the response to "e" and "f".

Response:

LIHEAP matching grants were not made available or paid to electric customers during the period in question. LIHEAP matching grants were only made available to income-eligible gas customers during this period.

Division 14-61

Two general instructions:

- 1. When data is requested for "residential" customers, it should be construed as asking for data disaggregated into three groups: (1) low-income; (2) non-low-income; and (3) all residential.
- 2. When data is requested for "low-income" customers, if data on low-income customers is not generally available, provide data for the population that includes the largest known group of low-income customers (e.g., LIHEAP recipients), specifying the indicator used for low-income status.
- 3. If the question does not specify gas or electric service, then please provide information for both.

Request:

By rate schedule, provide:

- a. The projected Year 1 and Year 2 costs of providing the proposed 15% total bill discount:
- b. The projected Year 1 and Year 2 per kWh charge to ratepayers through which those costs will be recovered;
- c. The projected average month bill impact to ratepayers in recovering those costs.

Response:

Please see Attachment DIV 14-61.

- a. The projected Year 1 (Rate Year) and Year 2 costs of providing the proposed 15 percent total bill discount for each rate class, is shown on Page 1, Lines (2) through (8) and (10) through (16), respectively
- b. The projected Year 1 and Year 2 per kWh charge to customers through which those costs will be recovered, the Low Income Discount Recovery Factor, is shown on Page (1), Lines (1) and (9), respectively.
- c. The projected average month bill impact to ratepayers in recovering those costs, is shown on Pages (4) through (13). Please note the Company is proposing that

customers receiving delivery service on Low Income Rate A-60 not be assessed the Low Income Discount Recovery Factor.

THE NARRAGANSETT ELECTRIC COMPANY

d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-61 Page 1 of 13

The Narragansett Electric Company Estimated Recovery of Low Income Discount by Rate Class

Rate Class	<u>kWh</u>	Estimated Recovery				
(a)	(a) (b)					
(1) Projected Year 1 Low Income Discount R	ecovery Factor \$6	0.00087				
(2) A-16	2,723,228,532	\$2,369,209				
(3) C-06	598,981,304	\$521,114				
(4) G-02	1,290,927,306	\$1,123,107				
(5) G-32	1,952,809,776	\$1,698,945				
(6) G-62	420,270,233	\$365,635				
(7) X-01	23,962,704	\$20,848				
(8) Streetlighting	62,049,950	\$53,983				
(9) Projected Year 2 Low Income Discount R	ecovery Factor \$6	0.00090				
(10) A-16	2,677,549,415	\$2,409,794				
(11) C-06	595,702,353	\$536,132				
(12) G-02	1,282,652,476	\$1,154,387				
(13) G-32	1,932,239,749	\$1,739,016				
(14) G-62	414,813,097	\$373,332				
(15) X-01	23,854,104	\$21,469				
(16) Streetlighting	62,049,950	\$55,845				

- (1) Page (2), Section 2, Line (3)
- (2) (8) Forecasted kWh Deliveries x Line (2)
 - (9) Page (3), Section 2, Line (3)
- (10) (16) Forecasted kWh Deliveries x Line (11)

Section 1 - Calculation of Low Income Discount

		Rate Year				
		Rate A-60	Rate A-60		Proposed	Low Income
		Units	Rate	Charges	Discount	Discount
		(a)	(b)	(c)	(d)	(e)
(1)	Customer Charge	437,171	\$2.75	\$1,202,221		
(2)	RE Growth Factor	437,171	\$0.78	\$340,993		
(3)	LIHEAP Enhancement Surcharge	437,171	\$0.81	\$354,109		
(4)	Distribution kWh Charge	223,496,800	\$0.04438	\$9,918,788		
(5)	ISR CapEx Factor	223,496,800	\$0.00000	\$0		
	ISR CapEx Reconciliation Factor	223,496,800	(\$0.00135)	(\$301,721)		
(7)	ISR O&M Factor	223,496,800	\$0.00163	\$364,300		
(8)	ISR O&M Reconciliation Factor	223,496,800	(\$0.00001)	(\$2,235)		
(9)	Pension/PBOP Factor	223,496,800	(\$0.00085)	(\$189,972)		
(10)	Revenue Decoupling Mechanism Adjustment Factor	223,496,800	\$0.00118	\$263,726		
	Storm Fund Replenishment Factor	223,496,800	\$0.00288	\$643,671		
	Low Income Discount Recovery Factor	223,496,800	\$0.00000	\$0		
	Subtotal Distribution Energy Charge			\$10,696,557		
(14)	Transmission Charge	223,496,800	\$0.03180	\$7,107,198		
	Transition Charge	223,496,800	\$0.00180	\$127,393		
	Energy Efficiency Program Charge	223,496,800	\$0.00057	\$2,579,153		
	Renewable Energy Distribution Charge	223,496,800	\$0.00688	\$1,537,658		
(17)	Renewable Energy Distribution Charge	223,490,800	\$0.00088	\$1,557,056		
(18)	Total Delivery Service Charges			\$23,945,282		
(19)	Winter Commodity Charge	108,217,729	\$0.09518	\$10,300,163		
	Summer Commodity Charge	115,279,071	\$0.06231	\$7,183,039		
	Total Commodity Charges	223,496,800		\$17,483,202		
(22)	Total			\$41,428,485		
(23)	Low Income Discount				15.0%	\$6,214,273
(24)	Value of Exemption from Low Income Discount Recovery Factor					\$189,972
(25)	Total Low Income Benefit				15.4%	\$6,404,245

Column Descriptions:

- (a) Per Company Forecast
- (b) Workpaper HSG-5, Page 2
- (c) Column (a) x Column (b)
- (d) Proposed Discount off of total amount billed
- (e) Line (22) x Line (23), Column (d)
- (f) Per Company forecast
- (g) Workpaper HSG-5, Page 2 with year 2 Customer Charge
- (h) Column (f) x Column (g)
- (i) Line (22) x Line (23), Column (i)
- (j) Company forecast

Line Descriptions:

- (12) Proposing that all A-60 customers are exempt from Low Income Discount Recovery Factor
- (13) Sum of Lines (4) through (12)
- (18) Sum of Lines (1) through (3) + Line (13) + Sum of Lines (14) through (17)
- (21) Line (19) + Line (20)
- (22) Line (18) + Line (21)
- (23) Column (c), Line (22) x Column (d), Line (23), Column (h), Line (22) x Column (i), Line (23)
- (24) Column (a) kWh x Section 2, Line (1) Total Company kWh Delivery Forecast including low income rate classes
- $(25)\ Line\ (23) + Line\ (24); Column\ (d) = Column\ (e) \div\ Line\ (22)\ Column\ (c); Column\ (i) = Column\ (j) \div\ Line\ (22)\ Column\ (h)$

Section 2 - Calculation of Proposed Low Income Discount Recovery Factor

(1) Estimated Discount Provided, Rate Year

\$6,214,273

(2) Forecasted kWh Deliveries, Rate Year

7,072,229,805 \$0.00087

(3) Projected Low Income Discount Recovery Factor

Line Descriptions:

- (1) Section 1, Line (23), Column (e), Section 1, Line (23), Column (j)
- (2) Company Forecast excluding Rate A-60 kWh
- (3) Line (1) ÷ Line (2), truncated to five decimal places

Section 1 - Calculation of Low Income Discount

		Year 2				
		Rate A-60	Rate A-60		Proposed	Low Income
		<u>Units</u>	Rate	Charges	Discount	Discount
		(f)	(g)	(h)	(i)	(j)
(1)	Customer Charge	438,947	\$5.50	\$2,414,209		
(2)	RE Growth Factor	438,947	\$0.78	\$342,379		
(3)	LIHEAP Enhancement Surcharge	438,947	\$0.81	\$355,547		
(4)	Distribution kWh Charge	219,785,451	\$0.04438	\$9,754,078		
(5)	ISR CapEx Factor	219,785,451	\$0.00000	\$0		
	ISR CapEx Reconciliation Factor	219,785,451		(\$296,710)		
	ISR O&M Factor	219,785,451	\$0.00163	\$358,250		
(-)	ISR O&M Reconciliation Factor	219,785,451	(\$0.00001)	(\$2,198)		
()	Pension/PBOP Factor	219,785,451		(\$186,818)		
	Revenue Decoupling Mechanism Adjustment Factor	219,785,451	\$0.00118	\$259,347		
	Storm Fund Replenishment Factor	219,785,451	\$0.00288	\$632,982		
(12)	Low Income Discount Recovery Factor	219,785,451	\$0.00000	<u>\$0</u>		
(13)	Subtotal Distribution Energy Charge			\$10,518,932		
(14)	Transmission Charge	219,785,451	\$0.03180	\$6,989,177		
(15)	Transition Charge	219,785,451	\$0.00057	\$125,278		
(16)	Energy Efficiency Program Charge	219,785,451	\$0.01154	\$2,536,324		
(17)	Renewable Energy Distribution Charge	219,785,451	\$0.00688	\$1,512,124		
(18)	Total Delivery Service Charges			\$24,793,970		
(19)	Winter Commodity Charge	106,894,944	\$0.09518	\$10,174,261		
(20)	Summer Commodity Charge	112,890,507	\$0.06231	\$7,034,207		
(21)	Total Commodity Charges	219,785,451		\$17,208,468		
(22)	Total			\$42,002,438		
(23)	Low Income Discount				15.0%	\$6,300,366
(24)	Value of Exemption from Low Income Discount Recovery Factor					<u>\$191,213</u>
(25)	Total Low Income Benefit				15.4%	\$6,491,579

Column Descriptions:

- (a) Per Company Forecast
- (b) Workpaper HSG-5, Page 2
- (c) Column (a) x Column (b)
- (d) Proposed Discount off of total amount billed
- (e) Line (22) x Line (23), Column (d)
- (f) Per Company forecast
- (g) Workpaper HSG-5, Page 2 with year 2 Customer Charge
- (h) Column (f) x Column (g)
- (i) Line (22) x Line (23), Column (i)
- (j) Company forecast Line Descriptions:
- (12) Proposing that all A-60 customers are exempt from Low Income Dis
- (13) Sum of Lines (4) through (12)
- (18) Sum of Lines (1) through (3) + Line (13) + Sum of Lines (14) throug
- (21) Line (19) + Line (20)
- (22) Line (18) + Line (21)
- (23) Column (c), Line (22) x Column (d), Line (23), Column (h), Line (22)
- (24) Column (a) kWh x Section 2, Line (1) ÷ Total Company kWh Delive
- (25) Line (23) + Line (24); Column (d) = Column (e) ÷ Line (22) Column

Section 2 - Calculation of Proposed Low Income Discount Recovery

(1) Estimated Discount Provided, Rate Year

\$6,300,366

(2) Forecasted kWh Deliveries, Rate Year

6,988,861,144 \$0.00090

(3) Projected Low Income Discount Recovery Factor

Line Descriptions:

- (1) Section 1, Line (23), Column (e), Section 1, Line (23), Column (j)
- (2) Company Forecast excluding Rate A-60 kWh
- (3) Line (1) ÷ Line (2), truncated to five decimal places

Calculation of Monthly Typical Bill Total Bill Impact of Projected Year 1 LIDRF Rates Applicable to A-16 Rate Customers

	F	Proposed Rates wi	thout LIDRF			Proposed Rates	with LIDRF			\$ Increase (Decrease)		I	ncrease (Decrease	e) % of Total Bil	1	Percentage
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply			of Customers
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
150	\$24.90	\$14.28	\$1.63	\$40.81	\$25.03	\$14.28	\$1.64	\$40.95	\$0.13	\$0.00	\$0.01	\$0.14	0.3%	0.0%	0.0%	0.3%	30.1%
300	\$39.70	\$28.55	\$2.84	\$71.09	\$39.96	\$28.55	\$2.85	\$71.36	\$0.26	\$0.00	\$0.01	\$0.27	0.4%	0.0%	0.0%	0.4%	12.9%
400	\$49.56	\$38.07	\$3.65	\$91.28	\$49.91	\$38.07	\$3.67	\$91.65	\$0.35	\$0.00	\$0.02	\$0.37	0.4%	0.0%	0.0%	0.4%	11.6%
500	\$59.43	\$47.59	\$4.46	\$111.48	\$59.86	\$47.59	\$4.48	\$111.93	\$0.43	\$0.00	\$0.02	\$0.45	0.4%	0.0%	0.0%	0.4%	9.6%
600	\$69.29	\$57.11	\$5.27	\$131.67	\$69.81	\$57.11	\$5.29	\$132.21	\$0.52	\$0.00	\$0.02	\$0.54	0.4%	0.0%	0.0%	0.4%	7.7%
700	\$79.16	\$66.63	\$6.07	\$151.86	\$79.76	\$66.63	\$6.10	\$152.49	\$0.60	\$0.00	\$0.03	\$0.63	0.4%	0.0%	0.0%	0.4%	19.0%
1,200	\$128.48	\$114.22	\$10.11	\$252.81	\$129.52	\$114.22	\$10.16	\$253.90	\$1.04	\$0.00	\$0.05	\$1.09	0.4%	0.0%	0.0%	0.4%	6.8%
2,000	\$207.40	\$190.36	\$16.57	\$414.33	\$209.14	\$190.36	\$16.65	\$416.15	\$1.74	\$0.00	\$0.08	\$1.82	0.4%	0.0%	0.0%	0.4%	2.3%

	Proposed Rates withou	t LIDRF	Proposed Rates with I	<u>IDRF</u>	Line Item on Bill
	((o)	(p)		
(1) Distribution Customer Charge		\$8.50	:	88.50	Customer Charge
(2) LIHEAP Enhancement Charge		\$0.81	:	80.81	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge		\$0.79	:	80.79	RE Growth Program
(4) Distribution Charge (per kWh)	S	0.04438	\$0.0	4438	
(5) Operating & Maintenance Expense Charge	Sc	0.00163	\$0.0	0163	
(6) Operating & Maintenance Expense Reconciliation Factor	(\$6	0.00001)	(\$0.0	0001)	
(7) FY18 CapEx Factor Charge	Sc	0.00000	\$0.0	0000	
(8) CapEx Reconciliation Factor	(\$6	0.00135)	(\$0.0	0135)	Distribution Energy Charge
(9) Revenue Decoupling Adjustment Factor	Sc	0.00118	\$0.0	0118	
(10) Pension Adjustment Factor	(\$6	0.00085)	(\$0.0	0085)	
(11) Storm Fund Replenishment Factor	Sc	0.00288	\$0.0	0288	
(12) Low Income Discount Recovery Factor	Sc	0.00000	\$0.0	0087	
(13) Long-term Contracting for Renewable Energy Charge	S	0.00665	\$0.0	0665	Renewable Energy Distribution Charge
(14) Net Metering Charge	Sc	0.00023	\$0.0	0023	Renewable Energy Distribution Charge
(15) Base Transmission Charge	\$6	0.03169	\$0.0	3169	
(16) Transmission Adjustment Factor	(\$6	0.00029)	(\$0.0	0029)	Transmission Charge
(17) Transmission Uncollectible Factor	\$6	0.00040	\$0.0	0040	
(18) Base Transition Charge	\$6	0.00009	\$0.0	0009	Transition Charge
(19) Transition Adjustment	\$6	0.00048	\$0.0	0048	Transition Charge
(20) Energy Efficiency Program Charge	S	0.01154	\$0.0	1154	Energy Efficiency Programs
(21) Standard Offer Service Base Charge	S	0.09792	\$0.0	9792	
(22) SOS Adjustment Factor	(\$6	0.00465)	(\$0.0	0465)	Supply Services Energy Charge
(23) SOS Adminstrative Cost Adjustment Factor	\$6	0.00151	\$0.0	0151	Supply Services Energy Charge
(24) Renewable Energy Standard Charge	\$6	0.00040	\$0.0	0040	
Line Item on Bill					
(25) Customer Charge		\$8.50		88.50	
(26) LIHEAP Enhancement Charge		\$0.81		50.81	
(27) RE Growth Program		\$0.79		80.79	
(28) Transmission Charge		0.03180 0.04786		3180	
(29) Distribution Energy Charge		0.04786		4873 0057	
(30) Transition Charge (31) Energy Efficiency Programs		0.00057		1154	
(32) Renewable Energy Distribution Charge		0.01134		0688	
(32) Renewable Energy Distribution Charge (33) Supply Services Energy Charge		0.09518		9518	
(55) Supply Services Energy Charge	KWII X 30	1.07310	\$0.0	2210	

Column (o): per HSG-5

Column (p): per HSG-5 less Low Income Discount recovery Factor

Calculation of Monthly Typical Bill Total Bill Impact of Projected Year 1 LIDRF Rates Applicable to C-06 Rate Customers

Proposed Rates without LIDRF			Proposed Rates with LIDRF				\$ Increase (Decrease)			Increase (Decrease) % of Total Bill				Percentage			
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply			of Customers
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)	(n)
250	\$38.52	\$23.38	\$2.58	\$64.48	\$38.74	\$23.38	\$2.59	\$64.71	\$0.22	\$0.00	\$0.01	\$0.23	0.3%	0.0%	0.0%	0.4%	56.3%
500	\$61.97	\$46.77	\$4.53	\$113.27	\$62.41	\$46.77	\$4.55	\$113.73	\$0.44	\$0.00	\$0.02	\$0.46	0.4%	0.0%	0.0%	0.4%	16.9%
1,000	\$108.87	\$93.53	\$8.43	\$210.83	\$109.74	\$93.53	\$8.47	\$211.74	\$0.87	\$0.00	\$0.04	\$0.91	0.4%	0.0%	0.0%	0.4%	8.1%
1,500	\$155.77	\$140.30	\$12.34	\$308.41	\$157.08	\$140.30	\$12.39	\$309.77	\$1.31	\$0.00	\$0.05	\$1.36	0.4%	0.0%	0.0%	0.4%	5.0%
2,000	\$202.67	\$187.06	\$16.24	\$405.97	\$204.41	\$187.06	\$16.31	\$407.78	\$1.74	\$0.00	\$0.07	\$1.81	0.4%	0.0%	0.0%	0.4%	13.6%

		Proposed Rates without LIDRF	Proposed Rates with LIDRF	Line Item on Bill		
		(0)	(p)			
(1)	Distribution Customer Charge	\$13.00	\$13.00	Customer Charge		
(2)	LIHEAP Enhancement Charge	\$0.81	\$0.81	RE Growth Program		
(3)	Renewable Energy Growth Charge	\$1.26	\$1.26	LIHEAP Enhancement Charge		
(4)	Distribution Charge (per kWh)	\$0.04273	\$0.04273			
(5)	Operating & Maintenance Expense Charge	\$0.00169	\$0.00169			
(6)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00001)	(\$0.00001)			
(7)	FY18 CapEx Factor Charge	\$0.00000	\$0.00000			
(8)	CapEx Reconciliation Factor	(\$0.00119)	(\$0.00119)	Distribution Energy Charge		
(9)	Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118			
(10)	Pension Adjustment Factor	(\$0.00085)	(\$0.00085)			
(11)	Storm Fund Replenishment Factor	\$0.00288	\$0.00288			
(12)	Low Income Discount Recovery Factor	\$0.0000	\$0.00087			
(13)	Long-term Contracting for Renewable Energy Charge	\$0.00665	\$0.00665	D. H.E. British of		
(14)	Net Metering Charge	\$0.00023	\$0.00023	Renewable Energy Distribution Charge		
(15)	Base Transmission Charge	\$0.03183	\$0.03183			
(16)	Transmission Adjustment Factor	(\$0.00380)	(\$0.00380)	Transmission Charge		
(17)	Transmission Uncollectible Factor	\$0.00035	\$0.00035			
(18)	Base Transition Charge	\$0.00009	\$0.00009	m v or		
(19)	Transition Adjustment	\$0.00048	\$0.00048	Transition Charge		
(20)	Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs		
(21)	Standard Offer Service Base Charge	\$0.09492	\$0.09492			
(22)	SOS Adjustment Factor	(\$0.00304)	(\$0.00304)	Supply Services Energy Charge		
(23)	SOS Adminstrative Cost Adjustment Factor	\$0.00125	\$0.00125	Supply Services Energy Charge		
(24)	Renewable Energy Standard Charge	\$0.00040	\$0.00040			
	Line Item on Bill					
(25)	Customer Charge	\$13.00	\$13.00			
	LIHEAP Enhancement Charge	\$0.81	\$0.81			
	RE Growth Program	\$1.26	\$1.26			
	Transmission Charge	\$0.02838	\$0.02838			
	Distribution Energy Charge	\$0.04643	\$0.04730			
	Transition Charge	\$0.00057	\$0.00057			
(31)	Energy Efficiency Programs	\$0.01154	\$0.01154			
(32)	Renewable Energy Distribution Charge	\$0.00688	\$0.00688			
(33)	Supply Services Energy Charge	\$0.09353	\$0.09353			

Column (o): per HSG-5

Column (p): per HSG-5 less Low Income Discount recovery Factor

Calculation of Monthly Typical Bill Total Bill Impact of Projected Year 1 LIDRF Rates Applicable to G-02 Rate Customers

			I	Proposed Rates w	ithout LIDRF			Proposed Rates	with LIDRF			\$ Increase (l	Decrease)			Increase (Decrease	e) % of Total Bill	
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
20	200	4,000	\$467.98	\$374.12	\$35.09	\$877.19	\$471.46	\$374.12	\$35.23	\$880.81	\$3.48	\$0.00	\$0.14	\$3.62	0.4%	0.0%	0.0%	0.4%
50	200	10,000	\$1,030.96	\$935.30	\$81.93	\$2,048.19	\$1,039.66	\$935.30	\$82.29	\$2,057.25	\$8.70	\$0.00	\$0.36	\$9.06	0.4%	0.0%	0.0%	0.4%
100	200	20,000	\$1,969.26	\$1,870.60	\$159.99	\$3,999.85	\$1,986.66	\$1,870.60	\$160.72	\$4,017.98	\$17.40	\$0.00	\$0.73	\$18.13	0.4%	0.0%	0.0%	0.5%
150	200	30,000	\$2,907.56	\$2,805.90	\$238.06	\$5,951.52	\$2,933.66	\$2,805.90	\$239.15	\$5,978.71	\$26.10	\$0.00	\$1.09	\$27.19	0.4%	0.0%	0.0%	0.5%
20	300	6,000	\$546.94	\$561.18	\$46.17	\$1,154.29	\$552.16	\$561.18	\$46.39	\$1,159.73	\$5.22	\$0.00	\$0.22	\$5.44	0.5%	0.0%	0.0%	0.5%
50	300	15,000	\$1,228.36	\$1,402.95	\$109.64	\$2,740.95	\$1,241.41	\$1,402.95	\$110.18	\$2,754.54	\$13.05	\$0.00	\$0.54	\$13.59	0.5%	0.0%	0.0%	0.5%
100	300	30,000	\$2,364.06	\$2,805.90	\$215.42	\$5,385.38	\$2,390.16	\$2,805.90	\$216.50	\$5,412.56	\$26.10	\$0.00	\$1.08	\$27.18	0.5%	0.0%	0.0%	0.5%
150	300	45,000	\$3,499.76	\$4,208.85	\$321.19	\$8,029.80	\$3,538.91	\$4,208.85	\$322.82	\$8,070.58	\$39.15	\$0.00	\$1.63	\$40.78	0.5%	0.0%	0.0%	0.5%
20	400	8,000	\$625.90	\$748.24	\$57.26	\$1,431.40	\$632.86	\$748.24	\$57.55	\$1,438.65	\$6.96	\$0.00	\$0.29	\$7.25	0.5%	0.0%	0.0%	0.5%
50	400	20,000	\$1,425.76	\$1,870.60	\$137.35	\$3,433.71	\$1,443.16	\$1,870.60	\$138.07	\$3,451.83	\$17.40	\$0.00	\$0.72	\$18.12	0.5%	0.0%	0.0%	0.5%
100	400	40,000	\$2,758.86	\$3,741.20	\$270.84	\$6,770.90	\$2,793.66	\$3,741.20	\$272.29	\$6,807.15	\$34.80	\$0.00	\$1.45	\$36.25	0.5%	0.0%	0.0%	0.5%
150	400	60,000	\$4,091.96	\$5,611.80	\$404.32	\$10,108.08	\$4,144.16	\$5,611.80	\$406.50	\$10,162.46	\$52.20	\$0.00	\$2.18	\$54.38	0.5%	0.0%	0.0%	0.5%
20	500	10,000	\$704.86	\$935.30	\$68.34	\$1,708.50	\$713.56	\$935.30	\$68.70	\$1,717.56	\$8.70	\$0.00	\$0.36	\$9.06	0.5%	0.0%	0.0%	0.5%
50	500	25,000	\$1,623.16	\$2,338.25	\$165.06	\$4,126.47	\$1,644.91	\$2,338.25	\$165.97	\$4,149.13	\$21.75	\$0.00	\$0.91	\$22.66	0.5%	0.0%	0.0%	0.5%
100	500	50,000	\$3,153.66	\$4,676.50	\$326.26	\$8,156.42	\$3,197.16	\$4,676.50	\$328.07	\$8,201.73	\$43.50	\$0.00	\$1.81	\$45.31	0.5%	0.0%	0.0%	0.6%
150	500	75,000	\$4,684.16	\$7,014.75	\$487.45	\$12,186.36	\$4,749.41	\$7,014.75	\$490.17	\$12,254.33	\$65.25	\$0.00	\$2.72	\$67.97	0.5%	0.0%	0.0%	0.6%
20	600	12,000	\$783.82	\$1,122.36	\$79.42	\$1,985.60	\$794.26	\$1,122.36	\$79.86	\$1,996.48	\$10.44	\$0.00	\$0.44	\$10.88	0.5%	0.0%	0.0%	0.5%
50	600	30,000	\$1,820.56	\$2,805.90	\$192.77	\$4,819.23	\$1,846.66	\$2,805.90	\$193.86	\$4,846.42	\$26.10	\$0.00	\$1.09	\$27.19	0.5%	0.0%	0.0%	0.6%
100	600	60,000	\$3,548.46	\$5,611.80	\$381.68	\$9,541.94	\$3,600.66	\$5,611.80	\$383.85	\$9,596.31	\$52.20	\$0.00	\$2.17	\$54.37	0.5%	0.0%	0.0%	0.6%
150	600	90,000	\$5,276.36	\$8,417.70	\$570.59	\$14,264.65	\$5,354.66	\$8,417.70	\$573.85	\$14,346.21	\$78.30	\$0.00	\$3.26	\$81.56	0.5%	0.0%	0.0%	0.6%

		Proposed Rates without LIDRF	Proposed Rates with LIDRF	Line Item on Bill
		(n)	(0)	
(1)	Distribution Customer Charge	\$145.00	\$145.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.81	\$0.81	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge	\$11.85	\$11.85	RE Growth Program
(4)	Base Distribution Demand Charge (per kW > 10kW)	\$6.50	\$6.50	Distribution Demand Charge
(5)	Distribution Charge (per kWh)	\$0.00608	\$0.00608	
(6)	Operating & Maintenance Expense Charge	\$0.00122	\$0.00122	
(7)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00001)	(\$0.00001)	
(8)	FY18 CapEx Factor Demand Charge (per kW > 10kW)	\$0.00	\$0.00	
(9)	CapEx Reconciliation Factor	(\$0.00098)	(\$0.00098)	Distribution Energy Charge
(10)	Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118	
(11)	Pension Adjustment Factor	(\$0.00085)	(\$0.00085)	
(12)	Storm Fund Replenishment Factor	\$0.00288	\$0.00288	
(13)	Low Income Discount Recovery Factor	\$0.0000	\$0.00087	
(14)	Long-term Contracting for Renewable Energy Charge	\$0.00665	\$0.00665	
(15)	Net Metering Charge	\$0.00023	\$0.00023	Renewable Energy Distribution Charge
(16)	Transmission Demand Charge	\$4.37	\$4.37	Transmission Demand Charge
(17)	Base Transmission Charge	\$0.01269	\$0.01269	
(18)	Transmission Adjustment Factor	(\$0.00205)	(\$0.00205)	Transmission Adjustment
(19)	Transmission Uncollectible Factor	\$0.00033	\$0.00033	
(20)	Base Transition Charge	\$0.00009	\$0.00009	m v o
(21)	Transition Adjustment	\$0.00048	\$0.00048	Transition Charge
(22)	Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
(23)	Standard Offer Service Base Charge	\$0.09492	\$0.09492	
(24)	SOS Adjustment Factor	(\$0.00304)	(\$0.00304)	0.10: 5.0
(25)	SOS Adminstrative Cost Adjustment Factor	\$0.00125	\$0.00125	Supply Services Energy Charge
(26)	Renewable Energy Standard Charge	\$0.00040	\$0.00040	
	-			
	Line Item on Bill			
(27)	Customer Charge	\$145.00	\$145.00	
(29)	LIHEAP Enhancement Charge	\$0.81	\$0.81	
(28)	RE Growth Program	\$11.85	\$11.85	
(30)	Transmission Adjustment	\$0.01097	\$0.01097	
(31)	Distribution Energy Charge	\$0.00952	\$0.01039	
(32)	Distribution Demand Charge	\$6.50	\$6.50	
(33)	Transmission Demand Charge	\$4.37	\$4.37	
(32)	Transition Charge	\$0.00057	\$0.00057	
	Energy Efficiency Programs	\$0.01154	\$0.01154	
(34)	Renewable Energy Distribution Charge	\$0.00688	\$0.00688	
(35)	Supply Services Energy Charge	\$0.09353	\$0.09353	

