

National Grid

The Narragansett Electric Company

**2017 RENEWABLE ENERGY
GROWTH PROGRAM
FACTOR FILING**

Pre-filed Direct Testimony and
Schedules of Adam S. Crary

June 30, 2017

Submitted to:

Rhode Island Public Utilities Commission
RIPUC Docket No. _____

Submitted by:

nationalgrid

June 30, 2017

BY HAND DELIVERY AND ELECTRONIC MAIL

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

**RE: 2017 Renewable Energy (RE) Growth Program Factor Filing
Docket No. _____**

Dear Ms. Massaro:

On behalf of National Grid,¹ I have enclosed the Company's RE Growth Program Factor filing for the period April 2017 through March 2018 (the 2017 Program Year).² This filing also includes the annual RE Growth Program reconciliation of actual RE Growth revenue and costs. The reconciliation period includes revenue billed through the current RE Growth Factors for the period April 2016 through March 2017 and actual costs incurred to administer the RE Growth Program during the same period.

The effect of the proposed RE Growth Factors and RE Growth Reconciliation Factors on the monthly bill of a residential Standard Offer Service (SOS) customer using 500 kWh is an increase of \$0.59, or approximately 0.7%. The enclosed filing includes Pre-Filed Direct Testimony and Schedules of Adam S. Crary.

Thank you for your attention to this matter. If you have any questions, please contact me at 781-907-2121.

Very truly yours,



Raquel J. Webster

Enclosures

cc: Leo Wold, Esq.
Jon Hagopian, Esq.
Steve Scialabba, Division

¹ The Narragansett Electric Company d/b/a National Grid (National Grid or Company).

² The Company submits this filing pursuant to the RE Growth Cost Recovery Provision, RIPUC No. 2176, which the PUC approved in Docket No. 4676. Pursuant to the RE Growth Cost Recovery Provision, the RE Growth Factors are designed to include an estimate of the costs expected to be incurred by the Company during the current RE Growth program year.

**Testimony of
Adam S. Crary**

PRE-FILED DIRECT TESTIMONY

OF

ADAM S. CRARY

TABLE OF CONTENTS

I.	Introduction and Qualifications of Adam S. Crary	1
II.	Purpose of Pre-Filed Testimony	2
III.	Overview of the Company’s RE Growth Cost Recovery Provision.....	5
IV.	RE Growth Program Estimated Cost for the 2017 Program Year	7
V.	RE Growth 2016 Program Year Reconciliation	17
VI.	Typical Bill Analysis	23
VII.	Summary of Retail Delivery Rates	23
VIII.	Conclusion	24

1 **I. Introduction and Qualifications of Adam S. Crary**

2 **Q. Please state your full name and business address.**

3 A. My name is Adam S. Crary, and my business address is 40 Sylvan Road, Waltham,
4 Massachusetts 02451.

5

6 **Q. Please state your position.**

7 A. I am a Senior Analyst for Electric Pricing, New England in the Regulation and Pricing
8 Department of National Grid USA Service Company, Inc. This department provides
9 rate-related support to the Company.

10

11 **Q. Please describe your educational background and training.**

12 A. In 1995, I graduated from Berklee College of Music in Boston, MA with a Bachelor of
13 Music degree.

14

15 **Q. Please describe your professional experience?**

16 A. For approximately eight years between 2000 and 2014, I was employed by Computer
17 Sciences Corporation as a Pricing Analyst for their Managed Hosting and Cloud
18 Computing business divisions, respectively. I began my employment as a Senior Pricing
19 Analyst with National Grid in June 2014.

20

21 **Q. Have you previously testified before PUC?**

1 A. Yes. I previously testified in the Renewable Energy (RE) Growth Program proceeding,
2 Docket No. 4589A and in the fiscal year (FY) 2015 Electric Infrastructure, Safety and
3 Reliability (ISR) Plan Reconciliation proceeding, Docket No. 4473. I have also
4 submitted Pre-Filed Direct Testimony in the FY 2015 Electric Revenue Decoupling
5 Mechanism Reconciliation Filing, Docket No. 4566, the FY17 and FY18 Electric ISR
6 Plans, Docket No. 4682, and the 2016 RE Growth Program Factor Filing, Docket No.
7 4626. I have testified in the 2016 and 2017 Annual Retail Rate Filings, Dockets No.
8 4599 and 4691, and I most recently testified in the FY18 Electric ISR Plan, Docket No.
9 4682.

10

11 **II. Purpose of Pre-Filed Testimony**

12 **Q. What is the purpose of your pre-filed testimony?**

13 A. The purpose of my pre-filed testimony is to present the Company's estimate of the
14 incremental cost subject to recovery for the period April 2017 through March 2018 (the
15 2017 Program Year) to administer the Renewable Energy Growth (RE Growth) Program
16 and the calculation of the proposed RE Growth Factors designed to recover that cost.
17 This filing also presents the reconciliation of revenue and cost (operation and
18 maintenance (O&M) expense incurred as well as the revenue requirement on meters
19 installed and placed into service)¹ during the Program Year ending March 2017 (the 2016

¹ The Company has capitalized a portion of the costs incurred to modify its customer service system (CSS) required to implement the RE Growth Program. The capitalized cost was recorded as plant in service beginning April 2016. Therefore, the Company has begun reflecting the revenue requirement of the capitalized cost of modifying CSS over a seven-year schedule, as presented in Schedule ASC-4A.

1 Program Year) and the proposed RE Growth Reconciliation Factors, which will be
2 combined with the RE Growth Factors and presented as a single monthly charge on
3 customers' bills. The Company proposes that both the RE Growth Factors and the RE
4 Growth Reconciliation Factors be effective for bills rendered after October 1, 2017.

5
6 Recovery of costs for the RE Growth Program is in accordance with the Company's RE
7 Growth Cost Recovery Provision, RIPUC No. 2176 (effective March 1, 2017), which the
8 PUC approved in Docket No. 4676 (Proposal to Bid Capacity of Customer-Owned DG
9 Facilities into the Forward Capacity Market (FCM)). Pursuant to the RE Growth Cost
10 Recovery Provision, the RE Growth Factors are designed to include an estimate of the
11 costs the Company expects to incur during the current Program Year. In Docket 4626,
12 the PUC approved the RE Growth Factors that are currently in effect. These factors,
13 which were effective as of October 1, 2016, were designed to recover the expenses the
14 Company expected to incur during the 2016 Program Year. The proposed RE Growth
15 Factors will replace the current factors.

16
17 This filing also includes the second annual RE Growth Program reconciliation of actual
18 RE Growth revenue and costs. The reconciliation period includes revenue billed through
19 the current RE Growth Factors for the period April 2016 through March 2017, and actual
20 costs incurred to administer the RE Growth Program during the same period.

1 The effect of the proposed RE Growth Factors and RE Growth Reconciliation Factors on
2 the monthly bill of a residential Standard Offer Service (SOS) customer using 500 kWh is
3 an increase of \$0.59, or approximately 0.7%.

4
5 **Q. Why is the Company proposing to implement the proposed RE Growth Factors and**
6 **RE Growth Reconciliation Factors on October 1, 2017?**

7 A. The RE Growth Statute² and the RE Growth Cost Recovery Provision require the
8 Company to file a reconciliation of the revenue and cost for each Program Year within
9 three months following the end of the Program Year. Therefore, the Company must
10 submit its annual reconciliation filing no later than June 30 of each year. In order to
11 allow the PUC and the Rhode Island Division of Public Utilities and Carriers (Division)
12 adequate time to consider the Company's reconciliation filing, the Company proposes an
13 effective date for the proposed factors of October 1. For administrative convenience, the
14 Company is including the proposals for both the RE Growth Factors and RE Growth
15 Reconciliation Factors in the same filing.

16
17 **Q. How is your testimony organized?**

18 A. Section III of my testimony provides a description of the RE Growth Program Cost
19 Recovery Provision. Section IV describes the estimated expense the Company expects to
20 incur during the 2017 Program Year and explains the calculation of the proposed RE
21 Growth Factors. Section V describes the reconciliation of revenue billed through the

² R.I. Gen. Laws § 39-26.6-25(b).

1 currently-effective RE Growth Factors and incremental cost incurred during the 2016
2 Program Year. Section V also explains the calculation of the proposed RE Growth
3 Reconciliation Factors. Section VI discusses the typical bills for each of the Company's
4 rate classes that presents the impacts resulting from implementing the proposed RE
5 Growth Factors and RE Growth Reconciliation Factors. Section VII discusses the
6 Summary of Retail Delivery Rates tariff. Section VIII concludes the testimony.

7
8 **III. Overview of the Company's RE Growth Cost Recovery Provision**

9 **Q. Please describe the provisions of the RE Growth Cost Recovery Provision, RIPUC**
10 **No. 2176.**

11 A. The RE Growth Cost Recovery Provision provides for the recovery of incremental costs
12 associated with the RE Growth Program from all retail delivery service customers
13 through a fixed monthly charge per customer. Under the RE Growth Program, the
14 Company is required to purchase the output generated by Distributed Generation (DG)
15 projects that have been awarded Certificates of Eligibility through the RE Growth
16 Program enrollment process and compensate program applicants in the form of
17 Performance Based Incentive (PBI) Payments. In turn, the applicants will assign to the
18 Company title to all energy, capacity, and Renewable Energy Certificates (RECs)
19 (collectively, Market Products) generated by the DG projects.³ The Company will sell
20 the energy; RECs are either used to satisfy the Company's Renewable Energy Standard
21 (RES) compliance obligations for Standard Offer Service customers or are sold if they

³The Company will purchase only RECs from residential RE Growth Program participants.

1 are not needed for compliance. Additionally, as a result of the PUC's approval in Docket
2 No. 4676, the Company has begun and will continue to participate on behalf of eligible
3 RE Growth projects in the ISO-NE FCM. The net proceeds from the sale of the Market
4 Products, including any Net Forward Capacity Proceeds, will be used to offset the cost of
5 the RE Growth Program.

6
7 In addition, the RE Growth Cost Recovery Provision authorizes the Company to recover
8 1.75 percent of the total PBI Payments as remuneration. Finally, the Company will track
9 and annually seek recovery for certain implementation, administrative, and other costs as
10 identified by the RE Growth Cost Recovery Provision. These costs are associated with
11 billing system changes, metering for small-scale solar projects, the consultants hired by
12 the Office of Energy Resources (OER) or the Company to perform Ceiling Price studies
13 and other reports or studies as approved by the PUC, administrative costs incurred in the
14 process of the Company's participation on behalf of eligible projects in the FCM, and
15 certain other types of costs that will be described in more detail later in this testimony.

16
17 The Company must annually submit to the PUC its RE Growth reconciliation, as
18 discussed above, and proposed RE Growth Reconciliation Factors based upon the over-
19 or under-recovery of costs presented in the reconciliation filing. In addition, if the
20 Company determines that an adjustment is needed to the RE Growth Factors in effect at
21 the time, the Company is also required to submit a filing requesting such adjustment, and

1 the adjustment must be based, in part, on the level of costs included in the annual RE
2 Growth reconciliation filing. Otherwise, the RE Growth Factors remain in effect,
3 pursuant to the RE Growth Cost Recovery Provision. If a significant over or under-
4 recovery of costs should occur at any time, the Company may submit a request to the
5 PUC to adjust the RE Growth Factors.

6
7 The RE Growth Factors and the RE Growth Reconciliation Factors are fixed monthly
8 charges that vary by rate class and appear together as a single separate line item on
9 customers' bills.

10
11 The Company's proposed RE Growth Factors and RE Growth Reconciliation Factors are
12 presented in Schedule ASC-1.

13
14 **IV. RE Growth Program Estimated Cost for the 2017 Program Year**

15 **Q. What is the estimated RE Growth Program cost for the Program Year ending**

16 **March 2018?**

17 A. As indicated on Schedule ASC-2, page 1, the Company estimates that it will incur costs
18 totaling approximately \$7.6 million to administer the RE Growth Program during the
19 2017 Program Year. The \$7.6 million estimated cost includes the following:
20 approximately \$6.2 million of projected net costs associated with PBI Payments made to
21 customers that currently participate in the RE Growth Program as well as the amounts the

1 Company anticipates it will pay customers expected to achieve commercial operation in
2 the RE Growth Program during the Program Year, and approximately \$1.4 million in
3 expected administrative expenses.

4
5 **Q. How are the estimated PBI Payments determined?**

6 A. The estimated annual PBI Payments for the 2017 Program Year are shown on Schedule
7 ASC-2, page 1, line (1). This amount is calculated by multiplying the PBI associated
8 with each class of DG project by the estimated annual output of the assumed units in that
9 class.

10
11 The detailed calculation is included on page 3, Section 1 of Schedule ASC-2. Currently
12 operational RE Growth projects are shown on Lines (1) through (10), by technology/tariff
13 type. Non-operational RE Growth projects, which the Company expects will achieve
14 their Commercial Operation Dates (CODs) prior to the end of the 2017 Program Year,
15 are shown on Lines (11) through (19). For these projects, Estimated Twelve-Month
16 Output (Column (c)) has been adjusted based on the estimated CODs of the projects.
17 Once the total estimated PBI Payments have been calculated, the Company deducts the
18 estimated value of the Market Products it will be selling to determine the net cost to be
19 recovered from customers.

20

21

1 **Q. How are the estimated value of the Market Products, and the Customer Share of**
2 **Forward Capacity Market Proceeds, as shown on Schedule ASC-2, page 1, Lines (2)**
3 **and (3) determined?**

4 A. The estimated value of the Market Products on Line (2) is the sum of the estimated
5 market value of the energy produced by each unit, and the RECs produced by each unit.
6 The estimated market value of the energy is based on renewable resource generation
7 shapes (on peak and off peak hours), RI zonal locational marginal prices for April 2017
8 through June 2017, and NYMEX electricity futures prices for July 2017 through March
9 2018. The Company used generation from solar and wind projects included in the recent
10 Long Term Contracting for Renewable Energy Recovery (LTCRER) Rate Factor filing,
11 Docket No. 4673 (filed with the PUC on May 15, 2017), as a proxy for the solar and
12 wind projects included in this filing.
13 The market value of the RECs are estimated using the same methodology that was used
14 in the Company's recent Long Term Contracting for Renewable Energy Recovery
15 (LTCRER) Rate Factor filing, using the most recently available market pricing
16 information. The Company uses a very similar methodology to value the products
17 purchased through long-term contracts to determine the above-market cost recovered
18 from customers through the LTCRER Recovery Factor.
19 The Company does not anticipate that it will receive FCM proceeds until June 2018 at the
20 earliest, so the estimated proceeds for the 2017 Program Year, shown on Line (3), are
21 currently \$0.

1 The calculation of the estimated value of the Market Products is shown in detail in
2 Schedule ASC-2, page 3, Section 2. Pursuant to the RE Growth Statute⁴ and the RE
3 Growth Program Tariff for Residential Customers, RIPUC No. 2151-C, the Company
4 purchases RECs, but not energy, from customers with small-scale solar installations.
5 Therefore, only proceeds from the sale of RECs associated with residential small-scale
6 solar installations are reflected in Section 2, Lines (21) and (22), on page 3 of Schedule
7 ASC-2.

8
9 **Q. What is the estimated net cost to be recovered from all customers of PBI Payments**
10 **for the 2017 Program Year?**

11 A. As shown on Schedule ASC-2, page 1, Line (4), the estimated net cost of PBI Payments
12 for the 2017 Program Year is approximately \$6.2 million.

13
14 **Q. Please describe the implementation, administrative costs, and other costs to be**
15 **recovered through the proposed RE Growth Factors.**

16 A. The RE Growth Program Cost Recovery Provision provides for the recovery of the
17 following incremental costs:

18 (1) The 1.75% remuneration on estimated Total PBI Payments;

19 (2) The revenue requirement on RE Growth capital investment for the installation of
20 separate meters for small-scale solar projects;

⁴ R.I. Gen. Laws § 39-26.6-21(a)(3).

1 (3) The incremental expense the Company incurs to meet program objectives, including
2 the cost of making billing system improvements to achieve the goals of the RE Growth
3 Program, and including administrative costs incurred by participating in the ISO-NE
4 FCM on behalf of qualifying RE Growth Projects;

5 (4) The costs the Company incurred for consultants hired by either the OER or the
6 Company and approved by the PUC to perform ceiling price studies and other reports or
7 studies, as approved by the PUC;

8 (5) the estimated incremental administrative costs incurred as a result of the Company's
9 participation in the Forward Capacity Market; and

10 (6) Forfeited Performance Guarantee Deposits, which will be an offset to RE Growth
11 Program expenses.

12
13 **Q. Please describe the administrative costs that the Company expects to incur to**
14 **administer the RE Growth Program during the 2017 Program Year.**

15 A. The administrative costs that the Company expects to incur during the 2017 Program
16 Year include the costs of full time employees and/or contract employees that have been
17 hired or will be hired during 2017 for the purposes of administering the RE Growth
18 Program. These costs include an allocation of estimated incremental labor related to the
19 Company's participation in the ISO-NE FCM. In addition, the Company will continue to
20 incur ongoing costs associated with initial modifications to its billing system that were
21 necessary to implement the RE Growth Program and which include the calculation and

1 application of PBI Payments and bill credits to the bills of customers participating in the
2 RE Growth Program. The Company has also estimated a budget requirement to
3 implement the further changes in the billing system that will be required to implement the
4 new Shared Solar and Community Remote Distributed Generation provisions in the RE
5 Growth tariff, as required by statute.⁵ The Company has capitalized a portion of these
6 estimated costs, with the expectation that the “plant in service” date will occur in March
7 2018. Therefore, the Company will begin reflecting the revenue requirement of the
8 capitalized cost of modifying CSS beginning in March 2018.

9 Finally, the Company will continue to annually incur expenses for the consultant(s) hired
10 by the OER to make recommendations regarding ceiling prices for each of the renewable
11 energy classes included for participation in the RE Growth Program. Additionally, the
12 Company will incur expenses for the consultants hired by the OER to cover the costs of
13 the studies that have been performed or which will be performed regarding the quality of
14 the Renewable Energy installation for RE Growth Projects.

15
16 **Q. What is the estimated expense associated with added resources to administer the RE**
17 **Growth Program?**

18 A. The Company estimates that it will incur approximately \$705,000 during the 2017
19 Program Year in incremental labor costs associated with eight existing resources that the
20 Company hired during or prior to the 2016 Program Year to support the administration of
21 the RE Growth Program. Schedule ASC-2, page 4, provides the calculation of the

⁵ Per R.I. Gen. Laws § 39-26.6-26 and § 39-26.6-27

1 estimated labor-related costs for these resources, including the expected base salaries of
2 the resources, the expected time that each resource will devote to the RE Growth
3 Program, plus the applicable labor-related overheads.⁶

4
5 **Q. Please describe in general terms the job responsibilities of the resources that have
6 been added to support the RE Growth program.**

7 A. The new resources needed to administer the RE Growth Program perform various
8 functions and activities related to the program. In general, these activities include:

- 9 • Review, approve, and process program applications;
- 10 • Provide analytical support, analyze and collect data, and create and
11 monitor reports;
- 12 • Order and track meter exchanges;
- 13 • Respond to incoming customer calls and emails;
- 14 • Facilitate, and coordinate customers' small to mid-size DG applications
15 and projects; and
- 16 • Own and manage the relationship with complex distributed generation
17 applicants throughout the Company's interconnection process.

18
19 **Q. What are the estimated billing system implementation costs?**

⁶The Company has excluded the labor-related overheads associated with pensions and postretirement benefits other than pensions (PBOP) from estimated and actual labor-related costs to be recovered pursuant to the RE Growth Cost Recovery Provision. Pension and PBOP expenses are recovered pursuant to the Company's Pension Adjustment Mechanism Provision, RIPUC No. 2119.

1 A. The Company estimates that the annual revenue requirement associated with costs
2 capitalized for prior modifications to CSS through March 2018, as well as anticipated
3 capital costs for ongoing modifications, with an estimated “in service” date of March
4 2018, will be approximately \$107,000. The revenue requirement associated with the
5 capitalized portion of the billing system modifications is discussed in Section V below.
6 The Company has estimated an additional O&M budget for these modifications of
7 \$120,000, as shown on Schedule ASC-2, Page 4, Line (2).