Column (n): per HSG-5 Column (o): per HSG-5 less Low Income Discount recovery Factor

Calculation of Monthly Typical Bill Total Bill Impact of Projected Year 1 LIDRF Rates Applicable to G-32 Rate Customers

			1	Proposed Rates w	ithout LIDRF			Proposed Rates	with LIDRF			\$ Increase (Decrease)			Increase (Decreas	se) % of Total Bill	\neg
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
200	200	40,000	\$3,729.56	\$2,577.20	\$262.78	\$6,569.54	\$3,764.36	\$2,577.20	\$264.23	\$6,605.79	\$34.80	\$0.00	\$1.45	\$36.25	0.5%	0.0%	0.0%	0.6%
750	200	150,000	\$13,412.86	\$9,664.50	\$961.56	\$24,038.92	\$13,543.36	\$9,664.50	\$966.99	\$24,174.85	\$130.50	\$0.00	\$5.43	\$135.93	0.5%	0.0%	0.0%	0.6%
1,000	200	200,000	\$17,814.36	\$12,886.00	\$1,279.18	\$31,979.54	\$17,988.36	\$12,886.00	\$1,286.43	\$32,160.79	\$174.00	\$0.00	\$7.25	\$181.25	0.5%	0.0%	0.0%	0.6%
1,500	200	300,000	\$26,617.36	\$19,329.00	\$1,914.43	\$47,860.79	\$26,878.36	\$19,329.00	\$1,925.31	\$48,132.67	\$261.00	\$0.00	\$10.88	\$271.88	0.5%	0.0%	0.0%	0.6%
2,500	200	500,000	\$44,223.36	\$32,215.00	\$3,184.93	\$79,623.29	\$44,658.36	\$32,215.00	\$3,203.06	\$80,076.42	\$435.00	\$0.00	\$18.13	\$453.13	0.5%	0.0%	0.0%	0.6%
200	300	60,000	\$4,547.16	\$3,865.80	\$350.54	\$8,763.50	\$4,599.36	\$3,865.80	\$352.72	\$8,817.88	\$52.20	\$0.00	\$2.18	\$54.38	0.6%	0.0%	0.0%	0.6%
750	300	225,000	\$16,478.86	\$14,496.75	\$1,290.65	\$32,266.26	\$16,674.61	\$14,496.75	\$1,298.81	\$32,470.17	\$195.75	\$0.00	\$8.16	\$203.91	0.6%	0.0%	0.0%	0.6%
1,000	300	300,000	\$21,902.36	\$19,329.00	\$1,717.97	\$42,949.33	\$22,163.36	\$19,329.00	\$1,728.85	\$43,221.21	\$261.00	\$0.00	\$10.88	\$271.88	0.6%	0.0%	0.0%	0.6%
1,500	300	450,000	\$32,749.36	\$28,993.50	\$2,572.62	\$64,315.48	\$33,140.86	\$28,993.50	\$2,588.93	\$64,723.29	\$391.50	\$0.00	\$16.31	\$407.81	0.6%	0.0%	0.0%	0.6%
2,500	300	750,000	\$54,443.36	\$48,322.50	\$4,281.91	\$107,047.77	\$55,095.86	\$48,322.50	\$4,309.10	\$107,727.46	\$652.50	\$0.00	\$27.19	\$679.69	0.6%	0.0%	0.0%	0.6%
200	400	80,000	\$5,364.76	\$5,154.40	\$438.30	\$10,957.46	\$5,434.36	\$5,154.40	\$441.20	\$11,029.96	\$69.60	\$0.00	\$2.90	\$72.50	0.6%	0.0%	0.0%	0.7%
750	400	300,000	\$19,544.86	\$19,329.00	\$1,619.74	\$40,493.60	\$19,805.86	\$19,329.00	\$1,630.62	\$40,765.48	\$261.00	\$0.00	\$10.88	\$271.88	0.6%	0.0%	0.0%	0.7%
1,000	400	400,000	\$25,990.36	\$25,772.00	\$2,156.77	\$53,919.13	\$26,338.36	\$25,772.00	\$2,171.27	\$54,281.63	\$348.00	\$0.00	\$14.50	\$362.50	0.6%	0.0%	0.0%	0.7%
1,500	400	600,000	\$38,881.36	\$38,658.00	\$3,230.81	\$80,770.17	\$39,403.36	\$38,658.00	\$3,252.56	\$81,313.92	\$522.00	\$0.00	\$21.75	\$543.75	0.6%	0.0%	0.0%	0.7%
2,500	400	1,000,000	\$64,663.36	\$64,430.00	\$5,378.89	\$134,472.25	\$65,533.36	\$64,430.00	\$5,415.14	\$135,378.50	\$870.00	\$0.00	\$36.25	\$906.25	0.6%	0.0%	0.0%	0.7%
200	500	100,000	\$6,182.36	\$6,443.00	\$526.06	\$13,151.42	\$6,269.36	\$6,443.00	\$529.68	\$13,242.04	\$87.00	\$0.00	\$3.62	\$90.62	0.7%	0.0%	0.0%	0.7%
750	500	375,000	\$22,610.86	\$24,161.25	\$1,948.84	\$48,720.95	\$22,937.11	\$24,161.25	\$1,962.43	\$49,060.79	\$326.25	\$0.00	\$13.59	\$339.84	0.7%	0.0%	0.0%	0.7%
1,000	500	500,000	\$30,078.36	\$32,215.00	\$2,595.56	\$64,888.92	\$30,513.36	\$32,215.00	\$2,613.68	\$65,342.04	\$435.00	\$0.00	\$18.12	\$453.12	0.7%	0.0%	0.0%	0.7%
1,500	500	750,000	\$45,013.36	\$48,322.50	\$3,888.99	\$97,224.85	\$45,665.86	\$48,322.50	\$3,916.18	\$97,904.54	\$652.50	\$0.00	\$27.19	\$679.69	0.7%	0.0%	0.0%	0.7%
2,500	500	1,250,000	\$74,883.36	\$80,537.50	\$6,475.87	\$161,896.73	\$75,970.86	\$80,537.50	\$6,521.18	\$163,029.54	\$1,087.50	\$0.00	\$45.31	\$1,132.81	0.7%	0.0%	0.0%	0.7%
200	600	120,000	\$6,999.96	\$7,731.60	\$613.82	\$15,345.38	\$7,104.36	\$7,731.60	\$618.17	\$15,454.13	\$104.40	\$0.00	\$4.35	\$108.75	0.7%	0.0%	0.0%	0.7%
750	600	450,000	\$25,676.86	\$28,993.50	\$2,277.93	\$56,948.29	\$26,068.36	\$28,993.50	\$2,294.24	\$57,356.10	\$391.50	\$0.00	\$16.31	\$407.81	0.7%	0.0%	0.0%	0.7%
1,000	600	600,000	\$34,166.36	\$38,658.00	\$3,034.35	\$75,858.71	\$34,688.36	\$38,658.00	\$3,056.10	\$76,402.46	\$522.00	\$0.00	\$21.75	\$543.75	0.7%	0.0%	0.0%	0.7%
1,500	600	900,000	\$51,145.36	\$57,987.00	\$4,547.18	\$113,679.54	\$51,928.36	\$57,987.00	\$4,579.81	\$114,495.17	\$783.00	\$0.00	\$32.63	\$815.63	0.7%	0.0%	0.0%	0.7%
2,500	600	1,500,000	\$85,103.36	\$96,645.00	\$7,572.85	\$189,321.21	\$86,408.36	\$96,645.00	\$7,627.22	\$190,680.58	\$1,305.00	\$0.00	\$54.37	\$1,359.37	0.7%	0.0%	0.0%	0.7%

	Proposed Rates without LIDRF	Proposed Rates with LIDRF	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$1,100.00	\$1,100.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.81	\$0.81	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$107.55	\$107.55	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 200kW)	\$5.00	\$5.00	
(5) Distribution Charge (per kWh)	\$0.00631	\$0.00631	
(6) Operating & Maintenance Expense Charge	\$0.00080	\$0.00080	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.00001)	(\$0.00001)	
(8) FY18 CapEx Factor Demand Charge (per kW > 10kW)	\$0.00	\$0.00	
(9) CapEx Reconciliation Factor	(\$0.00048)	(\$0.00048)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118	
(11) Pension Adjustment Factor	(\$0.00085)	(\$0.00085)	
(12) Storm Fund Replenishment Factor	\$0.00288	\$0.00288	
(13) Low Income Discount Recovery Factor	\$0.00000	\$0.00087	
(14) Long-term Contracting for Renewable Energy Charge	\$0.00665	\$0.00665	
(15) Net Metering Charge	\$0.00023	\$0.00023	Renewable Energy Distribution Charge
(16) Transmission Demand Charge	\$4.43	\$4.43	
(17) Base Transmission Charge	\$0.01227	\$0.01227	
(18) Transmission Adjustment Factor	(\$0.00052)	(\$0.00052)	Transmission Adjustment
(19) Transmission Uncollectible Factor	\$0.00031	\$0.00031	*
(20) Base Transition Charge	\$0.0009	\$0.00009	
(21) Transition Adjustment	\$0.00048	\$0.00048	Transition Charge
(22) Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
(23) Standard Offer Service Base Charge	\$0.06785	\$0.06785	
(24) SOS Adjustment Factor	(\$0.00507)	(\$0.00507)	
(25) SOS Adminstrative Cost Adjustment Factor	\$0.00125	\$0.00125	Supply Services Energy Charge
(26) Renewable Energy Standard Charge	\$0.00040	\$0.00040	
Line Item on Bill			
(27) Customer Charge	\$1,100.00	\$1,100.00	
(28) LIHEAP Enhancement Charge	\$0.81	\$0.81	
(29) RE Growth Program	\$107.55	\$107.55	
(30) Transmission Adjustment	\$0.01206	\$0.01206	
(31) Distribution Energy Charge	\$0,00983	\$0.01070	
(32) Distribution Demand Charge	\$5.00	\$5.00	
(33) Transmission Demand Charge	\$4.43	\$4.43	
(32) Transition Charge	\$0.00057	\$0.00057	
(33) Energy Efficiency Programs	\$0.01154	\$0.01154	
(34) Renewable Energy Distribution Charge	\$0.00688	\$0.00688	
(35) Supply Services Energy Charge	\$0.06443	\$0.06443	

Column (n): per HSG-5 Column (o): per HSG-5 less Low Income Discount recovery Factor

Calculation of Monthly Typical Bill Total Bill Impact of Projected Year 1 LIDRF Rates Applicable to G-62 Rate Customers

				Proposed Rates v	without LIDRF			Proposed Rates	with LIDRF			\$ Increase (Decrease)		I	Increase (Decreas	se) % of Total Bill	
Monthly Power			Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
3,000	200	600000	\$53,548.76	\$38,658.00	\$3,841.95	\$96,048.71	\$54,070.76	\$38,658.00	\$3,863.70	\$96,592.46	\$522.00	\$0.00	\$21.75	\$543.75	0.5%	0.0%	0.0%	0.6%
5,000	200	1000000	\$88,442.36	\$64,430.00	\$6,369.68	\$159,242.04	\$89,312.36	\$64,430.00	\$6,405.93	\$160,148.29	\$870.00	\$0.00	\$36.25	\$906.25	0.5%	0.0%	0.0%	0.6%
7,500	200	1500000	\$132,059.36	\$96,645.00	\$9,529.35	\$238,233.71	\$133,364.36	\$96,645.00	\$9,583.72	\$239,593.08	\$1,305.00	\$0.00	\$54.37	\$1,359.37	0.5%	0.0%	0.0%	0.6%
10,000	200	2000000	\$175,676.36	\$128,860.00	\$12,689.02	\$317,225.38	\$177,416.36	\$128,860.00	\$12,761.52	\$319,037.88	\$1,740.00	\$0.00	\$72.50	\$1,812.50	0.5%	0.0%	0.0%	0.6%
20,000	200	4000000	\$350,144.36	\$257,720.00	\$25,327.68	\$633,192.04	\$353,624.36	\$257,720.00	\$25,472.68	\$636,817.04	\$3,480.00	\$0.00	\$145.00	\$3,625.00	0.5%	0.0%	0.0%	0.6%
3,000	300	900000	\$65,572.76	\$57,987.00	\$5,148.32	\$128,708.08	\$66,355.76	\$57,987.00	\$5,180.95	\$129,523.71	\$783.00	\$0.00	\$32.63	\$815.63	0.6%	0.0%	0.0%	0.6%
5,000	300	1500000	\$108,482.36	\$96,645.00	\$8,546.97	\$213,674.33	\$109,787.36	\$96,645.00	\$8,601.35	\$215,033.71	\$1,305.00	\$0.00	\$54.38	\$1,359.38	0.6%	0.0%	0.0%	0.6%
7,500	300	2250000	\$162,119.36	\$144,967.50	\$12,795.29	\$319,882.15	\$164,076.86	\$144,967.50	\$12,876.85	\$321,921.21	\$1,957.50	\$0.00	\$81.56	\$2,039.06	0.6%	0.0%	0.0%	0.6%
10,000	300	3000000	\$215,756.36	\$193,290.00	\$17,043.60	\$426,089.96	\$218,366.36	\$193,290.00	\$17,152.35	\$428,808.71	\$2,610.00	\$0.00	\$108.75	\$2,718.75	0.6%	0.0%	0.0%	0.6%
20,000	300	6000000	\$430,304.36	\$386,580.00	\$34,036.85	\$850,921.21	\$435,524.36	\$386,580.00	\$34,254.35	\$856,358.71	\$5,220.00	\$0.00	\$217.50	\$5,437.50	0.6%	0.0%	0.0%	0.6%
3,000	400	1200000	\$77,596.76	\$77,316.00	\$6,454.70	\$161,367.46	\$78,640.76	\$77,316.00	\$6,498.20	\$162,454.96	\$1,044.00	\$0.00	\$43.50	\$1,087.50	0.6%	0.0%	0.0%	0.7%
5,000	400	2000000	\$128,522.36	\$128,860.00	\$10,724.27	\$268,106.63	\$130,262.36	\$128,860.00	\$10,796.77	\$269,919.13	\$1,740.00	\$0.00	\$72.50	\$1,812.50	0.6%	0.0%	0.0%	0.7%
7,500	400	3000000	\$192,179.36	\$193,290.00	\$16,061.22	\$401,530.58	\$194,789.36	\$193,290.00	\$16,169.97	\$404,249.33	\$2,610.00	\$0.00	\$108.75	\$2,718.75	0.7%	0.0%	0.0%	0.7%
10,000	400	4000000	\$255,836.36	\$257,720.00	\$21,398.18	\$534,954.54	\$259,316.36	\$257,720.00	\$21,543.18	\$538,579.54	\$3,480.00	\$0.00	\$145.00	\$3,625.00	0.7%	0.0%	0.0%	0.7%
20,000	400	8000000	\$510,464.36	\$515,440.00	\$42,746.02	\$1,068,650.38	\$517,424.36	\$515,440.00	\$43,036.02	\$1,075,900.38	\$6,960.00	\$0.00	\$290.00	\$7,250.00	0.7%	0.0%	0.0%	0.7%
3,000	500	1500000	\$89,620.76	\$96,645.00	\$7,761.07	\$194,026.83	\$90,925.76	\$96,645.00	\$7,815.45	\$195,386.21	\$1,305.00	\$0.00	\$54.38	\$1,359.38	0.7%	0.0%	0.0%	0.7%
5,000	500	2500000	\$148,562.36	\$161,075.00	\$12,901.56	\$322,538.92	\$150,737.36	\$161,075.00	\$12,992.18	\$324,804.54	\$2,175.00	\$0.00	\$90.62	\$2,265.62	0.7%	0.0%	0.0%	0.7%
7,500	500	3750000	\$222,239.36	\$241,612.50	\$19,327.16	\$483,179.02	\$225,501.86	\$241,612.50	\$19,463.10	\$486,577.46	\$3,262.50	\$0.00	\$135.94	\$3,398.44	0.7%	0.0%	0.0%	0.7%
10,000	500	5000000	\$295,916.36	\$322,150.00	\$25,752.77	\$643,819.13	\$300,266.36	\$322,150.00	\$25,934.02	\$648,350.38	\$4,350.00	\$0.00	\$181.25	\$4,531.25	0.7%	0.0%	0.0%	0.7%
20,000	500	10000000	\$590,624.36	\$644,300.00	\$51,455.19	\$1,286,379.55	\$599,324.36	\$644,300.00	\$51,817.69	\$1,295,442.05	\$8,700.00	\$0.00	\$362.50	\$9,062.50	0.7%	0.0%	0.0%	0.7%
3,000	600	1800000	\$101,644.76	\$115,974.00	\$9,067.45	\$226,686.21	\$103,210.76	\$115,974.00	\$9,132.70	\$228,317.46	\$1,566.00	\$0.00	\$65.25	\$1,631.25	0.7%	0.0%	0.0%	0.7%
5,000	600	3000000	\$168,602.36	\$193,290.00	\$15,078.85	\$376,971.21	\$171,212.36	\$193,290.00	\$15,187.60	\$379,689.96	\$2,610.00	\$0.00	\$108.75	\$2,718.75	0.7%	0.0%	0.0%	0.7%
7,500	600	4500000	\$252,299.36	\$289,935.00	\$22,593.10	\$564,827.46	\$256,214.36	\$289,935.00	\$22,756.23	\$568,905.59	\$3,915.00	\$0.00	\$163.13	\$4,078.13	0.7%	0.0%	0.0%	0.7%
10,000	600	6000000	\$335,996.36	\$386,580.00	\$30,107.35	\$752,683.71	\$341,216.36	\$386,580.00	\$30,324.85	\$758,121.21	\$5,220.00	\$0.00	\$217.50	\$5,437.50	0.7%	0.0%	0.0%	0.7%
20,000	600	12000000	\$670,784.36	\$773,160.00	\$60,164.35	\$1,504,108.71	\$681,224.36	\$773,160.00	\$60,599.35	\$1,514,983.71	\$10,440.00	\$0.00	\$435.00	\$10,875.00	0.7%	0.0%	0.0%	0.7%

		Proposed Rates without LIDRF	Proposed Rates with LIDRF	Line Item on Bill
		(n)	(0)	
(1)	Distribution Customer Charge	\$1,100.00	\$1,100.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.81	\$0.81	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge	\$107.55	\$107.55	RE Growth Program
(4)	Base Distribution Demand Charge per kW	\$5.00	\$5.00	Distribution Demand Charge
(5)	Distribution Charge (per kWh)	\$0.00631	\$0.00631	-
(6)	Operating & Maintenance Expense Charge per KW	\$0.00	\$0.00	
(7)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00001)	(\$0.00001)	
(8)	FY18 CapEx Factor Demand Charge per kW	\$0.00	\$0.00	
(9)	CapEx Reconciliation Factor	(\$0.00048)	(\$0.00048)	Distribution Energy Charge
(10)	Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118	
(11)	Pension Adjustment Factor	(\$0.00085)	(\$0.00085)	
(12)	Storm Fund Replenishment Factor	\$0.00288	\$0.00288	
	Low Income Discount Recovery Factor	\$0,0000	\$0.00087	
	Long-term Contracting for Renewable Energy Charge	\$0.00665	\$0.00665	
	Net Metering Charge	\$0.00023	\$0.00023	Renewable Energy Distribution Charge
	Transmission Demand Charge	\$4.43	\$4.43	
	Base Transmission Charge	\$0.01227	\$0.01227	
	Transmission Adjustment Factor	(\$0.00052)	(\$0.00052)	Transmission Adjustment
	Transmission Uncollectible Factor	\$0.00031	\$0.00031	
(20)	Base Transition Charge	\$0,00009	\$0.00009	
	Transition Adjustment	\$0.00048	\$0.00048	Transition Charge
	Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
	Standard Offer Service Base Charge	\$0.06785	\$0.06785	
(24)	SOS Adjustment Factor	(\$0.00507)	(\$0.00507)	
(25)	SOS Adminstrative Cost Adjustment Factor	\$0.00125	\$0.00125	Supply Services Energy Charge
	Renewable Energy Standard Charge	\$0,00040	\$0.00040	
	Line Item on Bill			
(27)	Customer Charge	\$1,100.00	\$1,100.00	
(28)	LIHEAP Enhancement Charge	\$0.81	\$0.81	
(29)	RE Growth Program	\$107.55	\$107.55	
(30)	Transmission Adjustment	\$0.01206	\$0.01206	
(31)	Distribution Energy Charge	\$0.00903	\$0.00990	
(32)	Distribution Demand Charge	\$5.00	\$5.00	
(33)	Transmission Demand Charge	\$4.43	\$4.43	
(32)	Transition Charge	\$0.00057	\$0.00057	
(33)	Energy Efficiency Programs	\$0.01154	\$0.01154	
(34)	Renewable Energy Distribution Charge	\$0.00688	\$0.00688	
	Supply Services Energy Charge	\$0.06443	\$0.06443	

Column (n): per HSG-5 Column (o): per HSG-5 less Low Income Discount recovery Factor

Calculation of Monthly Typical Bill Total Bill Impact of Projected Year 2 LIDRF Rates Applicable to A-16 Rate Customers

	1	Proposed Rates w	ithout LIDRF			Proposed Rates	with LIDRF			\$ Increase (l	Decrease)		I	ncrease (Decrease	e) % of Total Bill	l	Percentage
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply			of Customers
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)	(n)
150	\$24.90	\$14.28	\$1.63	\$40.81	\$25.03	\$14.28	\$1.64	\$40.95	\$0.13	\$0.00	\$0.01	\$0.14	0.3%	0.0%	0.0%	0.3%	30.1%
300	\$39.70	\$28.55	\$2.84	\$71.09	\$39.97	\$28.55	\$2.86	\$71.38	\$0.27	\$0.00	\$0.02	\$0.29	0.4%	0.0%	0.0%	0.4%	12.9%
400	\$49.56	\$38.07	\$3.65	\$91.28	\$49.92	\$38.07	\$3.67	\$91.66	\$0.36	\$0.00	\$0.02	\$0.38	0.4%	0.0%	0.0%	0.4%	11.6%
500	\$59.43	\$47.59	\$4.46	\$111.48	\$59.88	\$47.59	\$4.48	\$111.95	\$0.45	\$0.00	\$0.02	\$0.47	0.4%	0.0%	0.0%	0.4%	9.6%
600	\$69.29	\$57.11	\$5.27	\$131.67	\$69.83	\$57.11	\$5.29	\$132.23	\$0.54	\$0.00	\$0.02	\$0.56	0.4%	0.0%	0.0%	0.4%	7.7%
700	\$79.16	\$66.63	\$6.07	\$151.86	\$79.79	\$66.63	\$6.10	\$152.52	\$0.63	\$0.00	\$0.03	\$0.66	0.4%	0.0%	0.0%	0.4%	19.0%
1,200	\$128.48	\$114.22	\$10.11	\$252.81	\$129.56	\$114.22	\$10.16	\$253.94	\$1.08	\$0.00	\$0.05	\$1.13	0.4%	0.0%	0.0%	0.4%	6.8%
2,000	\$207.40	\$190.36	\$16.57	\$414.33	\$209.20	\$190.36	\$16.65	\$416.21	\$1.80	\$0.00	\$0.08	\$1.88	0.4%	0.0%	0.0%	0.5%	2.3%

		Proposed Rates v	vithout LIDRF	Proposed Rates with LIDRF	Line Item on Bill
			(0)	(p)	
(1)	Distribution Customer Charge		\$8.50	\$8.50	Customer Charge
(2)	LIHEAP Enhancement Charge		\$0.81	\$0.81	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge		\$0.79	\$0.79	RE Growth Program
(4)	Distribution Charge (per kWh)		\$0.04438	\$0.04438	
(5)	Operating & Maintenance Expense Charge		\$0.00163	\$0.00163	
(6)	Operating & Maintenance Expense Reconciliation Factor		(\$0.00001)	(\$0.00001)	
(7)	FY18 CapEx Factor Charge		\$0.00000	\$0.00000	
(8)	CapEx Reconciliation Factor		(\$0.00135)	(\$0.00135)	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor		\$0.00118	\$0.00118	
(10)	Pension Adjustment Factor		(\$0.00085)	(\$0.00085)	
(11)	Storm Fund Replenishment Factor		\$0.00288	\$0.00288	
(12)	Low Income Discount Recovery Factor		\$0.00000	\$0.00090	
(13)	Long-term Contracting for Renewable Energy Charge		\$0.00665	\$0.00665	Renewable Energy Distribution Charge
(14)	Net Metering Charge		\$0.00023	\$0.00023	Renewable Energy Distribution Charge
(15)	Base Transmission Charge		\$0.03169	\$0.03169	
(16)	Transmission Adjustment Factor		(\$0.00029)	(\$0.00029)	Transmission Charge
(17)	Transmission Uncollectible Factor		\$0.00040	\$0.00040	
(18)	Base Transition Charge		\$0.00009	\$0.00009	Transition Charge
(19)	Transition Adjustment		\$0.00048	\$0.00048	Transition Charge
(20)	Energy Efficiency Program Charge		\$0.01154	\$0.01154	Energy Efficiency Programs
(21)	Standard Offer Service Base Charge		\$0.09792	\$0.09792	
(22)	SOS Adjustment Factor		(\$0.00465)	(\$0.00465)	Supply Services Energy Charge
(23)	SOS Adminstrative Cost Adjustment Factor		\$0.00151	\$0.00151	Supply Services Energy Charge
(24)	Renewable Energy Standard Charge		\$0.00040	\$0.00040	
	Line Item on Bill				
	Customer Charge		\$8.50	\$8.50	
	LIHEAP Enhancement Charge		\$0.81	\$0.81	
	RE Growth Program		\$0.79	\$0.79	
	Transmission Charge	kWh x	\$0.03180	\$0.03180	
	Distribution Energy Charge	kWh x kWh x	\$0.04786 \$0.00057	\$0.04876 \$0.00057	
	Transition Charge	kWh x kWh x	\$0.00057 \$0.01154	\$0.00057 \$0.01154	
	Energy Efficiency Programs Renewable Energy Distribution Charge	kWn x kWh x	\$0.01154 \$0.00688	\$0.01154 \$0.00688	
	Supply Services Energy Charge	kWh x	\$0.00688	\$0.0088	
(33)	Supply Services Energy Charge	K W II X	\$1.02518	\$0.09318	

Column (o): per HSG-5

Column (p): per HSG-5 less Low Income Discount recovery Factor, Year 2

Calculation of Monthly Typical Bill Total Bill Impact of Projected Year 2 LIDRF Rates Applicable to C-06 Rate Customers

	F	Proposed Rates w	ithout LIDRF			Proposed Rates	with LIDRF			\$ Increase (Decrease)		Ir	crease (Decrease	e) % of Total Bill	l	Percentage
Monthly	Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply			of Customers
kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	
(a)	(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)	(n)
250	\$38.52	\$23.38	\$2.58	\$64.48	\$38.75	\$23.38	\$2.59	\$64.72	\$0.23	\$0.00	\$0.01	\$0.24	0.4%	0.0%	0.0%	0.4%	56.3%
500	\$61.97	\$46.77	\$4.53	\$113.27	\$62.42	\$46.77	\$4.55	\$113.74	\$0.45	\$0.00	\$0.02	\$0.47	0.4%	0.0%	0.0%	0.4%	16.9%
1,000	\$108.87	\$93.53	\$8.43	\$210.83	\$109.77	\$93.53	\$8.47	\$211.77	\$0.90	\$0.00	\$0.04	\$0.94	0.4%	0.0%	0.0%	0.4%	8.1%
1,500	\$155.77	\$140.30	\$12.34	\$308.41	\$157.12	\$140.30	\$12.39	\$309.81	\$1.35	\$0.00	\$0.05	\$1.40	0.4%	0.0%	0.0%	0.5%	5.0%
2,000	\$202.67	\$187.06	\$16.24	\$405.97	\$204.47	\$187.06	\$16.31	\$407.84	\$1.80	\$0.00	\$0.07	\$1.87	0.4%	0.0%	0.0%	0.5%	13.6%

		Proposed Rates without LIDRF	Proposed Rates with LIDRF	Line Item on Bill
		(o)	(p)	
(1)	Distribution Customer Charge	\$13.00	\$13.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.81	\$0.81	RE Growth Program
(3)	Renewable Energy Growth Charge	\$1.26	\$1.26	LIHEAP Enhancement Charge
(4)	Distribution Charge (per kWh)	\$0.04273	\$0.04273	
(5)	Operating & Maintenance Expense Charge	\$0.00169	\$0.00169	
(6)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00001)	(\$0.00001)	
(7)	FY18 CapEx Factor Charge	\$0.00000	\$0.00000	
(8)	CapEx Reconciliation Factor	(\$0.00119)	(\$0.00119)	Distribution Energy Charge
(9)	Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118	
(10)	Pension Adjustment Factor	(\$0.00085)	(\$0.00085)	
(11)	Storm Fund Replenishment Factor	\$0.00288	\$0.00288	
(12)	Low Income Discount Recovery Factor	\$0.00000	\$0.00090	
(13)	Long-term Contracting for Renewable Energy Charge	\$0.00665	\$0.00665	Renewable Energy Distribution Charge
(14)	Net Metering Charge	\$0.00023	\$0.00023	Renewable Energy Distribution Charge
(15)	Base Transmission Charge	\$0.03183	\$0.03183	
(16)	Transmission Adjustment Factor	(\$0.00380)	(\$0.00380)	Transmission Charge
(17)	Transmission Uncollectible Factor	\$0.00035	\$0.00035	
(18)	Base Transition Charge	\$0.00009	\$0.00009	Transition Charge
(19)	Transition Adjustment	\$0.00048	\$0.00048	Transition Charge
	Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
	Standard Offer Service Base Charge	\$0.09492	\$0.09492	_
	SOS Adjustment Factor	(\$0.00304)	(\$0.00304)	Supply Services Energy Charge
	SOS Adminstrative Cost Adjustment Factor	\$0.00125	\$0.00125	Supply Services Energy Change
(24)	Renewable Energy Standard Charge	\$0.00040	\$0.00040	
	Line Item on Bill			
(25)	Customer Charge	\$13.00	\$13.00	
(26)	LIHEAP Enhancement Charge	\$0.81	\$0.81	
(27)	RE Growth Program	\$1.26	\$1.26	
(28)	Transmission Charge	\$0.02838	\$0.02838	
	Distribution Energy Charge	\$0.04643	\$0.04733	
	Transition Charge	\$0.00057	\$0.00057	
	Energy Efficiency Programs	\$0.01154	\$0.01154	
	Renewable Energy Distribution Charge	\$0.00688	\$0.00688	
(33)	Supply Services Energy Charge	\$0.09353	\$0.09353	

Column (o): per HSG-5 Column (p): per HSG-5 less Low Income Discount recovery Factor, Year 2

Calculation of Monthly Typical Bill Total Bill Impact of Projected Year 2 LIDRF Rates Applicable to G-02 Rate Customers

			1	Proposed Rates w	ithout LIDRF			Proposed Rates	with LIDRF			\$ Increase (l	Decrease)			Increase (Decreas	e) % of Total Bill	
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
20	200	4,000	\$467.98	\$374.12	\$35.09	\$877.19	\$471.58	\$374.12	\$35.24	\$880.94	\$3.60	\$0.00	\$0.15	\$3.75	0.4%	0.0%	0.0%	0.4%
50	200	10,000	\$1,030.96	\$935.30	\$81.93	\$2,048.19	\$1,039.96	\$935.30	\$82.30	\$2,057.56	\$9.00	\$0.00	\$0.37	\$9.37	0.4%	0.0%	0.0%	0.5%
100	200	20,000	\$1,969.26	\$1,870.60	\$159.99	\$3,999.85	\$1,987.26	\$1,870.60	\$160.74	\$4,018.60	\$18.00	\$0.00	\$0.75	\$18.75	0.5%	0.0%	0.0%	0.5%
150	200	30,000	\$2,907.56	\$2,805.90	\$238.06	\$5,951.52	\$2,934.56	\$2,805.90	\$239.19	\$5,979.65	\$27.00	\$0.00	\$1.13	\$28.13	0.5%	0.0%	0.0%	0.5%
20	300	6,000	\$546.94	\$561.18	\$46.17	\$1,154.29	\$552.34	\$561.18	\$46.40	\$1,159.92	\$5.40	\$0.00	\$0.23	\$5.63	0.5%	0.0%	0.0%	0.5%
50	300	15,000	\$1,228.36	\$1,402.95	\$109.64	\$2,740.95	\$1,241.86	\$1,402.95	\$110.20	\$2,755.01	\$13.50	\$0.00	\$0.56	\$14.06	0.5%	0.0%	0.0%	0.5%
100	300	30,000	\$2,364.06	\$2,805.90	\$215.42	\$5,385.38	\$2,391.06	\$2,805.90	\$216.54	\$5,413.50	\$27.00	\$0.00	\$1.12	\$28.12	0.5%	0.0%	0.0%	0.5%
150	300	45,000	\$3,499.76	\$4,208.85	\$321.19	\$8,029.80	\$3,540.26	\$4,208.85	\$322.88	\$8,071.99	\$40.50	\$0.00	\$1.69	\$42.19	0.5%	0.0%	0.0%	0.5%
20	400	8,000	\$625.90	\$748.24	\$57.26	\$1,431.40	\$633.10	\$748.24	\$57.56	\$1,438.90	\$7.20	\$0.00	\$0.30	\$7.50	0.5%	0.0%	0.0%	0.5%
50	400	20,000	\$1,425.76	\$1,870.60	\$137.35	\$3,433.71	\$1,443.76	\$1,870.60	\$138.10	\$3,452.46	\$18.00	\$0.00	\$0.75	\$18.75	0.5%	0.0%	0.0%	0.5%
100	400	40,000	\$2,758.86	\$3,741.20	\$270.84	\$6,770.90	\$2,794.86	\$3,741.20	\$272.34	\$6,808.40	\$36.00	\$0.00	\$1.50	\$37.50	0.5%	0.0%	0.0%	0.6%
150	400	60,000	\$4,091.96	\$5,611.80	\$404.32	\$10,108.08	\$4,145.96	\$5,611.80	\$406.57	\$10,164.33	\$54.00	\$0.00	\$2.25	\$56.25	0.5%	0.0%	0.0%	0.6%
20	500	10,000	\$704.86	\$935.30	\$68.34	\$1,708.50	\$713.86	\$935.30	\$68.72	\$1,717.88	\$9.00	\$0.00	\$0.38	\$9.38	0.5%	0.0%	0.0%	0.5%
50	500	25,000	\$1,623.16	\$2,338.25	\$165.06	\$4,126.47	\$1,645.66	\$2,338.25	\$166.00	\$4,149.91	\$22.50	\$0.00	\$0.94	\$23.44	0.5%	0.0%	0.0%	0.6%
100	500	50,000	\$3,153.66	\$4,676.50	\$326.26	\$8,156.42	\$3,198.66	\$4,676.50	\$328.13	\$8,203.29	\$45.00	\$0.00	\$1.87	\$46.87	0.6%	0.0%	0.0%	0.6%
150	500	75,000	\$4,684.16	\$7,014.75	\$487.45	\$12,186.36	\$4,751.66	\$7,014.75	\$490.27	\$12,256.68	\$67.50	\$0.00	\$2.82	\$70.32	0.6%	0.0%	0.0%	0.6%
20	600	12,000	\$783.82	\$1,122.36	\$79.42	\$1,985.60	\$794.62	\$1,122.36	\$79.87	\$1,996.85	\$10.80	\$0.00	\$0.45	\$11.25	0.5%	0.0%	0.0%	0.6%
50	600	30,000	\$1,820.56	\$2,805.90	\$192.77	\$4,819.23	\$1,847.56	\$2,805.90	\$193.89	\$4,847.35	\$27.00	\$0.00	\$1.12	\$28.12	0.6%	0.0%	0.0%	0.6%
100	600	60,000	\$3,548.46	\$5,611.80	\$381.68	\$9,541.94	\$3,602.46	\$5,611.80	\$383.93	\$9,598.19	\$54.00	\$0.00	\$2.25	\$56.25	0.6%	0.0%	0.0%	0.6%
150	600	90,000	\$5,276.36	\$8,417.70	\$570.59	\$14,264.65	\$5,357.36	\$8,417.70	\$573.96	\$14,349.02	\$81.00	\$0.00	\$3.37	\$84.37	0.6%	0.0%	0.0%	0.6%

		Proposed Rates without LIDRF	Proposed Rates with LIDRF	Line Item on Bill
		(n)	(0)	
(1)	Distribution Customer Charge	\$145.00	\$145.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.81	\$0.81	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge	\$11.85	\$11.85	RE Growth Program
(4)	Base Distribution Demand Charge (per kW > 10kW)	\$6.50	\$6.50	Distribution Demand Charge
(5)	Distribution Charge (per kWh)	\$0.00608	\$0.00608	
(6)	Operating & Maintenance Expense Charge	\$0.00122	\$0.00122	
(7)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00001)	(\$0.00001)	
(8)	FY18 CapEx Factor Demand Charge (per kW > 10kW)	\$0.00	\$0.00	
(9)	CapEx Reconciliation Factor	(\$0.00098)	(\$0.00098)	Distribution Energy Charge
(10)	Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118	
(11)	Pension Adjustment Factor	(\$0.00085)	(\$0.00085)	
(12)	Storm Fund Replenishment Factor	\$0.00288	\$0.00288	
(13)	Low Income Discount Recovery Factor	\$0.0000	\$0.00090	
(14)	Long-term Contracting for Renewable Energy Charge	\$0.00665	\$0.00665	
(15)	Net Metering Charge	\$0.00023	\$0.00023	Renewable Energy Distribution Charge
(16)	Transmission Demand Charge	\$4.37	\$4.37	Transmission Demand Charge
(17)	Base Transmission Charge	\$0.01269	\$0.01269	
(18)	Transmission Adjustment Factor	(\$0.00205)	(\$0.00205)	Transmission Adjustment
(19)	Transmission Uncollectible Factor	\$0.00033	\$0.00033	
(20)	Base Transition Charge	\$0.00009	\$0.00009	m v o
(21)	Transition Adjustment	\$0.00048	\$0.00048	Transition Charge
(22)	Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
(23)	Standard Offer Service Base Charge	\$0.09492	\$0.09492	
(24)	SOS Adjustment Factor	(\$0.00304)	(\$0.00304)	0 10 : 5 0
(25)	SOS Adminstrative Cost Adjustment Factor	\$0.00125	\$0.00125	Supply Services Energy Charge
(26)	Renewable Energy Standard Charge	\$0.00040	\$0.00040	
	-			
	Line Item on Bill			
(27)	Customer Charge	\$145.00	\$145.00	
(29)	LIHEAP Enhancement Charge	\$0.81	\$0.81	
(28)	RE Growth Program	\$11.85	\$11.85	
(30)	Transmission Adjustment	\$0.01097	\$0.01097	
(31)	Distribution Energy Charge	\$0.00952	\$0.01042	
(32)	Distribution Demand Charge	\$6.50	\$6.50	
(33)	Transmission Demand Charge	\$4.37	\$4.37	
(32)	Transition Charge	\$0.00057	\$0.00057	
	Energy Efficiency Programs	\$0.01154	\$0.01154	
(34)	Renewable Energy Distribution Charge	\$0.00688	\$0.00688	
(35)	Supply Services Energy Charge	\$0.09353	\$0.09353	

Column (n): per HSG-5

Column (o): per HSG-5 less Low Income Discount recovery Factor, Year 2

Calculation of Monthly Typical Bill Total Bill Impact of Projected Year 2 LIDRF Rates Applicable to G-32 Rate Customers

			1	Proposed Rates w	vithout LIDRF			Proposed Rates	with LIDRF			\$ Increase (Decrease)		1	increase (Decreas	se) % of Total Bill	
	Monthly Power		Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
200	200	40,000	\$3,729.56	\$2,577.20	\$262.78	\$6,569.54	\$3,765.56	\$2,577.20	\$264.28	\$6,607.04	\$36.00	\$0.00	\$1.50	\$37.50	0.5%	0.0%	0.0%	0.6%
750	200	150,000	\$13,412.86	\$9,664.50	\$961.56	\$24,038.92	\$13,547.86	\$9,664.50	\$967.18	\$24,179.54	\$135.00	\$0.00	\$5.62	\$140.62	0.6%	0.0%	0.0%	0.6%
1,000	200	200,000	\$17,814.36	\$12,886.00	\$1,279.18	\$31,979.54	\$17,994.36	\$12,886.00	\$1,286.68	\$32,167.04	\$180.00	\$0.00	\$7.50	\$187.50	0.6%	0.0%	0.0%	0.6%
1,500	200	300,000	\$26,617.36	\$19,329.00	\$1,914.43	\$47,860.79	\$26,887.36	\$19,329.00	\$1,925.68	\$48,142.04	\$270.00	\$0.00	\$11.25	\$281.25	0.6%	0.0%	0.0%	0.6%
2,500	200	500,000	\$44,223.36	\$32,215.00	\$3,184.93	\$79,623.29	\$44,673.36	\$32,215.00	\$3,203.68	\$80,092.04	\$450.00	\$0.00	\$18.75	\$468.75	0.6%	0.0%	0.0%	0.6%
200	300	60,000	\$4,547.16	\$3,865.80	\$350.54	\$8,763.50	\$4,601.16	\$3,865.80	\$352.79	\$8,819.75	\$54.00	\$0.00	\$2.25	\$56.25	0.6%	0.0%	0.0%	0.6%
750	300	225,000	\$16,478.86	\$14,496.75	\$1,290.65	\$32,266.26	\$16,681.36	\$14,496.75	\$1,299.09	\$32,477.20	\$202.50	\$0.00	\$8.44	\$210.94	0.6%	0.0%	0.0%	0.7%
1,000	300	300,000	\$21,902.36	\$19,329.00	\$1,717.97	\$42,949.33	\$22,172.36	\$19,329.00	\$1,729.22	\$43,230.58	\$270.00	\$0.00	\$11.25	\$281.25	0.6%	0.0%	0.0%	0.7%
1,500	300	450,000	\$32,749.36	\$28,993.50	\$2,572.62	\$64,315.48	\$33,154.36	\$28,993.50	\$2,589.49	\$64,737.35	\$405.00	\$0.00	\$16.87	\$421.87	0.6%	0.0%	0.0%	0.7%
2,500	300	750,000	\$54,443.36	\$48,322.50	\$4,281.91	\$107,047.77	\$55,118.36	\$48,322.50	\$4,310.04	\$107,750.90	\$675.00	\$0.00	\$28.13	\$703.13	0.6%	0.0%	0.0%	0.7%
200	400	80,000	\$5,364.76	\$5,154.40	\$438.30	\$10,957.46	\$5,436.76	\$5,154.40	\$441.30	\$11,032.46	\$72.00	\$0.00	\$3.00	\$75.00	0.7%	0.0%	0.0%	0.7%
750	400	300,000	\$19,544.86	\$19,329.00	\$1,619.74	\$40,493.60	\$19,814.86	\$19,329.00	\$1,630.99	\$40,774.85	\$270.00	\$0.00	\$11.25	\$281.25	0.7%	0.0%	0.0%	0.7%
1,000	400	400,000	\$25,990.36	\$25,772.00	\$2,156.77	\$53,919.13	\$26,350.36	\$25,772.00	\$2,171.77	\$54,294.13	\$360.00	\$0.00	\$15.00	\$375.00	0.7%	0.0%	0.0%	0.7%
1,500	400	600,000	\$38,881.36	\$38,658.00	\$3,230.81	\$80,770.17	\$39,421.36	\$38,658.00	\$3,253.31	\$81,332.67	\$540.00	\$0.00	\$22.50	\$562.50	0.7%	0.0%	0.0%	0.7%
2,500	400	1,000,000	\$64,663.36	\$64,430.00	\$5,378.89	\$134,472.25	\$65,563.36	\$64,430.00	\$5,416.39	\$135,409.75	\$900.00	\$0.00	\$37.50	\$937.50	0.7%	0.0%	0.0%	0.7%
200	500	100,000	\$6,182.36	\$6,443.00	\$526.06	\$13,151.42	\$6,272.36	\$6,443.00	\$529.81	\$13,245.17	\$90.00	\$0.00	\$3.75	\$93.75	0.7%	0.0%	0.0%	0.7%
750	500	375,000	\$22,610.86	\$24,161.25	\$1,948.84	\$48,720.95	\$22,948.36	\$24,161.25	\$1,962.90	\$49,072.51	\$337.50	\$0.00	\$14.06	\$351.56	0.7%	0.0%	0.0%	0.7%
1,000	500	500,000	\$30,078.36	\$32,215.00	\$2,595.56	\$64,888.92	\$30,528.36	\$32,215.00	\$2,614.31	\$65,357.67	\$450.00	\$0.00	\$18.75	\$468.75	0.7%	0.0%	0.0%	0.7%
1,500	500	750,000	\$45,013.36	\$48,322.50	\$3,888.99	\$97,224.85	\$45,688.36	\$48,322.50	\$3,917.12	\$97,927.98	\$675.00	\$0.00	\$28.13	\$703.13	0.7%	0.0%	0.0%	0.7%
2,500	500	1,250,000	\$74,883.36	\$80,537.50	\$6,475.87	\$161,896.73	\$76,008.36	\$80,537.50	\$6,522.74	\$163,068.60	\$1,125.00	\$0.00	\$46.87	\$1,171.87	0.7%	0.0%	0.0%	0.7%
200	600	120,000	\$6,999.96	\$7,731.60	\$613.82	\$15,345.38	\$7,107.96	\$7,731.60	\$618.32	\$15,457.88	\$108.00	\$0.00	\$4.50	\$112.50	0.7%	0.0%	0.0%	0.7%
750	600	450,000	\$25,676.86	\$28,993.50	\$2,277.93	\$56,948.29	\$26,081.86	\$28,993.50	\$2,294.81	\$57,370.17	\$405.00	\$0.00	\$16.88	\$421.88	0.7%	0.0%	0.0%	0.7%
1,000	600	600,000	\$34,166.36	\$38,658.00	\$3,034.35	\$75,858.71	\$34,706.36	\$38,658.00	\$3,056.85	\$76,421.21	\$540.00	\$0.00	\$22.50	\$562.50	0.7%	0.0%	0.0%	0.7%
1,500	600	900,000	\$51,145.36	\$57,987.00	\$4,547.18	\$113,679.54	\$51,955.36	\$57,987.00	\$4,580.93	\$114,523.29	\$810.00	\$0.00	\$33.75	\$843.75	0.7%	0.0%	0.0%	0.7%
2,500	600	1,500,000	\$85,103.36	\$96,645.00	\$7,572.85	\$189,321.21	\$86,453.36	\$96,645.00	\$7,629.10	\$190,727.46	\$1,350.00	\$0.00	\$56.25	\$1,406.25	0.7%	0.0%	0.0%	0.7%

	Proposed Rates without LIDRF	Proposed Rates with LIDRF	Line Item on Bill
	(n)	(0)	
(1) Distribution Customer Charge	\$1,100.00	\$1,100.00	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.81	\$0.81	LIHEAP Enhancement Charge
(3) Renewable Energy Growth Charge	\$107.55	\$107.55	RE Growth Program
(4) Base Distribution Demand Charge (per kW > 200kW)	\$5.00	\$5.00	
(5) Distribution Charge (per kWh)	\$0.00631	\$0.00631	
(6) Operating & Maintenance Expense Charge	\$0.00080	\$0.00080	
(7) Operating & Maintenance Expense Reconciliation Factor	(\$0.00001)	(\$0.00001)	
(8) FY18 CapEx Factor Demand Charge (per kW > 10kW)	\$0.00	\$0.00	
(9) CapEx Reconciliation Factor	(\$0.00048)	(\$0.00048)	Distribution Energy Charge
(10) Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118	
(11) Pension Adjustment Factor	(\$0.00085)	(\$0.00085)	
(12) Storm Fund Replenishment Factor	\$0.00288	\$0.00288	
(13) Low Income Discount Recovery Factor	\$0.0000	\$0,00090	
(14) Long-term Contracting for Renewable Energy Charge	\$0.00665	\$0.00665	
(15) Net Metering Charge	\$0.00023	\$0.00023	Renewable Energy Distribution Charge
(16) Transmission Demand Charge	\$4.43	\$4.43	
(17) Base Transmission Charge	\$0.01227	\$0.01227	
(18) Transmission Adjustment Factor	(\$0.00052)	(\$0.00052)	Transmission Adjustment
(19) Transmission Uncollectible Factor	\$0.00031	\$0,00031	, and the second
(20) Base Transition Charge	\$0.00009	\$0.0009	m :: a
(21) Transition Adjustment	\$0.00048	\$0.00048	Transition Charge
(22) Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
(23) Standard Offer Service Base Charge	\$0.06785	\$0.06785	
(24) SOS Adjustment Factor	(\$0.00507)	(\$0.00507)	SI- Si F Ch
(25) SOS Adminstrative Cost Adjustment Factor	\$0.00125	\$0.00125	Supply Services Energy Charge
(26) Renewable Energy Standard Charge	\$0.00040	\$0.00040	
Line Item on Bill			
(27) Customer Charge	\$1,100.00	\$1,100.00	
(28) LIHEAP Enhancement Charge	\$0.81	\$0.81	
(29) RE Growth Program	\$107.55	\$107.55	
(30) Transmission Adjustment	\$0.01206	\$0.01206	
(31) Distribution Energy Charge	\$0.00983	\$0.01073	
(32) Distribution Demand Charge	\$5.00	\$5.00	
(33) Transmission Demand Charge	\$4.43	\$4.43	
(32) Transition Charge	\$0.00057	\$0.00057	
(33) Energy Efficiency Programs	\$0.01154	\$0.01154	
(34) Renewable Energy Distribution Charge	\$0.00688	\$0.00688	
(35) Supply Services Energy Charge	\$0.06443	\$0.06443	

Column (n): per HSG-5

Column (o): per HSG-5 less Low Income Discount recovery Factor, Year 2

Calculation of Monthly Typical Bill Total Bill Impact of Projected Year 2 LIDRF Rates Applicable to G-62 Rate Customers

				Proposed Rates	without LIDRF			Proposed Rates	with LIDRF			\$ Increase (Decrease)			Increase (Decreas	se) % of Total Bill	
Monthly Power			Delivery	Supply			Delivery	Supply			Delivery	Supply			Delivery	Supply		
kW	Hours Use	kWh	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total	Services	Services	GET	Total
	(a)		(b)	(c)	(d)	(e)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
3,000	200	600000	\$53,548.76	\$38,658.00	\$3,841.95	\$96,048.71	\$54,088.76	\$38,658.00	\$3,864.45	\$96,611.21	\$540.00	\$0.00	\$22.50	\$562.50	0.6%	0.0%	0.0%	0.6%
5,000	200	1000000	\$88,442.36	\$64,430.00	\$6,369.68	\$159,242.04	\$89,342.36	\$64,430.00	\$6,407.18	\$160,179.54	\$900.00	\$0.00	\$37.50	\$937.50	0.6%	0.0%	0.0%	0.6%
7,500	200	1500000	\$132,059.36	\$96,645.00	\$9,529.35	\$238,233.71	\$133,409.36	\$96,645.00	\$9,585.60	\$239,639.96	\$1,350.00	\$0.00	\$56.25	\$1,406.25	0.6%	0.0%	0.0%	0.6%
10,000	200	2000000	\$175,676.36	\$128,860.00	\$12,689.02	\$317,225.38	\$177,476.36	\$128,860.00	\$12,764.02	\$319,100.38	\$1,800.00	\$0.00	\$75.00	\$1,875.00	0.6%	0.0%	0.0%	0.6%
20,000	200	4000000	\$350,144.36	\$257,720.00	\$25,327.68	\$633,192.04	\$353,744.36	\$257,720.00		\$636,942.04	\$3,600.00	\$0.00	\$150.00	\$3,750.00	0.6%	0.0%	0.0%	0.6%
3,000	300	900000	\$65,572.76	\$57,987.00	\$5,148.32	\$128,708.08	\$66,382.76	\$57,987.00		\$129,551.83	\$810.00	\$0.00	\$33.75	\$843.75	0.6%	0.0%	0.0%	0.7%
5,000	300	1500000	\$108,482.36	\$96,645.00	\$8,546.97	\$213,674.33	\$109,832.36	\$96,645.00	\$8,603.22	\$215,080.58	\$1,350.00	\$0.00	\$56.25	\$1,406.25	0.6%	0.0%	0.0%	0.7%
7,500	300	2250000	\$162,119.36	\$144,967.50	\$12,795.29	\$319,882.15	\$164,144.36	\$144,967.50	\$12,879.66	\$321,991.52	\$2,025.00	\$0.00	\$84.37	\$2,109.37	0.6%	0.0%	0.0%	0.7%
10,000	300	3000000	\$215,756.36	\$193,290.00	\$17,043.60	\$426,089.96	\$218,456.36	\$193,290.00	\$17,156.10	\$428,902.46	\$2,700.00	\$0.00	\$112.50	\$2,812.50	0.6%	0.0%	0.0%	0.7%
20,000	300	6000000	\$430,304.36	\$386,580.00	\$34,036.85	\$850,921.21	\$435,704.36	\$386,580.00	\$34,261.85	\$856,546.21	\$5,400.00	\$0.00	\$225.00	\$5,625.00	0.6%	0.0%	0.0%	0.7%
3,000	400	1200000	\$77,596.76	\$77,316.00	\$6,454.70	\$161,367.46	\$78,676.76	\$77,316.00	\$6,499.70	\$162,492.46	\$1,080.00	\$0.00	\$45.00	\$1,125.00	0.7%	0.0%	0.0%	0.7%
5,000	400	2000000	\$128,522.36	\$128,860.00	\$10,724.27	\$268,106.63	\$130,322.36	\$128,860.00	\$10,799.27	\$269,981.63	\$1,800.00	\$0.00	\$75.00	\$1,875.00	0.7%	0.0%	0.0%	0.7%
7,500	400	3000000	\$192,179.36	\$193,290.00	\$16,061.22	\$401,530.58	\$194,879.36	\$193,290.00	\$16,173.72	\$404,343.08	\$2,700.00	\$0.00	\$112.50	\$2,812.50	0.7%	0.0%	0.0%	0.7%
10,000	400	4000000	\$255,836.36	\$257,720.00	\$21,398.18	\$534,954.54	\$259,436.36	\$257,720.00	\$21,548.18	\$538,704.54	\$3,600.00	\$0.00	\$150.00	\$3,750.00	0.7%	0.0%	0.0%	0.7%
20,000	400	8000000	\$510,464.36	\$515,440.00	\$42,746.02	\$1,068,650.38	\$517,664.36	\$515,440.00	\$43,046.02 \$	1,076,150.38	\$7,200.00	\$0.00	\$300.00	\$7,500.00	0.7%	0.0%	0.0%	0.7%
3,000	500	1500000	\$89,620.76	\$96,645.00	\$7,761.07	\$194,026.83	\$90,970.76	\$96,645.00	\$7,817.32	\$195,433.08	\$1,350.00	\$0.00	\$56.25	\$1,406.25	0.7%	0.0%	0.0%	0.7%
5,000	500	2500000	\$148,562.36	\$161,075.00	\$12,901.56	\$322,538.92	\$150,812.36	\$161,075.00	\$12,995.31	\$324,882.67	\$2,250.00	\$0.00	\$93.75	\$2,343.75	0.7%	0.0%	0.0%	0.7%
7,500	500	3750000	\$222,239.36	\$241,612.50	\$19,327.16	\$483,179.02	\$225,614.36	\$241,612.50	\$19,467.79	\$486,694.65	\$3,375.00	\$0.00	\$140.63	\$3,515.63	0.7%	0.0%	0.0%	0.7%
10,000	500	5000000	\$295,916.36	\$322,150.00	\$25,752.77	\$643,819.13	\$300,416.36	\$322,150.00	\$25,940.27	\$648,506.63	\$4,500.00	\$0.00	\$187.50	\$4,687.50	0.7%	0.0%	0.0%	0.7%
20,000	500	10000000	\$590,624.36	\$644,300.00	\$51,455.19	\$1,286,379.55	\$599,624.36	\$644,300.00	\$51,830.19 \$	1,295,754.55	\$9,000.00	\$0.00	\$375.00	\$9,375.00	0.7%	0.0%	0.0%	0.7%
3,000	600	1800000	\$101,644.76	\$115,974.00	\$9,067.45	\$226,686.21	\$103,264.76	\$115,974.00	\$9,134.95	\$228,373.71	\$1,620.00	\$0.00	\$67.50	\$1,687.50	0.7%	0.0%	0.0%	0.7%
5,000	600	3000000	\$168,602.36	\$193,290.00	\$15,078.85	\$376,971.21	\$171,302.36	\$193,290.00	\$15,191.35	\$379,783.71	\$2,700.00	\$0.00	\$112.50	\$2,812.50	0.7%	0.0%	0.0%	0.7%
7,500	600	4500000	\$252,299.36	\$289,935.00	\$22,593.10	\$564,827.46	\$256,349.36	\$289,935.00	\$22,761.85	\$569,046.21	\$4,050.00	\$0.00	\$168.75	\$4,218.75	0.7%	0.0%	0.0%	0.7%
10,000	600	6000000	\$335,996.36	\$386,580.00	\$30,107.35	\$752,683.71	\$341,396.36	\$386,580.00	\$30,332.35	\$758,308.71	\$5,400.00	\$0.00	\$225.00	\$5,625.00	0.7%	0.0%	0.0%	0.7%
20,000	600	12000000	\$670,784.36	\$773,160.00	\$60,164.35	\$1,504,108.71	\$681,584.36	\$773,160.00	\$60,614.35 \$	1,515,358.71	\$10,800.00	\$0.00	\$450.00	\$11,250.00	0.7%	0.0%	0.0%	0.7%