8

9 **Q. Please explain the estimated cost in Schedule ASC-2, Page 4, Line (4).**

10 A. The approximately \$92,000 included in Schedule ASC-2, page 4, Line (4) is the
11 estimated cost to for continued implementation of the SolarWise Program, which the
12 PUC approved in Docket No. 4589-A. This estimated cost includes general website
13 functionality, information security, marketing, and process integration efforts between the
14 Company and its selected partner in the SolarWise Program, EnergySage. This estimated
15 cost also includes costs relating to the delivery of marketing materials to customers and
16 information relating to historic usage information by vendors, OPower and RISE.

17

18 The Company has also reflected in the estimated PBI Payments discussed above an
19 estimate of SolarWise Bonus Payments that would be provided to eligible and qualifying
20 applicants. The SolarWise Program combines savings that result from energy efficiency
21 (EE) measures with additional incentives paid from the RE Growth Program for pursuing

1 solar installations. Small-scale solar projects that commit to or install EE savings
2 measures from the SolarWise Program can qualify for SolarWise Bonus Payments in the
3 RE Growth Program. Applicants wishing to obtain the SolarWise Bonus Payment must
4 show that they have achieved, or are committed to achieve through EE measures, the
5 required program savings levels. Applicants who have been approved as qualifying for a
6 SolarWise Bonus Tier are eligible to receive SolarWise Bonus Payments, provided that
7 their project is selected in the RE Growth Program. The PBI Payments will be adjusted to
8 reflect the percentage increase applicable to the SolarWise Bonus Tier indicated on the
9 Applicant's SolarWise Approval and Certificate of Eligibility.

10
11 **Q. What costs associated with the 2017 Program Year are recoverable for consultants**
12 **hired by the OER?**

13 A. In an Open Meeting held on April 12, 2017 in Docket No. 4604, the PUC approved the
14 DG Board's request for a \$68,000 budget to cover the cost of consultants that are
15 contracted to facilitate the annual ceiling price studies executed by the DG Board. These
16 estimated costs are shown in Schedule ASC-2, Page 4, Line (6). In Docket No. 4536-B,
17 Order, No 22180, the PUC approved the OER's budget request for \$125,000 to hire a
18 consultant to perform a Solar Quality Assurance Study and Report. The OER has also
19 requested a budget of \$140,000 for a second phase of this study, which will focus on
20 more complex RE Growth Project Installations. Of the total budgeted \$265,000, \$75,000
21 of the invoiced expenses from the OER for the first phase of the study has currently been

1 paid, so the remaining anticipated expenses of \$190,000 related to these studies are
2 shown in Schedule ASC-2, Page 4, Line (7).
3

4 **Q. How are the estimated meter costs determined?**

5 A. Annual meter investment recovery is the annual revenue requirement related to the
6 cumulative capital investment in meters installed on small-scale solar generation units. A
7 Company-owned meter is installed on each small-scale DG Project in order to accurately
8 measure and report its output. Additionally, where on-site load is present, the Company
9 requires that the DG Project meter be wired in parallel with the customer's service meter
10 and be adjacent to the service meter. These requirements enable the Company to
11 accurately measure both the output of the DG Project and the customer's on-site use.
12

13 The Company provides the metering for small-scale solar facilities and recovers the cost
14 of the meters, as provided in the RE Growth Statute,⁷ through the proposed cost recovery
15 mechanism discussed later in this testimony. For all other DG Projects, the customer
16 and/or the applicant is responsible for the cost of the meter.
17

18 **Q. Please describe the calculation of the estimated remuneration.**

19 A. The remuneration is calculated as the total estimated PBI Payments (Schedule ASC-2,
20 Page 1, Line (1)), multiplied by 1.75 percent. This amount, which equals approximately
21 \$131,000, is shown on Schedule ASC-2, Page 4, Line (9).

⁷R.I. Gen. Laws § 39-26.6-18.

1 **Q. How are the rate class RE Growth Factors calculated?**

2 A. Schedule ASC-2, page 2, provides the calculation of rate class-specific RE Growth
3 Factors based upon the estimated RE Growth Program expense the Company expects to
4 incur during the 2017 Program Year.

5
6 The estimated expense for the Program Year is allocated to each rate class based on a rate
7 base allocator developed from the allocated cost of service study approved in the
8 Company's most recent general rate case.⁸ The allocated amount for each rate class is
9 divided by the forecasted number of bills during the period October 1, 2017 through
10 September 30, 2018 to determine the monthly charge for each rate class. For the outdoor
11 lighting class, which consists of Rates S-05, S-06, S-10, and S-14, the allocated amount is
12 divided by the estimated number of active lights to determine the monthly charge
13 applicable to these rate classes. The result is then adjusted to include an allowance for
14 uncollectible amounts, pursuant to the RE Growth Cost Recovery Provision, at 1.25%,
15 which was set at the Company's most recent general rate case.

16

17 **V. RE Growth 2016 Program Year Reconciliation**

18 **Q. Please describe the Company's RE Growth reconciliation for the period April 2016**
19 **through March 2017.**

20

21

⁸ Docket No. 4323.

1 A. This reconciliation is included as Schedule ASC-3. Page 1 of Schedule ASC-3 reflects a
2 total under-recovery of approximately \$281,000 for the period April 2016 through March
3 2017.

4

5 **Q. Please describe the RE Growth reconciliation process in more detail.**

6 A. On an annual basis, the Company is required to file a reconciliation, which reconciles RE
7 Growth revenue and cost in accordance with the RE Growth Cost Recovery Provision.
8 This provision requires the Company to reconcile the revenue billed through the
9 combined RE Growth Factor, excluding the adjustment for uncollectible amounts and
10 adjusted for prior period recovery or refund amounts, to the actual cost incurred during
11 the reconciliation period, and the excess or deficiency, including interest at the
12 Company's short term interest rate, is to be credited to, or recovered from, all customers
13 through RE Growth Reconciliation Factors. For billing purposes, the RE Growth
14 Reconciliation Factors are included with the RE Growth Factors on a single line item on
15 customers' bills.

16

17 **Q. Please summarize the results of the Company's RE Growth reconciliation for the**
18 **period April 2016 through March 31, 2017.**

19 A. The RE Growth reconciliation summary is shown on Schedule ASC-3, page 1, Section 1.
20 Line (1) shows the revenue billed each month through the RE Growth Factors during the
21 2016 Program Year, totaling \$2,002,105. Line (2) shows the expenses totaling
22 \$2,281,826 for the 2016 Program Year. Line (3) shows the total under-recovery of

1 \$279,721. Line (4) shows interest during the reconciliation period. Line (5) shows an
2 ending under-recovery balance of \$281,221.
3

4 **Q. Please describe the RE Growth revenue in greater detail.**

5 A. The detail of the RE Growth revenue is shown on page 2 of Schedule ASC-3. Column
6 (a) shows the total RE Growth Factor revenue billed via the RE Growth Factors during
7 the period. Column (b) shows the reduced revenue after the allowed 1.25% adjustment
8 for uncollectible amounts, Column (c) shows the portion of revenue that is being
9 refunded to customers through the RE Growth Reconciliation Factors in order to refund
10 the 2015 Program Year over-recovery balance of \$274,547.⁹ Column (d) shows the net
11 RE Growth Factor revenue that provides the recovery of RE Growth Program costs.
12

13 **Q. Has the Company included a status of the refund resulting from the over-recovery**
14 **incurred during the Program Year Ending March 31, 2016, that the Company is**
15 **crediting to customers during the 12 months ending September 30, 2017?**

16 A. Yes. Page 4, of Schedule ASC-3 shows the status of the over-recovery incurred during
17 the Program Year ending March 31, 2016. The beginning over-recovery balance of
18 \$274,574 was approved in Docket No. 4626. The RE Growth Reconciling Factors were
19 developed per rate class, in Schedule ASC-3, Page 1, Section 2, of Docket 4626. These
20 factors were then summed with the RE Growth Factors, resulting in the combined billing
21 RE Growth Factor, as was shown in Schedule NG-1 of Docket No. 4626. The currently-

⁹ RIPUC Docket No. 4626, RE Growth Factor Filing, Schedule NG-3, Page 1, Line (5).

1 effective RE Growth Factors began billing as of October 1, 2016. The Company will
2 continue to apply the currently effective factors through September 30, 2017. Any
3 balance remaining at that time, positive or negative, will be reflected in next year's RE
4 Growth reconciliation as an adjustment.

5
6 **Q. Please describe the costs included in the RE Growth Factor reconciliation shown on**
7 **Schedule ASC-3, page 3.**

8 A. Page 3 shows a breakdown of the costs associated with the 2016 Program Year. The total
9 cost from April 2016 through March 31, 2017 of approximately \$2.3M is shown on Line
10 (22).

11
12 Section (1), Column (a) shows the monthly PBI Cash payments paid to participating
13 customers during the period. Column (b) shows the net proceeds from Market Products,
14 which in this reconciliation period primarily consists of proceeds received from the sale
15 of RECs associated with the generation of DG units in the RE Growth Program. Column
16 (c) calculates the Net PBI payments, less market proceeds.

17
18 Section 2 shows the administrative costs associated with implementing and administering
19 the RE Growth Program during the reconciliation period. Line (14) shows the
20 Remuneration, which is calculated as the Total PBI Payments from Column (a) x 1.75%.
21 Line (15) shows the O&M expense related to the implementation and maintenance of

1 modifications of CSS required to perform the billing calculations for PBI payments and
2 bill credits. The O&M costs included in the reconciliation, which total approximately
3 \$154,000, are related to contractor labor expenses and a capitalized portion of the total
4 cost related to CSS modifications performed in the 2016 Program Year, totaling
5 approximately \$441,000, which has been amortized over a seven-year period. The
6 revenue requirement for these capital costs is shown on Schedule ASC-4A. The annual
7 revenue requirement related to these capital costs is also included as an administrative
8 cost for the 2017 Program Year, as shown in Schedule ASC-2, page 4, Line (1).

9
10 Line (16) shows the expense during the reconciliation period of consultants hired by the
11 OER to perform a study and recommend ceiling prices, as well as a portion of the costs
12 associated with the Solar Quality Assurance Study.

13
14 Line (17) shows the actual annualized revenue requirement associated with the
15 incremental investment in meters installed on small scale solar DG Facilities. The
16 calculation of this revenue requirement is shown in Schedule ASC-4B.

17
18 Line (18) shows billed charges from contractors as of March 31, 2017 in relation to the
19 SolarWise Program.

20

21

1 Line (19) shows the incremental direct labor and associated labor-related overheads
2 (excluding pension and PBOP overheads) associated with implementation and
3 management of the RE Growth Program during the 2016 Program Year. Two new
4 resources were hired to assist in varying capacities in the 2016 Program Year:

5 (1) DG Customer Facilitator – supports the processing of Distributed Generation
6 (DG) applications and projects. The customer facilitator (CF) works in a cross
7 functional environment to ensure that customer projects brought to the
8 Company are processed within state regulated timelines. The CF acts as the
9 customer’s primary point of contact for small to mid-size projects, guiding
10 them through the distributed generation process, obtaining required
11 documentation, perform preliminary screenings, and helping coordinate
12 internal functions to meet customer expectations. The CF also supports the
13 department’s Customer Engineers in their management of larger, complex DG
14 projects. Support includes monitoring of work management requirements and
15 preparation of various agreements, as well as other duties as assigned.
16

17 (2) Interconnection Consultant (IC) – owns and manages the relationship with
18 complex DG applicants throughout the Company’s end-to-end interconnection
19 process. Enables customer sponsored DG projects to be interconnected cost
20 effectively, within state regulated timelines, while achieving high customer
21 satisfaction. The IC acts as the customer’s primary point of contact guiding
22 them through regulatory, legislative and technical obligations, obtaining and
23 interpreting technical documentation, performing preliminary
24 screenings/feasibility reviews as necessary, drafting contractual agreements,
25 and coordinating complex DG projects with multitude of internal and external
26 stakeholders throughout the construction process.
27

28 Line (20) contains additional costs related to contracted services for website updates
29 related to DG interconnection and printing costs.
30

31 **Q. Please describe the calculation of the RE Growth Reconciliation Factors.**

32 A. Page 1, Section 2 of Schedule ASC-3 presents the calculation of the RE Growth

1 Reconciliation Factors. The under-recovery at March 31, 2017 of \$281,221 on Line (6)
2 forms the basis for the proposed RE Growth Reconciliation Factors. The calculation of
3 the RE Growth Reconciliation Factors follows the same steps as those described above
4 for the proposed RE Growth Factors, from the allocation to rate classes based on a rate
5 base allocator to the adjustment for uncollectibles.

6
7 **VI. Typical Bill Analysis**

8 **Q. Has the Company performed a typical bill analysis to demonstrate the impact of the**
9 **proposed RE Growth Factors and RE Growth Reconciliation Factors?**

10 A. Yes. Schedule ASC-5 is a typical bill analysis showing the impact of the proposed RE
11 Growth Factors and RE Growth Reconciliation Factors on the monthly bills at different
12 usage levels for each of the Company's rate classes. As shown on page 1 of Schedule
13 ASC-5, the impact on a monthly bill of a residential Standard Offer Service customer
14 using 500 kWh is an increase of \$0.59, or 0.7%.

15
16 **VII. Summary of Retail Delivery Rates**

17 **Q. Has the Company included a proposed RIPUC No. 2095, Summary of Retail Rates**
18 **tariff, reflecting the proposed RE Growth Factors and RE Growth Reconciliation**
19 **Factors?**

20 A. No, the Company is not presenting a revised Summary of Retail Rates tariff at this time.
21 The Company will submit its annual Infrastructure, Safety, and Reliability (ISR) Plan

1 Reconciliation filing as well as its Pension/PBOP Reconciliation filing on August 1, 2017
2 and will propose its ISR reconciliation factors and a Pension/PBOP factor for effect on
3 October 1, 2017. Therefore, the Company will submit a revised Summary of Retail Rates
4 tariff as a compliance filing once the PUC has issued its decision in all dockets related to
5 rate changes proposed for October 1, 2017.

6

7 **VIII. Conclusion**

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

9 **A. Yes.**

**Schedules of
Adam S. Crary**

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. _____
RE Growth Factor Filing
Schedules of Adam S. Crary

Schedule ASC – 1

Renewable Energy Growth Program
Proposed Combined Monthly RE Growth Cost Recovery Factors
For the Period October 1, 2017 through September 30, 2018

	Residential <u>A-16 / A-60</u> (b)	Small C&I <u>C-06</u> (c)	General C&I <u>G-02</u> (d)	200 kW Demand <u>B-32 / G-32</u> (e)	3000 kW Demand <u>B-62 / G-62</u> (f)	Street Lighting S-05 / S-06 <u>S-10 / S-14</u> (g)	Propulsion <u>X-01</u> (h)
(1) Proposed RE Growth Factor (Costs for PYE March 2018)	\$0.76	\$1.22	\$11.44	\$83.77	\$1,859.28	\$0.38	\$2,013.21
(2) Proposed RE Growth Reconciliation Factor (Costs for PYE March 2017)	<u>\$0.02</u>	<u>\$0.04</u>	<u>\$0.41</u>	<u>\$3.09</u>	<u>\$68.80</u>	<u>\$0.01</u>	<u>\$74.50</u>
(3) Proposed Combined RE Growth Factor	\$0.78	\$1.26	\$11.85	\$86.86	\$1,928.08	\$0.39	\$2,087.71

- (1) Schedule ASC-2, Page 2, Line (8)
- (2) Schedule ASC-3, Page 1, Line (13)
- (3) Line (1) + Line (2)

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. _____
RE Growth Factor Filing
Schedules of Adam S. Crary

Schedule ASC – 2

**Renewable Energy Growth Program
Summary of Annual Net Costs
for the Program Year Ending March 31, 2018**

(1) Estimated Performance-Based Incentive Payments (PBIP)	\$7,506,505
(2) less: Value of Market Products (PRDCTS)	\$1,353,263
(3) less: Customer Share of Forward Capacity Market Proceeds (NFCMP)	<u>\$0</u>
(4) Net Cost	\$6,153,242
(5) Estimated Administrative Cost (ADM)	\$1,445,531
(6) Total Estimated RE Growth Cost	\$7,598,773

- (1) Page 3, Section 1, Line (20)
- (2) Page 3, Section 2, Line (28)
- (3) Page 3, Section 3, Line (29)
- (4) Line (1) - Line (2) - Line (3)
- (5) Page 4, Line (10)
- (6) Line (4) + Line (5)

Renewable Energy Growth Program
Proposed Renewable Energy Growth Program Factors
For the Period October 1, 2017 through September 2018

	<u>Total</u>	<u>Residential</u>	<u>Small Commercial & Industrial</u>	<u>General Commercial & Industrial</u>	<u>Large Demand</u>	<u>Optional Large Demand</u>	<u>Street Lighting S-05 / S-06</u>	<u>Propulsion X-01</u>
	(a)	A-16 / A-60 (b)	C-06 (c)	G-02 (d)	B-32 / G-32 (e)	B62 / G62 (f)	S-10 / S-14 (g)	(h)
(1) Projected Annual Renewable Energy Growth Program Cost	\$7,598,773							
(2) Total Rate Base (\$000s)	\$561,738	\$296,490	\$54,542	\$82,460	\$77,651	\$19,545	\$29,286	\$1,764
(3) Percentage of Total (RBA)	100.00%	52.78%	9.71%	14.68%	13.82%	3.48%	5.21%	0.31%
(4) Allocated Expense	\$7,598,773	\$4,010,692	\$737,805	\$1,115,458	\$1,050,407	\$264,391	\$396,164	\$23,857
(5) Forecasted Number of Bills/Luminaires (FBill)	7,009,440	5,257,356	608,568	98,664	12,696	144	1,032,000	12
(6) Proposed REG Factor - monthly per bill charge		\$0.76	\$1.21	\$11.30	\$82.73	\$1,836.04	\$0.38	\$1,988.05
(7) Uncollectible Percentage (UP)	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
(8) Proposed RE Growth Factors for Costs of PYE March 2017		\$0.76	\$1.22	\$11.44	\$83.77	\$1,859.28	\$0.38	\$2,013.21

- (1) Page 1, Line (6)
- (2) per RIPUC 4323, Compliance Attachment 3A, (Schedule HSG-1), page 2, line 10
- (3) Line (2) ÷ Line (2) Total Column
- (4) Line (1) Total Column x Line (3)
- (5) Company forecast for the period October 1, 2017 through September 30, 2018; for Streetlighting number represents individual fixtures
- (6) Line (4) ÷ Line (5), truncated to 2 decimal places
- (7) Uncollectible Percentage approved in RIPUC Docket No. 4323
- (8) Line (6) ÷ (1- Line (7)), truncated to 2 decimal places

**Renewable Energy Growth Program
Estimated Performance-Based Incentive Payments and Market Value
for the Program Year Ending March 31, 2018**