		Proposed Rates without LIDRF	Proposed Rates with LIDRF	Line Item on Bill
		(n)	(0)	
(1)	Distribution Customer Charge	\$1,100.00	\$1,100.00	Customer Charge
(2)	LIHEAP Enhancement Charge	\$0.81	\$0.81	LIHEAP Enhancement Charge
(3)	Renewable Energy Growth Charge	\$107.55	\$107.55	RE Growth Program
(4)	Base Distribution Demand Charge per kW	\$5.00	\$5.00	Distribution Demand Charge
(5)	Distribution Charge (per kWh)	\$0.00631	\$0.00631	-
(6)	Operating & Maintenance Expense Charge per KW	\$0.00	\$0.00	
(7)	Operating & Maintenance Expense Reconciliation Factor	(\$0.00001)	(\$0.00001)	
(8)	FY18 CapEx Factor Demand Charge per kW	\$0.00	\$0.00	
(9)	CapEx Reconciliation Factor	(\$0.00048)	(\$0.00048)	Distribution Energy Charge
(10)	Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118	
(11)	Pension Adjustment Factor	(\$0.00085)	(\$0.00085)	
(12)	Storm Fund Replenishment Factor	\$0.00288	\$0.00288	
(13)	Low Income Discount Recovery Factor	\$0.00000	\$0.00090	
(14)	Long-term Contracting for Renewable Energy Charge	\$0.00665	\$0.00665	B II B BUILD OF
(15)	Net Metering Charge	\$0.00023	\$0.00023	Renewable Energy Distribution Charge
(16)	Transmission Demand Charge	\$4.43	\$4.43	
(17)	Base Transmission Charge	\$0.01227	\$0.01227	
(18)	Transmission Adjustment Factor	(\$0.00052)	(\$0.00052)	Transmission Adjustment
(19)	Transmission Uncollectible Factor	\$0.00031	\$0.00031	
(20)	Base Transition Charge	\$0.00009	\$0.0009	m × m
(21)	Transition Adjustment	\$0.00048	\$0.00048	Transition Charge
(22)	Energy Efficiency Program Charge	\$0.01154	\$0.01154	Energy Efficiency Programs
(23)	Standard Offer Service Base Charge	\$0.06785	\$0.06785	
(24)	SOS Adjustment Factor	(\$0.00507)	(\$0.00507)	
(25)	SOS Adminstrative Cost Adjustment Factor	\$0.00125	\$0.00125	Supply Services Energy Charge
(26)	Renewable Energy Standard Charge	\$0.00040	\$0.00040	
	Line Item on Bill			
(27)	Customer Charge	\$1,100.00	\$1,100.00	
(28)	LIHEAP Enhancement Charge	\$0.81	\$0.81	
(29)	RE Growth Program	\$107.55	\$107.55	
(30)	Transmission Adjustment	\$0.01206	\$0.01206	
(31)	Distribution Energy Charge	\$0.00903	\$0.00993	
(32)	Distribution Demand Charge	\$5.00	\$5.00	
(33)	Transmission Demand Charge	\$4.43	\$4.43	
(32)	Transition Charge	\$0.00057	\$0.00057	
	Energy Efficiency Programs	\$0.01154	\$0.01154	
(34)	Renewable Energy Distribution Charge	\$0.00688	\$0.00688	
(35)	Supply Services Energy Charge	\$0.06443	\$0.06443	

Column (n): per HSG-5

Column (o): per HSG-5 less Low Income Discount recovery Factor, Year 2

Division 14-62

Request:

By month since October 2015 to present inclusive, provide the bills that:

- a. Were received at standard residential rates at average residential consumption;
- b. Would have been received at A60 rates (without considering LIHEAP or LIHEAP matching grants);
- c. That would have been received had the proposed 15% total discount been in effect in those time periods rather than the existing A60 discount.

Response:

Please see Attachment DIV 14-62.

- a. Monthly bills at standard residential (Rate A-16) rates at average residential consumption are presented on Line (24). For the purposes of this response, the Company is using 500 kWh as the average residential consumption as clarified by the Division of Public Utilities and Carriers on January 23, 2018.
- b. Monthly bills at Rate A-60 rates (without considering LIHEAP or LIHEAP matching grants) are presented on Line (36).
- c. Illustrative monthly bills based on the proposed 15 percent total bill discount assuming it had been in effect during this period rather than the existing Rate A-60 discounted base distribution rates are presented on Line (50). For the purpose of this response, the Company has assumed a customer charge for Rate A-60 set equal to the currently effective Rate A-16 customer charge of \$5.00. The Company is proposing a revised customer charge for both Rates A-16 and A-60, with the proposed Rate A-60 customer charge proposed to be phased in over three years.

	Rates as of								
	Oct-2015 (a)	Nov-2015 (b)	Dec-2015 (c)	Jan-2016 (d)	Feb-2016 (e)	Mar-2016 (f)	Apr-2016 (g)	May-2016 (h)	Jun-2016 (i)
Rates:	(a)	(0)	(c)	(u)	(c)	(1)	(5)	(11)	(1)
(1) Usage:	500	500	500	500	500	500	500	500	500
(2) Customer Charge A-16	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(3) Customer Charge A-60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(4) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73
(5) Distribution Energy Charge A-16	\$0.04091	\$0.04164	\$0.04164	\$0.04164	\$0.04164	\$0.04164	\$0.04289	\$0.04289	\$0.04289
(6) Distribution Energy Charge A-60	\$0.02744	\$0.02817	\$0.02817	\$0.02817	\$0.02817	\$0.02817	\$0.02942	\$0.02942	\$0.02942
(7) Renewable Energy Charge	\$0.00232	\$0.00232	\$0.00232	\$0.00233	\$0.00233	\$0.00233	\$0.00241	\$0.00241	\$0.00241
(8) Transmission Charge	\$0.02348	\$0.02348	\$0.02348	\$0.02348	\$0.02348	\$0.02348	\$0.02705	\$0.02705	\$0.02705
(9) Transition Charge	(\$0.00201)	(\$0.00201)	(\$0.00201)	(\$0.00201)	(\$0.00201)	(\$0.00201)	(\$0.00058)	(\$0.00058)	(\$0.00058)
(10) Energy Efficiency Programs	\$0.00983	\$0.00983	\$0.00983	\$0.01107	\$0.01107	\$0.01107	\$0.01107	\$0.01107	\$0.01107
(11) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.78	\$0.78	\$0.78	\$0.17	\$0.17	\$0.17
(12) Energy Charge	\$0.10415	\$0.10415	\$0.10415	\$0.08901	\$0.08901	\$0.08901	\$0.08679	\$0.08679	\$0.08679
A-16 Bill Calculation:									
(13) Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(14) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73
(15) Distribution Energy Charge	\$20.46	\$20.82	\$20.82	\$20.82	\$20.82	\$20.82	\$21.45	\$21.45	\$21.45
(16) Renewable Energy Charge	\$1.16	\$1.16	\$1.16	\$1.17	\$1.17	\$1.17	\$1.21	\$1.21	\$1.21
(17) Transmission Charge	\$11.74	\$11.74	\$11.74	\$11.74	\$11.74	\$11.74	\$13.53	\$13.53	\$13.53
(18) Transition Charge	(\$1.01) \$4.92	(\$1.01) \$4.92	(\$1.01) \$4.92	(\$1.01) \$5.54	(\$1.01) \$5.54	(\$1.01) \$5.54	(\$0.29) \$5.54	(\$0.29) \$5.54	(\$0.29) \$5.54
(19) Energy Efficiency Programs (20) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.78	\$0.78	\$0.78	\$0.17	\$0.17	\$3.3 4 \$0.17
(21) Energy Charge	\$52.08	\$52.08	\$52.08	\$44.51	\$44.51	\$44.51	\$43.40	\$43.40	\$43.40
(22) Subtotal	\$95.25	\$95.61	\$95.61	\$89.28	\$89.28	\$89.28	\$90.74	\$90.74	\$90.74
(23) GET	\$3.97	\$3.98	\$3.98	\$3.72	\$3.72	\$3.72	\$3.78	\$3.78	\$3.78
(24) Total	\$99.22	\$99.59	\$99.59	\$93.00	\$93.00	\$93.00	\$94.52	\$94.52	\$94.52
A-60 Bill Calculation:									
(25) Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(26) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73
(27) Distribution Energy Charge	\$13.72	\$14.09	\$14.09	\$14.09	\$14.09	\$14.09	\$14.71	\$14.71	\$14.71
(28) Renewable Energy Charge	\$1.16	\$1.16	\$1.16	\$1.17	\$1.17	\$1.17	\$1.21	\$1.21	\$1.21
(29) Transmission Charge	\$11.74	\$11.74	\$11.74	\$11.74	\$11.74	\$11.74	\$13.53	\$13.53	\$13.53
(30) Transition Charge	(\$1.01)	(\$1.01)	(\$1.01)	(\$1.01)	(\$1.01)	(\$1.01)	(\$0.29)	(\$0.29)	(\$0.29)
(31) Energy Efficiency Programs	\$4.92	\$4.92	\$4.92	\$5.54	\$5.54	\$5.54	\$5.54	\$5.54	\$5.54
(32) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.78	\$0.78	\$0.78	\$0.17	\$0.17	\$0.17
(33) Energy Charge	\$52.08	\$52.08	\$52.08	\$44.51	\$44.51	\$44.51	\$43.40	\$43.40	\$43.40
(34) Subtotal	\$83.51	\$83.88	\$83.88	\$77.55	\$77.55	\$77.55	\$79.00	\$79.00	\$79.00
(35) GET	\$3.48	\$3.50	\$3.50	\$3.23	\$3.23	\$3.23	\$3.29	\$3.29	\$3.29
(36) Total	\$86.99	\$87.38	\$87.38	\$80.78	\$80.78	\$80.78	\$82.29	\$82.29	\$82.29
A-60 Bill Calculation with 15% Discount:									
(37) Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(38) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73
(39) Distribution Energy Charge	\$20.46	\$20.82	\$20.82	\$20.82	\$20.82	\$20.82	\$21.45	\$21.45	\$21.45
(40) Renewable Energy Charge	\$1.16	\$1.16	\$1.16	\$1.17	\$1.17	\$1.17	\$1.21	\$1.21	\$1.21
(41) Transmission Charge	\$11.74	\$11.74	\$11.74	\$11.74	\$11.74	\$11.74	\$13.53	\$13.53	\$13.53
(42) Transition Charge	(\$1.01)	(\$1.01)	(\$1.01)	(\$1.01)	(\$1.01)	(\$1.01)	(\$0.29)	(\$0.29)	(\$0.29)
(43) Energy Efficiency Programs	\$4.92	\$4.92	\$4.92	\$5.54	\$5.54	\$5.54	\$5.54	\$5.54	\$5.54
(44) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.78	\$0.78	\$0.78	\$0.17	\$0.17	\$0.17
(45) Energy Charge	\$52.08	\$52.08	\$52.08	\$44.51	\$44.51	\$44.51	\$43.40	\$43.40	\$43.40
(46) Subtotal	\$95.25	\$95.61	\$95.61	\$89.28	\$89.28	\$89.28	\$90.74	\$90.74	\$90.74
(47) Discount	(\$14.29)	(\$14.34)	(\$14.34)	(\$13.39)	(\$13.39)	(\$13.39)	(\$13.61)	(\$13.61)	(\$13.61)
(48) Subtotal	\$80.96	\$81.27	\$81.27	\$75.89	\$75.89	\$75.89	\$77.13	\$77.13	\$77.13
(49) GET	\$3.37 \$84.33	\$3.39 \$84.66	\$3.39 \$84.66	\$3.16 \$79.05	\$3.16 \$79.05	\$3.16 \$79.05	\$3.21 \$80.34	\$3.21 \$80.34	\$3.21 \$80.34
(50) Total	\$84.33	\$84.00	\$84.00	\$/9.03	\$/9.03	\$/9.03	\$80.34	\$80.34	\$80.34

- (1) Assumed Usage per e-mail on January 23, 2018 5:42PM
- (2) (12) Rates in effect at the time per RIPUC Tariffs 2095 and 2096
- (13) (14) Line (2) and Line (4) respectively
- (15) (14) Line (2) and Line (4) respectively (15) (19) Line (1) x Lines (5), (7), (8), (9), & (10) Respectively (20) Line (11) (21) Line (1) x Line (12) (22) Sum of (13) through (21)

 - (23) Line (22) x 4.166667% (24) Line (22) + Line (23)
- (25) (26) Line (3) and Line (4) respectively
- (27) (31) Line (1) x Lines (6), (7), (8), (9), & (10) Respectively
 - (32) Line (11)

- (33) Line (1) x Line (12)
- (34) Sum of (25) through (33)
- (35) Line (34) x 4.166667%

- (36) Line (34) x 4. 100007/0 (36) Line (34) + Line (35) (37) (38) Line (2) and Line (4) respectively (39) (43) Line (1) x Lines (5), (7), (8), (9), & (10) Respectively
 - (44) Line (11)
 - (45) Line (1) x Line (12)
 - (46) Sum of (37) through (45)
 - (47) Line (46) x -15%
 - (48) Line (46) + Line (47) (49) Line (48) x 4.166667%

 - (50) Line (48) + Line (49)

	Rates as of								
	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017
	(j)	(k)	(1)	(m)	(n)	(o)	(p)	(q)	(r)
Rates:									
(1) Usage:	500	500	500	500	500	500	500	500	500
(2) Customer Charge A-16	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(3) Customer Charge A-60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(4) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.81	\$0.81	\$0.81
(5) Distribution Energy Charge A-16	\$0.04283	\$0.04283	\$0.04283	\$0.04278	\$0.04278	\$0.04278	\$0.04278	\$0.04278	\$0.04278
(6) Distribution Energy Charge A-60	\$0.02936	\$0.02936	\$0.02936	\$0.02931	\$0.02931	\$0.02931	\$0.02931	\$0.02931	\$0.02931
(7) Renewable Energy Charge	\$0.00344	\$0.00344	\$0.00344	\$0.00344	\$0.00344	\$0.00344	\$0.00674	\$0.00674	\$0.00674
(8) Transmission Charge	\$0.02705	\$0.02705	\$0.02705	\$0.02705	\$0.02705	\$0.02705	\$0.02705	\$0.02705	\$0.02705
(9) Transition Charge	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)	(\$0.00058)
(10) Energy Efficiency Programs	\$0.01107	\$0.01107	\$0.01107	\$0.01107	\$0.01107	\$0.01107	\$0.01154	\$0.01154	\$0.01154
(11) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22
(12) Energy Charge	\$0.08679	\$0.08679	\$0.08679	\$0.08179	\$0.08179	\$0.08179	\$0.08179	\$0.08179	\$0.08179
A-16 Bill Calculation:									
(13) Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(14) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.81	\$0.81	\$0.81
(15) Distribution Energy Charge	\$21.42	\$21.42	\$21.42	\$21.39	\$21.39	\$21.39	\$21.39	\$21.39	\$21.39
(16) Renewable Energy Charge	\$1.72	\$1.72	\$1.72	\$1.72	\$1.72	\$1.72	\$3.37	\$3.37	\$3.37
(17) Transmission Charge	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53
(18) Transition Charge	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)
(19) Energy Efficiency Programs	\$5.54	\$5.54	\$5.54	\$5.54	\$5.54	\$5.54	\$5.77	\$5.77	\$5.77
(20) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22
(21) Energy Charge	\$43.40	\$43.40	\$43.40	\$40.90	\$40.90	\$40.90	\$40.90	\$40.90	\$40.90
(22) Subtotal	\$91.22	\$91.22	\$91.22	\$88.74	\$88.74	\$88.74	\$90.70	\$90.70	\$90.70
(23) GET	\$3.80	\$3.80	\$3.80	\$3.70	\$3.70	\$3.70	\$3.78	\$3.78	\$3.78
(24) Total	\$95.02	\$95.02	\$95.02	\$92.44	\$92.44	\$92.44	\$94.48	\$94.48	\$94.48
A-60 Bill Calculation:									
(25) Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(26) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.81	\$0.81	\$0.81
(27) Distribution Energy Charge	\$14.68	\$14.68	\$14.68	\$14.66	\$14.66	\$14.66	\$14.66	\$14.66	\$14.66
(28) Renewable Energy Charge	\$1.72	\$1.72	\$1.72	\$1.72	\$1.72	\$1.72	\$3.37	\$3.37	\$3.37
(29) Transmission Charge	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53
(30) Transition Charge	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)
(31) Energy Efficiency Programs	\$5.54	\$5.54	\$5.54	\$5.54	\$5.54	\$5.54	\$5.77	\$5.77	\$5.77
(32) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22
(33) Energy Charge	\$43.40	\$43.40	\$43.40	\$40.90	\$40.90	\$40.90	\$40.90	\$40.90	\$40.90
(34) Subtotal	\$79.48	\$79.48	\$79.48	\$77.01	\$77.01	\$77.01	\$78.97	\$78.97	\$78.97
(35) GET	\$3.31	\$3.31	\$3.31	\$3.21	\$3.21	\$3.21	\$3.29	\$3.29	\$3.29
(36) Total	\$82.79	\$82.79	\$82.79	\$80.22	\$80.22	\$80.22	\$82.26	\$82.26	\$82.26
A-60 Bill Calculation with 15% Discount:									
(37) Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(38) LIHEAP Enhancement Charge	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.73	\$0.81	\$0.81	\$0.81
(39) Distribution Energy Charge	\$21.42	\$21.42	\$21.42	\$21.39	\$21.39	\$21.39	\$21.39	\$21.39	\$21.39
(40) Renewable Energy Charge	\$1.72	\$1.72	\$1.72	\$1.72	\$1.72	\$1.72	\$3.37	\$3.37	\$3.37
(41) Transmission Charge	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53	\$13.53
(42) Transition Charge	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)	(\$0.29)
(43) Energy Efficiency Programs	\$5.54	\$5.54	\$5.54	\$5.54	\$5.54	\$5.54	\$5.77	\$5.77	\$5.77
(44) RE Growth Program	\$0.17	\$0.17	\$0.17	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22
(45) Energy Charge	\$43.40	\$43.40	\$43.40	\$40.90	\$40.90	\$40.90	\$40.90	\$40.90	\$40.90
(46) Subtotal	\$91.22	\$91.22	\$91.22	\$88.74	\$88.74	\$88.74	\$90.70	\$90.70	\$90.70
(47) Discount	(\$13.68)	(\$13.68)	(\$13.68)	(\$13.31)	(\$13.31)	(\$13.31)	(\$13.61)	(\$13.61)	(\$13.61)
(48) Subtotal	\$77.54	\$77.54	\$77.54	\$75.43	\$75.43	\$75.43	\$77.09	\$77.09	\$77.09
(49) GET	\$3.23	\$3.23	\$3.23	\$3.14	\$3.14	\$3.14	\$3.21	\$3.21	\$3.21
(50) Total	\$80.77	\$80.77	\$80.77	\$78.57	\$78.57	\$78.57	\$80.30	\$80.30	\$80.30

- (1) Assumed Usage per e-mail on January 23, 2018 5:42PM
- (2) (12) Rates in effect at the time per RIPUC Tariffs 2095 and 2096
- (13) (14) Line (2) and Line (4) respectively
- (15) (14) Line (2) and Line (4) respectively (15) (19) Line (1) x Lines (5), (7), (8), (9), & (10) Respectively (20) Line (11) (21) Line (1) x Line (12) (22) Sum of (13) through (21)

 - (23) Line (22) x 4.166667% (24) Line (22) + Line (23)
- (25) (26) Line (3) and Line (4) respectively
- (27) (31) Line (1) x Lines (6), (7), (8), (9), & (10) Respectively
 - (32) Line (11)

- (33) Line (1) x Line (12)
- (34) Sum of (25) through (33)
- (35) Line (34) x 4.166667%

- (35) Line (34) 4 + Line (35) (36) Line (34) + Line (35) (37) (38) Line (2) and Line (4) respectively (39) (43) Line (1) x Lines (5), (7), (8), (9), & (10) Respectively
 - (44) Line (11)
 - (45) Line (1) x Line (12)
 - (46) Sum of (37) through (45)
 - (47) Line (46) x -15%
 - (48) Line (46) + Line (47) (49) Line (48) x 4.166667%
 - (50) Line (48) + Line (49)

	Rates as of								
	Apr-2017 (s)	May-2017 (t)	Jun-2017 (u)	Jul-2017 (v)	Aug-2017 (w)	Sep-2017 (x)	Oct-2017 (y)	Nov-2017 (z)	Dec-2017 (aa)
Rates:	(8)	(1)	(u)	(v)	(w)	(X)	(y)	(Z)	(aa)
(1) Usage:	500	500	500	500	500	500	500	500	500
(2) Customer Charge A-16	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(3) Customer Charge A-60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(4) LIHEAP Enhancement Charge	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
(5) Distribution Energy Charge A-16	\$0.04268	\$0.04268	\$0.04268	\$0.04589	\$0.04589	\$0.04589	\$0.04300	\$0.04300	\$0.04300
(6) Distribution Energy Charge A-60	\$0.02921	\$0.02921	\$0.02921	\$0.03242	\$0.03242	\$0.03242	\$0.02953	\$0.02953	\$0.02953
(7) Renewable Energy Charge	\$0.00677	\$0.00677	\$0.00677	\$0.00687	\$0.00687	\$0.00687	\$0.00687	\$0.00687	\$0.00687
(8) Transmission Charge	\$0.03179	\$0.03179	\$0.03179	\$0.03179	\$0.03179	\$0.03179	\$0.03179	\$0.03179	\$0.03179
(9) Transition Charge	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00057
(10) Energy Efficiency Programs	\$0.01154	\$0.01154	\$0.01154	\$0.01154	\$0.01154	\$0.01154	\$0.01154	\$0.01154	\$0.01154
(11) RE Growth Program	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.78	\$0.78	\$0.78
(12) Energy Charge	\$0.06228	\$0.06228	\$0.06228	\$0.06228	\$0.06228	\$0.06228	\$0.09515	\$0.09515	\$0.09515
A-16 Bill Calculation:									
(13) Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(14) LIHEAP Enhancement Charge	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
(15) Distribution Energy Charge	\$21.34	\$21.34	\$21.34	\$22.95	\$22.95	\$22.95	\$21.50	\$21.50	\$21.50
(16) Renewable Energy Charge	\$3.39	\$3.39	\$3.39	\$3.44	\$3.44	\$3.44	\$3.44	\$3.44	\$3.44
(17) Transmission Charge	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90
(18) Transition Charge	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29
(19) Energy Efficiency Programs	\$5.77	\$5.77	\$5.77	\$5.77 \$0.22	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77 \$0.78
(20) RE Growth Program (21) Energy Charge	\$0.22 \$31.14	\$0.22 \$31.14	\$0.22 \$31.14	\$31.14	\$0.22 \$31.14	\$0.22 \$31.14	\$0.78 \$47.58	\$0.78 \$47.58	\$0.78 \$47.58
(22) Subtotal	\$83.86	\$83.86	\$83.86	\$85.52	\$85.52	\$85.52	\$101.07	\$101.07	\$101.07
(23) GET	\$3.49	\$3.49	\$3.49	\$3.56	\$3.56	\$3.56	\$4.21	\$4.21	\$4.21
(24) Total	\$87.35	\$87.35	\$87.35	\$89.08	\$89.08	\$89.08	\$105.28	\$105.28	\$105.28
A-60 Bill Calculation:									
(25) Customer Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(26) LIHEAP Enhancement Charge	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
(27) Distribution Energy Charge	\$14.61	\$14.61	\$14.61	\$16.21	\$16.21	\$16.21	\$14.77	\$14.77	\$14.77
(28) Renewable Energy Charge	\$3.39	\$3.39	\$3.39	\$3.44	\$3.44	\$3.44	\$3.44	\$3.44	\$3.44
(29) Transmission Charge	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90
(30) Transition Charge	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29
(31) Energy Efficiency Programs	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77
(32) RE Growth Program	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.78	\$0.78	\$0.78
(33) Energy Charge	\$31.14	\$31.14	\$31.14	\$31.14	\$31.14	\$31.14	\$47.58	\$47.58	\$47.58
(34) Subtotal	\$72.13	\$72.13	\$72.13	\$73.78	\$73.78	\$73.78	\$89.34	\$89.34	\$89.34
(35) GET	\$3.01	\$3.01	\$3.01	\$3.07	\$3.07	\$3.07	\$3.72	\$3.72	\$3.72
(36) Total	\$75.14	\$75.14	\$75.14	\$76.85	\$76.85	\$76.85	\$93.06	\$93.06	\$93.06
A-60 Bill Calculation with 15% Discount:									
(37) Customer Charge	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
(38) LIHEAP Enhancement Charge	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
(39) Distribution Energy Charge	\$21.34	\$21.34	\$21.34	\$22.95	\$22.95	\$22.95	\$21.50	\$21.50	\$21.50
(40) Renewable Energy Charge	\$3.39	\$3.39	\$3.39	\$3.44	\$3.44	\$3.44	\$3.44	\$3.44	\$3.44
(41) Transmission Charge	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90	\$15.90
(42) Transition Charge	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29	\$0.29
(43) Energy Efficiency Programs	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77	\$5.77
(44) RE Growth Program	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.78	\$0.78	\$0.78
(45) Energy Charge	\$31.14	\$31.14	\$31.14	\$31.14	\$31.14	\$31.14	\$47.58	\$47.58	\$47.58
(46) Subtotal	\$83.86	\$83.86	\$83.86	\$85.52	\$85.52	\$85.52	\$101.07	\$101.07	\$101.07
(47) Discount	(\$12.58)	(\$12.58)	(\$12.58)	(\$12.83)	(\$12.83)	(\$12.83)	(\$15.16)	(\$15.16)	(\$15.16)
(48) Subtotal	\$71.28	\$71.28	\$71.28	\$72.69	\$72.69	\$72.69	\$85.91	\$85.91	\$85.91
(49) GET (50) Total	\$2.97 \$74.25	\$2.97 \$74.25	\$2.97 \$74.25	\$3.03 \$75.72	\$3.03 \$75.72	\$3.03 \$75.72	\$3.58 \$89.49	\$3.58 \$89.49	\$3.58 \$89.49
(50) 10(a)	\$14.23	\$14.23	\$14.23	\$13.12	\$13.12	\$13.12	J07.49	307.49	\$07. 4 7

- (1) Assumed Usage per e-mail on January 23, 2018 5:42PM
- (2) (12) Rates in effect at the time per RIPUC Tariffs 2095 and 2096
- (13) (14) Line (2) and Line (4) respectively
- (15) (14) Line (2) and Line (4) respectively (15) (19) Line (1) x Lines (5), (7), (8), (9), & (10) Respectively (20) Line (11) (21) Line (1) x Line (12) (22) Sum of (13) through (21)

 - (23) Line (22) x 4.166667% (24) Line (22) + Line (23)
- (25) (26) Line (3) and Line (4) respectively
- (27) (31) Line (1) x Lines (6), (7), (8), (9), & (10) Respectively
 - (32) Line (11)

- (33) Line (1) x Line (12)
- (34) Sum of (25) through (33)
- (35) Line (34) x 4.166667%

- (35) Line (34) 4 + Line (35) (36) Line (34) + Line (35) (37) (38) Line (2) and Line (4) respectively (39) (43) Line (1) x Lines (5), (7), (8), (9), & (10) Respectively
 - (44) Line (11)
 - (45) Line (1) x Line (12)
 - (46) Sum of (37) through (45)
 - (47) Line (46) x -15%
 - (48) Line (46) + Line (47) (49) Line (48) x 4.166667%

 - (50) Line (48) + Line (49)

Division 14-63

Request:

For the following five usage levels, provide an illustration of the proposed 15% total bill discount in sufficient detail to allow replication:

- a. 50% of average (mean) residential usage;
- b. 75% of average (mean) residential usage;
- c. 125% of average (mean) residential usage;
- d. 100% of average (mean) residential usage;
- e. 100% of median residential usage.

Response:

Please see Attachment DIV 14-63 for the proposed 15 percent discount in the Rate Year. As presented on Line 7 of Page 1, the effective discount in the Rate Year exceeds 15 percent because the Company is proposing to phase in the proposed \$8.50 customer charge over a three-year period.

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-63 Page 1 of 6

	Propo	sed Delive	ry of Low I	ncome Disc	count
(1) A60 mean residential usage:	540	540	540	540	n/a
(2) % of Mean	50%	75%	125%	100%	Median
(3) kWh Deliveries	270	405	675	540	416
	(a)	(b)	(c)	(d)	(e)
 (4) Total Rate A-16 Bill (5) Total Rate A-60 Bill (6) Bill Reduction from Discount (7) Reduction 	\$65.29 \$50.08 (\$15.21) -23.3%	\$92.67 \$73.20 (\$19.47) -21.0%	\$147.42 \$119.45 (\$27.98) -19.0%	\$120.04 \$96.31 (\$23.73) -19.8%	\$94.89 \$75.08 (\$19.81) -20.9%

- (1) Pages (2) (6), Line (1)
- (2) Usage level requested
- (3) Pages (2) (6), Line (2)
- (4) Pages (2) (6), Line (16), Column (b)
- (5) Pages (2) (6), Line (16), Column (d)
- (6) Line (5) Line (6)
- (7) Line (6) \div Line (4)

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-63 Page 2 of 6

(1) A60 mean residential usage: 540(2) 50% of mean usage: 270

		A16 Proposed Rates	A16 Bill Calculation	A60 Proposed Rates	A60 Bill Calculation
		(a)	(b)	(c)	(d)
Description	Per				
(3) Customer Charge	Bill	\$8.50	\$8.50	\$2.75	\$2.75
(4) LIHEAP Enhancement Charge	Bill	\$0.81	\$0.81	\$0.81	\$0.81
(5) Distribution Energy Charge	kWh	\$0.04873	\$13.16	\$0.04786	\$12.92
(6) Renewable Energy Charge	kWh	\$0.00688	\$1.86	\$0.00645	\$1.74
(7) Transmission Charge	kWh	\$0.03180	\$8.59	\$0.03180	\$8.59
(8) Transition Charge	kWh	\$0.00057	\$0.15	\$0.00057	\$0.15
(9) Energy Efficiency Programs	kWh	\$0.01154	\$3.12	\$0.01154	\$3.12
(10) RE Growth Program	Bill	\$0.79	\$0.79	\$0.79	\$0.79
(11) Energy Charge	kWh	\$0.09518	\$25.70	\$0.09518	\$25.70
(12) Subtotal			\$62.68		\$56.57
(13) Discount at 15%					(\$8.49)
(14) Subtotal					\$48.08
(15) Gross Earnings Tax		4.166667%	\$2.61	4.166667%	\$2.00
(16) Total(17) Dollar discount(18) Discount Percentage			\$65.29		\$50.08 (\$15.21) -23.3%

(1)	Per PUC 1-88, page (2), line (1)
(2)	Line (1) x 50%
(3) - (11) (a)	Worksheet HSG-5, Page (1), Column (b)
(3) - (11) (b)	Column (a) times 1 (for per bill) or Column (a) times line (1a)
(3) - (11) (c)	Worksheet HSG-5, Page (2), Column (b)
(3) - (11) (d)	Column (c) times 1 (for per bill) or Column (c) times line (1a)
(12)	Sum of Lines (3) - (11)
(13)	Line (12) x -15.0%
(14)	Line (12) + Line (13)
(15)	Line (14) x 4.166667%
(16)	Line (14) + Line (15)
(17)	Line (16), Column (d) - Line (16), Column (b)
(18)	Line (17), Column (d) ÷ Line (16), Column (b)

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-63 Page 3 of 6

(1) A60 mean residential usage: 540(2) 75% of mean usage: 405

		A16 Proposed Rates	A16 Bill Calculation	A60 Proposed Rates	A60 Bill Calculation
		(a)	(b)	(c)	(d)
Description	Per				
(3) Customer Charge	Bill	\$8.50	\$8.50	\$2.75	\$2.75
(4) LIHEAP Enhancement Charge	Bill	\$0.81	\$0.81	\$0.81	\$0.81
(5) Distribution Energy Charge	kWh	\$0.04873	\$19.74	\$0.04786	\$19.38
(6) Renewable Energy Charge	kWh	\$0.00688	\$2.79	\$0.00645	\$2.61
(7) Transmission Charge	kWh	\$0.03180	\$12.88	\$0.03180	\$12.88
(8) Transition Charge	kWh	\$0.00057	\$0.23	\$0.00057	\$0.23
(9) Energy Efficiency Programs	kWh	\$0.01154	\$4.67	\$0.01154	\$4.67
(10) RE Growth Program	Bill	\$0.79	\$0.79	\$0.79	\$0.79
(11) Energy Charge	kWh	\$0.09518	\$38.55	\$0.09518	\$38.55
(12) Subtotal			\$88.96		\$82.67
(13) Discount at 15%					(\$12.40)
(14) Subtotal					\$70.27
(15) Gross Earnings Tax		4.166667%	\$3.71	4.166667%	\$2.93
(16) Total(17) Dollar discount(18) Discount Percentage			\$92.67		\$73.20 (\$19.47) -21.0%

(1)	Per PUC 1-88, page (2), line (1)
(2)	Line (1) x 75%
(3) - (11) (a)	Worksheet HSG-5, Page (1), Column (b)
(3) - (11) (b)	Column (a) times 1 (for per bill) or Column (a) times line (1a)
(3) - (11) (c)	Worksheet HSG-5, Page (2), Column (b)
(3) - (11) (d)	Column (c) times 1 (for per bill) or Column (c) times line (1a)
(12)	Sum of Lines (3) - (11)
(13)	Line (12) x -15.0%
(14)	Line (12) + Line (13)
(15)	Line (14) x 4.166667%
(16)	Line (14) + Line (15)
(17)	Line (16), Column (d) - Line (16), Column (b)
(18)	Line (17), Column (d) ÷ Line (16), Column (b)

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-63

Page 4 of 6

(1) A60 mean residential usage: 540(2) 125% of mean usage: 675

		A16 Proposed Rates	A16 Bill Calculation	A60 Proposed Rates	A60 Bill Calculation
		(a)	(b)	(c)	(d)
Description	Per		(-)	(-)	()
(3) Customer Charge	Bill	\$8.50	\$8.50	\$2.75	\$2.75
(4) LIHEAP Enhancement Charge	Bill	\$0.81	\$0.81	\$0.81	\$0.81
(5) Distribution Energy Charge	kWh	\$0.04873	\$32.89	\$0.04786	\$32.31
(6) Renewable Energy Charge	kWh	\$0.00688	\$4.64	\$0.00645	\$4.35
(7) Transmission Charge	kWh	\$0.03180	\$21.47	\$0.03180	\$21.47
(8) Transition Charge	kWh	\$0.00057	\$0.38	\$0.00057	\$0.38
(9) Energy Efficiency Programs	kWh	\$0.01154	\$7.79	\$0.01154	\$7.79
(10) RE Growth Program	Bill	\$0.79	\$0.79	\$0.79	\$0.79
(11) Energy Charge	kWh	\$0.09518	\$64.25	\$0.09518	\$64.25
(12) Subtotal			\$141.52		\$134.90
(13) Discount at 15%					(\$20.24)
(14) Subtotal					\$114.67
(15) Gross Earnings Tax		4.166667%	\$5.90	4.166667%	\$4.78
(16) Total(17) Dollar discount(18) Discount Percentage			\$147.42		\$119.45 (\$27.98) -19.0%

Per PUC 1-88, page (2), line (1)
Line (1) x 125%
Worksheet HSG-5, Page (1), Column (b)
Column (a) times 1 (for per bill) or Column (a) times line (1a)
Worksheet HSG-5, Page (2), Column (b)
Column (c) times 1 (for per bill) or Column (c) times line (1a)
Sum of Lines (3) - (11)
Line (12) x -15.0%
Line (12) + Line (13)
Line (14) x 4.166667%
Line (14) + Line (15)
Line (16), Column (d) - Line (16), Column (b)
Line (17), Column (d) ÷ Line (16), Column (b)

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-63 Page 5 of 6

(1) A60 mean residential usage: 540(2) 100% of mean usage: 540

		A16 Proposed Rates	A16 Bill Calculation	A60 Proposed Rates	A60 Bill Calculation
		(a)	(b)	(c)	(d)
Description	Per				
(3) Customer Charge	Bill	\$8.50	\$8.50	\$2.75	\$2.75
(4) LIHEAP Enhancement Charge	Bill	\$0.81	\$0.81	\$0.81	\$0.81
(5) Distribution Energy Charge	kWh	\$0.04873	\$26.31	\$0.04786	\$25.84
(6) Renewable Energy Charge	kWh	\$0.00688	\$3.72	\$0.00645	\$3.48
(7) Transmission Charge	kWh	\$0.03180	\$17.17	\$0.03180	\$17.17
(8) Transition Charge	kWh	\$0.00057	\$0.31	\$0.00057	\$0.31
(9) Energy Efficiency Programs	kWh	\$0.01154	\$6.23	\$0.01154	\$6.23
(10) RE Growth Program	Bill	\$0.79	\$0.79	\$0.79	\$0.79
(11) Energy Charge	kWh	\$0.09518	\$51.40	\$0.09518	\$51.40
(12) Subtotal			\$115.24		\$108.78
(13) Discount at 15%					(\$16.32)
(14) Subtotal					\$92.46
(15) Gross Earnings Tax		4.166667%	\$4.80	4.166667%	\$3.85
(16) Total			\$120.04		\$96.31
(17) Dollar discount					(\$23.73)
(18) Discount Percentage					-19.8%

(1)	Per PUC 1-88, page (2), line (1)
(2)	Line (1) x 100%
(3) - (11) (a)	Worksheet HSG-5, Page (1), Column (b)
(3) - (11) (b)	Column (a) times 1 (for per bill) or Column (a) times line (1a)
(3) - (11) (c)	Worksheet HSG-5, Page (2), Column (b)
(3) - (11) (d)	Column (c) times 1 (for per bill) or Column (c) times line (1a)
(12)	Sum of Lines (3) - (11)
(13)	Line (12) x -15.0%
(14)	Line (12) + Line (13)
(15)	Line (14) x 4.166667%
(16)	Line (14) + Line (15)
(17)	Line (16), Column (d) - Line (16), Column (b)
(18)	Line (17), Column (d) ÷ Line (16), Column (b)

THE NARRAGANSETT ELECTRIC COMPANY d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-63 Page 6 of 6

(1) A60 median residential usage: 416(2) 100% of median residential usage: 416

		A16 Proposed Rates (a)	A16 Bill Calculation (b)	A60 Proposed Rates (c)	A60 Bill Calculation (d)
Description	Per	()		(*)	(4)
(3) Customer Charge	Bill	\$8.50	\$8.50	\$2.75	\$2.75
(4) LIHEAP Enhancement Charge	Bill	\$0.81	\$0.81	\$0.81	\$0.81
(5) Distribution Energy Charge	kWh	\$0.04873	\$20.27	\$0.04786	\$19.91
(6) Renewable Energy Charge	kWh	\$0.00688	\$2.86	\$0.00645	\$2.68
(7) Transmission Charge	kWh	\$0.03180	\$13.23	\$0.03180	\$13.23
(8) Transition Charge	kWh	\$0.00057	\$0.24	\$0.00057	\$0.24
(9) Energy Efficiency Programs	kWh	\$0.01154	\$4.80	\$0.01154	\$4.80
(10) RE Growth Program	Bill	\$0.79	\$0.79	\$0.79	\$0.79
(11) Energy Charge	kWh	\$0.09518	\$39.59	\$0.09518	\$39.59
(12) Subtotal			\$91.09		\$84.80
(13) Discount at 15%					(\$12.72)
(14) Subtotal					\$72.08
(15) Gross Earnings Tax		4.166667%	\$3.80	4.166667%	\$3.00
(16) Total(17) Dollar discount(18) Discount Percentage			\$94.89		\$75.08 (\$19.81) -20.9%

(1)	Per PUC 1-88, page (2), line (1)
(2)	Per PUC 1-88, page (2), line (1)
(3) - (11) (a)	Worksheet HSG-5, Page (1), Column (b)
(3) - (11) (b)	Column (a) times 1 (for per bill) or Column (a) times line (1a)
(3) - (11) (c)	Worksheet HSG-5, Page (2), Column (b)
(3) - (11) (d)	Column (c) times 1 (for per bill) or Column (c) times line (1a)
(12)	Sum of Lines (3) - (11)
(13)	Line (12) x -15.0%
(14)	Line (12) + Line (13)
(15)	Line (14) x 4.166667%
(16)	Line (14) + Line (15)
(17)	Line (16), Column (d) - Line (16), Column (b)
(18)	Line (17), Column (d) ÷ Line (16), Column (b)

Division 14-64

Request:

Please provide a detailed description of the enrollment process for the existing A60 discount. Separately provide a detailed description of how, if at all, the enrollment process will change for the proposed 15% discount.

Response:

Customers receiving LIHEAP are enrolled through files provided to the Company from Community Action Program agencies either when receiving a grant for the electric account or when notified of eligibility for a non-electric heating source. Customers receiving a qualifying benefit other than LIHEAP are requested to submit confirmation of benefits to the Company. Upon receipt of confirmation the account is placed on the A-60 rate. This enrollment process will not change for the proposed 15 percent discount.

Division 14-65

Request:

Please provide a detailed description of the periodic re-enrollment (or recertification) process for the existing A60 discount. Separately provide a detailed description of how, if at all, that re-enrollment (or recertification) process will change for the proposed 15% discount.

Response:

An automated process has been established within the Customer Service System for reviewing accounts on the A60 rate. When an account is placed on the A60 rate, an expiration date is created based on the type of assistance the customer is receiving. For LIHEAP recipients, the expiration date is eighteen months from enrollment date; for non-LIHEAP recipients, the expiration date is twelve months.

Thirty days prior to the expiration date, a letter is sent to the customer requesting the customer recertify his or her participation in the qualifying program to remain on the A60 rate. Upon receipt of the customer's participation in the program, a new expiration date is established in the Customer Service System. If no confirmation of participation is received by the expiration date, the system will change the rate to A16.

The re-enrollment (or recertification) process will not change for the proposed 15 percent discount.

Division 14-66

Request:

For the following five usage levels, provide an illustration of the effective discount provided under the existing A60 discount in sufficient detail to allow replication:

- a. 50% of average (mean) residential usage;
- b. 75% of average (mean) residential usage;
- c. 125% of average (mean) residential usage;
- d. 100% of average (mean) residential usage;
- e. 100% of median residential usage.

Response:

Please see Line 7 of Page 1 of Attachment PUC 14-50 for a calculation of the effective discount provided under the existing Rate A-60 discounted distribution rates for the requested usage levels.

Division 14-67

Request:

For the following five usage levels, provide an illustration of the effective discount provided under the proposed 15% total bill discount in sufficient detail to allow replication:

- a. 50% of average (mean) residential usage;
- b. 75% of average (mean) residential usage;
- c. 125% of average (mean) residential usage;
- d. 100% of average (mean) residential usage;
- e. 100% of median residential usage.

Response:

Please see Line 7 of Page 1 of Attachment PUC 14-63 for a calculation of the effective discount for the Rate Year under the proposed 15 percent total bill for the requested usage levels.

Division 14-68

Request:

Please provide a detailed description of the expected impact on LIHEAP enrollment arising from the elimination of the Company's explicit LIHEAP matching grant. Provide all written documents, of any nature, prepared assessing this impact.

Response:

Narragansett Electric does not have a LIHEAP matching grant program for electric customers on Rate A-60. Narragansett Gas operates the LIHEAP matching grant program, which it is proposing to eliminate as part of the Company's low income discount proposal. The Company does not anticipate enrollments in the LIHEAP program will be impacted by the elimination of the Company's LIHEAP matching grant. Enrollments for LIHEAP assistance are received and processed by the state Community Action Program (CAP) agencies. The amount of the Company match is considerably lower than the LIHEAP grant. Only customers who receive LIHEAP grants actually receive a LIHEAP matching grant from the Company. Therefore the elimination of the Company's LIHEAP matching program will not impact the number of customers enrolling in LIHEAP.

Division 14-69

Request:

Please provide the percent discount off of the total bills for the Company's Massachusetts affiliate. If that discount has changed since 2009, please so indicate and describe the nature and level of the change.

Response:

Pursuant to M.G.L. c. 164, §1F and § (4)(i), the Massachusetts Department of Public Utilities (Department) requires all distribution companies to maintain the discount provided to low income customers after March 1, 1998 at the same level as that in effect prior to this date. Please see Attachment DIV 14-69-1 for the referenced statute. For Massachusetts Electric Company and Nantucket Electric Company (together Mass. Electric), the level of the low income discount in base distribution rates prior to March 1, 1998 was 25 percent. Mass. Electric designed base distribution rates effective for the years after March 1, 1998 to reflect this discount and adjusted base distribution rates accordingly as directed by the Department. A low income customer of Mass. Electric is defined as a customer receiving delivery service on Residential Low Income R-2 (Rate R-2).

Effective January 1, 2010 and as a result of a general rate case filed in May 2009, Mass. Electric proposed and the Department approved a change in the manner by which Mass. Electric reflected the low income discount on Rate R-2 customers' bills. This change, similar to what the Company is proposing in its general rate case in this docket, eliminated the Rate R-2 discounted base distribution rates (such that Rate R-2 customers are billed the same rates as non-low income residential customers with the exception of the Energy Efficiency Charge) and instituting a 25 percent low income discount on the total bill of all Rate R-2 customers. See D.P.U 09-39 (2010).

Effective October 1, 2016 and a result of a general rate case filed in November 2015, the low income discount was changed to 29 percent as ordered by the Department in D.P.U. 15-155. Pursuant to M.G.L. c. 164, § 141 (attached as Attachment DIV 14-69-2), the level of the low income discount may be adjusted where the scale of on-site generation would have an impact on affordability for low income customers. In this case, the Department found that on-site generation had grown, accompanied by an increase in costs from the associated incentives (i.e., the Renewable Portfolio Standard, the solar carve out, and the Net Metering Recovery Surcharge which recovers net metering credits paid to customers receiving net metering service). The increased costs of these incentives are recovered by Mass. Electric through in customers' bills, including bills of Rate R-2 customers. The Department determined that Rate R-2 customers had experienced an increase in bills as a result of the growth of on-site generation. Therefore,

pursuant to M.G.L. c. 164, § 141, the Department concluded that it was appropriate to adjust Mass. Electric's low income discount percentage.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-69-1 Page 1 of 7

1/24/2018 Section 1F

Part I ADMINISTRATION OF THE GOVERNMENT

Title XXII CORPORATIONS

Chapter MANUFACTURE AND SALE OF GAS AND ELECTRICITY

164

Section 1F CONSUMER PROTECTIONS; RULES AND REGULATIONS

Section 1F. The department is hereby authorized and directed to require electric companies organized pursuant to this chapter to accommodate retail access to generation services and choice of suppliers by retail customers, unless otherwise provided by this chapter. The department shall promulgate rules and regulations to provide retail customers with the utmost consumer protections contained in law, including, but not limited to, the following provisions:

- (1) The department shall license to do business in the commonwealth all generation companies, aggregators, suppliers, energy marketers, and energy brokers in accordance with the provisions of subparagraphs (i), (ii), and (iii). The department shall maintain a list of all licensed generation companies, aggregators, energy brokers, energy marketers, and suppliers, which shall be available to any consumer requesting such information through the department for a reasonable fee.
- (i) All generation companies shall submit a license application to the department for approval to sell electric power or provide generation services within the commonwealth. Such application shall include the following: the company's technical ability, as defined pursuant to regulations promulgated by the department, to generate or otherwise obtain and deliver electricity and provide any other proposed services; documentation of financial capability of the applicant to provide the proposed services; a description of the company's form of ownership; and documentation regarding any valid purchase power contracts between the company, the company's affiliates, or the company's parent or subsidiary, and any electric company formed pursuant to the provisions of this chapter. A license shall not be granted unless and until all of the above information is provided with the payment of a fee, the amount to be determined by the department.
- (ii) All private, non-profit, or co-operative aggregators established pursuant to sections 135 and 136 seeking to do business in the commonwealth shall submit a license application to the department, subject to rules and regulations promulgated by the department and subject to the payment of a fee, the amount to be determined by the department.
- (iii) All energy brokers, energy marketers, and other suppliers seeking to do business in the commonwealth shall submit a license application to the department, subject to rules and regulations promulgated by the department and subject to the payment of a fee, the amount to be determined by the department.
- (2) Pursuant to this paragraph, the department shall promulgate rules and regulations which shall include, but not be limited to, the following provisions: (i) a requirement that all distribution companies, generation companies, aggregators, marketers and suppliers notify their customers in writing of the terms of their

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-69-1 Page 2 of 7

1/24/2018 Section 1F

agreement to provide service at the time service is initiated, a formal procedure allowing a customer to file a complaint against a distribution or generation company, aggregator, or supplier; and (ii) a formal dispute resolution procedure developed in consultation with the Massachusetts office of dispute resolution, which shall include options for mediation, arbitration, facilitation or other dispute resolutions methods. Under such procedure, the department or a professional neutral provided by the Massachusetts office of dispute resolution and approved by the department will assist in resolving disputes between any customer and a distribution or generation company, aggregator, or supplier against which a complaint is issued, subject to a penalty determined by the department, including any fines authorized by paragraph (7). No distribution or generation company may disconnect or discontinue service to a customer for a disputed amount if that customer has filed a complaint which is pending with the department.

- (3) The department is hereby authorized and directed to establish rules and regulations to (i) promote effective competition; (ii) to investigate disputes; (iii) to institute a complaint mechanism for the resolution of disputes, including, but not limited to, those arising from alleged vertical or horizontal market power abuses; (iv) to hear such disputes in the first instance at an informal level and, if requested, at a formal hearing before the department; (v) to refer complaints to the attorney general where appropriate; and (vi) to impose fines or penalties, including when appropriate a reduction in return on equity of a regulated distribution company, for violations of any regulations establishing the corporate rules of conduct.
- (4)(i) The department shall require that distribution companies provide discounted rates for low income customers comparable to the low-income discount rate in effect prior to March 1, 1998. Said discount shall be in addition to any reduction in rates that becomes effective pursuant to said subsection (b) of said section 1B on March 1, 1998, and to any subsequent rate reductions provided by a distribution company after said date pursuant to said subsection. The cost of such discounts shall be included in the rates charged to all other customers of a distribution company. Each distribution company shall guarantee payment to the generation supplier for all power sold to low-income customers at said discounted rates. Eligibility for the discount rates established herein shall be established upon verification of a low-income customer's receipt of any means tested public benefit, or verification of eligibility for the low-income home energy assistance program, or its successor program, for which eligibility does not exceed 200 per cent of the federal poverty level based on a household's gross income. Said public benefits may include, but are not limited to, assistance which provides cash, housing, food, or medical care, including, but not limited to, transitional assistance for needy families, supplemental security income, emergency assistance to elders, disabled, and children, food stamps, public housing, federallysubsidized or state-subsidized housing, the low-income home energy assistance program, veterans' benefits, and similar benefits. The department of energy resources shall make available to distribution companies the eligibility guidelines for said public benefit programs. Each distribution company shall conduct substantial outreach efforts to make said low-income discount available to eligible customers and shall report to said division, at least annually, as to its outreach activities and results. Outreach may include establishing an automated program of matching customer accounts with lists of recipients of said means tested public benefit programs and based on the results of said matching program, to presumptively offer a low-income discount rate to eligible customers so identified; provided, however, that the distribution company, within 60 days of said presumptive enrollment, informs any such low-income customer of said presumptive enrollment and all rights and obligations of a customer under said program, including the right to withdraw from said program without penalty.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-69-1 Page 3 of 7

1/24/2018 Section 1F

In a program year in which maximum eligibility for the low-income home energy assistance program, or its successor program, exceeds 200 per cent of the federal poverty level, a household that is income eligible for the low-income home energy assistance program shall be eligible for the low-income discount rates required by this subparagraph.

The department is hereby directed to increase the low-income discount eligibility rate from 175 per cent of the federal poverty level to 200 per cent of the federal poverty level, as found in regulation 220 CMR 14.03(2A).

(ii) A residential customer eligible for low-income discount rates shall receive the service on demand. Each distribution company shall periodically notify all customers of the availability and method of obtaining low-income discount rates. An existing residential customer eligible for a low-income discount on the date of the start of retail access who orders service for the first time from a distribution company shall be offered basic service by that distribution company.

The department shall promulgate rules and regulations requiring utility companies organized pursuant to this chapter to produce information, in the form of a mailing, or other approved method of distribution, to their consumers, to inform them of available rebates, discounts, credits, and other cost-saving mechanisms that can help them lower their monthly utility bills, and send out such information semi-annually, unless otherwise provided by this chapter.

- (iv) There shall be no charge to any residential customer for initiating or terminating low-income discount rates, default service, or standard offer service when said initiation or termination request is made after a regular meter reading has occurred and the customer is in receipt of the results of said reading. A distribution company may impose a reasonable charge, as set by the department through regulation, for initiating or terminating low-income discount rates, default service, or standard offer service when a customer does not make such an initiation or termination request upon the receipt of said results and prior to the receipt of the next regularly scheduled meter reading. For purposes of this subsection, there shall be a regular meter reading conducted of every residential account no less often than once every two months. Notwithstanding the foregoing, there shall be no charge when the initiation or termination is involuntary on the part of the customer.
- (5)(i) Before service is initiated by a generation company, aggregator, or supplier to any customer, the generation company, aggregator, or supplier shall disclose information on rates and other information to a customer in a written statement which the customer may retain. The department shall promulgate rules and regulations prescribing the form, content, and distribution of such information to be disclosed, which shall include, but not be limited to, the following: the disclosure of the rate to be charged; whether the generation company or supplier operates under collective bargaining agreements and whether such generation company or supplier operates with employees hired as replacements during the course of a labor dispute; any charges, fees, penalties, or other conditions imposed upon a customer should he or she choose to purchase power from another generation company, aggregator, or supplier during the term specified in the contract; the fuel mix and emissions of the generation sources; whether a credit agency will be contacted; deposit requirements and the interest paid on deposits; due date of bills and all consequences of late payment; consumer rights where a bill is estimated; consumer rights of third-party billing and like arrangements; consumer rights to deferred payment arrangements; low-income rates; limits, if any, on warranty and damages; the applicable provisions of this section; the provisions for default service; a toll-free telephone number for service complaints; any other fees, charges, or penalties; and the methods by which a consumer shall be notified of any changes to any of these items. A generation company, a supplier, or an aggregator licensed by the department to do business in the

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-69-1 Page 4 of 7

1/24/2018 Section 1F

commonwealth pursuant to this section shall prepare an information booklet describing a customer's rights under the provisions of this chapter. Such company, supplier, or aggregator shall annually mail this booklet to its customers.