Section 1: Estimated Annual Performance-Based Incentive Payments

Unit	Aggregate Capacity (kW) (a)	Unit Availability Factor (b)	Estimated Twelve-Month Output (kWh) (c)	Tariff Price (\$ per kWh) (d)	Estimated Twelve-Month Cost (e)
(1) Small Scale Solar - Operational 2015 Program Year Enrollees - 15 Year Tariff	2,591.9	14%	3,178,651	\$0.4135	\$1,314,372
(2) Small Scale Solar - Operational 2015 Program Year Enrollees - 20 Year Tariff	352.9	14%	432,828	\$0.3775	\$163,393
(3) Small Scale Solar II - Operational 2015 Program Year Enrollees - 20 Year Tariff	26.3	14%	32,193	\$0.2980	\$9,594
(4) Medium Scale Solar - Operational 2015 Program Year Enrollees - 20 Year Tariff	900.0	14%	1,103,760	\$0.2440	\$269,317
(5) Wind I- Operational 2015 Operational Program Year Enrollees - 20 year Tariff	1,500.0	22%	2,890,800	\$0.2275	\$657,657
(6) Wind II- Operational 2015 Operational Program Year Enrollees - 20 year Tariff	4,500.0	22%	8,672,400	\$0.2235	\$1,938,281
(7) Small Scale Solar - Operational 2016 Program Year Enrollees - 15 Year Tariff	3,319.8	14%	4,071,379	\$0.3765	\$1,532,874
(8) Small Scale Solar - Operational 2016 Program Year Enrollees - 15 Year Tariff - SolarWise	37.0	14%	45,377	\$0.4142	\$18,795
(9) Small Scale Solar - Operational 2016 Program Year Enrollees - 20 Year Tariff	831.7	14%	1,020,055	\$0.3345	\$341,208
(10) Small Scale Solar II - Operational 2016 Program Year Enrollees - 20 Year Tariff	78.2	14%	95,917	\$0.2490	\$23,883
(11) Small Scale Solar - Non-Operational 2015 Program Year Enrollees - 15 Year Tariff	75.0	14%	24,405	\$0.4135	\$10,091
(12) Small Scale Solar - Non-Operational 2015 Program Year Enrollees - 20 Year Tariff	5.0	14%	2,044	\$0.3775	\$772
(13) Medium Scale Solar - Non-Operational 2015 Program Year Enrollees - 20 Year Tariff	784.0	14%	280,437	\$0.2440	\$68,427
(14) Commercial Scale Solar - Non-Operational 2015 Program Year Enrollee	499.0	14%	229,490	\$0.2000	\$45,898
(15) Commercial Scale Solar - Non-Operational 2015 Program Year Enrollee	999.0	14%	459,440	\$0.1900	\$87,294
(16) Commercial Scale Solar - Non-Operational 2015 Program Year Enrollee	2,200.0	14%	449,680	\$0.1785	\$80,268
(17) Commercial Scale Solar - Non-Operational 2015 Program Year Enrollee	750.0	14%	153,300	\$0.1785	\$27,364
(18) Large Scale Solar - Non-Operational 2015 Program Year Enrollee	2,594.0	14%	1,192,981	\$0.1594	\$190,161
(19) Wind II Non-Operational 2015 Program Year Enrollees - 20 Year Tariff	<u>4,500.0</u>	22%	<u>3,252,150</u>	\$0.2235	<u>\$726,856</u>
(20) Total	26,543.7		27,587,287		\$7,506,505

Section 2: Estimated Market Value

Class	Estimated kWh Purchased Under Tariffs (f)	Market Energy Proxy (g)	Energy Market Value (h)	REC Proxy (i)	REC Market Value (j)	Total Market Value (k)
(21) Small Scale Solar	8,774,739	n/a	n/a	\$0.02190	\$192,123	\$192,123
(22) Small Scale Solar II	128,110	n/a	n/a	\$0.02190	\$2,805	\$2,805
(23) Medium Scale Solar	1,384,197	\$0.03736	\$51,720	\$0.02190	\$30,307	\$82,027
(24) Commercial Scale Solar	1,291,910	\$0.03736	\$48,272	\$0.02190	\$28,286	\$76,559
(25) Large Scale Solar	1,192,981	\$0.03736	\$44,576	\$0.02190	\$26,120	\$70,696
(26) Wind I	2,890,800	\$0.04042	\$116,852	\$0.02229	\$64,427	\$181,279
(27) Wind II	<u>11,924,550</u>	<u>\$0.04042</u>	<u>\$482,013</u>	<u>\$0.02229</u>	<u>\$265,761</u>	<u>\$747,774</u>
(28) Total	27,587,287		\$743,433		\$609,830	\$1,353,263

Section 3: Estimated Forward Capacity Market Proceeds

	Estimated Forward Capacity Market Proceeds (l)	Estimated Customer Share of Forward Capacity Market Proceeds (m)
(29) Estimated FCM Proceeds through PY17		\$0

Section 4: Estimated Net Cost

	Estimated Net Cost (n)
(30) Small Scale Solar	\$3,189,382
(31) Small Scale Solar II	\$30,672
(32) Medium Scale Solar	\$255,717
(33) Commercial Scale Solar	\$164,265
(34) Large Scale Solar	\$119,465
(35) Wind I	\$476,378
(36) Wind II	<u>\$1,917,363</u>
(37) Total Estimated Above (Below) Market Cost	\$6,153,242

(1)-(10) Operational RE Growth Projects as of 6/30/17
(11)-(19) Non-Operational RE Growth Projects as of 6-30-17, scheduled to achieve Commercial Operation before 3/31/18
(21)-(28) Est. Market Value from Project generation
(29) Estimated Forward Capacity Market Proceeds through 3/31/18
(30)-(37) Estimated Net Costs for RE Growth Projects through PY 2017

(i) REC price estimate based on most recent market information
(j) Column (f) x Column (i)
(k) Column (h) + Column (j)
(l) Estimated Net Forward Capacity Market Proceeds for Program Year
(m) Estimated Customer Share of Net Forward Capacity Market Proceeds for Program Year
(n) Column (e) - Column (k) - Column (m)

(a) Nameplate capacity of enrolled RE Growth projects, per tariff type
(b) Estimated
(c) Lines (1) through (10), Column (a) x Column (b) x Column (c) x 8,760 hours; Lines (11) through (19), Column (a) x Column (b) x Column (c) x estimated months of operation per project x 730 hours
(d) Approved PBI price per project
(e) Column (c) x Column (d)
(f) Column (c)
(g) The market energy proxy is based on RI Zonal LMPs and NYMEX electricity futures prices for the Pricing Period and renewable resource generation shapes (on peak and off peak hours)
(h) Column (f) x Column (g)

**Renewable Energy Growth Program
Estimated Administrative Costs
for the Program Year Ending March 31, 2018**

Summary of Estimated Annual Administrative Expenses

(1) Billing System Modifications - Revenue Requirement of Capitalized Costs	\$106,618
(2) Billing System Modifications - O&M Budget Estimate for Additional Modifications	\$120,000
(3) Incremental Labor Resources (1)	\$705,273
(4) Estimated SolarWise Program Implementation/Support Costs	\$92,300
(5) Training on Solar PV Safety and Common Installation Violations	\$4,925
(6) DG Board Expense	\$68,000
(7) DG Installation Quality QA Studies	\$190,000
(8) Revenue Requirement - Meter Investment	\$27,051
(9) Estimated Remuneration	<u>\$131,364</u>
(10) Total	\$1,445,531

- (1) Schedule ASC-4A, Page 1, sum of Lines (13) through (24)
- (2) Estimated O&M budget for billing system modifications required to implement new Shared Solar/Community Net Metering Project classes
- (3) Footnote (1) Below
- (4) Budget Estimate
- (5) 5 hour training course recommended by OER
- (6) Docket 4604, Order No. 22765
- (7) Docket 4536-B, Order No. 22180; \$125,000 approved budget, less \$75,000 already invoiced and paid in 2016 Program Year + \$140,000 additional budget request for Round 2 Study provided by OER
- (8) Schedule ASC-4B, Pg. 1, Line (5), Column (c)
- (9) Page 1, Line (1) x 1.75%
- (10) Sum of Lines (1) through (9)

	<u>Accounts Processing</u>	<u>Customer Solutions</u>	<u>Customer Solutions</u>	<u>DG Customer Facilitator</u>	<u>Interconnection Consultant</u>	<u>FCM Administration</u>	<u>Energy Procurement</u>	<u>Total</u>
<u>(1) Detail of Incremental Labor Resources</u>	1	1	2	1	1	1	1	8
(1) Full Time Employees	\$31,699	\$71,000	\$71,000	\$115,000	\$85,000	\$80,000	\$103,646	
(2) Average Salary	100.00%	50.00%	100.00%	60.00%	50.00%	14.06%	80.00%	
(3) Percent Dedicated to RE Growth	\$31,699	\$35,500	\$142,000	\$69,000	\$42,500	\$11,250	\$82,917	\$414,866
(4) Annual Labor Expense	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	
(5) Overhead rate	\$53,889	\$60,350	\$241,400	\$117,300	\$72,250	\$19,125	\$140,959	\$705,273
(6) Total Annual Incremental Expense								

- (1) Estimated
- (2) Estimated
- (3) Estimated
- (4) Line (2) x Line (3)
- (5) Company Labor Overheads, excluding pension & PBOP
- (6) Line (4) x (1 + Line (5))

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. _____
RE Growth Factor Filing
Schedules of Adam S. Crary

Schedule ASC – 3

Renewable Energy Growth Program
Proposed Monthly RE Growth Cost Recovery Reconciling Factors
For the Refund Period October 1, 2017 through September 30, 2018

Section 1: Reconciliation

(1)	Total Net RE Growth Factor Revenue		\$2,002,105
(2)	Total RE Growth Expense		<u>\$2,281,826</u>
(3)	RE Growth Reconciliation - Under-Recovery	(PPRA)	\$279,721
(4)	Interest during the Reconciliation Period	(I)	<u>\$1,500</u>
(5)	Total Amount to be Recovered from Customers		\$281,221

Section 2: Factor Calculation

	Total	Residential	Small C&I	General C&I	200 kW Demand	3000 kW Demand	Street Lighting	Propulsion
	(a)	A-16 / A-60	C-06	G-02	B-32 / G-32	B-62 / G-62	S-10/S-14	X-01
		(b)	(c)	(d)	(e)	(f)	(g)	(h)
(6)	RE Growth Program Year 2017 Cost (Over)/Under Recovery	\$281,221						
(7)	Total Rate Base (\$000s)	\$561,738	\$296,490	\$54,542	\$82,460	\$77,651	\$19,545	\$29,286
(8)	Rate Base as Percentage of Total (RBA)	100.00%	52.78%	9.71%	14.68%	13.82%	3.48%	5.21%
(9)	Allocated 2017 Program Year (Over)/Under Recovery	\$281,221	\$148,431	\$27,305	\$41,282	\$38,874	\$9,785	\$14,662
(10)	Forecasted Number of Bills/Luminaires (Fbill)	7,009,440	5,257,356	608,568	98,664	12,696	144	1,032,000
(11)	Proposed Class-specific RE Growth Reconciling Factor per Month		\$0.02	\$0.04	\$0.41	\$3.06	\$67.94	\$0.01
(12)	Uncollectible Percentage (UP)		1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
(13)	Proposed Factor incl. Adjustment for Uncollectible Allowance (1.25%)		\$0.02	\$0.04	\$0.41	\$3.09	\$68.80	\$0.01

- (1) Total Revenue from Page 2, Column (d)
- (2) Total Expense from Page 3, Line (22)
- (3) Line (2) - Line (1)
- (4) [(Beginning balance of \$0.00), + (Ending balance of \$279,725) ÷ 2] x average reconciliation period short term interest rate of 1.0725%
- (5) Line (3) + Line (4)
- (6) Line (5)
- (7) RIPUC 4323, Compliance Attachment 4A, (Schedule HSG-1), page 2, Line (10)
- (8) Line (7) ÷ Line (7), Column (a)
- (9) Line (6) x Line (8)
- (10) Company forecast for the period October 1, 2017 through September 30, 2018; for Streetlighting number represents individual fixtures
- (11) Line (9) ÷ Line (10), truncated to 2 decimal places
- (12) Uncollectible Percentage approved in RIPUC Docket No. 4323
- (13) Line (11) ÷ (1 - Line (12)), truncated to 2 decimal places

Renewable Energy Growth Program
RE Growth Cost Reconciliation
For the Program Year Ending March 2017

Revenue Summary

		Total RE Growth Factor <u>Revenue</u> (a)	Total RE Growth Revenue Adjusted for <u>Uncollectibles</u> (b)	RE Growth Reconciliation Factor <u>Revenue</u> (c)	Net RE Growth <u>Revenue</u> (d)
(1)	Apr-16	\$137,589	\$135,870	\$0	\$135,870
(2)	May-16	\$134,756	\$133,072	\$0	\$133,072
(3)	Jun-16	\$140,888	\$139,127	\$0	\$139,127
(4)	Jul-16	\$136,927	\$135,215	\$0	\$135,215
(5)	Aug-16	\$136,438	\$134,732	\$0	\$134,732
(6)	Sep-16	\$137,128	\$135,414	\$0	\$135,414
(7)	Oct-16	\$175,135	\$172,946	(\$19,106)	\$192,052
(8)	Nov-16	\$184,800	\$182,490	(\$19,486)	\$201,976
(9)	Dec-16	\$174,889	\$172,703	(\$18,446)	\$191,149
(10)	Jan-17	\$186,774	\$184,439	(\$19,718)	\$204,158
(11)	Feb-17	\$184,387	\$182,083	(\$19,405)	\$201,488
(12)	Mar-17	\$180,965	\$178,703	(\$19,149)	\$197,852
(13)		\$1,910,677	\$1,886,794	(\$115,312)	\$2,002,105

(a) Company revenue reports

(b) Column (a) x 1-1.25% Uncollectibles Rate

(c) Page 4, Column (a)

(d) Column (b) - Column (c)

Renewable Energy Growth Program
RE Growth Cost Reconciliation
For the Program Year Ending March 2017

Expense Summary

Section 1: Net Performance-Based Incentive Payments

		Total PBI Payments <u>(PBIP)</u> (a)	Net Proceeds from Market Products <u>(PRDCTS)</u> (b)	Net <u>PBI Payments</u> (c)
(1)	Apr-16	\$20,212	\$0	\$20,212
(2)	May-16	\$30,189	(\$322)	\$29,867
(3)	Jun-16	\$64,518	\$0	\$64,518
(4)	Jul-16	\$117,928	\$0	\$117,928
(5)	Aug-16	\$145,755	(\$1,582)	\$144,173
(6)	Sep-16	\$176,700	\$0	\$176,700
(7)	Oct-16	\$146,978	(\$6,730)	\$140,248
(8)	Nov-16	\$134,216	\$0	\$134,216
(9)	Dec-16	\$106,503	\$0	\$106,503
(10)	Jan-17	\$88,798	(\$17,395)	\$71,403
(11)	Feb-17	\$108,869	(\$1,311)	\$107,557
(12)	Mar-17	\$209,547	(\$2,996)	<u>\$206,551</u>
(13)		\$1,350,213	(\$30,336)	\$1,319,877

Section 2: Administrative Expense

(14)	Remuneration			\$23,629
(15)	Billing System Modifications - O&M Expense			\$154,255
(16)	OER Invoiced Expenses			\$175,000
(17)	Program Year 2 Ending March 2017 Actual Meter Revenue Requirement			\$7,171
(18)	SolarWise Invoiced Expenses			\$137,516
(19)	Direct Company Labor Expense w/ OH - Program O&M			\$455,108
(20)	Other Expenses - (Website Upgrades, Printing)			<u>\$9,269</u>
(21)	Total Administrative Expense			\$961,949

Section 3: Total RE Growth Expenses

(22)	Total Expenses			\$2,281,826
------	----------------	--	--	-------------

Column Descriptions:

- (a) Company billing reports
- (b) Company REC Transfer reports, monthly ISO NE energy market sales
- (c) Column (a) + Column (b)

Line Descriptions

- (13) Sum of Lines (1) through (12)
- (14) Line (13), Column (a) x 1.75%
- (15) per Vendor Invoices
- (16) Paid Invoices to OER related to DG Board Ceiling Price consulting fees, and Solar Quality Assurance Study
- (17) Schedule ASC-4B, Page 3, Line (3)
- (18) Paid Invoices related to SolarWise program
- (19) Direct Labor Expense - Company Accounting Records
- (20) Paid Invoices for Misc. Expenses (Website Design upgrades, Printing)
- (21) Sum of Lines (14) through (21)
- (22) Line (13), Column (c) + Line (21)

RE Growth Reconciliation of Prior Period Over Recovery
For the Period April 1, 2015 through March 31, 2016
For the Recovery Period October 1, 2016 through September 30, 2017

Line No.	Total	Residential A-16 / A-60		Small C&I C-06/C-08		General C&I G-02		200 kW Demand B-32 / G-32		
		(a)	(b)	(c)	(b)	(c)	(b)	(c)	(b)	(c)
(1)	Beginning Over(Under) Recovery	\$274,574		\$144,922		\$26,660		\$40,306		\$37,955
(2)	REG Reconciling Factor			(\$0.02)		(\$0.04)		(\$0.41)		(\$3.04)
			<u>Total Bills</u>	<u>Reconciling Factor Revenue</u>	<u>Total Bills</u>	<u>Reconciling Factor Revenue</u>	<u>Total Bills</u>	<u>Reconciling Factor Revenue</u>	<u>Total Bills</u>	<u>Reconciling Factor Revenue</u>
	Oct-16	(\$19,106)	438,176	(\$8,763.52)	50,009	(\$2,000.36)	8,237	(\$3,377.17)	1,061	(\$3,225.44)
	Nov-16	(\$19,486)	446,145	(\$8,922.90)	50,998	(\$2,039.92)	8,613	(\$3,531.33)	1,070	(\$3,252.80)
	Dec-16	(\$18,446)	418,808	(\$8,376.16)	47,876	(\$1,915.04)	8,078	(\$3,311.98)	1,021	(\$3,103.84)
	Jan-17	(\$19,718)	447,399	(\$8,947.98)	51,185	(\$2,047.40)	8,675	(\$3,556.75)	1,083	(\$3,292.32)
	Feb-17	(\$19,405)	449,022	(\$8,980.44)	51,610	(\$2,064.40)	8,377	(\$3,434.57)	1,026	(\$3,119.04)
	Mar-17	(\$19,149)	424,417	(\$8,488.34)	49,875	(\$1,995.00)	8,647	(\$3,545.27)	1,090	(\$3,313.60)
	Apr-17	(\$19,047)	441,039	(\$8,820.78)	50,879	(\$2,035.16)	8,481	(\$3,477.21)	1,081	(\$3,286.24)
	May-17	(\$17,660)	439,197	(\$8,783.94)	49,935	(\$1,997.40)	8,206	(\$3,364.46)	1,048	(\$3,185.92)
	Jun-17	\$0	-	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00
	Jul-17	\$0	-	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00
	Aug-17	\$0	-	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00
	Sep-17	\$0	-	\$0.00	-	\$0.00	-	\$0.00	-	\$0.00
(3)	Total	(\$152,018)		(\$70,084)		(\$16,095)		(\$27,599)		(\$25,779)
(4)	Ending Over(Under) Recovery	\$122,556		\$74,838		\$10,565		\$12,707		\$12,176

Line No.	Total	3000 kW Demand B-62 / G-62		Lighting S-05/ S-06/ S-10 / S-14		Propulsion X-01	
		(b)	(c)	(b)	(c)	(b)	(c)
(1)	Beginning Over(Under) Recovery		\$9,554		\$14,315		\$862
(2)	REG Reconciling Factor		(\$67.17)		(\$0.01)		(\$72.73)
		<u>Total Bills</u>	<u>Reconciling Factor Revenue</u>	<u>Luminaires Billed</u>	<u>Reconciling Factor Revenue</u>	<u>Total Bills</u>	<u>CapEx Reconciling Factor Revenue</u>
	Oct-16	12	(\$806.04)	86,117	(\$861.17)	1	(\$72.73)
	Nov-16	12	(\$806.04)	86,074	(\$860.74)	1	(\$72.73)
	Dec-16	12	(\$806.04)	86,069	(\$860.69)	1	(\$72.73)
	Jan-17	14	(\$940.38)	86,091	(\$860.91)	1	(\$72.73)
	Feb-17	13	(\$873.21)	86,081	(\$860.81)	1	(\$72.73)
	Mar-17	13	(\$873.21)	86,038	(\$860.38)	1	(\$72.73)
	Apr-17	13	(\$873.21)	48,147	(\$481.47)	1	(\$72.73)
	May-17	12	(\$806.04)	(55,076)	\$550.76	1	(\$72.73)
	Jun-17	-	\$0.00	-	\$0.00	-	\$0.00
	Jul-17	-	\$0.00	-	\$0.00	-	\$0.00
	Aug-17	-	\$0.00	-	\$0.00	-	\$0.00
	Sep-17	-	\$0.00	-	\$0.00	-	\$0.00
(3)	Total		(\$6,784)		(\$5,095)		(\$582)
(4)	Ending Over(Under) Recovery		\$2,770		\$9,220		\$280

Line Notes:

- (1) per RIPUC Docket No. 4626, Attachment NG-3, page 1, line (5)
- (2) per RIPUC Docket No. 4626, Attachment NG-1, page 1, line (2)
- (3) sum of revenue
- (4) Line (1) + Line (3)

Column Notes:

- (a) sum of Column (c) from each rate
- (b) from Company revenue reports
- (c) Column (b) x Line (2)