- (ii) A generation company, an aggregator, or a supplier shall be allowed to advertise the percentage of its power or energy portfolio that is generated by employers that operate under collective bargaining agreements or that operate with employees hired as replacements during the course of a labor dispute or that connotes or signifies to the ratepayer the relative environmentally beneficial effects of the power or energy sold by said generation company, an aggregator, or a supplier pursuant to rules and regulations promulgated by the department.
- (iii) In addition to the disclosure requirements provided for in subparagraphs (i) and (ii), the department shall promulgate such rules and regulations prescribing information to be disclosed by a generation company in any advertising or marketing of electricity rates, which regulations shall include, but not be limited to, disclosure of the rate to be charged in bold print in the case of print advertisements or through clear spoken language in the case of television or radio advertisements and on any monthly billing materials. The department shall coordinate with the attorney general to avoid duplication and to ensure consistency with the attorney general's regulations.
- (6) The department shall promulgate uniform labeling regulations which shall be applicable to all suppliers as a condition of licensure pursuant to paragraph (1). Such information to be required by regulation in said labeling shall include price data, information on price variability, and customer service information and information about whether the generation company or supplier operates under collective bargaining agreements and whether such generation company or supplier operates with employees hired as replacements during the course of a labor dispute, fuel sources, and air emissions of sulfur dioxide, nitrogen dioxides, carbon dioxide, heavy metals, and any other emission which the department may determine causes significant health or environmental impact and for which sufficiently accurate and reliable data is available. The department shall require that such an electricity information label provide prospective and existing customers with adequate information by which to readily evaluate power supply options available in the market. Electricity suppliers shall be required to present such information, including information about the environmental characteristics of the sale of electric power products and services and whether the generation company or supplier operates under collective bargaining agreements and whether such generation company or supplier operates with employees hired as replacements during the course of a labor dispute to customers, in conformance with department requirements as to form and substance, and shall comply with federal and state laws governing unfair advertising and labeling.
- (7) The department shall establish a code of conduct applicable to the provision of distribution and transmission services and the retail sale of electricity to all customers, including, but not limited to, rules and regulations governing the confidentiality of customer records, metering, billing, and information systems, and conformance with fair labor practices. The department is authorized and directed to oversee quality and reliability of service and to require that quality and reliability are the same as or better than levels that exist on November 1, 1997. The department is authorized and directed to retain or make increasingly protective of retail ratepayers the rules adopted by the department and codified at Title 220 of the Code of Massachusetts Regulations, sections 25, 27, 28, and 29, and the policies reflected in the department's adjudication of customer complaints, and, notwithstanding anything in this chapter to the contrary, shall continue to apply them to generation and thus to all generation companies, generation facilities, aggregators, and suppliers. The department is authorized and directed to promulgate rules and regulations to establish service quality standards for each distribution, transmission, and gas company, including, but not limited to, standards for universal service, customer satisfaction, service outages, telephone service, billing service, and public and employee safety. Any person,

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-69-1 Page 5 of 7

1/24/2018 Section 1F

firm, electric or generation company, supplier, or other corporation doing business in the commonwealth who violates any provisions of said code or of any rule or regulation promulgated by the department pursuant to sections 1A to 1H, inclusive, or any provision of chapter 93A, pursuant to authority established by section 102C, shall be subject to a civil penalty not to exceed \$25,000 for each violation for each day that the violation persists; provided, however, that the maximum civil penalty shall not exceed \$5,000,000 for any related series of violations. Any such civil penalty shall be determined by the department after a public hearing. In determining the amount of the penalty, the department shall consider the following: the appropriateness of the penalty to the size of the business of the person, firm, or corporation charged; the gravity of the violation; and the good faith of the person, firm, or corporation charged in attempting to achieve compliance after notification of a violation.

- (8)(a)(i) Each customer choosing a generation company or its affiliate, subsidiary, or parent company, or a supplier or aggregator shall be required to affirmatively choose such entity. It shall be unlawful for a generation company, supplier or aggregator to provide power or other services to such a customer without first obtaining said affirmative choice from the customer.
- (ii) For the purposes of this section, the term "affirmative choice" shall mean the signing of a letter of authorization, third party verification, or the completion of a toll-free call made by the customer to an independent third party operating in a location physically separate from the telemarketing representative who has obtained the customer's initial oral authorization to change to a new electricity service provider.
- (iii) For the purposes of this section, the term "third party verification" shall mean an appropriately qualified and independent third party operating in a location physically separate from the telemarketing representative who has obtained the customer's oral authorization to change to a new electricity service provider, such authorization to include appropriate verification data, such as the customer's date of birth and social security number; provided, however, any such information or data in the possession of the third party verifier or the marketing company shall not be used, in any instance, for commercial or other marketing purposes, and shall not be sold, delivered, or shared with any other party for such purposes.
- (iv) For the purposes of this section, the term "letter of authorization" shall mean a separate document, or an easily separable document whose sole purpose is to authorize a generation company, aggregator, or supplier to initiate a primary generation company, aggregator, or supplier change. The letter of authorization must be signed and dated by the consumer requesting the primary generation company, aggregator, or supplier change.
- (v) The letter of authorization shall not be combined with inducements of any kind on the same document.
- (vi) At a minimum, the letter of authorization shall be printed with a readable type of sufficient size to be clearly legible and must contain clear and unambiguous language that confirms:
- (A) the consumer's billing name and address;
- (B) the decision to change electricity service from the current generation company, aggregator or supplier to the prospective generation company, aggregator or supplier;
- (C) that the consumer understands that only one generation company, aggregator or supplier may be designated as the consumer's competitive supplier; and
- (D) that the consumer understands that any primary generation company, aggregator or supplier selection the consumer chooses may involve a charge to the consumer for changing the consumer's primary generation company, aggregator or supplier.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-69-1 Page 6 of 7

1/24/2018 Section 1F

- (vii) Letters of authorization shall not suggest or require that a consumer take some action in order to retain the consumer's current generation company, aggregator or supplier.
- (viii) If any portion of a letter of authorization is translated into another language, then all portions of the letter of authorization must be translated into that language.
- (ix) Each customer choosing a generation company or its affiliate, subsidiary, or parent company, a supplier or aggregator shall have the right to rescind, without charge or penalty, the choice of generation company, aggregator, or supplier no later than midnight on the third day following the customer's receipt of a written confirmation of an agreement to purchase electricity and a statement of the terms and conditions of service as described in subparagraph (i) of paragraph (5). Upon switching of a customer's service provider, there shall be included in the customer's next monthly statement for distribution service an acknowledgment of the service switch, along with information on how to file a complaint regarding an unauthorized switch.
- (b) A customer may initiate a complaint that his retail electricity service has been switched by or to another service provider without his prior authorization. Said complainant shall file the complaint with the department within 30 days after the statement date of the notice indicating that the customer's retail electricity service has been switched. The department shall, within 10 business days of receiving the complaint, request from the customer a copy of the customer's electricity bill, the name of the original service provider, the name of the new service provider, and any other information the department may deem relevant. The customer shall, within 15 business days of the department's notifying the customer, submit to the department the requested information. Within 15 business days of receiving the request of information from the customer, the department shall send (i) to the customer, a letter acknowledging receipt of the information; (ii) to the original service provider, a letter informing it of the pending complaint and requesting it to provide information relevant to the service switch; and (iii) to the new service provider, a letter informing it of the pending complaint, requesting the proof of the customer's affirmative choice to switch his service provider, and requesting it to provide other information the department deems relevant. The original service provider and the new service provider shall, within five business days of the department's request, return the requested information to the department. Within 25 business days after receiving a copy of the customer's third party verification and all relevant information as required herein, the department shall determine if the customer authorized the new service provider to switch the customer's service.
- (c) If the department determines that the new service provider does not possess the required proof of the customer's affirmative choice, the department shall calculate and require the new service provider to refund the following: (i) to the customer, the difference between what the customer would have paid to the previous service provider and actual charges paid to the new service provider; (ii) to the customer, any reasonable expense the customer incurred in switching back to the original service provider; and (iii) to the original service provider, any lost revenue, which shall consist of the amount of money the original service provider would have received for the service used by the customer during the time the customer received services from the new service provider if the customer's service had not been switched. This amount shall gross, irrespective of expenses, what the original service provider would have reasonably incurred providing the services to the customer. The department shall promulgate rules and regulations for the implementation of this subsection.
- (d) Any generation company, supplier, or aggregator determined by the department to have switched any customer's service provider without proper authorization from the customer one or more times in a 12 month period shall be subject to a civil penalty not to exceed \$1,000 for the first offense and not less than \$2,000 nor

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-69-1 Page 7 of 7

1/24/2018 Section 1F

more than \$3,000 for any subsequent offense per customer. In determining the amount of the civil penalty, the department shall consider the nature, circumstances, and gravity of the violation, the degree of the respondent's culpability, and the respondent's history of prior offenses.

- (e) Any generation company, supplier, or aggregator determined to have switched any customer's service provider without proper authorization more than 20 times in a 12 month period may, after a full hearing and determination by the department that such generation company supplier or aggregator intentionally, maliciously or fraudulently switched the service or more than 20 customers in a 12 month period, be prohibited from selling electricity in the commonwealth for a period of up to one year. In determining the length of suspension, the department shall consider the nature, circumstances and gravity of each violation and the degree of the culpability of the generation company, supplier or aggregator.
- (f) The department shall track instances in which a generation company, supplier, or aggregator switched a customer's electricity service without the customer's prior authorization. The department shall keep a record of all unauthorized switches which occurred during a calendar year. Beginning with calendar year 1999, the department shall, by March 31 of each year, file an annual report with the joint committee on government regulations and the house and senate committees on ways and means detailing the total number of unauthorized switches, enforcement procedures undertaken by the department against such slamming tactics, so-called, the total amount of dollars returned to customers, the total amount of dollars collected in civil penalties pursuant to subsection (c), and the overall impact of the provisions of this section.
- (9) Distribution companies which have at any time in the past three years billed their commercial or industrial customers, including institutional customers, in part on a demand basis, shall, in response to a customer's written request, provide such customers with a complete and accurate historic record of monthly demand profiles. Distribution companies shall be required to exercise best efforts to furnish such data to the customer on a timely basis. At a distribution company's election, the data may be provided in written form or electronically; provided, however, that, in the case of an electronic response by the distribution company, the distribution company shall be allowed to bill the customer for the out-of-pocket cost of providing such electronic record. The historic record of monthly demand shall be for a period not less than the most recent 12 months and shall include, at a minimum, the highest demand level observed over the month as well as the average monthly demand sustained over the month. To the extent deviations in the definition of the month are consistent with the distribution company has imputed a demand usage profile in any or all prior periods, the distribution company shall indicate where prior measurements have not been based on actual recorded usage. In those instances where a distribution company has applied an imputed method for purposes of estimating a customer's demand profile, such distribution company shall describe the method used to define monthly demands.

1/24/2018 Section 141

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-69-2

Page 1 of 1

Part I ADMINISTRATION OF THE GOVERNMENT

Title XXII CORPORATIONS

Chapter 164 MANUFACTURE AND SALE OF GAS AND ELECTRICITY

Section 141 DECISIONS OR ACTIONS REGARDING RATE DESIGN; ADJUSTMENT TO LOW-INCOME RATE

DISCOUNT

Section 141. In all decisions or actions regarding rate designs, the department shall consider the impacts of such actions, including the impact of new financial incentives on the successful development of energy efficiency and on-site generation. Where the scale of on-site generation would have an impact on affordability for low-income customers, a fully compensating adjustment shall be made to the low-income rate discount.

Division 14-70

Request:

By year since 2003 to present inclusive, provide:

- a. The total aggregate cost of the Massachusetts discount;
- b. The per kWh charge to ratepayers through which those costs were recovered;
- c. The average monthly bill impact to ratepayers in recovering those costs.

Response:

- a. Please see Column (a) in the table below for the aggregate cost of the discount for the Company's Massachusetts affiliates, Massachusetts Electric Company and Nantucket Electric Company (together Mass. Electric).
- b. Please see Column (b) in the table below for an estimate of the average cost per kWh to residential customers to recover the low income discount.

Prior to March 1, 2006, Mass. Electric recovered the low income discount exclusively through base distribution rates. Beginning in March 2006, Mass. Electric implemented a Residential Assistance Adjustment Factor (RAAF) to recover incremental costs associated with an initiative of the Massachusetts Department of Public Utilities (Department) to increase participation in the low income rate and the implementation of an electronic matching process with the Massachusetts Executive Office of Human and Health Services (EOHHS) that would match lists of customers with lists of consumers receiving certain means-tested public benefits, and those names which met specific matching criteria were deemed eligible for the low income rate. The EOHHSA sends an electronic list of matched names back to the utility, and those customers were transferred to Mass. Electric's Residential Low Income Rate R-2 (Rate R-2) if they were not already receiving service on this rate.

Until January 1, 2010, the low income discount continued to be recovered both through a combination of base distribution rates and the RAAF. In its 2009 general rate case in D.P.U. 09-39, Mass. Electric proposed, and the Department approved, to remove the recovery of the low income discount from base distribution rates and recover the discount entirely through the RAAF, effective January 1, 2010. The RAAF currently recovers, on a concurrent basis, an estimate of the low income discount to be credited on Rate R-2 bills in the upcoming year, an estimate of the incremental costs associated with the Massachusetts arrears management program, and an amount recovering or refunding the balance of the prior period's actual low income discounts and arrears forgiven to the

revenue billed through the RAAF. The table below presents the average cost per kWh to residential customers to recover only the cost of the low income discount through the combination of base distribution rates and the RAAF. These annual rates represent an average for each year as the RAAFs change during the year.

c. Please see Column (c) in the table below for the average monthly impact to a residential customer using 500 kWh per month based the average rates presented in Column (b).

		Average Cost per	
		kWh to	Average
	Low Income	Residential	Monthly Bill
	Discount	Customers	Impact
Year	(a)	(b)	(c)
2003	\$13,225,039	\$0.00075	\$0.38
2004	\$12,943,047	\$0.00075	\$0.38
2005	\$13,527,398	\$0.00075	\$0.38
2006	\$15,624,025	\$0.00085	\$0.43
2007	\$16,619,117	\$0.00090	\$0.45
2008	\$17,548,358	\$0.00093	\$0.47
2009	\$28,715,136	\$0.00123	\$0.62
2010	\$32,274,988	\$0.00138	\$0.69
2011	\$33,022,219	\$0.00150	\$0.75
2012	\$35,376,427	\$0.00172	\$0.86
2013	\$41,338,131	\$0.00177	\$0.89
2014	\$50,355,415	\$0.00263	\$1.32
2015	\$61,763,953	\$0.00336	\$1.68
2016	\$54,239,439	\$0.00348	\$1.74
2017	\$60,997,713	\$0.00286	\$1.43

Division 14-71

Request:

Please provide a detailed description of the low-income discount, if any, provided by the Company's New Hampshire affiliate.

Response:

The Company no longer has a New Hampshire affiliate, as Granite State Electric Company was sold to Liberty Utilities in July 2012.

At the time of the sale in July 2012, the low income discount provided by New Hampshire electric distribution companies and the funding for the discount and the administrative costs of the program is pursuant to New Hampshire's electric restructuring statute, RSA 374-F:3, VI and RSA 374-F:4, VIII(c). Please see Attachment DIV 14-71-1 for Chapter 374-F of Title 39.

Subsequently, on May 30, 2002, the New Hampshire Public Utilities Commission (NHPUC) approved the implementation of an electric statewide tiered low income discount program, a bill assistance program for eligible low income customers funded through the low income portion of the system benefits charge (SBC). The program was entitled the Electric Assistance Program (EAP). The low income discount provided through the EAP is based on the customer's total household income and household size. Through a lead community action program (CAP) agency, individual community action agencies certified customers as eligible and determined the appropriate tier for each customer, and the electric utility was electronically notified of customer enrollments, changes, and removal from the program and applicable tiers. Enrolled customers were assigned to one of several discount tiers. Periodic studies were performed by a consultant working on behalf of the NHPUC to determine the appropriate number of tiers and the discount percentage for each tier based on rate and usage information provided by the electric utilities and demographic information provided by the lead CAP agency.

The design of the statewide EAP included reporting in which any excess of amounts billed through the statutory SBC charged by all of the utilities and the discounts provided through the EAP and the reimbursement of a utility's administrative costs was remitted to the State of New Hampshire's Treasury Office on a monthly basis. If a utility was in a deficit position (i.e., it did not bill out enough in the SBC to recover the discount plus reimbursement of administrative costs), the utility would issue an invoice to the New Hampshire Treasury Office, which would issue a check to the utility. The EAP required monthly reporting to the NHPUC and was audited annually by the NHPUC audit staff.

¹ The Company has highlighted the applicable provisions of the statute for the Division's reference.

Please see Attachment DIV 14-71-2 for a copy of the final Electric Assistance Program Provision that was in effect for Granite State Electric Company as a National Grid affiliate. This provision details the discount levels and the eligibility guidelines for the six discount tiers that existed at that time.

1/24/2018

CHAPTER 374-F ELECTRIC UTILITY RESTRUCTURING

TITLE XXXIV PUBLIC UTILITIES

CHAPTER 374-F ELECTRIC UTILITY RESTRUCTURING

Section 374-F:1

374-F:1 Purpose. -

I. The most compelling reason to restructure the New Hampshire electric utility industry is to reduce costs for all consumers of electricity by harnessing the power of competitive markets. The overall public policy goal of restructuring is to develop a more efficient industry structure and regulatory framework that results in a more productive economy by reducing costs to consumers while maintaining safe and reliable electric service with minimum adverse impacts on the environment. Increased customer choice and the development of competitive markets for wholesale and retail electricity services are key elements in a restructured industry that will require unbundling of prices and services and at least functional separation of centralized generation services from transmission and distribution services.

II. A transition to competitive markets for electricity is consistent with the directives of part II, article 83 of the New Hampshire constitution which reads in part: "Free and fair competition in the trades and industries is an inherent and essential right of the people and should be protected against all monopolies and conspiracies which tend to hinder or destroy it." Competitive markets should provide electricity suppliers with incentives to operate efficiently and cleanly, open markets for new and improved technologies, provide electricity buyers and sellers with appropriate price signals, and improve public confidence in the electric utility industry.

III. The following interdependent policy principles are intended to guide the New Hampshire public utilities commission in implementing a statewide electric utility industry restructuring plan, in establishing interim stranded cost recovery charges, in approving each utility's compliance filing, in streamlining administrative processes to make regulation more efficient, and in regulating a restructured electric utility industry. In addition, these interdependent principles are intended to guide the New Hampshire general court and the department of environmental services and other state agencies in promoting and regulating a restructured electric utility industry.

Source. 1996, 129:2, eff. May 21, 1996.

Section 374-F:2

374-F:2 Definitions. – In this chapter:

- I. "Commission" means the public utilities commission.
- I-a. "Default service" means electricity supply that is available to retail customers who are otherwise without an electricity supplier and are ineligible for transition service.
- II. "Electricity suppliers" means suppliers of electricity generation services and includes actual electricity generators and brokers, aggregators, and pools that arrange for the supply of electricity generation to meet retail customer demand, which may be municipal or county entities.
 - III. "FERC" means the Federal Energy Regulatory Commission.
- IV. "Stranded costs" means costs, liabilities, and investments, such as uneconomic assets, that electric utilities would reasonably expect to recover if the existing regulatory structure with retail rates for the bundled provision of electric service continued and that will not be recovered as a result of restructured industry regulation that allows retail choice of electricity suppliers, unless a specific mechanism for such cost recovery is provided. Stranded costs may only include costs of:
 - (a) Existing commitments or obligations incurred prior to the effective date of this chapter;
 - (b) Renegotiated commitments approved by the commission;

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-71-1 Page 2 of 9

1/24/2018

CHAPTER 374-F ELECTRIC UTILITY RESTRUCTURING

- (c) New mandated commitments approved by the commission, including any specific expenditures authorized for stranded cost recovery pursuant to any commission-approved plan to implement electric utility restructuring in the territory previously serviced by Connecticut Valley Electric Company, Inc.;
- (d) Costs approved for recovery by the commission in connection with the divestiture or retirement of Public Service Company of New Hampshire generation assets pursuant to RSA 369-B:3-a; and
 - (e) All costs incurred as a result of fulfilling employee protection obligations pursuant to RSA 369-B:3-b.
- V. "Transition service" means electricity supply that is available to existing retail customers prior to each customer's first choice of a competitive electricity supplier and to others, as deemed appropriate by the commission.

Source. 1996, 129:2. 1998, 191:3, 4. 2003, 56:2, eff. July 20, 2003. 2014, 310:4, eff. Sept. 30, 2014.

Section 374-F:3

374-F:3 Restructuring Policy Principles. –

- I. System Reliability. Reliable electricity service must be maintained while ensuring public health, safety, and quality of life.
- II. Customer Choice. Allowing customers to choose among electricity suppliers will help ensure fully competitive and innovative markets. Customers should be able to choose among options such as levels of service reliability, real time pricing, and generation sources, including interconnected self generation. Customers should expect to be responsible for the consequences of their choices. The commission should ensure that customer confusion will be minimized and customers will be well informed about changes resulting from restructuring and increased customer choice.
- III. Regulation and Unbundling of Services and Rates. When customer choice is introduced, services and rates should be unbundled to provide customers clear price information on the cost components of generation, transmission, distribution, and any other ancillary charges. Generation services should be subject to market competition and minimal economic regulation and at least functionally separated from transmission and distribution services which should remain regulated for the foreseeable future. However, distribution service companies should not be absolutely precluded from owning small scale distributed generation resources as part of a strategy for minimizing transmission and distribution costs. Performance based or incentive regulation should be considered for transmission and distribution services. Upward revaluation of transmission and distribution assets is not a preferred mechanism as part of restructuring. Retail electricity suppliers who do not own transmission and distribution facilities, should, at a minimum, be registered with the commission.
- IV. Open Access to Transmission and Distribution Facilities. Non-discriminatory open access to the electric system for wholesale and retail transactions should be promoted. Comparability should be assured for generators competing with affiliates of groups supplying transmission and distribution services. Companies providing transmission services should file at the FERC or with the commission, as appropriate, comparable service tariffs that provide open access for all competitors. The commission should monitor companies providing transmission or distribution services and take necessary measures to ensure that no supplier has an unfair advantage in offering and pricing such services.
- V. Universal Service. (a) Electric service is essential and should be available to all customers. A utility providing distribution services must have an obligation to connect all customers in its service territory to the distribution system. A restructured electric utility industry should provide adequate safeguards to assure universal service. Minimum residential customer service safeguards and protections should be maintained. Programs and mechanisms that enable residential customers with low incomes to manage and afford essential electricity requirements should be included as a part of industry restructuring.
- (b) As competitive markets emerge, customers should have the option of stable and predictable ceiling electricity prices through a reasonable transition period, consistent with the near term rate relief principle of RSA 374-F:3, XI. Upon the implementation of retail choice, transition service should be available for at least one but not more than 5 years after competition has been certified to exist in at least 70 percent of the state pursuant to RSA 38:36, for customers who have not yet chosen a competitive electricity supplier. Transition service should be procured through competitive means and may be administered by independent third parties. The price of transition service should increase over time to encourage customers to choose a competitive electricity supplier during the transition period. Such transition service should be separate and distinct from

CHAPTER 374-F ELECTRIC UTILITY RESTRUCTURING

1/24/2018

default service.

- (c) Default service should be designed to provide a safety net and to assure universal access and system integrity. Default service should be procured through the competitive market and may be administered by independent third parties. Any prudently incurred costs arising from compliance with the renewable portfolio standards of RSA 362-F for default service or purchased power agreements shall be recovered through the default service charge. The allocation of the costs of administering default service should be borne by the customers of default service in a manner approved by the commission. If the commission determines it to be in the public interest, the commission may implement measures to discourage misuse, or long-term use, of default service. Revenues, if any, generated from such measures should be used to defray stranded costs.
- (d) The commission should establish transition and default service appropriate to the particular circumstances of each jurisdictional utility.
- (e) Notwithstanding any provision of subparagraphs (b) and (c), as competitive markets develop, the commission may approve alternative means of providing transition or default services which are designed to minimize customer risk, not unduly harm the development of competitive markets, and mitigate against price volatility without creating new deferred costs, if the commission determines such means to be in the public interest.
- (f)(1) For purposes of subparagraph (f), "renewable energy source" (RES) means a source of electricity, as defined in RSA 362-F:2, XV, that would qualify to receive renewable energy certificates under RSA 362-F, whether or not it has been designated as eligible under RSA 362-F:6, III.
- (2) A utility shall provide to its customers one or more RES options, as approved by the commission, which may include RES default service provided by the utility or the provision of retail access to competitive sellers of RES attributes. Costs associated with selecting an RES option should be paid for by those customers choosing to take such option. A utility may recover all prudently incurred administrative costs of RES options from all customers, as approved by the commission.
- (3) RES default service should have either all or a portion of its service attributable to a renewable energy source component procured by the utility, with any remainder filled by standard default service. The price of any RES default service shall be approved by the commission.
- (4) Under any option offered, the customer shall be purchasing electricity generated by renewable energy sources or the attributes of such generation, either in connection with or separately from the electricity produced. The regional generation information system of energy certificates administered by the ISO-New England and the New England Power Pool (NEPOOL) should be considered at least one form of certification that is acceptable under this program.
- (5) A utility that is required by statute to provide default service from its generation assets should use any of its owned generation assets that are powered by renewable energy for the provision of standard default service, rather than for the provision of a renewable energy source component.
- (6) Utilities should include educational materials in their normal communications to their customers that explain the RES options being offered and the health and environmental benefits associated with them. Such educational materials should be compatible with any environmental disclosure requirements established by the commission.
- (7) For purposes of consumer protection and the maintenance of program integrity, reasonable efforts should be made to assure that the renewable energy source component of an RES option is not separately advertised, claimed, or sold as part of any other electricity service or transaction, including compliance with the renewable portfolio standards under RSA 362-F.
- (8) If RES default service is not available for purchase at a reasonable cost on behalf of consumers choosing an RES default service option, a utility may, as approved by the commission, make payments to the renewable energy fund created pursuant to RSA 362-F:10 on behalf of customers to comply with subparagraph (f).
- (9) The commission shall implement subparagraph (f) through utility-specific filings. Approved RES options shall be included in individual tariff filings by utilities.
- (10) A utility, with commission approval, may require that a minimum number of customers, or a minimum amount of load, choose to participate in the program in order to offer an RES option.
- VI. Benefits for All Consumers. Restructuring of the electric utility industry should be implemented in a manner that benefits all consumers equitably and does not benefit one customer class to the detriment of another. Costs should not be shifted unfairly among customers. A nonbypassable and competitively neutral system

CHAPTER 374-F ELECTRIC UTILITY RESTRUCTURING

benefits charge applied to the use of the distribution system may be used to fund public benefits related to the provision of electricity. Such benefits, as approved by regulators, may include, but not necessarily be limited to, programs for low-income customers, energy efficiency programs, funding for the electric utility industry's share of commission expenses pursuant to RSA 363-A, support for research and development, and investments in commercialization strategies for new and beneficial technologies.

VII. Full and Fair Competition. Choice for retail customers cannot exist without a range of viable suppliers. The rules that govern market activity should apply to all buyers and sellers in a fair and consistent manner in order to ensure a fully competitive market.

VIII. Environmental Improvement. Continued environmental protection and long term environmental sustainability should be encouraged. Increased competition in the electric industry should be implemented in a manner that supports and furthers the goals of environmental improvement. Over time, there should be more equitable treatment of old and new generation sources with regard to air pollution controls and costs. New Hampshire should encourage equitable and appropriate environmental regulation, based on comparable criteria, for all electricity generators, in and out of state, to reduce air pollution transported across state lines and to promote full, free, and fair competition. As generation becomes deregulated, innovative market-driven approaches are preferred to regulatory controls to reduce adverse environmental impacts. Such market approaches may include valuing the costs of pollution and using pollution offset credits.

IX. Renewable Energy Resources. Increased future commitments to renewable energy resources should be consistent with the New Hampshire energy policy as set forth in RSA 378:37 and should be balanced against the impact on generation prices. Over the long term, increased use of cost-effective renewable energy technologies can have significant environmental, economic, and security benefits. To encourage emerging technologies, restructuring should allow customers the possibility of choosing to pay a premium for electricity from renewable resources and reasonable opportunities to directly invest in and interconnect decentralized renewable electricity generating resources.

X. Energy Efficiency. Restructuring should be designed to reduce market barriers to investments in energy efficiency and provide incentives for appropriate demand-side management and not reduce cost-effective customer conservation. Utility sponsored energy efficiency programs should target cost-effective opportunities that may otherwise be lost due to market barriers.

XI. Near Term Rate Relief. The goal of restructuring is to create competitive markets that are expected to produce lower prices for all customers than would have been paid under the current regulatory system. Given New Hampshire's higher than average regional prices for electricity, utilities, in the near term, should work to reduce rates for all customers. To the greatest extent practicable, rates should approach competitive regional electric rates. The state should recognize when state policies impose costs that conflict with this principle and should take efforts to mitigate those costs. The unique New Hampshire issues contributing to the highest prices in New England should be addressed during the transition, wherever possible.

XII. Recovery of Stranded Costs.

1/24/2018

- (a) It is the intent of the legislature to provide appropriate tools and reasonable guidance to the commission in order to assist it in addressing claims for stranded cost recovery and fulfilling its responsibility to determine rates which are equitable, appropriate, and balanced and in the public interest. In making its determinations, the commission shall balance the interests of ratepayers and utilities during and after the restructuring process. Nothing in this section is intended to provide any greater opportunity for stranded cost recovery than is available under applicable regulation or law on the effective date of this chapter.
- (b) Utilities should be allowed to recover the net nonmitigatable stranded costs associated with required environmental mandates currently approved for cost recovery, and power acquisitions mandated by federal statutes or RSA 362-A.
- (c) Utilities have had and continue to have an obligation to take all reasonable measures to mitigate stranded costs. Mitigation measures may include, but shall not be limited to:
 - (1) Reduction of expenses.
 - (2) Renegotiation of existing contracts.
 - (3) Refinancing of existing debt.
- (4) A reasonable amount of retirement, sale, or write-off of uneconomic or surplus assets, including regulatory assets not directly related to the provision of electricity service.
- (d) Stranded costs should be determined on a net basis, should be verifiable, should not include transmission and distribution assets, and should be reconciled to actual electricity market conditions from time to time. Any

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-71-1 Page 5 of 9

1/24/2018

CHAPTER 374-F ELECTRIC UTILITY RESTRUCTURING

recovery of stranded costs should be through a nonbypassable, nondiscriminatory, appropriately structured charge that is fair to all customer classes, lawful, constitutional, limited in duration, consistent with the promotion of fully competitive markets and consistent with these principles. Entry and exit fees are not preferred recovery mechanisms. Charges to recover stranded costs should only apply to customers within a utility's retail service territory, except for such costs that have resulted from the provision of wholesale power to another utility. The charges should not apply to wheeling-through transactions.

XIII. Regionalism. New England Power Pool (NEPOOL) should be reformed and efforts to enhance competition and to complement industry restructuring on a regional basis should be encouraged. New Hampshire should work with other New England and northeastern states to accomplish the goals of restructuring. Working with other regional states, New Hampshire should assert maximum state authority over the entire electric industry restructuring process. While it is desirable to design and implement a restructured industry in concert with the other New England and northeastern states, New Hampshire should not unnecessarily delay its timetable. Any pool structure adopted for the restructured industry should not preclude bilateral contracts with pool and non-pool services and should not preclude ancillary pool services from being obtained from non-pool sources.

XIV. Administrative Processes. The commission should adapt its administrative processes to make regulation more efficient and to enable competitors to adapt to changes in the market in a timely manner. The market framework for competitive electric service should, to the extent possible, reduce reliance on administrative process. New Hampshire should move deliberately to replace traditional planning mechanisms with market driven choice as the means of supplying resource needs.

XV. Timetable. The commission should seek to implement full customer choice among electricity suppliers in the most expeditious manner possible, but may delay such implementation in the service territory of any electric utility when implementation would be inconsistent with the goal of near-term rate relief, or would otherwise not be in the public interest.

Source. 1996, 129:2. 1998, 191:5. 2000, 249:3. 2001, 29:5, 6. 2002, 212:6; 268:4. 2006, 294:3. 2007, 26:4, eff. July 10, 2007. 2009, 236:1, eff. Nov. 13, 2009.

Section 374-F:4

374-F:4 Implementation. –

I. The commission is authorized to require the implementation of retail choice of electric suppliers for all customer classes of utilities providing retail electric service under its jurisdiction. The commission shall require such implementation at the earliest date determined to be in the public interest by the commission. However, in no event may the implementation be delayed beyond July 1, 1998 without legislative approval or a finding of public interest by the commission that delay is required due to events beyond the control of the commission or that implementation of retail choice within the service territory of any electric utility would be inconsistent with the goal of near-term rate relief or would otherwise not be in the public interest. In the event that implementation of retail choice is delayed in the service territory of an electric utility, the electric utility shall continue to provide reliable retail service at the lowest reasonable cost in accordance with state law. In addition, at the earliest practical date, the commission should make effective the unbundling of components of rates into at least distribution, transmission, and generation for each jurisdictional utility.

II. Upon the effective date of this chapter, the commission shall undertake a generic proceeding to develop a statewide industry restructuring plan in accordance with the above principles, and shall, after public hearings, issue a final order no later than February 28, 1997. In its order, the commission shall establish the interim stranded cost recovery charge for each electric utility as provided in paragraph VI.

III. The commission shall require all electric utilities subject to its jurisdiction to submit compliance filings, which shall include open access tariffs and such other information as the commission may require, no later than June 30, 1997. The commission shall investigate and shall approve utility compliance filings, subject to modification by the commission if necessary, after public hearing and subject to a finding that the filings are in the public interest and substantially consistent with the principles established in this chapter.

IV. A utility having less than a 50 percent share of statewide retail electric distribution sales (measured in kilowatt hours per year) may seek a ruling by the commission that it is in the public interest that implementation of such utility's compliance filing be deferred until compliance filings representing 70 percent of retail electric

CHAPTER 374-F ELECTRIC UTILITY RESTRUCTURING

1/24/2018

sales have been or are being implemented.

V. The commission is authorized to allow utilities to collect a stranded cost recovery charge, subject to its determination in the context of a rate case or adjudicated settlement proceeding that such charge is equitable, appropriate, and balanced, is in the public interest, and is substantially consistent with these interdependent principles. The burden of proof for any stranded cost recovery claim shall be borne by the utility making such claim.

- VI. (a) In order to facilitate the rapid transition to full competition, the commission is authorized, in its generic restructuring order as provided in paragraph II, to set, without a formal rate case proceeding, an interim stranded cost recovery charge for each electric utility. Such interim stranded cost recovery charges shall be effective for not more than 2 years from the implementation of utility compliance filings and shall be based on the commission's preliminary determination of an equitable, appropriate, and balanced measure of stranded cost recovery that takes into account the near term rate relief principle, is in the public interest, and is substantially consistent with these interdependent principles. The commission shall also consider the potential for future rate impacts due to possible differences between interim stranded cost recovery charges and charges that may finally be approved for stranded cost recovery.
- (b) Any utility may seek adjustment of the interim stranded cost recovery charge at any time based on severe financial hardship, as determined by the commission. The setting of an interim stranded cost recovery charge shall establish no legal, factual, or policy precedent with respect to the final determination of stranded cost recovery by the commission in any subsequent administrative or judicial proceeding.
- VII. The interim stranded cost recovery charge established for a utility as provided in paragraph VI may also be adjusted based upon the outcome of rate case proceedings to adjudicate claims for stranded cost recovery pursuant to paragraph V of this section. Any amounts approved by the commission for stranded cost recovery shall be net of amounts previously collected through interim stranded cost recovery charges.
- VIII. (a) The commission is authorized to order such charges and other service provisions and to take such other actions that are necessary to implement restructuring and that are substantially consistent with the principles established in this chapter. The commission is authorized to require that distribution and electricity supply services be provided by separate affiliates.
 - (b) [Repealed.]
- (c) The portion of the system benefits charge due to programs for low-income customers shall not exceed 1.5 mills per kilowatt hour. If the commission determines that the low-income program fund has accumulated an excess of \$1,000,000 and that the excess is not likely to be substantially reduced over the next 12 months, it shall suspend collection of some or all of this portion of the system benefits charge for a period of time it deems reasonable.
 - (d) [Repealed.]
- (e) Targeted conservation, energy efficiency, and load management programs and incentives that are part of a strategy to minimize distribution costs may be included in the distribution charge or the system benefits charge, provided that system benefits charge funds are only used for customer-based energy efficiency measures, and such funding shall not exceed 10 percent of the energy efficiency portion of a utility's annual system benefits charge funds. A proposal for such use of system benefits charge funds shall be presented to the commission for approval. Any such approval shall initially be on a pilot program basis and the results of each pilot program proposal shall be subject to evaluation by the commission.
- (f) Beginning in 2000, the commission shall submit a report to the legislative oversight committee on electric utility restructuring by October 1 of each year. The report shall concern the results and effectiveness of the system benefits charge.
 - (g) [Repealed.]
- VIII-a. Any electric utility that collects funds for energy efficiency programs that are subject to the commission's approval, shall include in its plans to be submitted to the commission program design, and/or enhancements, and estimated participation that maximize energy efficiency benefits to public schools, including measures that help enhance the energy efficiency of public school construction or renovation projects that are designed to improve indoor air quality. The report required under RSA 374-F:4, VIII(f) shall include the results and effectiveness of the energy efficiency programs for schools and, in addition to other requirements, be submitted to the commissioner of the department of education.

IX. An electricity supplier shall be eligible to compete, subject to necessary limitations established by the commission, for open access customers only if affiliated utilities file comparable open access transmission and

CHAPTER 374-F ELECTRIC UTILITY RESTRUCTURING

distribution rates with the FERC or the commission, or both as appropriate, for all of their transmission facilities in New Hampshire and to the extent practicable, all of their distribution facilities in New Hampshire.

X. Nothing in this chapter shall be construed to prohibit the commission from otherwise exercising its lawful authority under title 34, in proceedings which relate to the introduction of competition in the retail electric utility industry including the retention of experts and consultants to assist the commission in its investigations and the assessment of such costs against utilities and any other parties to the proceedings, consistent with RSA 365:37 and RSA 365:38.

XI. Any administrative or adjudicative proceeding or public hearing relating to this chapter shall be subject to the provisions of RSA 541-A.

XII. To the extent that the provisions of this chapter are applicable to rural electric cooperatives for which a certificate of deregulation is on file with the commission, the commission shall exercise its authority with regard to such deregulated rural electric cooperatives only when and to the extent that the commission finds, after notice and hearing, that such action is required to ensure that such deregulated rural electric cooperatives do not act in a manner which is inconsistent with the restructuring policy principles of RSA 374-F:3. The commission shall have the authority to require that such deregulated rural electric cooperatives participate in proceedings, answer commission requests for information and file such reports as may be reasonably necessary to permit the commission to make an informed finding concerning the relevant restructuring policy principle actions of such deregulated rural electric cooperatives. Absent such a finding by the commission, the active role of assuring that the restructuring policy principles are appropriately addressed within their service territories shall be reserved to the deregulated rural electric cooperatives. Notwithstanding the foregoing, deregulated rural electric cooperatives shall be subject to the commission's jurisdiction with regard to those provisions of RSA 374-F pertaining to stranded cost recovery, customer choice, open access tariffs, default service, energy efficiency, and low income programs to the same extent as other public utilities.

Source. 1996, 129:2. 1997, 298:28. 1998, 191:6; 262:2. 1999, 289:6-9. 2000, 249:4. 2001, 29:12. 2002, 212:7. 2004, 164:1. 2005, 102:2; 228:3. 2007, 208:1, eff. Aug. 24, 2007. 2009, 236:3, 4, I-III, eff. July 16, 2009.

Section 374-F:4-a

374-F:4-a Commission Established. – [Repealed 2015, 148:2, eff. Nov. 1, 2015.]

Section 374-F:4-b

374-F:4-b Ratepayer Protection. –

- I. Within 60 days of the effective date of this section, the commission shall initiate a proceeding to develop rules to allow residential and small commercial customers to choose how they receive communication from competitive electric suppliers and to implement the provisions of this section.
- II. Within 120 days of the effective date of this section, the commission shall redesign its website to enable residential and small commercial customers to compare standard pricing policies and charges and to require competitive electric suppliers to input such information. Such information shall be input no less frequently than once per month, unless there is no change in such information. Such redesign shall:
- (a) Reflect the best practices of similar commission websites in other states and develop a process for removal of a competitive electric supplier's listings from such Internet website based on protocols established by the commission to ensure compliance with this section and to address customer complaints.
 - (b) Emphasize:

1/24/2018

- (1) Uniformity in the way competitive electric suppliers provide information for each category on the commission's website.
 - (2) Ease of use by customers.
- (3) Ease of selecting and purchasing a specific contract from a competitive electric supplier shown on the commission's website.
 - (c) Include separate input boxes for the following information:
 - (1) A link to the provider's web page.
 - (2) Contract durations.

http://www.gencourt.state.nh.us/rsa/html/xxxiv/374-f/374-f-mrg.htm

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-71-1 Page 8 of 9

1/24/2018

CHAPTER 374-F ELECTRIC UTILITY RESTRUCTURING

- (3) Whether the contract has variable or fixed rates, or both, and when such rates apply.
- (4) Cancellation charges.
- (5) Rates.
- (6) Other relevant information.
- III. On or before July 1, 2017, and every 2 years thereafter, the commission shall review its website and ensure that the site remains an efficient tool for the comparison of pricing policies and charges among competitive electric suppliers.
- IV. Unless the contract specifies a month-to-month variable rate, no competitive electric supplier shall charge a residential customer a variable rate, including during a contract term or following the expiration of a contract, without first providing written notification in a form approved by the commission of the nature of such variable rate 45 days prior to the commencement of the variable rate. The residential customer shall select the method of written notification at the time the contract is signed. Such customer shall have the option to change the method of notification at any time during the contract.

V. Competitive electric suppliers shall retain records of any of the notices required in this section for a period of not less than 2 years and shall make such records available to the commission upon its request.

Source. 2015, 268:1, eff. July 20, 2015.

Section 374-F:5

374-F:5 Oversight Committee; Establishment; Report; Meetings. –

- I. There is established a legislative oversight committee on electric utility restructuring consisting of 7 members as follows:
- (a) Five members of the house, at least 3 of whom shall be members of the science, technology and energy committee, or its successor, and at least one of whom shall be a member of a minority party, appointed by the speaker of the house.
- (b) Two members of the senate, at least one of whom shall be a member of the energy and economic development committee, or its successor, and at least one of whom shall be a member of the minority party, appointed by the president of the senate.
- II. Committee members shall be appointed to 2-year terms expiring on the first Wednesday of even-numbered years. Members may succeed themselves.
- III. The committee shall provide an interim report on or before April 1, and an annual report on or before November 1 to the governor, the speaker of the house, the senate president, the state library, and the public utilities commission on the status of electric utility restructuring, including the status of core energy efficiency programs monitored under RSA 374-F:6.
- IV. The committee shall meet quarterly or as often as is necessary to conduct its business. Four members of the committee shall constitute a quorum.
 - V. Members shall receive mileage when attending to the duties of the committee.

Source. 1996, 129:2. 2001, 86:1, 2. 2008, 27:3, eff. Nov. 1, 2008. 2012, 281:6, eff. Jan. 1, 2013.

Section 374-F:6

374-F:6 Duties. – The committee shall be responsible for the following:

I, II. [Repealed.]

- III. Studying implementation issues related to the development of competitive electricity markets, including, but not limited to: the structure, effectiveness, and competitiveness of wholesale and retail electricity markets for New Hampshire; regional cooperation and standards; supply and reliability issues; and opportunities for consumers to monitor prices and alter the amount or timing of their electricity use.
 - IV. Working on promoting the generation of electricity from renewable energy.
- V. Monitoring core energy efficiency programs funded by proceeds from sale of allowances under the regional greenhouse gas initiative program pursuant to RSA 125-O:23, III.
 - VI. Reviewing state energy efficiency programs under the administration of the public utilities commission to

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-71-1 Page 9 of 9

1/24/2018

CHAPTER 374-F ELECTRIC UTILITY RESTRUCTURING

determine what barriers exist to providing all-fuels, comprehensive energy efficiency savings to New Hampshire consumers.

Source. 1996, 129:2. 2001, 86:3. 2002, 268:5, 9, eff. May 18, 2002. 2012, 281:7, eff. Jan. 1, 2013. 2014, 330:3, eff. Oct. 3, 2014.

Section 374-F:7

374-F:7 Competitive Electricity Supplier Requirements. –

- I. Competitive energy suppliers are not public utilities pursuant to RSA 362:2, though a competitive energy supplier may seek public utility status from the commission if it so chooses. Notwithstanding a competitive energy supplier's non-utility status, the commission is authorized to establish requirements, excluding price regulation, for competitive electricity suppliers, including registration, registration fees, customer information, disclosure, standards of conduct, and consumer protection and assistance requirements. Unless electing to do so, an electricity supplier that offers or sells at retail to consumers within this state products and services that can lawfully be made available to such consumers by more than one supplier shall not, because of such offers or sales, be deemed to be a public utility as defined by RSA 362:2. These requirements shall be applied in a manner consistent with the restructuring principles of this chapter to promote competition among electricity suppliers.
- II. Aggregators of electricity load that do not take ownership of power or other services and do not represent any supplier interest are not public utilities pursuant to RSA 362:2, but shall notify the commission of their intent to do business. Municipalities that aggregate electric power or energy services for their citizens pursuant to RSA 53-E are not public utilities pursuant to RSA 362:2.
- III. The commission may assess fines against, revoke the registration of, order the rescission of contracts with residential customers of, order restitution to the residential customers of, and prohibit from doing business in the state any competitive electricity supplier, including any aggregator or broker, which is found to have:
- (a) Engaged in any unfair or deceptive acts or practices in the marketing, sale, or solicitation of electricity supply or related services:
- (b) Violated the requirements of this section or any other provision of this title applicable to competitive electricity suppliers; or
 - (c) Violated any rule adopted by the commission pursuant to paragraph V and RSA 374-F:4-b.
- IV. As a condition of operation, for a 2-year interim period from the date that competition is implemented in one or more areas of the state, competitive energy suppliers and load aggregators shall submit to the jurisdiction of the commission for mediation and resolution of disputes between customers and competitive energy suppliers or aggregators. Municipalities that aggregate electric power or energy service for their citizens pursuant to RSA 53-E are not subject to this paragraph.
 - V. The commission shall adopt rules, under RSA 541-A, to implement this section.

Source. 1997, 298:19. 2007, 26:5, eff. July 10, 2007. 2010, 336:2, eff. Oct. 18, 2010. 2015, 268:2, eff. July 20, 2015.

Section 374-F:8

374-F:8 Participation in Regional Activities. – The commission shall advocate for New Hampshire interests before the Federal Energy Regulatory Commission and other regional and federal bodies. The commission shall participate in the activities of the New England Conference of Public Utility Commissioners, the National Association of Regulatory Utility Commissioners, and the New England States Committee on Electricity, or other similar organizations, and work with the New England Independent System Operator and NEPOOL to advance the interests of New Hampshire with respect to wholesale electric issues, including policy goals relating to fuel diversity, renewable energy, and energy efficiency, and to assure nondiscriminatory open access to a safe, adequate, and reliable transmission system at just and reasonable prices.

Source. 2001, 29:7. 2007, 364:2, eff. July 17, 2007.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-71-2 Page 1 of 1

N.H.P.U.C. No. 17 - ELECTRICITY GRANITE STATE ELECTRIC COMPANY Eighth Revised Page 86 Superseding Seventh Revised Page 86 Electric Assistance Program

GRANITE STATE ELECTRIC COMPANY ELECTRIC ASSISTANCE PROGRAM PROVISION

Customers served under Rate Schedules D, D-10 and T of Granite State Electric Company (the Company) may be eligible to receive discounts pursuant to the Company's Electric Assistance Program. Customers participating in the Electric Assistance Program will continue to take service pursuant to their respective Rate Schedules, but will receive a percent discount off of the total amount billed for the first 700 kWh consumed per month, exclusive of the Electricity Consumption Tax and the Water Heater Rental fee, under such Rate Schedules. Discounts provided under the Electric Assistance Program are identified below and shall be funded by the System Benefits Charge in accordance with the System Benefits Charge Provision included on Page 77 of this tariff.

<u>Tier</u>	Percentage of Federal Poverty Guidelines	Discount
1	176-185	5% (Not available to new applicants)
2	151-175	7%
3	126-150	18%
4	101-125	33%
5	76-100	48%
6	0-75	70%

Eligibility criteria and benefit levels shall be based upon Federal Poverty Guidelines and are stated above for each tier. Community Action Agencies of New Hampshire shall be responsible for certifying customer qualification in the Electric Assistance Program and shall notify the Company of a customer's enrollment into the Electric Assistance Program and the applicable tier that would determine the discount that the Company should apply.

Effective March 4, 2011, the income eligibility for participation in the Electric Assistance Program is at or below 175% of the Federal Poverty Guidelines and Tier 1 will no longer be available to new participants, including customers who may be on the waiting list or any other customer of the Company. Participating customers receiving the Tier 1 discount as of March 4, 2011 shall continue to receive the discount until their next recertification, at such time they shall be reevaluated under the then existing eligibility guidelines.

The availability of the Electric Assistance Program shall be subject to approval by the Public Utilities Commission.

Issued: June 15, 2011 Issued by: <u>/s/Thomas B. King</u>
Thomas B. King
Effective: July 1, 2011 Title: President

(Issued in Compliance with Order No. 25,200 dated March 4, 2011in Docket No. DE 10-192)

Division 14-72

Request:

By year since 2003 to present inclusive, provide:

- a. The total aggregate cost of the New Hampshire discount;
- b. The per kWh charge to ratepayers through which those costs were recovered;
- c. The average monthly bill impact to ratepayers in recovering those costs.

Response:

a. As discussed in the Company's response to Division 14-71, the Electric Assistance Program (EAP) was a statewide program. Although the Company no longer has a New Hampshire affiliate, the Company is able to provide the total amount of discounts that were provided to Granite State Electric Company's customers participating in the EAP for the years 2003 through 2012. Please see the table below:

Year	Granite State Electric
	Company Low
	Income Discount
2003	\$243,145
2004	\$320,890
2005	\$362,971
2006	\$464,131
2007	\$423,158
2008	\$460,160
2009	\$440,658
2010	\$521,578
2011	\$453,755
2012	\$357,467

b. The EAP was, and continues to be, funded through the low income portion of the system benefit charge (SBC), as discussed in the Company's response to Division 14-71. Effective October 1, 2002, October 1, 2008, January 15, 2010, and July 1, 2011, the low income portion of the SBC was \$0.00120 per kWh, \$0.00150 per kWh, \$0.00180 per kWh, and \$0.00150 per kWh, respectively. Please see Attachment DIV 14-72 for the New Hampshire Public Utilities Commission order (Pages 1-15) and two secretarial letters from the executive director (Pages 16 and 17) directing the State's utilities to change the low income portion of the SBC.

c. Please see the table below for the average monthly impact to a residential customer using 500 kWh per month for the years 2003 through 2012. The amount that the low income portion of the SBC makes up in a 500 kWh residential bill for the years 2008, 2010, and 2011 represents an average over the year as the recovery factor changed during these years.

	Average Monthly Bill
Year	Impact
2003	\$0.60
2004	\$0.60
2005	\$0.60
2006	\$0.60
2007	\$0.60
2008	\$0.64
2009	\$0.75
2010	\$0.89
2011	\$0.83
2012	\$0.75

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-72 Page 1 of 17

STATE OF NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

DE 08-097

Statewide Low-Income Electric Assistance Program

2008-2009 Program Year Budgets and System Benefits Charge

Order Approving Budgets and Increase to the System Benefits Charge

<u>ORDER NO. 24,903</u>

September 30, 2008

APPEARANCES: Gerald M. Eaton, Esq. for Public Service Company of New Hampshire; Alexandra E. Blackmore, Esq. for Granite State Electric Company d/b/a National Grid; Gary M. Epler, Esq. for Unitil Energy Systems, Inc.; Mark W. Dean, Esq. for New Hampshire Electric Cooperative, Inc.; Alan Linder, Esq., of New Hampshire Legal Assistance, for The Way Home; Shannon Nolin, Program Director of the Low-Income Electric Assistance Program, for the Community Action Agencies; Rorie E.P. Hollenberg, Esq., of the Office of Consumer Advocate, on behalf of residential utility ratepayers; and Edward N. Damon, Esq. for the Staff of the New Hampshire Public Utilities Commission.

I. PROCEDURAL HISTORY

The Commission opened this docket to review and consider (i) the 2008-2009 program year budgets and sales forecasts filed by Public Service Company of New Hampshire (PSNH), Unitil Energy Systems, Inc. (Unitil), Granite State Electric Company d/b/a National Grid (National Grid), New Hampshire Electric Cooperative (NHEC), Community Action Program Belknap—Merrimack Counties, Inc., the lead agency for the New Hampshire community action agencies (Community Action Agencies), and the State of New Hampshire Office of Energy and Planning (OEP) in connection with the statewide low-income electric assistance program (EAP) established pursuant to *Statewide Low-Income Electric Assistance Program*, Order No. 23,980 87 NH PUC 349 (2002), (ii) the EAP Advisory Board's recommendation that the Commission increase the low-income portion of the system benefits charge from 1.2 mills to 1.5 mills per

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-72 Page 2 of 17

kilowatt hour effective October 1, 2008, the start of the 2008-2009 EAP program year, pursuant to RSA 374-F: 4,VIII(c), and (iii) the status of implementation of the various EAP programmatic recommendations approved in *Statewide Low-Income Electric Assistance Program*, Order Nos. 24,795 (2007) and 24,820 (2008). Among the issues to be considered is the justness and reasonableness of the proposed rate increase and the proposed budgets. The electric utilities identified above were made mandatory parties to this proceeding and participation by the members of the EAP Advisory Board was requested.

Between July 25, 2008 and August 1, 2008, the electric utilities filed their proposed budgets and forecasted sales for the 2008-2009 program year. The Community Action Agencies filed their proposed budget on July 28, 2008 and OEP filed its budget on August 1, 2008. Unitil also filed an updated sales forecast on September 15, 2008.

On August 8, 2008, the Office of Consumer Advocate (OCA) notified the Commission of its participation in the docket on behalf of residential ratepayers consistent with RSA 363:28.

New Hampshire Legal Assistance petitioned to intervene on behalf of The Way Home on September 17, 2008.

On August 13, 2008, the EAP Advisory Board recommended to the Commission that the funding level be increased from 1.2 mills to 1.5 mills per kilowatt hour due to higher costs in electric rates, increases in the number of households needing assistance, and a shifting of the participation levels within the discount tiers. On September 4, 2008, the Commission issued an order of notice scheduling a hearing. On September 22, 2008, Staff filed a memorandum recommending that the Commission approve the 2008-2009 EAP program year budgets as filed. At the hearing on September 23, 2008, the Commission granted The Way Home's petition to intervene.

II. HEARING RECORD

A panel of three witnesses, Gil Gelineau, the Manager of Marketing Support for PSNH, Amanda Noonan, Director of Consumer Affairs at the Commission, and Shannon Nolin, EAP Program Director, testified regarding the three matters set forth in the order of notice. Three exhibits were introduced into evidence.