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. _____
RE Growth Factor Filing
Schedules of Adam S. Crary

Schedule ASC – 4A

The Narragansett Electric Company
d/b/a National Grid
RE Growth Program
Revenue Requirement Summary for Bill System Upgrade

		Capital Costs	Accumulated Amortization	Net Plant	Accumulated Deferred Taxes	End of Month Rate Base	Pre Tax Rate of Return	Return & Taxes	Amortization	Monthly Revenue Requirement
		(a)	(b)	(c)=(a)+(b)	(d)	(e)=(c)+(d)	(f)	(g)=(e)x(f)x (1/12)	(h)	(i)=(g)+(h)
1	Apr-16	\$440,739	(\$2,623)	\$438,115	(\$6,440)	\$431,675	9.68%	\$3,484	\$2,623	\$6,107
2	May-16	\$440,739	(\$7,870)	\$432,868	(\$6,466)	\$426,402	9.68%	\$3,441	\$5,247	\$8,688
3	Jun-16	\$440,739	(\$13,117)	\$427,622	(\$6,491)	\$421,131	9.68%	\$3,399	\$5,247	\$8,646
4	Jul-16	\$440,739	(\$18,364)	\$422,375	(\$6,517)	\$415,858	9.68%	\$3,356	\$5,247	\$8,603
5	Aug-16	\$440,739	(\$23,611)	\$417,128	(\$6,542)	\$410,586	9.68%	\$3,314	\$5,247	\$8,561
6	Sep-16	\$440,739	(\$28,858)	\$411,881	(\$6,568)	\$405,313	9.68%	\$3,271	\$5,247	\$8,518
7	Oct-16	\$440,739	(\$34,105)	\$406,634	(\$6,593)	\$400,041	9.68%	\$3,229	\$5,247	\$8,476
8	Nov-16	\$440,739	(\$39,352)	\$401,387	(\$6,619)	\$394,768	9.68%	\$3,186	\$5,247	\$8,433
9	Dec-16	\$440,739	(\$44,599)	\$396,140	(\$6,644)	\$389,496	9.68%	\$3,143	\$5,247	\$8,390
10	Jan-17	\$440,739	(\$49,845)	\$390,893	(\$6,670)	\$384,223	9.68%	\$3,101	\$5,247	\$8,348
11	Feb-17	\$440,739	(\$55,092)	\$385,646	(\$6,695)	\$378,951	9.68%	\$3,058	\$5,247	\$8,305
12	Mar-17	\$440,739	(\$60,339)	\$380,400	(\$6,721)	\$373,679	9.68%	\$3,016	\$5,247	\$8,263
13	Apr-17	\$440,739	(\$65,586)	\$375,153	(\$6,746)	\$368,407	9.68%	\$2,973	\$5,247	\$8,220
14	May-17	\$440,739	(\$70,833)	\$369,906	(\$6,772)	\$363,134	9.68%	\$2,931	\$5,247	\$8,178
15	Jun-17	\$440,739	(\$76,080)	\$364,659	(\$6,797)	\$357,862	9.68%	\$2,888	\$5,247	\$8,135
16	Jul-17	\$440,739	(\$81,327)	\$359,412	(\$6,823)	\$352,589	9.68%	\$2,846	\$5,247	\$8,093
17	Aug-17	\$440,739	(\$86,574)	\$354,165	(\$6,848)	\$347,317	9.68%	\$2,803	\$5,247	\$8,050
18	Sep-17	\$440,739	(\$91,821)	\$348,918	(\$6,874)	\$342,044	9.68%	\$2,760	\$5,247	\$8,007
19	Oct-17	\$440,739	(\$97,067)	\$343,671	(\$6,899)	\$336,772	9.68%	\$2,718	\$5,247	\$7,965
20	Nov-17	\$440,739	(\$102,314)	\$338,424	(\$6,925)	\$331,499	9.68%	\$2,675	\$5,247	\$7,922
21	Dec-17	\$440,739	(\$107,561)	\$333,178	(\$6,950)	\$326,228	9.68%	\$2,633	\$5,247	\$7,880
22	Jan-18	\$440,739	(\$112,808)	\$327,931	(\$6,976)	\$320,955	9.68%	\$2,590	\$5,247	\$7,837
23	Feb-18	\$440,739	(\$118,055)	\$322,684	(\$7,001)	\$315,683	9.68%	\$2,548	\$5,247	\$7,795
24	Mar-18	\$1,218,739	(\$127,933)	\$1,090,806	(\$17,836)	\$1,072,970	9.68%	\$8,659	\$9,878	\$18,537
25	Apr-18	\$1,218,739	(\$142,442)	\$1,076,297	(\$17,922)	\$1,058,375	9.68%	\$8,542	\$14,509	\$23,051
26	May-18	\$1,218,739	(\$156,950)	\$1,061,788	(\$18,008)	\$1,043,780	9.68%	\$8,424	\$14,509	\$22,933
27	Jun-18	\$1,218,739	(\$171,459)	\$1,047,280	(\$18,094)	\$1,029,186	9.68%	\$8,307	\$14,509	\$22,816
28	Jul-18	\$1,218,739	(\$185,968)	\$1,032,771	(\$18,181)	\$1,014,590	9.68%	\$8,188	\$14,509	\$22,697
29	Aug-18	\$1,218,739	(\$200,477)	\$1,018,262	(\$18,267)	\$999,995	9.68%	\$8,070	\$14,509	\$22,579
30	Sep-18	\$1,218,739	(\$214,986)	\$1,003,753	(\$18,354)	\$985,399	9.68%	\$7,953	\$14,509	\$22,462
31	Oct-18	\$1,218,739	(\$229,494)	\$989,244	(\$18,439)	\$970,805	9.68%	\$7,835	\$14,509	\$22,344
32	Nov-18	\$1,218,739	(\$244,003)	\$974,736	(\$18,526)	\$956,210	9.68%	\$7,717	\$14,509	\$22,226
33	Dec-18	\$1,218,739	(\$258,512)	\$960,227	(\$18,612)	\$941,615	9.68%	\$7,599	\$14,509	\$22,108
34	Jan-19	\$1,218,739	(\$273,021)	\$945,718	(\$18,699)	\$927,019	9.68%	\$7,482	\$14,509	\$21,991
35	Feb-19	\$1,218,739	(\$287,530)	\$931,209	(\$18,785)	\$912,424	9.68%	\$7,364	\$14,509	\$21,873
36	Mar-19	\$1,218,739	(\$302,038)	\$916,700	(\$18,871)	\$897,829	9.68%	\$7,246	\$14,509	\$21,755
37	Apr-19	\$1,218,739	(\$316,547)	\$902,192	(\$18,868)	\$883,324	9.68%	\$7,129	\$14,509	\$21,638
38	May-19	\$1,218,739	(\$331,056)	\$887,683	(\$18,776)	\$868,907	9.68%	\$7,013	\$14,509	\$21,522
39	Jun-19	\$1,218,739	(\$345,565)	\$873,174	(\$18,684)	\$854,490	9.68%	\$6,897	\$14,509	\$21,406
40	Jul-19	\$1,218,739	(\$360,074)	\$858,665	(\$18,591)	\$840,074	9.68%	\$6,779	\$14,509	\$21,288
41	Aug-19	\$1,218,739	(\$374,582)	\$844,156	(\$18,499)	\$825,657	9.68%	\$6,663	\$14,509	\$21,172
42	Sep-19	\$1,218,739	(\$389,091)	\$829,648	(\$18,407)	\$811,241	9.68%	\$6,547	\$14,509	\$21,056
43	Oct-19	\$1,218,739	(\$403,600)	\$815,139	(\$18,315)	\$796,824	9.68%	\$6,431	\$14,509	\$20,940
44	Nov-19	\$1,218,739	(\$418,109)	\$800,630	(\$18,223)	\$782,407	9.68%	\$6,314	\$14,509	\$20,823
45	Dec-19	\$1,218,739	(\$432,618)	\$786,121	(\$18,130)	\$767,991	9.68%	\$6,198	\$14,509	\$20,707
46	Jan-20	\$1,218,739	(\$447,126)	\$771,612	(\$18,038)	\$753,574	9.68%	\$6,082	\$14,509	\$20,591
47	Feb-20	\$1,218,739	(\$461,635)	\$757,104	(\$17,946)	\$739,158	9.68%	\$5,966	\$14,509	\$20,475
48	Mar-20	\$1,218,739	(\$476,144)	\$742,595	(\$17,854)	\$724,741	9.68%	\$5,850	\$14,509	\$20,359
49	Apr-20	\$1,218,739	(\$490,653)	\$728,086	(\$17,761)	\$710,325	9.68%	\$5,732	\$14,509	\$20,241
50	May-20	\$1,218,739	(\$505,162)	\$713,577	(\$17,669)	\$695,908	9.68%	\$5,616	\$14,509	\$20,125
51	Jun-20	\$1,218,739	(\$519,670)	\$699,068	(\$17,577)	\$681,491	9.68%	\$5,500	\$14,509	\$20,009
52	Jul-20	\$1,218,739	(\$534,179)	\$684,560	(\$17,485)	\$667,075	9.68%	\$5,384	\$14,509	\$19,893
53	Aug-20	\$1,218,739	(\$548,688)	\$670,051	(\$17,393)	\$652,658	9.68%	\$5,267	\$14,509	\$19,776
54	Sep-20	\$1,218,739	(\$563,197)	\$655,542	(\$17,300)	\$638,242	9.68%	\$5,151	\$14,509	\$19,660
55	Oct-20	\$1,218,739	(\$577,706)	\$641,033	(\$17,208)	\$623,825	9.68%	\$5,035	\$14,509	\$19,544
56	Nov-20	\$1,218,739	(\$592,214)	\$626,524	(\$17,115)	\$609,409	9.68%	\$4,919	\$14,509	\$19,428
57	Dec-20	\$1,218,739	(\$606,723)	\$612,016	(\$17,023)	\$594,993	9.68%	\$4,802	\$14,509	\$19,311
58	Jan-21	\$1,218,739	(\$621,232)	\$597,507	(\$16,930)	\$580,577	9.68%	\$4,685	\$14,509	\$19,194
59	Feb-21	\$1,218,739	(\$635,741)	\$582,998	(\$16,838)	\$566,160	9.68%	\$4,569	\$14,509	\$19,078
60	Mar-21	\$1,218,739	(\$650,249)	\$568,489	(\$16,745)	\$551,743	9.68%	\$4,454	\$14,509	\$18,963
61	Apr-21	\$1,218,739	(\$664,758)	\$553,980	(\$16,652)	\$537,326	9.68%	\$4,340	\$14,509	\$18,849
62	May-21	\$1,218,739	(\$679,267)	\$539,472	(\$16,560)	\$522,909	9.68%	\$4,227	\$14,509	\$18,736
63	Jun-21	\$1,218,739	(\$693,776)	\$524,963	(\$16,468)	\$508,492	9.68%	\$4,113	\$14,509	\$18,622
64	Jul-21	\$1,218,739	(\$708,285)	\$510,454	(\$16,376)	\$494,075	9.68%	\$4,000	\$14,509	\$18,509
65	Aug-21	\$1,218,739	(\$722,793)	\$495,945	(\$16,284)	\$479,658	9.68%	\$3,886	\$14,509	\$18,395

The Narragansett Electric Company
d/b/a National Grid
RE Growth Program
Revenue Requirement Calculation for Billing System Capital Modifications (cont.)

		Capital Costs	Accumulated Amortization	Net Plant	Accumulated Deferred Taxes	End of Month Rate Base	Pre Tax Rate of Return	Return & Taxes	Amortization	Monthly Revenue Requirement
		(a)	(b)	(c)=(a)+(b)	(d)	(e)=(c)+(d)	(f)	(g)=(e)x(f)x (1/12)	(h)	(i)=(g)+(h)
66	Sep-21	\$1,218,739	(\$737,302)	\$481,437	(\$14,042)	\$467,395	9.68%	\$3,773	\$14,509	\$18,282
67	Oct-21	\$1,218,739	(\$751,811)	\$466,928	(\$13,619)	\$453,309	9.68%	\$3,658	\$14,509	\$18,167
68	Nov-21	\$1,218,739	(\$766,320)	\$452,419	(\$13,195)	\$439,224	9.68%	\$3,544	\$14,509	\$18,053
69	Dec-21	\$1,218,739	(\$780,829)	\$437,910	(\$12,772)	\$425,138	9.68%	\$3,431	\$14,509	\$17,940
70	Jan-22	\$1,218,739	(\$795,337)	\$423,401	(\$12,349)	\$411,052	9.68%	\$3,317	\$14,509	\$17,826
71	Feb-22	\$1,218,739	(\$809,846)	\$408,893	(\$11,926)	\$396,967	9.68%	\$3,204	\$14,509	\$17,713
72	Mar-22	\$1,218,739	(\$824,355)	\$394,384	(\$11,503)	\$382,881	9.68%	\$3,090	\$14,509	\$17,599
73	Apr-22	\$1,218,739	(\$838,864)	\$379,875	(\$11,080)	\$368,795	9.68%	\$2,977	\$14,509	\$17,486
74	May-22	\$1,218,739	(\$853,373)	\$365,366	(\$10,657)	\$354,709	9.68%	\$2,863	\$14,509	\$17,372
75	Jun-22	\$1,218,739	(\$867,881)	\$350,857	(\$10,234)	\$340,623	9.68%	\$2,749	\$14,509	\$17,258
76	Jul-22	\$1,218,739	(\$882,390)	\$336,349	(\$9,810)	\$326,539	9.68%	\$2,635	\$14,509	\$17,144
77	Aug-22	\$1,218,739	(\$896,899)	\$321,840	(\$9,387)	\$312,453	9.68%	\$2,521	\$14,509	\$17,030
78	Sep-22	\$1,218,739	(\$911,408)	\$307,331	(\$8,964)	\$298,367	9.68%	\$2,408	\$14,509	\$16,917
79	Oct-22	\$1,218,739	(\$925,917)	\$292,822	(\$8,541)	\$284,281	9.68%	\$2,294	\$14,509	\$16,803
80	Nov-22	\$1,218,739	(\$940,425)	\$278,313	(\$8,118)	\$270,195	9.68%	\$2,181	\$14,509	\$16,690
81	Dec-22	\$1,218,739	(\$954,934)	\$263,805	(\$7,695)	\$256,110	9.68%	\$2,067	\$14,509	\$16,576
82	Jan-23	\$1,218,739	(\$969,443)	\$249,296	(\$7,272)	\$242,024	9.68%	\$1,953	\$14,509	\$16,462
83	Feb-23	\$1,218,739	(\$983,952)	\$234,787	(\$6,848)	\$227,939	9.68%	\$1,840	\$14,509	\$16,349
84	Mar-23	\$1,218,739	(\$998,461)	\$220,278	(\$6,425)	\$213,853	9.68%	\$1,726	\$14,509	\$16,235
85	Apr-23	\$1,218,739	(\$1,010,346)	\$208,393	(\$6,078)	\$202,315	9.68%	\$1,633	\$11,885	\$13,518
86	May-23	\$778,000	(\$578,869)	\$199,131	(\$5,808)	\$193,323	9.68%	\$1,560	\$9,262	\$10,822
87	Jun-23	\$778,000	(\$588,131)	\$189,869	(\$5,538)	\$184,331	9.68%	\$1,488	\$9,262	\$10,750
88	Jul-23	\$778,000	(\$597,393)	\$180,607	(\$5,268)	\$175,339	9.68%	\$1,415	\$9,262	\$10,677
89	Aug-23	\$778,000	(\$606,655)	\$171,345	(\$4,998)	\$166,347	9.68%	\$1,343	\$9,262	\$10,605
90	Sep-23	\$778,000	(\$615,917)	\$162,083	(\$4,727)	\$157,356	9.68%	\$1,270	\$9,262	\$10,532
91	Oct-23	\$778,000	(\$625,179)	\$152,821	(\$4,457)	\$148,364	9.68%	\$1,197	\$9,262	\$10,459
92	Nov-23	\$778,000	(\$634,440)	\$143,560	(\$4,187)	\$139,373	9.68%	\$1,125	\$9,262	\$10,387
93	Dec-23	\$778,000	(\$643,702)	\$134,298	(\$3,917)	\$130,381	9.68%	\$1,052	\$9,262	\$10,314
94	Jan-24	\$778,000	(\$652,964)	\$125,036	(\$3,647)	\$121,389	9.68%	\$980	\$9,262	\$10,242
95	Feb-24	\$778,000	(\$662,226)	\$115,774	(\$3,377)	\$112,397	9.68%	\$907	\$9,262	\$10,169
96	Mar-24	\$778,000	(\$671,488)	\$106,512	(\$3,107)	\$103,405	9.68%	\$835	\$9,262	\$10,097
97	Apr-24	\$778,000	(\$680,750)	\$97,250	(\$2,836)	\$94,414	9.68%	\$762	\$9,262	\$10,024
98	May-24	\$778,000	(\$690,012)	\$87,988	(\$2,566)	\$85,422	9.68%	\$689	\$9,262	\$9,951
99	Jun-24	\$778,000	(\$699,274)	\$78,726	(\$2,296)	\$76,430	9.68%	\$617	\$9,262	\$9,879
100	Jul-24	\$778,000	(\$708,536)	\$69,464	(\$2,026)	\$67,438	9.68%	\$544	\$9,262	\$9,806
101	Aug-24	\$778,000	(\$717,798)	\$60,202	(\$1,756)	\$58,446	9.68%	\$472	\$9,262	\$9,734
102	Sep-24	\$778,000	(\$727,060)	\$50,940	(\$1,486)	\$49,454	9.68%	\$399	\$9,262	\$9,661
103	Oct-24	\$778,000	(\$736,321)	\$41,679	(\$1,216)	\$40,463	9.68%	\$327	\$9,262	\$9,589
104	Nov-24	\$778,000	(\$745,583)	\$32,417	(\$945)	\$31,472	9.68%	\$254	\$9,262	\$9,516
105	Dec-24	\$778,000	(\$754,845)	\$23,155	(\$675)	\$22,480	9.68%	\$181	\$9,262	\$9,443
106	Jan-25	\$778,000	(\$764,107)	\$13,893	(\$405)	\$13,488	9.68%	\$109	\$9,262	\$9,371
107	Feb-25	\$778,000	(\$773,369)	\$4,631	(\$135)	\$4,496	9.68%	\$36	\$9,262	\$9,298
108	Mar-25	\$778,000	(\$778,000)	\$0	\$0	\$0	9.68%	\$0	\$4,631	\$4,631

Column Notes:

- (a) Page 8, Line 8
- (b) Page 4 through Page 6, Column (b)
- (d) Page 4 through Page 6, Column (g)
- (f) Page 7, Line 5
- (h) Page 4 through Page 6, Column (a)

The Narragansett Electric Company
d/b/a National Grid
RE Growth Program
Revenue Requirement Calculation for Billing System Capital Modifications

		Capital Costs	Accumulated Amortization	Net Plant	Accumulated Deferred Taxes	End of Month Rate Base	Pre Tax Rate of Return	Return & Taxes	Amortization	Monthly Revenue Requirement
		(a)	(b)	(c)=(a)+(b)	(d)	(e)=(c)+(d)	(f)	(g)=(e)x(f)x (1/12)	(h)	(i)=(g)+(h)
1	Apr-16	\$440,739	(\$2,623)	\$438,115	(\$6,440)	\$431,675	9.68%	\$3,484	\$2,623	\$6,107
2	May-16	\$440,739	(\$7,870)	\$432,868	(\$6,466)	\$426,402	9.68%	\$3,441	\$5,247	\$8,688
3	Jun-16	\$440,739	(\$13,117)	\$427,622	(\$6,491)	\$421,131	9.68%	\$3,399	\$5,247	\$8,646
4	Jul-16	\$440,739	(\$18,364)	\$422,375	(\$6,517)	\$415,858	9.68%	\$3,356	\$5,247	\$8,603
5	Aug-16	\$440,739	(\$23,611)	\$417,128	(\$6,542)	\$410,586	9.68%	\$3,314	\$5,247	\$8,561
6	Sep-16	\$440,739	(\$28,858)	\$411,881	(\$6,568)	\$405,313	9.68%	\$3,271	\$5,247	\$8,518
7	Oct-16	\$440,739	(\$34,105)	\$406,634	(\$6,593)	\$400,041	9.68%	\$3,229	\$5,247	\$8,476
8	Nov-16	\$440,739	(\$39,352)	\$401,387	(\$6,619)	\$394,768	9.68%	\$3,186	\$5,247	\$8,433
9	Dec-16	\$440,739	(\$44,599)	\$396,140	(\$6,644)	\$389,496	9.68%	\$3,143	\$5,247	\$8,390
10	Jan-17	\$440,739	(\$49,845)	\$390,893	(\$6,670)	\$384,223	9.68%	\$3,101	\$5,247	\$8,348
11	Feb-17	\$440,739	(\$55,092)	\$385,646	(\$6,695)	\$378,951	9.68%	\$3,058	\$5,247	\$8,305
12	Mar-17	\$440,739	(\$60,339)	\$380,400	(\$6,721)	\$373,679	9.68%	\$3,016	\$5,247	\$8,263
13	Apr-17	\$440,739	(\$65,586)	\$375,153	(\$6,746)	\$368,407	9.68%	\$2,973	\$5,247	\$8,220
14	May-17	\$440,739	(\$70,833)	\$369,906	(\$6,772)	\$363,134	9.68%	\$2,931	\$5,247	\$8,178
15	Jun-17	\$440,739	(\$76,080)	\$364,659	(\$6,797)	\$357,862	9.68%	\$2,888	\$5,247	\$8,135
16	Jul-17	\$440,739	(\$81,327)	\$359,412	(\$6,823)	\$352,589	9.68%	\$2,846	\$5,247	\$8,093
17	Aug-17	\$440,739	(\$86,574)	\$354,165	(\$6,848)	\$347,317	9.68%	\$2,803	\$5,247	\$8,050
18	Sep-17	\$440,739	(\$91,821)	\$348,918	(\$6,874)	\$342,044	9.68%	\$2,760	\$5,247	\$8,007
19	Oct-17	\$440,739	(\$97,067)	\$343,671	(\$6,899)	\$336,772	9.68%	\$2,718	\$5,247	\$7,965
20	Nov-17	\$440,739	(\$102,314)	\$338,424	(\$6,925)	\$331,499	9.68%	\$2,675	\$5,247	\$7,922
21	Dec-17	\$440,739	(\$107,561)	\$333,178	(\$6,950)	\$326,228	9.68%	\$2,633	\$5,247	\$7,880
22	Jan-18	\$440,739	(\$112,808)	\$327,931	(\$6,976)	\$320,955	9.68%	\$2,590	\$5,247	\$7,837
23	Feb-18	\$440,739	(\$118,055)	\$322,684	(\$7,001)	\$315,683	9.68%	\$2,548	\$5,247	\$7,795
24	Mar-18	\$440,739	(\$123,302)	\$317,437	(\$7,027)	\$310,410	9.68%	\$2,505	\$5,247	\$7,752
25	Apr-18	\$440,739	(\$128,549)	\$312,190	(\$7,052)	\$305,138	9.68%	\$2,463	\$5,247	\$7,710
26	May-18	\$440,739	(\$133,796)	\$306,943	(\$7,078)	\$299,865	9.68%	\$2,420	\$5,247	\$7,667
27	Jun-18	\$440,739	(\$139,043)	\$301,696	(\$7,103)	\$294,593	9.68%	\$2,378	\$5,247	\$7,625
28	Jul-18	\$440,739	(\$144,289)	\$296,449	(\$7,129)	\$289,320	9.68%	\$2,335	\$5,247	\$7,582
29	Aug-18	\$440,739	(\$149,536)	\$291,202	(\$7,154)	\$284,048	9.68%	\$2,292	\$5,247	\$7,539
30	Sep-18	\$440,739	(\$154,783)	\$285,956	(\$7,180)	\$278,776	9.68%	\$2,250	\$5,247	\$7,497
31	Oct-18	\$440,739	(\$160,030)	\$280,709	(\$7,205)	\$273,504	9.68%	\$2,207	\$5,247	\$7,454
32	Nov-18	\$440,739	(\$165,277)	\$275,462	(\$7,231)	\$268,231	9.68%	\$2,165	\$5,247	\$7,412
33	Dec-18	\$440,739	(\$170,524)	\$270,215	(\$7,256)	\$262,959	9.68%	\$2,122	\$5,247	\$7,369
34	Jan-19	\$440,739	(\$175,771)	\$264,968	(\$7,282)	\$257,686	9.68%	\$2,080	\$5,247	\$7,327
35	Feb-19	\$440,739	(\$181,018)	\$259,721	(\$7,307)	\$252,414	9.68%	\$2,037	\$5,247	\$7,284
36	Mar-19	\$440,739	(\$186,265)	\$254,474	(\$7,333)	\$247,141	9.68%	\$1,995	\$5,247	\$7,242
37	Apr-19	\$440,739	(\$191,511)	\$249,227	(\$7,359)	\$241,868	9.68%	\$1,953	\$5,247	\$7,200
38	May-19	\$440,739	(\$196,758)	\$243,980	(\$7,384)	\$236,595	9.68%	\$1,911	\$5,247	\$7,158
39	Jun-19	\$440,739	(\$202,005)	\$238,733	(\$7,410)	\$231,322	9.68%	\$1,869	\$5,247	\$7,116
40	Jul-19	\$440,739	(\$207,252)	\$233,486	(\$7,435)	\$226,049	9.68%	\$1,827	\$5,247	\$7,074
41	Aug-19	\$440,739	(\$212,499)	\$228,239	(\$7,461)	\$220,776	9.68%	\$1,785	\$5,247	\$7,032
42	Sep-19	\$440,739	(\$217,746)	\$222,992	(\$7,486)	\$215,503	9.68%	\$1,743	\$5,247	\$6,990
43	Oct-19	\$440,739	(\$222,993)	\$217,745	(\$7,512)	\$210,230	9.68%	\$1,701	\$5,247	\$6,948
44	Nov-19	\$440,739	(\$228,240)	\$212,498	(\$7,537)	\$204,957	9.68%	\$1,659	\$5,247	\$6,906
45	Dec-19	\$440,739	(\$233,487)	\$207,251	(\$7,563)	\$199,684	9.68%	\$1,617	\$5,247	\$6,864
46	Jan-20	\$440,739	(\$238,733)	\$202,004	(\$7,588)	\$194,411	9.68%	\$1,575	\$5,247	\$6,822
47	Feb-20	\$440,739	(\$243,980)	\$196,757	(\$7,614)	\$189,138	9.68%	\$1,533	\$5,247	\$6,780
48	Mar-20	\$440,739	(\$249,227)	\$191,510	(\$7,639)	\$183,865	9.68%	\$1,491	\$5,247	\$6,738
49	Apr-20	\$440,739	(\$254,474)	\$186,263	(\$7,665)	\$178,592	9.68%	\$1,449	\$5,247	\$6,696
50	May-20	\$440,739	(\$259,721)	\$181,016	(\$7,690)	\$173,319	9.68%	\$1,407	\$5,247	\$6,654
51	Jun-20	\$440,739	(\$264,968)	\$175,769	(\$7,716)	\$168,046	9.68%	\$1,365	\$5,247	\$6,612
52	Jul-20	\$440,739	(\$270,215)	\$170,522	(\$7,741)	\$162,773	9.68%	\$1,323	\$5,247	\$6,570
53	Aug-20	\$440,739	(\$275,462)	\$165,275	(\$7,767)	\$157,500	9.68%	\$1,281	\$5,247	\$6,528
54	Sep-20	\$440,739	(\$280,709)	\$160,028	(\$7,792)	\$152,227	9.68%	\$1,239	\$5,247	\$6,486
55	Oct-20	\$440,739	(\$285,956)	\$154,781	(\$7,818)	\$146,954	9.68%	\$1,197	\$5,247	\$6,444
56	Nov-20	\$440,739	(\$291,202)	\$149,534	(\$7,843)	\$141,681	9.68%	\$1,155	\$5,247	\$6,402
57	Dec-20	\$440,739	(\$296,449)	\$144,287	(\$7,869)	\$136,408	9.68%	\$1,113	\$5,247	\$6,360
58	Jan-21	\$440,739	(\$301,696)	\$139,040	(\$7,894)	\$131,135	9.68%	\$1,071	\$5,247	\$6,318
59	Feb-21	\$440,739	(\$306,943)	\$133,793	(\$7,920)	\$125,862	9.68%	\$1,029	\$5,247	\$6,276
60	Mar-21	\$440,739	(\$312,190)	\$128,546	(\$7,945)	\$120,589	9.68%	\$1,000	\$5,247	\$6,254
61	Apr-21	\$440,739	(\$317,437)	\$123,299	(\$7,971)	\$115,316	9.68%	\$966	\$5,247	\$6,213
62	May-21	\$440,739	(\$322,684)	\$118,052	(\$7,996)	\$110,043	9.68%	\$925	\$5,247	\$6,172
63	Jun-21	\$440,739	(\$327,931)	\$112,805	(\$8,022)	\$104,770	9.68%	\$884	\$5,247	\$6,131
64	Jul-21	\$440,739	(\$333,178)	\$107,558	(\$8,047)	\$99,497	9.68%	\$843	\$5,247	\$6,090
65	Aug-21	\$440,739	(\$338,424)	\$102,311	(\$8,073)	\$94,224	9.68%	\$802	\$5,247	\$6,049

The Narragansett Electric Company
d/b/a National Grid
RE Growth Program
Revenue Requirement Calculation for Billing System Capital Modifications (cont.)

		Capital Costs	Accumulated Amortization	Net Plant	Accumulated Deferred Taxes	End of Month Rate Base	Pre Tax Rate of Return	Return & Taxes	Amortization	Monthly Revenue Requirement
		(a)	(b)	(c)=(a)+(b)	(d)	(e)=(c)+(d)	(f)	(g)=(e)x(f)x (1/12)	(h)	(i)=(g)+(h)
66	Sep-21	\$440,739	(\$343,671)	\$97,067	(\$2,831)	\$94,236	9.68%	\$761	\$5,247	\$6,008
67	Oct-21	\$440,739	(\$348,918)	\$91,821	(\$2,678)	\$89,143	9.68%	\$719	\$5,247	\$5,966
68	Nov-21	\$440,739	(\$354,165)	\$86,574	(\$2,525)	\$84,049	9.68%	\$678	\$5,247	\$5,925
69	Dec-21	\$440,739	(\$359,412)	\$81,327	(\$2,372)	\$78,955	9.68%	\$637	\$5,247	\$5,884
70	Jan-22	\$440,739	(\$364,659)	\$76,080	(\$2,219)	\$73,861	9.68%	\$596	\$5,247	\$5,843
71	Feb-22	\$440,739	(\$369,906)	\$70,833	(\$2,066)	\$68,767	9.68%	\$555	\$5,247	\$5,802
72	Mar-22	\$440,739	(\$375,153)	\$65,586	(\$1,913)	\$63,673	9.68%	\$514	\$5,247	\$5,761
73	Apr-22	\$440,739	(\$380,400)	\$60,339	(\$1,760)	\$58,579	9.68%	\$473	\$5,247	\$5,720
74	May-22	\$440,739	(\$385,646)	\$55,092	(\$1,607)	\$53,485	9.68%	\$432	\$5,247	\$5,679
75	Jun-22	\$440,739	(\$390,893)	\$49,845	(\$1,454)	\$48,391	9.68%	\$391	\$5,247	\$5,638
76	Jul-22	\$440,739	(\$396,140)	\$44,599	(\$1,301)	\$43,298	9.68%	\$349	\$5,247	\$5,596
77	Aug-22	\$440,739	(\$401,387)	\$39,352	(\$1,148)	\$38,204	9.68%	\$308	\$5,247	\$5,555
78	Sep-22	\$440,739	(\$406,634)	\$34,105	(\$995)	\$33,110	9.68%	\$267	\$5,247	\$5,514
79	Oct-22	\$440,739	(\$411,881)	\$28,858	(\$842)	\$28,016	9.68%	\$226	\$5,247	\$5,473
80	Nov-22	\$440,739	(\$417,128)	\$23,611	(\$689)	\$22,922	9.68%	\$185	\$5,247	\$5,432
81	Dec-22	\$440,739	(\$422,375)	\$18,364	(\$536)	\$17,828	9.68%	\$144	\$5,247	\$5,391
82	Jan-23	\$440,739	(\$427,622)	\$13,117	(\$383)	\$12,734	9.68%	\$103	\$5,247	\$5,350
83	Feb-23	\$440,739	(\$432,868)	\$7,870	(\$230)	\$7,640	9.68%	\$62	\$5,247	\$5,309
84	Mar-23	\$440,739	(\$438,115)	\$2,623	(\$77)	\$2,546	9.68%	\$21	\$5,247	\$5,268
85	Apr-23	\$440,739	(\$440,739)	(\$0)	\$0	(\$0)	9.68%	\$0	\$2,623	\$2,623

Column Notes:

- (a) Page 8, Line 8
- (b) Page 4 through Page 6, Column (b)
- (d) Page 4 through Page 6, Column (g)
- (f) Page 7, Line 5
- (h) Page 4 through Page 6, Column (a)

The Narragansett Electric Company
d/b/a National Grid
RE Growth Program
Calculation of Tax Depreciation on Billing System Capital Modifications

Line No.			Fiscal Year <u>2017</u> (a)	Fiscal Year <u>2018</u> (b)	Fiscal Year <u>2019</u> (c)	Fiscal Year <u>2020</u> (d)
<u>Bonus Depreciation</u>						
1	Plant Additions	Line 1	\$440,739			
2	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	<u>100.00%</u>			
3	Plant Eligible for Bonus Depreciation	Line 1 x Line 2	\$440,739			
4	Bonus Depreciation Rate (April 2015 - March 2016)		<u>50.00%</u>			
5	Bonus Depreciation	Line 3 x Line 4	\$220,369			
<u>Remaining Tax Depreciation</u>						
6	Plant Additions	Line 1	\$440,739			
7	Less Bonus Depreciation	Line 5	<u>\$220,369</u>			
8	Remaining Plant Additions Subject to SL Tax Depreciation	Line 6 - Line 7	\$220,368	\$220,368	\$220,368	\$220,368
9	3-Year Straight Line Tax Depreciation Rates	Per Tax Department	<u>31.94%</u>	<u>33.33%</u>	<u>33.33%</u>	<u>1.39%</u>
10	Remaining Tax Depreciation	Line 8 x Line 9	\$70,395	\$73,456	\$73,456	\$3,061
11	Cost of Removal		\$0			
12	Annual Tax Depreciation	Sum of Lines 5, 10 and 11	<u>\$290,765</u>	<u>\$73,456</u>	<u>\$73,456</u>	<u>\$3,061</u>

The Narragansett Electric Company
d/b/a National Grid
RE Growth Program
Calculation of Accumulated Deferred Taxes on Billing System Capital Modifications

1	Book cost	\$440,739
2	Book Useful life (months)	84
3	Monthly Book Amortization	\$5,247
4	Tax Useful life (months)	36
5	Monthly Tax Amortization	\$6,121

		Monthly Book Amortization (a)	Accumulated Book Amortization (b)	Monthly Tax Amortization (c)	Accumulated Tax Amortization (d)	Cumulative Book/Tax Timer (e)=(d)-(b)	Effective Tax Rate (f)	Accumulated Deferred Taxes (g)=(e)x(f)
6	Apr-16	\$2,623	\$2,623	\$223,430	\$223,430	\$220,807	35.00%	\$6,440
7	May-16	\$5,247	\$7,870	\$6,121	\$229,551	\$221,681	35.00%	\$6,466
8	Jun-16	\$5,247	\$13,117	\$6,121	\$235,673	\$222,556	35.00%	\$6,491
9	Jul-16	\$5,247	\$18,364	\$6,121	\$241,794	\$223,430	35.00%	\$6,517
10	Aug-16	\$5,247	\$23,611	\$6,121	\$247,916	\$224,305	35.00%	\$6,542
11	Sep-16	\$5,247	\$28,858	\$6,121	\$254,037	\$225,179	35.00%	\$6,568
12	Oct-16	\$5,247	\$34,105	\$6,121	\$260,158	\$226,054	35.00%	\$6,593
13	Nov-16	\$5,247	\$39,352	\$6,121	\$266,280	\$226,928	35.00%	\$6,619
14	Dec-16	\$5,247	\$44,599	\$6,121	\$272,401	\$227,802	35.00%	\$6,644
15	Jan-17	\$5,247	\$49,845	\$6,121	\$278,522	\$228,677	35.00%	\$6,670
16	Feb-17	\$5,247	\$55,092	\$6,121	\$284,644	\$229,551	35.00%	\$6,695
17	Mar-17	\$5,247	\$60,339	\$6,121	\$290,765	\$230,426	35.00%	\$6,721
18	Apr-17	\$5,247	\$65,586	\$6,121	\$296,887	\$231,300	35.00%	\$6,746
19	May-17	\$5,247	\$70,833	\$6,121	\$303,008	\$232,175	35.00%	\$6,772
20	Jun-17	\$5,247	\$76,080	\$6,121	\$309,129	\$233,049	35.00%	\$6,797
21	Jul-17	\$5,247	\$81,327	\$6,121	\$315,251	\$233,924	35.00%	\$6,823
22	Aug-17	\$5,247	\$86,574	\$6,121	\$321,372	\$234,798	35.00%	\$6,848
23	Sep-17	\$5,247	\$91,821	\$6,121	\$327,493	\$235,673	35.00%	\$6,874
24	Oct-17	\$5,247	\$97,067	\$6,121	\$333,615	\$236,547	35.00%	\$6,899
25	Nov-17	\$5,247	\$102,314	\$6,121	\$339,736	\$237,422	35.00%	\$6,925
26	Dec-17	\$5,247	\$107,561	\$6,121	\$345,857	\$238,296	35.00%	\$6,950
27	Jan-18	\$5,247	\$112,808	\$6,121	\$351,979	\$239,171	35.00%	\$6,976
28	Feb-18	\$5,247	\$118,055	\$6,121	\$358,100	\$240,045	35.00%	\$7,001
29	Mar-18	\$5,247	\$123,302	\$6,121	\$364,222	\$240,920	35.00%	\$7,027
30	Apr-18	\$5,247	\$128,549	\$6,121	\$370,343	\$241,794	35.00%	\$7,052
31	May-18	\$5,247	\$133,796	\$6,121	\$376,464	\$242,669	35.00%	\$7,078
32	Jun-18	\$5,247	\$139,043	\$6,121	\$382,586	\$243,543	35.00%	\$7,103
33	Jul-18	\$5,247	\$144,289	\$6,121	\$388,707	\$244,418	35.00%	\$7,129
34	Aug-18	\$5,247	\$149,536	\$6,121	\$394,828	\$245,292	35.00%	\$7,154
35	Sep-18	\$5,247	\$154,783	\$6,121	\$400,950	\$246,167	35.00%	\$7,180
36	Oct-18	\$5,247	\$160,030	\$6,121	\$407,071	\$247,041	35.00%	\$7,205
37	Nov-18	\$5,247	\$165,277	\$6,121	\$413,193	\$247,916	35.00%	\$7,231
38	Dec-18	\$5,247	\$170,524	\$6,121	\$419,314	\$248,790	35.00%	\$7,256

The Narragansett Electric Company
d/b/a National Grid
RI Renewable Energy Growth Program
Calculation of Accumulated Tax Depreciation on Billing System Capital Modifications (cont.)