A. RECOMMENDATION TO INCREASE THE LOW-INCOME PORTION OF THE SYSTEM BENEFITS CHARGE

Mr. Gelineau discussed the Advisory Board's recommendation that the Commission increase the low-income portion of the system benefits charge from the existing level of 1.2 mills to 1.5 mills, effective October 1, 2008. He stated that the Commission previously set three key EAP objectives: (1) provide benefits to approximately 30,000 customers, (2) minimize the waiting list, and (3) target the greatest benefit to those customers most in need.¹

When the Advisory Board met in July 2008, approximately 28,000 customers were enrolled in the EAP, with a waiting list of approximately 3,000 households, compared to a waiting list of approximately 1,200 households in October 2007. Since July, the waiting list has increased from approximately 3,000 households to a current level of approximately 4,200 households, a number which is expected to increase.

Mr. Gelineau stated that the Advisory Board considered the projections of funding levels and concluded that the EAP would only support approximately 25,000 households in the future, resulting in a waiting list of 6,000 households. This means that two of the three program objectives would not be met, namely, the number of customers benefited and the size of the waiting list. According to Mr. Gelineau, the third objective, targeting benefits to customers most

¹ See *Statewide Low-Income Electric Assistance Program*, Order No. 24,820 (January 30, 2008). In that order, the Commission approved a fourth outcome, balancing the need for electric assistance with the need for administrative efficiency, but that outcome is not implicated by the Advisory Board's recommendation.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-72 Page 4 of 17

in need, appears to be satisfied because within each discount tier the annual average benefit keeps customers' electric bills to approximately 4% to 5% of household income, a criterion established by the Commission in 2006.

The Advisory Board discussed the reasons why the EAP outcomes were not being achieved and why demand for EAP services is expected to increase in the future. First, electric rates have increased approximately 10% over the prior year. Second, there has been a shift in the number of customers in the smaller discount tiers to the larger discount tiers such that the average person enrolled in the EAP is receiving a higher discount. Both factors put pressure on the EAP in terms of its funding and ability to serve the requisite number of customers. The Advisory Board also considered the fact that energy prices have generally increased over the past year – heating oil prices are up approximately 71%, propane is up 32%, and gasoline is up 50% – and that applications for the federal fuel assistance program are up more than 30%, while the number of households being served is up approximately 20% compared to last year. Regarding the sources of the increased demand for EAP services, Ms. Nolin stated that the Community Action Agencies are seeing increases in the number of working, two-parent households seeking assistance.

The Advisory Board considered three solutions to the problem. First, the discount levels could be changed, but it concluded that aspect of the EAP is still working. Second, the number of participants served could be reduced, but it believed that would be contrary to EAP participation goals, which are already not being met. Third, the low-income portion of the system benefits charge could be increased from the existing level of 1.2 mills per kilowatt hour to the maximum of 1.5 mills permitted under RSA 374-F: 4,VIII(c). The Advisory Board calculated that an increase to 1.5 mills would generate about \$3.3 million in additional program

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-72 Page 5 of 17

revenues, allowing the EAP to serve a total of approximately 34,000 households, including the existing 28,000 customers enrolled in the EAP, and the waiting list of approximately 3,000 households, with the ability to serve an additional 3,000 households in anticipation of increased demand this winter.

The Advisory Board estimated that the customer impact from increasing the low-income portion of the system benefits charge would be an increase to the monthly bill of a residential electric customer using 600 kwh of approximately 18 cents, or \$2.16 annually, a \$7.50 annual increase for an average small business customer, and a \$3,400 annual increase for the average large commercial/industrial customer.

Mr. Gelineau stated that due to circumstances peculiar to PSNH, it is requesting a waiver of the Commission's rule² requiring that rate changes be implemented on a service rendered basis, so that PSNH's change to its system benefits charge rate could be implemented on a bills rendered basis instead. He explained that although its new customer billing system is capable of performing service rendered billing, it is currently set up to operate on a bills rendered basis and testing still needs to be done for service rendered billing adjustments. He stated that PSNH did not anticipate the billing change when it installed the system and the system is in lock down mode until mid-October when the other operating companies will be moved onto the system.

Ms. Noonan indicated that the Commission could accommodate PSNH's requested waiver without creating technical problems in the administration of the EAP and, because of the small bill impacts resulting from the rate increase, without materially disadvantaging customers of PSNH or the other utilities.

199

² See N.H. Code of Admin. Rules Puc 1203.05 (b) and (c).

B. EAP BUDGETS FOR 2008-2009 PROGRAM YEAR

Ms. Noonan discussed the proposed budgets of the electric utilities, the Community

Action Agencies and OEP for the upcoming EAP program year. The utility budgets consist of incremental EAP expenses for things such as the production and printing of educational materials, including posters and brochures, customer service, legal services and IT/computer support. OEP's budget is based on its periodic evaluation functions, including a process evaluation every three years to determine whether the EAP has met the level of need within the limits of the available system benefits charge funds, whether the EAP conforms to the program design guidelines, and whether it operates efficiently, and on its on-going involvement in Advisory Board meetings and related discussions. The Community Action Agencies' budget is directly related to the administration of the EAP and includes expenses for such matters as client outreach, intake, application processing, and monitoring and compliance reporting.

Overall, the 2008-2009 program year budgets are 1.57% lower than the 2007-2008 program year budgets. When the one-time software development costs that were part of the 2007-2008 EAP budget are removed, the on-going administrative costs for the 2008-2009 program year are slightly (1.64%) higher than the ongoing administrative costs for the prior program year, as shown below.

Proposed EAP Utility Budgets 2008-2009 Program Year

	Utility and OEP	CAA	
	Administrative Costs	Administrative Costs	Total
PSNH	\$35,800	\$1,185,285	\$1,221,085
NHEC	\$ 3,500	\$ 143,550	\$ 147,050
NG	\$ 3,149	\$ 101,555	\$ 104,704
UES	\$ 5,200	\$ 166,384	\$ 171,584
OEP	\$20,510	\$ 0	\$ 20,510
Total	\$68,159	\$1,596,774	\$1,664,933

Proposed EAP Utility Budgets 2008-2009 Program Year as Compared to 2007-2008 Program Year

	Utility/OEP	CAA		Utility/OEP	CAA		
	Admin.	Admin.	Total	Admin.	Admin.	Total	Percentage
	Costs 07-08	Costs 07-08	07-08	Costs 08-09	Costs 08-09	08-09	Change
PSNH	\$35,450	\$1,207,911	\$1,243,361	\$35,800	\$1,185,285	\$1,221,085	-1.79%
NHEC	\$ 6,000	\$ 103,477	\$ 109,477	\$ 3,500	\$ 143,550	\$ 147,050	34.32%
NG	\$ 5,372	\$ 92,362	\$ 97,734	\$ 3,149	\$ 101,555	\$ 104,704	7.13%
UES	\$ 5,200	\$ 161,713	\$ 166,913	\$ 5,200	\$ 166,384	\$ 171,584	2.80%
OEP	\$20,510	\$ 0	\$ 20,510	\$20,510	\$ 0	\$ 20,510	0.00%
Total	\$72,532	\$1,565,463	\$1,637,995	\$68,159	\$1,596,774	\$1,664,933	1.64%

The EAP Advisory Board met to review and discuss the budgets on August 21, 2008. The discussion focused primarily on the Community Action Agencies' portion of the overall budget. Their proposed budget represents an increase of 2% over the 2007-2008 program year. According to Ms. Noonan, the budget increase is driven primarily by increased travel costs related to outreach, the need to replace aging computer equipment used to take EAP applications, an increase in the cost of providing health care benefits to employees, and increases in heating costs and rent. No objections to the budgets were raised at the Advisory Board meeting. Ms. Noonan noted that the overall utility budgets have decreased and there is no change in the OEP's budget. Based on her review and analysis, Ms. Noonan concluded that the proposed 2008-2009 EAP program year budgets are reasonable and recommended that the Commission approve them as filed.

Ms. Noonan and Ms. Nolin agreed that increasing the low-income portion of the system benefits charge would not materially affect the Community Action Agencies' budget. Thus, all additional revenues would go toward EAP benefits.

C. EAP ADMNISTRATIVE EFFICIENCY IMPROVEMENTS

Ms. Nolin addressed the status of the implementation of the EAP administrative efficiency improvements mandated by the Commission in Docket No. DE 07-009, which investigated ways of streamlining EAP administrative processes.³ Ms. Nolin reported that all the efficiency improvements have already been implemented or are in progress.

Regarding the items in progress, automation of the utility enrollment process is still under consideration but it has not been accomplished, in part because recent system conversions at two utilities precluded such changes from being made up to now. For similar reasons, automation of the enrollment removal process has been delayed pending final completion of the conversions.

Ms. Nolin stated that the Community Action Agencies are on a working group that is part of an initiative sponsored by the Department of Health and Human Services called the "Front Door Access Project," which is investigating technologically efficient ways of sharing welfare enrollment information.

Encryption of the electronic data being sent from the utilities to the Community Action Agencies has been implemented and data transmission from the Community Action Agencies to the utilities is being accomplished by a secure hyperlink. Discussions have also taken place regarding the cost effectiveness of the extra step of encrypting e-mail communications from the Community Action Agencies to the utilities, a step beyond what the Commission required.

The Community Action Agencies are to enter into three service level agreements in connection with their computer systems. According to Ms. Nolin, two agreements are in place for system management and hardware support. An agreement for software support is not currently in place because the former software vendor terminated its relationship with the

³ See *Statewide Low-Income Electric Assistance Program*, Order No. 24,795 (October 24, 2007) and Order No. 24,820 (January 30, 2008).

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-72 Page 9 of 17

Community Action Agencies. Another vendor is currently working on a time and materials basis and the Community Action Agencies expect to issue a request for proposals for a software agreement within the next quarter.

Finally, Ms. Nolin stated that the periodic reporting contemplated by the monitoring and evaluation manual is being done. The accuracy of the information regarding timely payment, complete payments, partial payments and no payments still needs to be verified by reconciling it against information possessed by the utilities. Simple ad hoc reports are also generated. She stated that all the specified periodic reports and ad hoc reporting are expected to be in place by next fall.

III. POSITIONS OF THE PARTIES AND STAFF

A. PSNH

PSNH stated that all parties agree with the Advisory Board that the recommended increase in the low-income portion of the system benefits charge is necessary to achieve the goals of the EAP and the rate impact is minimal. PSNH requested that the Commission grant its waiver request in order to allow the rate adjustment to become effective October 1 on a bills rendered basis. PSNH also stated that the proposed budgets are reasonable, noting that they are very little changed from last year.

B. NHEC

NHEC fully supported the recommended increase in the low-income portion of the system benefits charge. Stating that it does not take lightly the prospect of increased electric rates, given current energy costs, NHEC provided some historical context for the Commission's consideration.

NHEC noted that three years ago, the Legislature held a special session to pass a law augmenting the EAP on an emergency basis. A year ago, similar issues were before the Commission. At that time, NHEC recommended raising the low-income portion of the system benefits charge to 1.5 mills per kilowatt hour because the cost of energy and economic conditions warranted it. The Commission did not adopt NHEC's recommendation, opting instead to fine tune the discount tiers so that although the average program benefit was reduced, the program could continue to meet the affordability goal of limiting electric bills to 4%-5% of income. In addition, over the last year the Commission approved a number of program refinements in order to achieve greater efficiencies. NHEC concluded that past efforts to make the program as efficient as possible in order to avoid a rate increase for as long as possible have been successful, but under current circumstances there are no remaining alternatives to approving the recommended increase in the low-income portion of the system benefits charge, if program goals are to be achieved.

C. National Grid

National Grid supported the Advisory Board's recommendation to increase the low-income portion of the system benefits charge in view of recent increases in heating costs, gasoline and other household expenses, and the increase in the number of households on the EAP wait list. National Grid also maintained that increasing EAP funding is consistent with the goals established for the EAP in Docket No. 06-079, in terms of the number of customers that can be served and the benefit levels that can be provided. Finally, National Grid expressed its support for the 2008-2009 EAP program year budgets.

D. Unitil

Unitil joined in the comments of the other electric utilities in favor of the Commission's approval of the Advisory Board's recommendation to increase the low-income portion of the system benefits charge.

E. Community Action Agencies

The Community Action Agencies supported the recommendation of the Advisory Board to increase the low-income portion of the system benefits charge.

F. The Way Home

The Way Home supported the recommendation of the Advisory Board to increase the low-income portion of the system benefits charge. The Way Home stated that the ever growing number of applications demonstrates the need to increase low income charge in order to achieve the goals established by the Commission in prior orders. The Way Home also supported the proposed budgets of the utilities, the Community Action Agencies and OEP, pointing out that all parties and Staff have worked to streamline the EAP. According to the Way Home, the Community Action Agencies have done their utmost to implement the recommendations and the action steps set forth in prior Commission orders and are continuing to fully implement all the action steps.

G. OCA

OCA supports the Advisory Board's recommended increase in the low-income portion of the system benefits charge. OCA takes no position on the budgets and it looks forward to working with the other members of the Advisory Board on the implementation of the administrative efficiency improvements.

H. Staff

Staff supported the Advisory Board's recommended increase in the low-income portion of the system benefits charge and stated that the proposed budgets as filed are reasonable. Staff joined in the The Way Home's commendation of the Community Action Agencies in continuing to make progress on the administrative efficiency action steps outlined in prior orders.

IV. COMMISSION ANALYSIS

The Advisory Board and the parties to this docket unanimously recommend that we increase the low-income portion of the system benefits charge from the existing level of 1.2 mills per kilowatt hour, which was approved by the Commission on November 1, 2000, to 1.5 mills per kilowatt hour, the maximum level permitted under RSA 374-F: 4,VIII(c). The record reflects that the Advisory Board carefully and thoroughly analyzed the situation, and the evidence introduced at hearing clearly demonstrates that there is a compelling basis for raising the low income charge.

As set forth in prior orders, the EAP is intended to serve approximately 30,000 households and to minimize the waiting list for program enrollment. Since there are currently about 28,000 households enrolled, and a waiting list of 4,200 households, the EAP is not meeting program objectives. Moreover, recent trends show that it will be increasingly more difficult to achieve program objectives inasmuch as electric rates have increased and the number of customers in the smaller discount tiers has shifted to the larger discount tiers, such that the average person enrolled in the EAP is receiving a higher discount. In addition, non-electric energy prices are increasing and demand for the services provided by the federal fuel assistance program is up, which is indicative of the difficult economic circumstances faced by low-income customers. Furthermore, the Community Action Agencies are witnessing an increased need for

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-72 Page 13 of 17

EAP services, including increases in the number of working, two-parent households seeking EAP assistance.

As NHEC recounted, this is not the first time that changes related to the EAP have been considered, and that historical background informs our decision today. Notably, the Legislature held a special session three years ago and passed a law augmenting the EAP on an emergency basis; it is apparent that the difficult economic circumstances facing low-income customers in 2005 have hardly improved since then. Two years ago, similar issues were before us but we were able to find reasonable alternatives to raising the low income charge, without jeopardizing program objectives. We were able to fine tune the discount tiers so that, although the average program benefit was reduced, the program could continue to meet the affordability goal of limiting electric bills to approximately 4%-5% of household income. In addition, we approved a number of program refinements in order to achieve further administrative efficiencies and help ensure that program funds are being spent in the most cost-effective way. More recently, the Legislature passed, and Governor Lynch signed on September 24, 2008, a bill approving measures related to low income assistance programs for the upcoming winter.

The Advisory Board considered a range of alternatives but concluded, for good reason, that changing the discount tiers would undercut the aspect of the EAP that is still working – targeting the greatest benefit to those customers most in need and maintaining affordability of electric bills – while lowering the number of program participants would be contrary to EAP participation goals. Instead, it concluded that it was the appropriate time to raise the low income portion of the system benefits charge from the 1.2 mills per kilowatt hour level set by the Commission in 2000 to the 1.5 mills per kilowatt hour level permitted by the Legislature.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-72 Page 14 of 17

We are mindful that raising the low income portion of the system benefits charge represents a rate increase for a typical residential customer using 500 kwh monthly of 15 cents, or \$1.80 annually, while the annual bill impact for an average small business customer would be approximately \$7.50. However, when considering that the approximately \$3.3 million that would be made available for EAP benefits would serve an additional 6,000 customers, the bill impacts are reasonable. Furthermore, we find that the need for assistance is growing and that the objectives of eliminating the waiting list and serving 34,000 customers are sound. We also find that the best way to achieve these objectives is to raise the low income portion of the system benefits charge. Accordingly, we will adopt the Advisory Board's recommendation.

PSNH has requested that we waive our rule requiring that rate changes be implemented on a service rendered basis. Essentially, the company-wide conversion of Northeast Utilities' billing systems, which include PSNH's new billing system, has not yet progressed far enough to allow for PSNH to reliably make the rate change on a service rendered basis. We find that PSNH has presented sufficient reasons for granting the waiver in this instance and that any impact on customers of other utilities is negligible. We will therefore grant the request.

We will also approve the 2008-2009 EAP program year budgets, which we find to be reasonable and consistent with budgets presented and approved in past years. Overall, excluding one-time software development costs that were part of the 2007-2008 EAP budget, the on-going administrative costs for the 2008-2009 program year are slightly (1.64%) higher than the comparable administrative costs for the prior program year, but the increased amount is reasonable and expectable.

Finally, we are pleased that the efficiency improvements contemplated by prior orders have already been implemented or are in the process of being completed. It is essential that close

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-72 Page 15 of 17

DE 08-097 - 15 -

attention be paid to such matters, now and in the future, to assure that EAP program dollars are spent wisely.

Based upon the foregoing, it is hereby

ORDERED, in accordance with the Advisory Board's recommendation, that the low-income portion of the system benefits charge be increased from the existing level of 1.2 mills per kilowatt hour to 1.5 mills per kilowatt hour, effective October 1, 2008; and it is

FURTHER ORDERED, that the above described increase shall be made on a service rendered basis, except that with respect to PSNH the rate change may be made on a bills rendered basis; and it is

FURTHER ORDERED, that the 2008-2009 EAP program year budgets are approved as filed.

By order of the Public Utilities Commission of New Hampshire this thirtieth day of September, 2008.

Thomas B. Getz Chairman	Graham J. Morrison Commissioner	Clifton C. Below Commissioner
Attested by:		
Kimberly Nolin Smith		

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-72 Page 16 of 17

THE STATE OF NEW HAMPSHIRE

CHAIRMAN Thomas B. Getz

COMMISSIONERS Clifton C. Below Amy L. Ignatius

EXECUTIVE DIRECTOR AND SECRETARY Debra A. Howland

PUBLIC UTILITIES COMMISSION 21 S. Fruit Street, Suite 10 Concord, N.H. 03301-2429

January 15, 2010

FAX (603) 271-3878

TDD Access: Relay NH
1-800-735-2964

Website:
www.puc.nh.gov

Tel. (603) 271-2431

DE 09-170, 2010 Core Energy Efficiency Programs DE 09-135, Electric Assistance Program

Re: Passage of Senate Bill 300 and the Re-Allocation of the System Benefits Charge

To the Parties:

Pursuant to Senate Bill 300, signed into law and effective on January 14, 2010, the Commission has been directed to increase as necessary the portion of the system benefits charge that funds the electric assistance program (EAP) in order to adequately fund the program for low-income customers. The maximum increase permitted to the EAP portion of the system benefits charge is .3 mills for an overall funding level of 1.8 mills per kWh for the EAP; the overall system benefits charge of 3.3 mills is to remain unchanged.

On January 14, 2009, Staff advised the Commission that the program could sustain an enrollment of approximately 37,000 through September 30, 2010, the end of the current EAP program year, at a funding level of 1.8 mills per kWh . At this enrollment level, all customers currently on the EAP waiting list could be enrolled in the program.

Accordingly, effective January 15, 2010, the electric utilities are directed to change the allocation of the 3.3 mills per kWh system benefits charge such that 1.8 mills per kWh is allocated to the EAP and 1.5 mills per kWh is allocated to energy efficiency programs. To the extent a utility does not have daily actual kWh data, the utility should assume the kWhs sold between the 1st and the 15th are equal to one half of the total kWhs sold for the month.

Sincerely,

Debra A. Howland Executive Director

Delie A. Harland

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4770 Attachment DIV 14-72 Page 17 of 17

THE STATE OF NEW HAMPSHIRE

CHAIRMAN Thomas B. Getz

COMMISSIONERS Clifton C. Below Amy L. Ignatius

EXECUTIVE DIRECTOR AND SECRETARY Debra A. Howland



PUBLIC UTILITIES COMMISSION 21 S. Fruit Street, Suite 10 Concord, N.H. 03301-2429 Tel. (603) 271-2431

FAX (603) 271-3878

TDD Access: Relay NH 1-800-735-2964

> Website: www.puc.nh.gov

June 15, 2011

DE 10-188, 2011 Core Energy Efficiency Programs DE 10-192, Electric Assistance Program

Re: Re-Allocation of the System Benefits Charge

To the Parties:

In accordance with the Legislature's passage of Senate Bill 300 in 2010, by secretarial letter dated January 15, 2010, the electric utilities were directed to change the allocation of the 3.3 mills per kWh system benefits charge such that 1.8 mills per kWh would be allocated to the EAP and 1.5 mills per kWh would be allocated to energy efficiency programs.

Inasmuch as the temporary increase to the low-income portion of the system benefits charge terminates June 30, 2011, the electric utilities are directed to change the allocation of the 3.3 mills per kWh system benefits charge such that 1.5 mills per kWh is allocated to the EAP and 1.8 mills per kWh is allocated to the energy efficiency programs effective with service rendered on or after July 1, 2011.

Sincerely,

Debra A. Howland Executive Director

Division 14-73

Request:

Please explain whether the reference to "low-income customers" on page 23, lines 19-20 of Leary/McCabe's pre-filed direct testimony includes customers other than customers receiving the A60 discount.

Response:

As referenced in the parenthetical on Line 20 of Page 23 of the joint pre-filed direct testimony of Company Witnesses Ann E. Leary and Scott M. McCabe (Bates Page 27 of Book 15), "(customers on Rate A-60, Rate 11, and Rate 13)," the reference to low income customers on lines 19-20 represents customers that receive electric delivery service on Rate A-60 and customers that receive gas service on Rates 11 and 13.

Division 14-74

Request:

To the extent the response to the immediately preceding request indicates that there are low-income customers who do not receive the A60 discount, please explain in detail all circumstances in which a known low-income customers does not receive the A60 discount.

Response:

Please see the Company's response to Division 14-73. The Company is defining low income customers as customers who receive electric service on Rate A-60.

Division 14-75

Request:

Please provide:

- a. The uncollectible (i.e., bad debt) rate for residential customers;
- b. The uncollectible (i.e., bad debt) rate for low-income customers if available.

Response:

Please see Attachment DIV 14-75-1 for the residential uncollectible rate analysis for Narragansett Electric. The data is provided for Calendar Years (CY) 2015, 2016, and 2017, with a 36-month (3-year) uncollectible rate.

Please see Attachment DIV 14-75-2 for the residential uncollectible rate analysis for Narragansett Gas. The data is provided for CY 2015, 2016, and 2017, with a 36-month (3-year) uncollectible rate.

NARRAGANSETT ELECTRIC

RESIDENTIAL NET WRITE-OFF*

		12-Mo Ending	12-Mo Ending	12-Mo Ending	
		2015	2016	2017	36-Mo
			(\$000's)		
	RATE				
Residential Std	A16	\$6,740	\$6,151	\$5,108	\$17,999
Residential Low income	A60	\$3,386	\$1,929	\$3,031	\$8,347
Total Residential Net Write-Off		\$10,126	\$8,081	\$8,140	\$26,346

^{*} Based on CSS CN980 System Reports

RESIDENTIAL REVENUE SUMMARY*

		12-Mo Ending 2015	12-Mo Ending 2016 (\$000's)	12-Mo Ending 2017	36-Mo
	RATE				
Residential Std	A16	\$517,345	\$492,146	\$476,848	\$1,486,339
Residential Low income	A60	\$50,372	\$35,000	\$30,178	\$115,550
Residential REVENUE		\$567,717	\$527,145	\$507,026	\$1,601,888

^{*} Queried first by Tariff Type Code then by Tariff Schedule Type Code

RESIDENTIAL UNCOLLECTIBLE RATE

		12-Mo Ending 2015	12-Mo Ending 2016	12-Mo Ending 2017	36-Mo
	RATE				
Residential Std	A16	1.30%	1.25%	1.07%	1.21%
Residential Low income	A60	6.72%	5.51%	10.05%	7.22%
Residential UNCOLLECTIBLE RATE		1.78%	1.53%	1.61%	1.64%

NARRAGANSETT GAS

RESIDENTIAL NET WRITE-OFF *

	REGIDENTIAL NET WINTE OF I				
		12-Mo Ending 2015	12-Mo Ending 2016	12-Mo Ending 2017	36-Mo
		(\$	000's)		
	RATE				
Residential					
Residential Non-Heating	101	\$379	\$298	\$164	\$841
Residential Heating	124	\$4,637	\$4,204	\$3,723	\$12,564
Subtotal Residential		\$5,016	\$4,502	\$3,887	\$13,405
Residential Low Inc Non-Heating	110	\$27	\$2	\$11	\$40
Residential Low Inc Heating	130	\$1,465	\$520	\$1,178	\$3,162
Subtotal Residential Low Income		\$1,491	\$521	\$1,189	\$3,202
Residential Net Write-Off		\$6,508	\$5,023	\$5,076	\$16,607

^{*} Source: CSS CN980 System Reports

RESIDENTIAL REVENUE SUMMARY*

	RESIDENTIAL REVENUE SUMMARY					
		12-Mo Ending	12-Mo Ending	12-Mo Ending		
		2015	2016	2017	36-Mo	
		(\$	000's)			
7	TAR CODE					
Residential						
Residential Non-Heating	401	\$12,051	\$9,059	\$7,766	\$28,876	
Residential Heating	400	\$248,643	\$209,999	\$230,965	\$689,606	
Subtotal Residential	_	\$260,694	\$219,057	\$238,731	\$718,482	
Residential Low Inc Non-Heating	403	\$390	\$253	\$170	\$812	
Residential Low Inc Heating	402	\$24,331	\$18,032	\$19,393	\$61,756	
Subtotal Residential Low Income	-	\$24,720	\$18,284	\$19,563	\$62,567	
Residential REVENUE		\$285,414	\$237,342	\$258,294	\$781,050	

^{*} Queried first by Tariff Type Code then by Tariff Schedule Type Code

RESIDENTIAL UNCOLLECTIBLE RATE

	12-Mo Ending 2015	12-Mo Ending 2016	12-Mo Ending 2017	36-Mo	
Residential					
Residential Non-Heating	3.15%	3.29%	2.11%	2.91%	
Residential Heating	1.87%	2.00%	1.61%	1.82%	
Subtotal Residential	1.92%	2.06%	1.63%	1.87%	
Residential Low Inc Non-Heating	6.86%	0.65%	6.66%	4.89%	
Residential Low Inc Heating	6.02%	2.88%	6.07%	5.12%	
Subtotal Residential Low Income	6.03%	2.85%	6.08%	5.12%	
Residential UNCOLLECTIBLE RATE	2.28%	2.12%	1.97%	2.13% 16	

Division 14-76

Request:

Please provide all written analyses, or evaluations, prepared by or for the Company, or that are otherwise within the custody or control of the Company, that assess or otherwise discuss the affordability of low-income bills given:

- a. The existing A60 discount;
- b. The proposed 15% total bill discount.

Response:

The Company did not prepare and does not have any written analyses or evaluations that assess or otherwise discuss the affordability of low income electric bills receiving the discount on Rate A-60 or under Narragansett Electric's proposed 15 percent total bill discount. The Public Utilities Commission has made a public policy decision that it is appropriate to provide such utility bill assistance to electric customers on Rate A-60, and that such assistance is needed to assist customers in being able to afford this necessary service.

In addition, as indicated in the pre-filed direct testimony of Company Witnesses Ann E. Leary and Scott M. McCabe at Page 16 (Bates Page 20 of Book 15), Lines 5-12, one of the recommendations of the Docket 4600 Stakeholder Working Group Process Report dated April 5, 2017 (Stakeholder Report) involved low income customer protections to be considered in rate design. At the Public Utilities Commission's May 3, 2017 Open Meeting during which it considered the recommendations in the Stakeholder Report, the Public Utilities Commission directed the Company to re-examine the design of its electric and gas low income rates in its next general rate case. Therefore, the Company did not believe an assessment or discussion of the affordability of low income bills were needed. Therefore, the Company did not prepare such an assessment.

¹ April 5, 2017 Docket 4600 Stakeholder Working Group Process Report, Section 3.4. The Stakeholder Report was provided in the Company's response to Division 14-48.