		Monthly Book Depreciation (a)	Accumulated Book Depreciation (b)	Monthly Tax Depreciation (c)	Accumulated Tax Depreciation (d)	Cumulative Book/Tax Timer (e)=(d)-(b)	Effective Tax Rate (f)	Accumulated Deferred Taxes (g)=(e)x(f)
39	Jan-19	\$5,247	\$175,771	\$6,121	\$425,435	\$249,665	35.00%	\$7,282
40	Feb-19	\$5,247	\$181,018	\$6,121	\$431,557	\$250,539	35.00%	\$7,307
41	Mar-19	\$5,247	\$186,265	\$6,121	\$437,678	\$251,413	35.00%	\$7,333
42	Apr-19	\$5,247	\$191,511	\$3,061	\$440,739	\$249,227	35.00%	\$7,269
43	May-19	\$5,247	\$196,758	\$0	\$440,739	\$243,980	35.00%	\$7,116
44	Jun-19	\$5,247	\$202,005	\$0	\$440,739	\$238,733	35.00%	\$6,963
45	Jul-19	\$5,247	\$207,252	\$0	\$440,739	\$233,487	35.00%	\$6,810
46	Aug-19	\$5,247	\$212,499	\$0	\$440,739	\$228,240	35.00%	\$6,657
47	Sep-19	\$5,247	\$217,746	\$0	\$440,739	\$222,993	35.00%	\$6,504
48	Oct-19	\$5,247	\$222,993	\$0	\$440,739	\$217,746	35.00%	\$6,351
49	Nov-19	\$5,247	\$228,240	\$0	\$440,739	\$212,499	35.00%	\$6,198
50	Dec-19	\$5,247	\$233,487	\$0	\$440,739	\$207,252	35.00%	\$6,045
51	Jan-20	\$5,247	\$238,733	\$0	\$440,739	\$202,005	35.00%	\$5,892
52	Feb-20	\$5,247	\$243,980	\$0	\$440,739	\$196,758	35.00%	\$5,739
53	Mar-20	\$5,247	\$249,227	\$0	\$440,739	\$191,511	35.00%	\$5,586
54	Apr-20	\$5,247	\$254,474	\$0	\$440,739	\$186,265	35.00%	\$5,433
55	May-20	\$5,247	\$259,721	\$0	\$440,739	\$181,018	35.00%	\$5,280
56	Jun-20	\$5,247	\$264,968	\$0	\$440,739	\$175,771	35.00%	\$5,127
57	Jul-20	\$5,247	\$270,215	\$0	\$440,739	\$170,524	35.00%	\$4,974
58	Aug-20	\$5,247	\$275,462	\$0	\$440,739	\$165,277	35.00%	\$4,821
59	Sep-20	\$5,247	\$280,709	\$0	\$440,739	\$160,030	35.00%	\$4,668
60	Oct-20	\$5,247	\$285,956	\$0	\$440,739	\$154,783	35.00%	\$4,515
61	Nov-20	\$5,247	\$291,202	\$0	\$440,739	\$149,536	35.00%	\$4,361
62	Dec-20	\$5,247	\$296,449	\$0	\$440,739	\$144,289	35.00%	\$4,208
63	Jan-21	\$5,247	\$301,696	\$0	\$440,739	\$139,043	35.00%	\$4,055
64	Feb-21	\$5,247	\$306,943	\$0	\$440,739	\$133,796	35.00%	\$3,902
65	Mar-21	\$5,247	\$312,190	\$0	\$440,739	\$128,549	35.00%	\$3,749
66	Apr-21	\$5,247	\$317,437	\$0	\$440,739	\$123,302	35.00%	\$3,596
67	May-21	\$5,247	\$322,684	\$0	\$440,739	\$118,055	35.00%	\$3,443
68	Jun-21	\$5,247	\$327,931	\$0	\$440,739	\$112,808	35.00%	\$3,290
69	Jul-21	\$5,247	\$333,178	\$0	\$440,739	\$107,561	35.00%	\$3,137
70	Aug-21	\$5,247	\$338,424	\$0	\$440,739	\$102,314	35.00%	\$2,984
71	Sep-21	\$5,247	\$343,671	\$0	\$440,739	\$97,067	35.00%	\$2,831
72	Oct-21	\$5,247	\$348,918	\$0	\$440,739	\$91,821	35.00%	\$2,678
73	Nov-21	\$5,247	\$354,165	\$0	\$440,739	\$86,574	35.00%	\$2,525
74	Dec-21	\$5,247	\$359,412	\$0	\$440,739	\$81,327	35.00%	\$2,372
75	Jan-22	\$5,247	\$364,659	\$0	\$440,739	\$76,080	35.00%	\$2,219
76	Feb-22	\$5,247	\$369,906	\$0	\$440,739	\$70,833	35.00%	\$2,066
77	Mar-22	\$5,247	\$375,153	\$0	\$440,739	\$65,586	35.00%	\$1,913
78	Apr-22	\$5,247	\$380,400	\$0	\$440,739	\$60,339	35.00%	\$1,760
79	May-22	\$5,247	\$385,646	\$0	\$440,739	\$55,092	35.00%	\$1,607
80	Jun-22	\$5,247	\$390,893	\$0	\$440,739	\$49,845	35.00%	\$1,454
81	Jul-22	\$5,247	\$396,140	\$0	\$440,739	\$44,599	35.00%	\$1,301
82	Aug-22	\$5,247	\$401,387	\$0	\$440,739	\$39,352	35.00%	\$1,148

The Narragansett Electric Company
d/b/a National Grid
RI Renewable Energy Growth Program
Calculation of Accumulated Tax Depreciation on Billing System Capital Modifications (cont.)

		Monthly Book Depreciation (a)	Accumulated Book Depreciation (b)	Monthly Tax Depreciation (c)	Accumulated Tax Depreciation (d)	Cumulative Book/Tax Timer (e)=(d)-(b)	Effective Tax Rate (f)	Accumulated Deferred Taxes (g)=(e)x(f)
83	Sep-22	\$5,247	\$406,634	\$0	\$440,739	\$34,105	35.00%	\$995
84	Oct-22	\$5,247	\$411,881	\$0	\$440,739	\$28,858	35.00%	\$842
85	Nov-22	\$5,247	\$417,128	\$0	\$440,739	\$23,611	35.00%	\$689
86	Dec-22	\$5,247	\$422,375	\$0	\$440,739	\$18,364	35.00%	\$536
87	Jan-23	\$5,247	\$427,622	\$0	\$440,739	\$13,117	35.00%	\$383
88	Feb-23	\$5,247	\$432,868	\$0	\$440,739	\$7,870	35.00%	\$230
89	Mar-23	\$5,247	\$438,115	\$0	\$440,739	\$2,623	35.00%	\$77
90	Apr-23	\$2,623	\$440,739	\$0	\$440,739	(\$0)	35.00%	\$0

Column Notes:

- (a) Equals Line 3; Line 6(a) and Line 90(a) = Line 3 x 50%
- (b) Prior month Col (b) + Current month Col (a)
- (c) Equals Line 5; Line 6(c) = (Bonus depreciation per Page 3, Line 5) + Line 5 x 50%; Line 42(c) = Line 5 x 50%
- (d) Prior month Col (d) + Current month Col (c)

Line Notes

- 1 Per Page 8, Line 8
- 3 Line 1 ÷ Line 2
- 5 (Line 1 - Page 2, Line 5) ÷ Line 4

The Narragansett Electric Company
d/b/a National Grid
RI Renewable Energy Growth Program
Summary of Billing System Capital Modification Costs

External Vendor costs:

1	IBM	\$250,287
2	Wipro	\$31,551
3	Subtotal	<u>\$281,838</u>

Internal costs:

4	Labor	\$78,299
5	Overheads	\$60,550
6	AFUDC	<u>\$20,052</u>
7	Subtotal	\$158,900
8	Total Capital Costs	\$440,739

The Narragansett Electric Company
d/b/a National Grid
RE Growth Program
Revenue Requirement Calculation for REG Billing System Upgrade Project

		Capital Costs	Accumulated Amortization	Net Plant	Accumulated Deferred Taxes	End of Month Rate Base	Pre Tax Rate of Return	Return & Taxes	Amortization	Monthly Revenue Requirement
		(a)	(b)	(c)=(a)+(b)	(d)	(e)=(c)+(d)	(f)	(g)=(e)x(f)x (1/12)	(h)	(i)=(g)+(h)
1	Mar-18	\$778,000	(\$4,631)	\$773,369	(\$10,809)	\$762,560	9.68%	\$6,154	\$4,631	\$10,785
2	Apr-18	\$778,000	(\$13,893)	\$764,107	(\$10,870)	\$753,237	9.68%	\$6,079	\$9,262	\$15,341
3	May-18	\$778,000	(\$23,155)	\$754,845	(\$10,930)	\$743,915	9.68%	\$6,004	\$9,262	\$15,266
4	Jun-18	\$778,000	(\$32,417)	\$745,583	(\$10,991)	\$734,592	9.68%	\$5,929	\$9,262	\$15,191
5	Jul-18	\$778,000	(\$41,679)	\$736,321	(\$11,052)	\$725,269	9.68%	\$5,853	\$9,262	\$15,115
6	Aug-18	\$778,000	(\$50,940)	\$727,060	(\$11,113)	\$715,947	9.68%	\$5,778	\$9,262	\$15,040
7	Sep-18	\$778,000	(\$60,202)	\$717,798	(\$11,174)	\$706,624	9.68%	\$5,703	\$9,262	\$14,965
8	Oct-18	\$778,000	(\$69,464)	\$708,536	(\$11,234)	\$697,302	9.68%	\$5,628	\$9,262	\$14,890
9	Nov-18	\$778,000	(\$78,726)	\$699,274	(\$11,295)	\$687,979	9.68%	\$5,552	\$9,262	\$14,814
10	Dec-18	\$778,000	(\$87,988)	\$690,012	(\$11,356)	\$678,656	9.68%	\$5,477	\$9,262	\$14,739
11	Jan-19	\$778,000	(\$97,250)	\$680,750	(\$11,417)	\$669,333	9.68%	\$5,402	\$9,262	\$14,664
12	Feb-19	\$778,000	(\$106,512)	\$671,488	(\$11,478)	\$660,010	9.68%	\$5,327	\$9,262	\$14,589
13	Mar-19	\$778,000	(\$115,774)	\$662,226	(\$11,538)	\$650,688	9.68%	\$5,251	\$9,262	\$14,513
14	Apr-19	\$778,000	(\$125,036)	\$652,964	(\$11,599)	\$641,365	9.68%	\$5,176	\$9,262	\$14,438
15	May-19	\$778,000	(\$134,298)	\$643,702	(\$11,660)	\$632,042	9.68%	\$5,101	\$9,262	\$14,363
16	Jun-19	\$778,000	(\$143,560)	\$634,440	(\$11,721)	\$622,719	9.68%	\$5,026	\$9,262	\$14,288
17	Jul-19	\$778,000	(\$152,821)	\$625,179	(\$11,781)	\$613,398	9.68%	\$4,950	\$9,262	\$14,212
18	Aug-19	\$778,000	(\$162,083)	\$615,917	(\$11,842)	\$604,075	9.68%	\$4,875	\$9,262	\$14,137
19	Sep-19	\$778,000	(\$171,345)	\$606,655	(\$11,903)	\$594,752	9.68%	\$4,800	\$9,262	\$14,062
20	Oct-19	\$778,000	(\$180,607)	\$597,393	(\$11,964)	\$585,429	9.68%	\$4,725	\$9,262	\$13,987
21	Nov-19	\$778,000	(\$189,869)	\$588,131	(\$12,025)	\$576,106	9.68%	\$4,649	\$9,262	\$13,911
22	Dec-19	\$778,000	(\$199,131)	\$578,869	(\$12,085)	\$566,784	9.68%	\$4,574	\$9,262	\$13,836
23	Jan-20	\$778,000	(\$208,393)	\$569,607	(\$12,146)	\$557,461	9.68%	\$4,499	\$9,262	\$13,761
24	Feb-20	\$778,000	(\$217,655)	\$560,345	(\$12,207)	\$548,138	9.68%	\$4,424	\$9,262	\$13,686
25	Mar-20	\$778,000	(\$226,917)	\$551,083	(\$12,268)	\$538,815	9.68%	\$4,349	\$9,262	\$13,611
26	Apr-20	\$778,000	(\$236,179)	\$541,821	(\$12,328)	\$529,493	9.68%	\$4,273	\$9,262	\$13,535
27	May-20	\$778,000	(\$245,440)	\$532,560	(\$12,389)	\$520,171	9.68%	\$4,198	\$9,262	\$13,460
28	Jun-20	\$778,000	(\$254,702)	\$523,298	(\$12,450)	\$510,848	9.68%	\$4,123	\$9,262	\$13,385
29	Jul-20	\$778,000	(\$263,964)	\$514,036	(\$12,511)	\$501,525	9.68%	\$4,048	\$9,262	\$13,310
30	Aug-20	\$778,000	(\$273,226)	\$504,774	(\$12,572)	\$492,202	9.68%	\$3,972	\$9,262	\$13,234
31	Sep-20	\$778,000	(\$282,488)	\$495,512	(\$12,632)	\$482,880	9.68%	\$3,897	\$9,262	\$13,159
32	Oct-20	\$778,000	(\$291,750)	\$486,250	(\$12,693)	\$473,557	9.68%	\$3,822	\$9,262	\$13,084
33	Nov-20	\$778,000	(\$301,012)	\$476,988	(\$12,754)	\$464,234	9.68%	\$3,747	\$9,262	\$13,009
34	Dec-20	\$778,000	(\$310,274)	\$467,726	(\$12,815)	\$454,911	9.68%	\$3,671	\$9,262	\$12,933
35	Jan-21	\$778,000	(\$319,536)	\$458,464	(\$12,875)	\$445,589	9.68%	\$3,596	\$9,262	\$12,858
36	Feb-21	\$778,000	(\$328,798)	\$449,202	(\$12,936)	\$436,266	9.68%	\$3,521	\$9,262	\$12,783
37	Mar-21	\$778,000	(\$338,060)	\$439,940	(\$12,996)	\$426,943	9.68%	\$3,446	\$9,262	\$12,707
38	Apr-21	\$778,000	(\$347,321)	\$430,679	(\$12,561)	\$418,118	9.68%	\$3,371	\$9,262	\$12,632
39	May-21	\$778,000	(\$356,583)	\$421,417	(\$12,291)	\$409,126	9.68%	\$3,302	\$9,262	\$12,556
40	Jun-21	\$778,000	(\$365,845)	\$412,155	(\$12,021)	\$400,134	9.68%	\$3,229	\$9,262	\$12,481
41	Jul-21	\$778,000	(\$375,107)	\$402,893	(\$11,751)	\$391,142	9.68%	\$3,157	\$9,262	\$12,419
42	Aug-21	\$778,000	(\$384,369)	\$393,631	(\$11,481)	\$382,150	9.68%	\$3,084	\$9,262	\$12,346
43	Sep-21	\$778,000	(\$393,631)	\$384,369	(\$11,211)	\$373,158	9.68%	\$3,012	\$9,262	\$12,274
44	Oct-21	\$778,000	(\$402,893)	\$375,107	(\$10,941)	\$364,166	9.68%	\$2,939	\$9,262	\$12,201
45	Nov-21	\$778,000	(\$412,155)	\$365,845	(\$10,670)	\$355,175	9.68%	\$2,866	\$9,262	\$12,128
46	Dec-21	\$778,000	(\$421,417)	\$356,583	(\$10,400)	\$346,183	9.68%	\$2,794	\$9,262	\$12,056
47	Jan-22	\$778,000	(\$430,679)	\$347,321	(\$10,130)	\$337,191	9.68%	\$2,721	\$9,262	\$11,983
48	Feb-22	\$778,000	(\$439,940)	\$338,060	(\$9,860)	\$328,200	9.68%	\$2,649	\$9,262	\$11,911
49	Mar-22	\$778,000	(\$449,202)	\$328,798	(\$9,590)	\$319,208	9.68%	\$2,576	\$9,262	\$11,838
50	Apr-22	\$778,000	(\$458,464)	\$319,536	(\$9,320)	\$310,216	9.68%	\$2,504	\$9,262	\$11,766
51	May-22	\$778,000	(\$467,726)	\$310,274	(\$9,050)	\$301,224	9.68%	\$2,431	\$9,262	\$11,693
52	Jun-22	\$778,000	(\$476,988)	\$301,012	(\$8,780)	\$292,232	9.68%	\$2,358	\$9,262	\$11,620
53	Jul-22	\$778,000	(\$486,250)	\$291,750	(\$8,509)	\$283,241	9.68%	\$2,286	\$9,262	\$11,548
54	Aug-22	\$778,000	(\$495,512)	\$282,488	(\$8,239)	\$274,249	9.68%	\$2,213	\$9,262	\$11,475
55	Sep-22	\$778,000	(\$504,774)	\$273,226	(\$7,969)	\$265,257	9.68%	\$2,141	\$9,262	\$11,403
56	Oct-22	\$778,000	(\$514,036)	\$263,964	(\$7,699)	\$256,265	9.68%	\$2,068	\$9,262	\$11,330
57	Nov-22	\$778,000	(\$523,298)	\$254,702	(\$7,429)	\$247,273	9.68%	\$1,996	\$9,262	\$11,258
58	Dec-22	\$778,000	(\$532,560)	\$245,440	(\$7,159)	\$238,281	9.68%	\$1,923	\$9,262	\$11,185
59	Jan-23	\$778,000	(\$541,821)	\$236,179	(\$6,889)	\$229,290	9.68%	\$1,850	\$9,262	\$11,112
60	Feb-23	\$778,000	(\$551,083)	\$226,917	(\$6,618)	\$220,299	9.68%	\$1,778	\$9,262	\$11,040
61	Mar-23	\$778,000	(\$560,345)	\$217,655	(\$6,348)	\$211,307	9.68%	\$1,705	\$9,262	\$10,967
62	Apr-23	\$778,000	(\$569,607)	\$208,393	(\$6,078)	\$202,315	9.68%	\$1,633	\$9,262	\$10,895
63	May-23	\$778,000	(\$578,869)	\$199,131	(\$5,808)	\$193,323	9.68%	\$1,560	\$9,262	\$10,822
64	Jun-23	\$778,000	(\$588,131)	\$189,869	(\$5,538)	\$184,331	9.68%	\$1,488	\$9,262	\$10,750
65	Jul-23	\$778,000	(\$597,393)	\$180,607	(\$5,268)	\$175,339	9.68%	\$1,415	\$9,262	\$10,677

The Narragansett Electric Company
d/b/a National Grid
RE Growth Program
Revenue Requirement Calculation for Billing System Capital Modifications (cont.)

		Capital Costs	Accumulated Amortization	Net Plant	Accumulated Deferred Taxes	End of Month Rate Base	Pre Tax Rate of Return	Return & Taxes	Amortization	Monthly Revenue Requirement
		(a)	(b)	(c)=(a)+(b)	(d)	(e)=(c)+(d)	(f)	(g)=(e)x(f)x (1/12)	(h)	(i)=(g)+(h)
66	Aug-23	\$778,000	(\$606,655)	\$171,345	(\$4,998)	\$166,347	9.68%	\$1,343	\$9,262	\$10,605
67	Sep-23	\$778,000	(\$615,917)	\$162,083	(\$4,727)	\$157,356	9.68%	\$1,270	\$9,262	\$10,532
68	Oct-23	\$778,000	(\$625,179)	\$152,821	(\$4,457)	\$148,364	9.68%	\$1,197	\$9,262	\$10,459
69	Nov-23	\$778,000	(\$634,440)	\$143,560	(\$4,187)	\$139,373	9.68%	\$1,125	\$9,262	\$10,387
70	Dec-23	\$778,000	(\$643,702)	\$134,298	(\$3,917)	\$130,381	9.68%	\$1,052	\$9,262	\$10,314
71	Jan-24	\$778,000	(\$652,964)	\$125,036	(\$3,647)	\$121,389	9.68%	\$980	\$9,262	\$10,242
72	Feb-24	\$778,000	(\$662,226)	\$115,774	(\$3,377)	\$112,397	9.68%	\$907	\$9,262	\$10,169
73	Mar-24	\$778,000	(\$671,488)	\$106,512	(\$3,107)	\$103,405	9.68%	\$835	\$9,262	\$10,097
74	Apr-24	\$778,000	(\$680,750)	\$97,250	(\$2,836)	\$94,414	9.68%	\$762	\$9,262	\$10,024
75	May-24	\$778,000	(\$690,012)	\$87,988	(\$2,566)	\$85,422	9.68%	\$689	\$9,262	\$9,951
76	Jun-24	\$778,000	(\$699,274)	\$78,726	(\$2,296)	\$76,430	9.68%	\$617	\$9,262	\$9,879
77	Jul-24	\$778,000	(\$708,536)	\$69,464	(\$2,026)	\$67,438	9.68%	\$544	\$9,262	\$9,806
78	Aug-24	\$778,000	(\$717,798)	\$60,202	(\$1,756)	\$58,446	9.68%	\$472	\$9,262	\$9,734
79	Sep-24	\$778,000	(\$727,060)	\$50,940	(\$1,486)	\$49,454	9.68%	\$399	\$9,262	\$9,661
80	Oct-24	\$778,000	(\$736,321)	\$41,679	(\$1,216)	\$40,463	9.68%	\$327	\$9,262	\$9,589
81	Nov-24	\$778,000	(\$745,583)	\$32,417	(\$945)	\$31,472	9.68%	\$254	\$9,262	\$9,516
82	Dec-24	\$778,000	(\$754,845)	\$23,155	(\$675)	\$22,480	9.68%	\$181	\$9,262	\$9,443
83	Jan-25	\$778,000	(\$764,107)	\$13,893	(\$405)	\$13,488	9.68%	\$109	\$9,262	\$9,371
84	Feb-25	\$778,000	(\$773,369)	\$4,631	(\$135)	\$4,496	9.68%	\$36	\$9,262	\$9,298
85	Mar-25	\$778,000	(\$778,000)	\$0	\$0	\$0	9.68%	\$0	\$4,631	\$4,631

Column Notes:

- (a) Page 8, Line 8
- (b) Page 4 through Page 6, Column (b)
- (d) Page 4 through Page 6, Column (g)
- (f) Page 7, Line 5
- (h) Page 4 through Page 6, Column (a)

The Narragansett Electric Company
d/b/a National Grid
RE Growth Program
Calculation of Tax Depreciation on REG Billing System Upgrade Project

Line No.			Fiscal Year <u>2018</u> (a)	Fiscal Year <u>2019</u> (b)	Fiscal Year <u>2020</u> (c)	Fiscal Year <u>2021</u> (d)
<u>Bonus Depreciation</u>						
1	Plant Additions	Line 1	\$778,000			
2	Percent of Plant Eligible for Bonus Depreciation	Per Tax Department	<u>100.00%</u>			
3	Plant Eligible for Bonus Depreciation	Line 1 x Line 2	\$778,000			
4	Bonus Depreciation Rate (April 2015- December 2015)	1 * 75% * 50%	37.50%			
5	Bonus Depreciation Rate (January 2016 - March 2016)	1 * 25% * 40%	<u>10.00%</u>			
6	Total Bonus Depreciation Rate		<u>47.50%</u>			
7	Bonus Depreciation	Line 3 x Line 4	\$369,550			
<u>Remaining Tax Depreciation</u>						
8	Plant Additions	Line 1	\$778,000			
9	Less Bonus Depreciation	Line 5	<u>\$369,550</u>			
10	Remaining Plant Additions Subject to SL Tax Depreciation	Line 6 - Line 7	\$408,449	\$408,449	\$408,449	\$408,449
11	3-Year Straight Line Tax Depreciation Rates	Per Tax Department	1.39%	33.33%	33.33%	31.94%
12	Remaining Tax Depreciation	Line 8 x Line 9	\$5,673	\$136,150	\$136,150	\$130,477
13	Cost of Removal		\$0			
14	Annual Tax Depreciation	Sum of Lines 5, 10 and 11	<u>\$375,223</u>	<u>\$136,150</u>	<u>\$136,150</u>	<u>\$130,477</u>

The Narragansett Electric Company
d/b/a National Grid
RE Growth Program
Calculation of Accumulated Deferred Taxes on REG Billing System Upgrade Project

1	Book cost	\$778,000
2	Book Useful life (months)	84
3	Monthly Book Amortization	\$9,262
4	Tax Useful life (months)	36
5	Monthly Tax Amortization	\$11,346

		Monthly Book Amortization (a)	Accumulated Book Amortization (b)	Monthly Tax Amortization (c)	Accumulated Tax Amortization (d)	Cumulative Book/Tax Timer (e)=(d)-(b)	Effective Tax Rate (f)	Accumulated Deferred Taxes (g)=(e)x(f)
6	Mar-18	\$4,631	\$4,631	\$375,223	\$375,223	\$370,592	35.00%	\$10,809
7	Apr-18	\$9,262	\$13,893	\$11,346	\$386,569	\$372,676	35.00%	\$10,870
8	May-18	\$9,262	\$23,155	\$11,346	\$397,915	\$374,760	35.00%	\$10,930
9	Jun-18	\$9,262	\$32,417	\$11,346	\$409,260	\$376,844	35.00%	\$10,991
10	Jul-18	\$9,262	\$41,679	\$11,346	\$420,606	\$378,928	35.00%	\$11,052
11	Aug-18	\$9,262	\$50,940	\$11,346	\$431,952	\$381,012	35.00%	\$11,113
12	Sep-18	\$9,262	\$60,202	\$11,346	\$443,298	\$383,096	35.00%	\$11,174
13	Oct-18	\$9,262	\$69,464	\$11,346	\$454,644	\$385,179	35.00%	\$11,234
14	Nov-18	\$9,262	\$78,726	\$11,346	\$465,990	\$387,263	35.00%	\$11,295
15	Dec-18	\$9,262	\$87,988	\$11,346	\$477,335	\$389,347	35.00%	\$11,356
16	Jan-19	\$9,262	\$97,250	\$11,346	\$488,681	\$391,431	35.00%	\$11,417
17	Feb-19	\$9,262	\$106,512	\$11,346	\$500,027	\$393,515	35.00%	\$11,478
18	Mar-19	\$9,262	\$115,774	\$11,346	\$511,373	\$395,599	35.00%	\$11,538
19	Apr-19	\$9,262	\$125,036	\$11,346	\$522,719	\$397,683	35.00%	\$11,599
20	May-19	\$9,262	\$134,298	\$11,346	\$534,065	\$399,767	35.00%	\$11,660
21	Jun-19	\$9,262	\$143,560	\$11,346	\$545,410	\$401,851	35.00%	\$11,721
22	Jul-19	\$9,262	\$152,821	\$11,346	\$556,756	\$403,935	35.00%	\$11,781
23	Aug-19	\$9,262	\$162,083	\$11,346	\$568,102	\$406,019	35.00%	\$11,842
24	Sep-19	\$9,262	\$171,345	\$11,346	\$579,448	\$408,103	35.00%	\$11,903
25	Oct-19	\$9,262	\$180,607	\$11,346	\$590,794	\$410,187	35.00%	\$11,964
26	Nov-19	\$9,262	\$189,869	\$11,346	\$602,140	\$412,271	35.00%	\$12,025
27	Dec-19	\$9,262	\$199,131	\$11,346	\$613,485	\$414,354	35.00%	\$12,085
28	Jan-20	\$9,262	\$208,393	\$11,346	\$624,831	\$416,438	35.00%	\$12,146
29	Feb-20	\$9,262	\$217,655	\$11,346	\$636,177	\$418,522	35.00%	\$12,207
30	Mar-20	\$9,262	\$226,917	\$11,346	\$647,523	\$420,606	35.00%	\$12,268
31	Apr-20	\$9,262	\$236,179	\$11,346	\$658,869	\$422,690	35.00%	\$12,328
32	May-20	\$9,262	\$245,440	\$11,346	\$670,215	\$424,774	35.00%	\$12,389
33	Jun-20	\$9,262	\$254,702	\$11,346	\$681,560	\$426,858	35.00%	\$12,450
34	Jul-20	\$9,262	\$263,964	\$11,346	\$692,906	\$428,942	35.00%	\$12,511
35	Aug-20	\$9,262	\$273,226	\$11,346	\$704,252	\$431,026	35.00%	\$12,572
36	Sep-20	\$9,262	\$282,488	\$11,346	\$715,598	\$433,110	35.00%	\$12,632
37	Oct-20	\$9,262	\$291,750	\$11,346	\$726,944	\$435,194	35.00%	\$12,693
38	Nov-20	\$9,262	\$301,012	\$11,346	\$738,290	\$437,278	35.00%	\$12,754

The Narragansett Electric Company
d/b/a National Grid
RI Renewable Energy Growth Program
Calculation of Accumulated Tax Depreciation on REG Billing System Upgrade Project (cont.)

		Monthly Book Depreciation (a)	Accumulated Book Depreciation (b)	Monthly Tax Depreciation (c)	Accumulated Tax Depreciation (d)	Cumulative Book/Tax Timer (e)=(d)-(b)	Effective Tax Rate (f)	Accumulated Deferred Taxes (g)=(e)x(f)
39	Dec-20	\$9,262	\$310,274	\$11,346	\$749,635	\$439,362	35.00%	\$12,815
40	Jan-21	\$9,262	\$319,536	\$11,346	\$760,981	\$441,446	35.00%	\$12,875
41	Feb-21	\$9,262	\$328,798	\$11,346	\$772,327	\$443,529	35.00%	\$12,936
42	Mar-21	\$9,262	\$338,060	\$5,673	\$778,000	\$439,940	35.00%	\$12,832
43	Apr-21	\$9,262	\$347,321	\$0	\$778,000	\$430,679	35.00%	\$12,561
44	May-21	\$9,262	\$356,583	\$0	\$778,000	\$421,417	35.00%	\$12,291
45	Jun-21	\$9,262	\$365,845	\$0	\$778,000	\$412,155	35.00%	\$12,021
46	Jul-21	\$9,262	\$375,107	\$0	\$778,000	\$402,893	35.00%	\$11,751
47	Aug-21	\$9,262	\$384,369	\$0	\$778,000	\$393,631	35.00%	\$11,481
48	Sep-21	\$9,262	\$393,631	\$0	\$778,000	\$384,369	35.00%	\$11,211
49	Oct-21	\$9,262	\$402,893	\$0	\$778,000	\$375,107	35.00%	\$10,941
50	Nov-21	\$9,262	\$412,155	\$0	\$778,000	\$365,845	35.00%	\$10,670
51	Dec-21	\$9,262	\$421,417	\$0	\$778,000	\$356,583	35.00%	\$10,400
52	Jan-22	\$9,262	\$430,679	\$0	\$778,000	\$347,321	35.00%	\$10,130
53	Feb-22	\$9,262	\$439,940	\$0	\$778,000	\$338,060	35.00%	\$9,860
54	Mar-22	\$9,262	\$449,202	\$0	\$778,000	\$328,798	35.00%	\$9,590
55	Apr-22	\$9,262	\$458,464	\$0	\$778,000	\$319,536	35.00%	\$9,320
56	May-22	\$9,262	\$467,726	\$0	\$778,000	\$310,274	35.00%	\$9,050
57	Jun-22	\$9,262	\$476,988	\$0	\$778,000	\$301,012	35.00%	\$8,780
58	Jul-22	\$9,262	\$486,250	\$0	\$778,000	\$291,750	35.00%	\$8,509
59	Aug-22	\$9,262	\$495,512	\$0	\$778,000	\$282,488	35.00%	\$8,239
60	Sep-22	\$9,262	\$504,774	\$0	\$778,000	\$273,226	35.00%	\$7,969
61	Oct-22	\$9,262	\$514,036	\$0	\$778,000	\$263,964	35.00%	\$7,699
62	Nov-22	\$9,262	\$523,298	\$0	\$778,000	\$254,702	35.00%	\$7,429
63	Dec-22	\$9,262	\$532,560	\$0	\$778,000	\$245,440	35.00%	\$7,159
64	Jan-23	\$9,262	\$541,821	\$0	\$778,000	\$236,179	35.00%	\$6,889
65	Feb-23	\$9,262	\$551,083	\$0	\$778,000	\$226,917	35.00%	\$6,618
66	Mar-23	\$9,262	\$560,345	\$0	\$778,000	\$217,655	35.00%	\$6,348
67	Apr-23	\$9,262	\$569,607	\$0	\$778,000	\$208,393	35.00%	\$6,078
68	May-23	\$9,262	\$578,869	\$0	\$778,000	\$199,131	35.00%	\$5,808
69	Jun-23	\$9,262	\$588,131	\$0	\$778,000	\$189,869	35.00%	\$5,538
70	Jul-23	\$9,262	\$597,393	\$0	\$778,000	\$180,607	35.00%	\$5,268
71	Aug-23	\$9,262	\$606,655	\$0	\$778,000	\$171,345	35.00%	\$4,998
72	Aug-23	\$9,262	\$615,917	\$0	\$778,000	\$162,083	35.00%	\$4,727
73	Oct-23	\$9,262	\$625,179	\$0	\$778,000	\$152,821	35.00%	\$4,457
74	Oct-23	\$9,262	\$634,440	\$0	\$778,000	\$143,560	35.00%	\$4,187
75	Dec-23	\$9,262	\$643,702	\$0	\$778,000	\$134,298	35.00%	\$3,917
76	Jan-24	\$9,262	\$652,964	\$0	\$778,000	\$125,036	35.00%	\$3,647
77	Jan-24	\$9,262	\$662,226	\$0	\$778,000	\$115,774	35.00%	\$3,377
78	Mar-24	\$9,262	\$671,488	\$0	\$778,000	\$106,512	35.00%	\$3,107
79	Mar-24	\$9,262	\$680,750	\$0	\$778,000	\$97,250	35.00%	\$2,836
80	Apr-24	\$9,262	\$690,012	\$0	\$778,000	\$87,988	35.00%	\$2,566
81	May-24	\$9,262	\$699,274	\$0	\$778,000	\$78,726	35.00%	\$2,296
82	Jun-24	\$9,262	\$708,536	\$0	\$778,000	\$69,464	35.00%	\$2,026

The Narragansett Electric Company
d/b/a National Grid
RI Renewable Energy Growth Program
Calculation of Accumulated Tax Depreciation on REG Billing System Upgrade Project (cont.)

		Monthly Book Depreciation (a)	Accumulated Book Depreciation (b)	Monthly Tax Depreciation (c)	Accumulated Tax Depreciation (d)	Cumulative Book/Tax Timer (e)=(d)-(b)	Effective Tax Rate (f)	Accumulated Deferred Taxes (g)=(e)x(f)
83	Jul-24	\$9,262	\$717,798	\$0	\$778,000	\$60,202	35.00%	\$1,756
84	Aug-24	\$9,262	\$727,060	\$0	\$778,000	\$50,940	35.00%	\$1,486
85	Sep-24	\$9,262	\$736,321	\$0	\$778,000	\$41,679	35.00%	\$1,216
86	Oct-24	\$9,262	\$745,583	\$0	\$778,000	\$32,417	35.00%	\$945
87	Nov-24	\$9,262	\$754,845	\$0	\$778,000	\$23,155	35.00%	\$675
88	Dec-24	\$9,262	\$764,107	\$0	\$778,000	\$13,893	35.00%	\$405
89	Jan-25	\$9,262	\$773,369	\$0	\$778,000	\$4,631	35.00%	\$135
90	Mar-25	\$4,631	\$778,000	\$0	\$778,000	\$0	35.00%	\$0

Column Notes:

- (a) Equals Line 3; Line 6(a) and Line 90(a) = Line 3 x 50%
- (b) Prior month Col (b) + Current month Col (a)
- (c) Equals Line 5; Line 6(c) = (Bonus depreciation per Page 3, Line 5) + Line 5 x 50%; Line 42(c) = Line 5 x 50%
- (d) Prior month Col (d) + Current month Col (c)

Line Notes

- 1 Per Page 8, Line 8
- 3 Line 1 ÷ Line 2
- 5 (Line 1 - Page 2, Line 5) ÷ Line 4

The Narragansett Electric Company
d/b/a National Grid
RI Renewable Energy Growth Program
Budget Forecast for Billing System Capital Modifications (in \$000)

From IS Program Delivery

Monthly Forecast: Summary View

Table 1: Project Costs	2017										2018		Total
	--- Apr	Str-Up May	Req Jun	Dsign Jul	Dsign Aug	Dev Sep	Dev Oct	Dev Nov	Dev Dec	Dev Jan	Dev Feb	PP → Mar	
Personnel: NG	-	19	27	29	27	26	26	26	24	26	19	-	
OpEx	-	19	27	-	-	-	-	-	-	-	-	-	
CapEx	-	-	-	29	27	26	26	26	24	26	19	-	
SDC Personnel: Time & Mat.	-	20	30	53	63	76	72	81	63	55	31	-	
OpEx	-	20	30	-	-	-	-	-	-	-	-	-	
CapEx	-	-	-	53	63	76	72	81	63	55	31	-	
SDC Personnel: Fixed-Price	-	-	-	-	-	-	-	-	-	-	-	-	
OpEx	-	-	-	-	-	-	-	-	-	-	-	-	
CapEx	-	-	-	-	-	-	-	-	-	-	-	-	
Hardware	-	-	-	-	-	-	-	-	-	-	-	-	
OpEx	-	-	-	-	-	-	-	-	-	-	-	-	
CapEx	-	-	-	-	-	-	-	-	-	-	-	-	
Software	-	-	-	-	-	-	-	-	-	-	-	-	
OpEx	-	-	-	-	-	-	-	-	-	-	-	-	
CapEx	-	-	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	0	-	-	0	-	-	
OpEx	-	-	-	-	-	-	-	-	-	-	-	-	
CapEx	-	-	-	-	-	-	-	-	-	-	-	-	
Overhead / Shared	-	2	2	3	4	4	4	4	3	3	2	-	
OpEx	-	2	2	-	-	-	-	-	-	-	-	-	
CapEx	-	-	-	3	4	4	4	4	3	3	2	-	
AFUDC	-	-	-	-	0	1	2	3	4	5	5	-	
Subtotal (without Risk)	-	41	59	85	94	108	104	114	94	89	57	-	
OpEx	-	41	59	-	-	-	-	-	-	-	-	-	
CapEx	-	-	-	85	94	108	104	114	94	89	57	-	
Risk Margin	-	-	-	-	-	10	10	11	9	8	5	-	
OpEx	-	-	-	-	-	10	10	-	-	-	-	-	
CapEx	-	-	-	-	-	-	-	11	9	8	5	-	
TOTAL OpEx & CapEx	-	41	59	85	94	118	114	125	103	97	62	898	
OpEx	-	41	59	-	-	10	10	-	-	-	-	120	
CapEx	-	-	-	85	94	108	104	125	103	97	62	778	
Asset Lease Costs	-	-	-	-	-	-	-	-	-	-	-	-	
Total Investment	-	41	59	85	94	118	114	125	103	97	62	-	

The Narragansett Electric Company
d/b/a National Grid
RI Renewable Energy Growth Program
Weighted Average Cost of Capital on Billing System Capital Modifications

	Weight	Cost	Weighted Cost	Taxes	Pre-Tax Return
	(a)	(b)	(c)	(d)	(e)
1	Short Term Debt	0.76%	0.79%	0.01%	0.01%
2	Long Term Debt	49.95%	4.96%	2.48%	2.48%
3	Preferred Stock	0.15%	4.50%	0.01%	0.01%
4	Equity	49.14%	9.50%	4.67%	7.18%
5		100.00%		7.17%	2.51%
					9.68%

Per Compliance Filing in RIPUC Docket 4323, Compliance Attachment 1, Schedule MDL-3-ELEC, page 61

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. _____
RE Growth Factor Filing
Schedules of Adam S. Crary

Schedule ASC – 4B

Renewable Energy Growth Program
Meter Investment Revenue Requirement
Annual Revenue Requirement Summary FY 2016 to FY 2018

		Revenue Requirement for		
		Program Year	Program Year	Program Year
		Ending March	Ending March	Ending March
		<u>2016</u>	<u>2017</u>	<u>2018</u>
		(a)	(b)	(c)
(1)	FY 2016 Actual Capital Investment	\$400	\$1,029	\$961
(2)	FY 2017 Actual Capital Investment		\$2,634	\$15,476
(3)	Prior Period Reconciliation Amount			\$3,508
(4)	Forecasted Annual Revenue Requirement on FY 2018 Capital Investment			\$7,107
(5)	Total Meter Investment Revenue Requirement	<u>\$400</u>	<u>\$3,663</u>	<u>\$27,051</u>

Line Notes

- (1) (a) Page 2, Line (29), Column (a)
- (1) (b) Page 2, Line (29), Column (b)
- (1) (c) Page 2, Line (29), Column (c)
- (2) (b) RIPUC Docket 4626, Schedule NG-4B, page 2, Line (27), Column (a)
- (2) (c) Page 4, Line (29), Column (b)
- (3) (c) Page 3, Line (5), Column (a)
- (4) (c) Page 5, Line (31), Column (a)
- (5) Sum of Line (1) through Line (4)

Renewable Energy Growth Program
Meter Investment Revenue Requirement
FY 2018 Revenue Requirement on Investment During Program Year Ending March 2016

		Program Year Ending March <u>2016</u> (a)	Program Year Ending March <u>2017</u> (b)	Program Year Ending March <u>2018</u> (c)
(1)	Capital Additions	83 Meters * \$35/meter plus installation	\$6,189	
(2)	Total Net Plant in Service		\$6,189	\$6,189
	<u>Deferred Tax Calculation:</u>			
(3)	Book Depreciation Rate	Docket 4065, Workpaper NG-RLO-28, Page 8	5.16%	5.16%
(4)	Book Depreciation	Line (2) * Line (3) * 50%	\$160	\$319
(5)	Cumulative Book Depreciation		\$160	\$798
	<u>Tax Depreciation</u>			
(6)	Capital Additions	Line (2)	\$6,189	
(7)	Percentage of Plant Eligible for Bonus Depreciation		100%	
(8)	Bonus Depreciation Rate		50%	
(9)	Bonus Depreciation	Line (6) * Line (7) * Line (8)	\$3,094	
(10)	Remaining Plant Additions subject to MACRS Tax Depreciation	Line (6) - Line (9)	\$3,094	\$3,094
(11)	20 YR MACRS Tax Depreciation Rates		3.750%	7.219%
(12)	MACRS Tax Depreciation	Line (10) * Line (11)	\$116	\$447
(13)	Total Tax Depreciation	Line (9) + Line (12)	\$3,210	\$447
(14)	Cumulative Tax Depreciation		\$3,210	\$4,070
(15)	Cumulative Book / Tax Timer	Line (14) - Line (5)	\$3,050	\$3,178
(16)	Effective Tax Rate		35.00%	35.00%
(17)	Deferred Tax Reserve	Line (15) * Line (16)	\$1,068	\$1,112
(18)	Less: FY 2017 Federal NOL	All applied by ISR filing	\$0	\$0
(19)	Net Deferred Tax Reserve	Line (17) + Line (18)	\$1,068	\$1,112
	<u>Rate Base Calculation:</u>			
(20)	Cumulative Incremental Capital Included in Rate Base	Line (2)	\$6,189	\$6,189
(21)	Accumulated Depreciation	- Line (5)	(\$160)	(\$798)
(22)	Deferred Tax Reserve	- Line (19)	(\$1,068)	(\$1,112)
(23)	Year End Rate Base	Sum of Lines (20) through (22)	\$4,961	\$4,597
	<u>Revenue Requirement Calculation:</u>			
(24)	Average Rate Base	(Prior Year Line (23) + Current Year Line (23)) ÷2	\$2,480	\$4,779
(25)	Pre-Tax ROR	1/	9.68%	9.68%
(26)	Return and Taxes	Line (24) * Line (25)	\$240	\$463
(27)	Book Depreciation	Line (4)	\$160	\$319
(28)	Property Taxes	Prop Tax rate per FY17 & FY18 Elec ISR Plan	\$0	\$247
(29)	Annual Revenue Requirement	Sum of Lines (26) through (28)	\$400	\$1,029

1/ Weighted Average Cost of Capital per Settlement Agreement R.I.P.U.C. Docket No. 4323

	Ratio	Rate	Rate	Taxes	Return
Long Term Debt	49.95%	4.96%	2.48%		2.48%
Short Term Debt	0.76%	0.79%	0.01%		0.01%
Preferred Stock	0.15%	4.50%	0.01%		0.01%
Common Equity	49.14%	9.50%	4.67%	2.51%	7.18%
	<u>100.00%</u>		<u>7.17%</u>	<u>2.51%</u>	<u>9.68%</u>

Renewable Energy Growth Program
Meter Investment Revenue Requirement
Reconciliation of Revenue Requirement for Program Year Ending March 2017

<u>Line</u> <u>No.</u>	FY 2017 Actuals (a)
(1) FY 2017 Revenue Requirement on FY 2017 Actual Capital Investment	\$6,142
(2) FY 2017 Revenue Requirement on FY 2016 Actual Capital Investment	\$1,029
(3) Total FY 2017 Capital Component of Revenue Requirement	<u>\$7,171</u>
(4) FY 2017 Plan Revenue Requirement as filed on Jun 30, 2016	\$3,663
(5) Increase (Decrease) in FY 2017 Revenue Requirement Reconciliation	<u><u>\$3,508</u></u>

Line Notes

- (1) Page 4, Line (29), Column (a)
- (2) Page 2, Line (29), Column (b)
- (3) Line (1) plus Line (2)
- (4) RIPUC Docket 4626, Schedule NG-2, page 1, Line (5)
- (5) Line (3) minus Line (4)

Renewable Energy Growth Program
Meter Investment Revenue Requirement
FY 2018 Revenue Requirement on FY 2017 Actual Incremental Capital Investment

		Program Year Ending March <u>2017</u> (a)	Program Year Ending March <u>2018</u> (b)
(1)	Capital Additions	874 Meters * \$35/meter plus installation	\$95,064
(2)	Total Net Plant in Service	\$95,064	\$95,064
<u>Deferred Tax Calculation:</u>			
(3)	Book Depreciation Rate	Docket 4065, Workpaper NG-RLO-28, Page 8	5.16%
(4)	Book Depreciation	Line (2) * Line (3) * 50%	\$2,453
(5)	Cumulative Book Depreciation		\$2,453
<u>Tax Depreciation</u>			
(6)	Capital Additions	Line (2)	\$95,064
(7)	Percentage of Plant Eligible for Bonus Depreciation		100%
(8)	Bonus Depreciation Rate		50%
(9)	Bonus Depreciation	Line (6) * Line (7) * Line (8)	\$47,532
(10)	Remaining Plant Additions subject to MACRS Tax Depreciation	Line (6) - Line (9)	\$47,532
(11)	20 YR MACRS Tax Depreciation Rates		3.750%
(12)	MACRS Tax Depreciation	Line (10) * Line (11)	\$1,782
(13)	Total Tax Depreciation	Line (9) + Line (12)	\$49,315
(14)	Cumulative Tax Depreciation		\$49,315
(15)	Cumulative Book / Tax Timer	Line (14) - Line (5)	\$46,862
(16)	Effective Tax Rate		35.00%
(17)	Deferred Tax Reserve	Line (15) * Line (16)	\$16,402
(18)	Less: FY 2017 Federal NOL	All applied by ISR filing	\$0
(19)	Net Deferred Tax Reserve	Line (17) + Line (18)	\$16,402
<u>Rate Base Calculation:</u>			
(20)	Cumulative Incremental Capital Included in Rate Base	Line (2)	\$95,064
(21)	Accumulated Depreciation	- Line (5)	(\$2,453)
(22)	Deferred Tax Reserve	- Line (19)	(\$16,402)
(23)	Year End Rate Base	Sum of Lines (20) through (22)	\$76,210
<u>Revenue Requirement Calculation:</u>			
(24)	Average Rate Base	(Prior Year Line (23) + Current Year Line (23)) ÷2	\$38,105
(25)	Pre-Tax ROR		9.68%
(26)	Return and Taxes	Line (24) * Line (25)	\$3,689
(27)	Book Depreciation	Line (4)	\$2,453
(28)	Property Taxes	Prop Tax rate per FY17 & FY18 Elec ISR Plan	\$0
(29)	Annual Revenue Requirement	Sum of Lines (26) through (28)	\$6,142

1/ Weighted Average Cost of Capital per Settlement Agreement R.I.P.U.C. Docket No. 4323

	Ratio	Rate	Rate	Taxes	Return
Long Term Debt	49.95%	4.96%	2.48%		2.48%
Short Term Debt	0.76%	0.79%	0.01%		0.01%
Preferred Stock	0.15%	4.50%	0.01%		0.01%
Common Equity	49.14%	9.50%	4.67%	2.51%	7.18%
	<u>100.00%</u>		<u>7.17%</u>	<u>2.51%</u>	<u>9.68%</u>

Renewable Energy Growth Program
Meter Investment Revenue Requirement
FY 2018 Revenue Requirement on FY 2018 Projected Incremental Capital Investment

		Program Year Ending March <u>2018</u> (a)
(1)	Capital Additions	1005 Meters * \$35/meter plus installation \$109,324
(2)	Total Net Plant in Service	\$109,324
<u>Deferred Tax Calculation:</u>		
(3)	Book Depreciation Rate	Docket 4065, Workpaper NG-RLO-28, Page 8 5.16%
(4)	Book Depreciation	Line (2) * Line (3) * 50% \$2,821
(5)	Cumulative Book Depreciation	<u>\$2,821</u>
<u>Tax Depreciation</u>		
(6)	Capital Additions	Line (2) \$109,324
(7)	Percentage of Plant Eligible for Bonus Depreciation	100%
(8)	Bonus Depreciation Rate (April 2015- December 2015)	1 * 75% * 50% 37.50%
(9)	Bonus Depreciation Rate (January 2016 - March 2016)	1 * 25% * 40% 10.00%
(10)	Total Bonus Depreciation Rate	Line (8) + Line (9) 48%
(11)	Bonus Depreciation	Line (6) * Line (7) * Line (10) \$51,929
(12)	Remaining Plant Additions subject to MACRS Tax Depreciation	Line (6) - Line (11) \$57,395
(13)	20 YR MACRS Tax Depreciation Rates	3.750%
(14)	MACRS Tax Depreciation	Line (12) * Line (13) \$2,152
(15)	Total Tax Depreciation	Line (11) + Line (14) \$54,081
(16)	Cumulative Tax Depreciation	<u>\$54,081</u>
(17)	Cumulative Book / Tax Timer	Line (16) - Line (5) \$51,260
(18)	Effective Tax Rate	35.00%
(19)	Deferred Tax Reserve	Line (17) * Line (18) \$17,941
(20)	Less: FY 2017 Federal NOL	All applied by ISR filing \$0
(21)	Net Deferred Tax Reserve	Line (19) + Line (20) <u>\$17,941</u>
<u>Rate Base Calculation:</u>		
(22)	Cumulative Incremental Capital Included in Rate Base	Line (2) \$109,324
(23)	Accumulated Depreciation	- Line (5) (\$2,821)
(24)	Deferred Tax Reserve	- Line (21) (\$17,941)
(25)	Year End Rate Base	Sum of Lines (22) through (24) <u>\$88,562</u>
<u>Revenue Requirement Calculation:</u>		
(26)	Average Rate Base	(Prior Year Line (25) + Current Year Line (25)) ÷ 2 \$44,281
(27)	Pre-Tax ROR	1/ 9.68%
(28)	Return and Taxes	Line (26) * Line (27) \$4,286
(29)	Book Depreciation	Line (4) \$2,821
(30)	Property Taxes	From Year 2, based on Prop Tax Rate for RI Elec ISR \$0
(31)	Annual Revenue Requirement	Sum of Lines (26) through (28) \$7,107

1/ Weighted Average Cost of Capital per Settlement Agreement R.I.P.U.C. Docket No. 4323

	Ratio	Rate	Rate	Taxes	Return
Long Term Debt	49.95%	4.96%	2.48%		2.48%
Short Term Debt	0.76%	0.79%	0.01%		0.01%
Preferred Stock	0.15%	4.50%	0.01%		0.01%
Common Equity	49.14%	9.50%	4.67%	2.51%	7.18%
	<u>100.00%</u>		<u>7.17%</u>	<u>2.51%</u>	<u>9.68%</u>

The Narragansett Electric Company
Summary of Capitalized Meter Costs
Program Years 1 and 2

	Program Year 1 Ending March Actual 2016 (a)	Program Year 2 Ending March Projected 2017 (b)	Program Year 2 Ending March Actual 2017 (c)	Program Year 3 Ending March Projected 2018 (d)
<u>Meter costs:</u>				
	83	547	874	1,005
(1) Number of Meters				
(1) Meters	\$2,905	\$19,145	\$30,590	\$35,179
(2) Sales tax	\$203	\$1,340	\$2,141	\$2,462
(3) Subtotal	\$3,108	\$20,485	\$32,731	\$37,641
<u>Installation costs:</u>				
(4) Labor	\$1,782	\$11,743	\$37,307	\$42,904
(5) Overheads	\$851	\$5,609	\$19,072	\$21,933
(6) Transportation	\$447	\$2,948	\$5,953	\$6,846
(7) AFUDC	\$0	\$0	\$0	\$0
(8) Subtotal	\$3,080	\$20,300	\$62,333	\$71,683
(9) Total Capital Costs	\$6,189	\$40,785	\$95,064	\$109,324

Line Notes

- (1) Per Company Books
- (2) Line (1) times 7%
- (3) Line (1) plus Line (2)
- (4) ~ (7) Per Company Books
- (8) Sum of Line (4) through Line (7)
- (9) Line (3) plus Line (8)

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. _____
RE Growth Factor Filing
Schedules of Adam S. Crary

Schedule ASC - 5

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

Monthly kWh	Approved Rates as of July 1, 2017				Proposed Rates				Increase (Decrease)				Percentage of Customers				
	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total	% of Total Bill								
									Delivery	SOS	GET	Total		Delivery	SOS	GET	Total
150	\$20.03	\$9.34	\$1.22	\$30.59	\$20.59	\$9.34	\$1.25	\$31.18	\$0.56	\$0.00	\$0.03	\$0.59	1.8%	0.0%	0.1%	1.9%	13.7%
300	\$34.04	\$18.68	\$2.20	\$54.92	\$34.60	\$18.68	\$2.22	\$55.50	\$0.56	\$0.00	\$0.02	\$0.58	1.0%	0.0%	0.0%	1.1%	17.5%
400	\$43.37	\$24.91	\$2.85	\$71.13	\$43.93	\$24.91	\$2.87	\$71.71	\$0.56	\$0.00	\$0.02	\$0.58	0.8%	0.0%	0.0%	0.8%	11.8%
500	\$52.71	\$31.14	\$3.49	\$87.34	\$53.27	\$31.14	\$3.52	\$87.93	\$0.56	\$0.00	\$0.03	\$0.59	0.6%	0.0%	0.0%	0.7%	10.8%
600	\$62.04	\$37.37	\$4.14	\$103.55	\$62.60	\$37.37	\$4.17	\$104.14	\$0.56	\$0.00	\$0.03	\$0.59	0.5%	0.0%	0.0%	0.6%	9.4%
700	\$71.38	\$43.60	\$4.79	\$119.77	\$71.94	\$43.60	\$4.81	\$120.35	\$0.56	\$0.00	\$0.02	\$0.58	0.5%	0.0%	0.0%	0.5%	7.7%
1,200	\$118.05	\$74.74	\$8.03	\$200.82	\$118.61	\$74.74	\$8.06	\$201.41	\$0.56	\$0.00	\$0.03	\$0.59	0.3%	0.0%	0.0%	0.3%	15.0%
2,000	\$192.73	\$124.56	\$13.22	\$330.51	\$193.29	\$124.56	\$13.24	\$331.09	\$0.56	\$0.00	\$0.02	\$0.58	0.2%	0.0%	0.0%	0.2%	14.1%

Approved Rates as of July 1, 2017 Proposed Rates

Customer Charge	\$5.00	\$5.00
RE Growth Factor	\$0.22	\$0.78
LJHEAP Charge	\$0.81	\$0.81
Transmission Energy Charge	kWh x \$0.03179	\$0.03179
Distribution Energy Charge	kWh x \$0.04268	\$0.04268
Transition Energy Charge	kWh x \$0.00057	\$0.00057
Energy Efficiency Program Charge	kWh x \$0.01154	\$0.01154
Renewable Energy Distribution Charge	kWh x \$0.00677	\$0.00677
Gross Earnings Tax	4%	4%
Standard Offer Charge	kWh x \$0.06228	\$0.06228

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

Hours Use: 200

Monthly Power kW	Approved Rates as of July 1, 2017				Proposed Rates				Increase (Decrease)			
	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
20	\$430.66	\$246.24	\$28.20	\$705.10	\$439.14	\$246.24	\$28.56	\$713.94	\$8.48	\$0.00	\$0.36	\$8.84
50	\$950.68	\$615.60	\$65.26	\$1,631.54	\$959.16	\$615.60	\$65.62	\$1,640.38	\$8.48	\$0.00	\$0.36	\$8.84
100	\$1,817.38	\$1,231.20	\$127.02	\$3,175.60	\$1,825.86	\$1,231.20	\$127.38	\$3,184.44	\$8.48	\$0.00	\$0.36	\$8.84
150	\$2,684.08	\$1,846.80	\$188.79	\$4,719.67	\$2,692.56	\$1,846.80	\$189.14	\$4,728.50	\$8.48	\$0.00	\$0.35	\$8.83

Approved Rates as of July 1, 2017

Proposed Rates

Customer Charge		\$135.00		\$135.00
RE Growth Factor		\$3.37		\$11.85
LIHEAP Charge		\$0.81		\$0.81
Transmission Demand Charge	kW x	\$4.37		\$4.37
Distribution Energy Charge	kWh x	\$0.01096		\$0.01096
Distribution Demand Charge-xcs 10 kW	kW x	\$5.52		\$5.52
Transition Energy Charge	kWh x	\$0.00738		\$0.00738
Energy Efficiency Program Charge	kWh x	\$0.00057		\$0.00057
Renewable Energy Distribution Charge	kWh x	\$0.01154		\$0.01154
		\$0.00677		\$0.00677
Gross Earnings Tax		4%		4%
Standard Offer Charge	kWh x	\$0.06156		\$0.06156

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

Hours Use: 300

Monthly Power kW	Approved Rates as of July 1, 2017				Proposed Rates				Increase (Decrease)			
	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
20	\$505.10	\$369.36	\$36.44	\$910.90	\$513.58	\$369.36	\$36.79	\$919.73	\$8.48	\$0.00	\$0.35	\$8.83
50	\$1,136.78	\$923.40	\$85.84	\$2,146.02	\$1,145.26	\$923.40	\$86.19	\$2,154.85	\$8.48	\$0.00	\$0.35	\$8.83
100	\$2,189.58	\$1,846.80	\$168.18	\$4,204.56	\$2,198.06	\$1,846.80	\$168.54	\$4,213.40	\$8.48	\$0.00	\$0.36	\$8.84
150	\$3,242.38	\$2,770.20	\$250.52	\$6,263.10	\$3,250.86	\$2,770.20	\$250.88	\$6,271.94	\$8.48	\$0.00	\$0.36	\$8.84

Approved Rates as of July 1, 2017

Proposed Rates

Customer Charge		\$135.00		\$135.00
RE Growth Factor		\$3.37		\$11.85
LIHEAP Charge		\$0.81		\$0.81
Transmission Demand Charge	kW x	\$4.37		\$4.37
Transmission Energy Charge	kWh x	\$0.01096		\$0.01096
Distribution Demand Charge-xcs 10 kW	kW x	\$5.52		\$5.52
Distribution Energy Charge	kWh x	\$0.00738		\$0.00738
Transition Energy Charge	kWh x	\$0.00057		\$0.00057
Energy Efficiency Program Charge	kWh x	\$0.01154		\$0.01154
Renewable Energy Distribution Charge	kWh x	\$0.00677		\$0.00677
Gross Earnings Tax		4%		4%
Standard Offer Charge	kWh x	\$0.06156		\$0.06156

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

Hours Use: 400

Monthly Power kW	Approved Rates as of July 1, 2017				Proposed Rates				Increase (Decrease)			
	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
20	\$579.54	\$492.48	\$44.67	\$1,116.69	\$588.02	\$492.48	\$45.02	\$1,125.52	\$8.48	\$0.00	\$0.35	\$8.83
50	\$1,322.88	\$1,231.20	\$106.42	\$2,660.50	\$1,331.36	\$1,231.20	\$106.77	\$2,669.33	\$8.48	\$0.00	\$0.35	\$8.83
100	\$2,561.78	\$2,462.40	\$209.34	\$5,233.52	\$2,570.26	\$2,462.40	\$209.69	\$5,242.35	\$8.48	\$0.00	\$0.35	\$8.83
150	\$3,800.68	\$3,693.60	\$312.26	\$7,806.54	\$3,809.16	\$3,693.60	\$312.62	\$7,815.38	\$8.48	\$0.00	\$0.36	\$8.84

Approved Rates as of July 1, 2017

Proposed Rates

Customer Charge		\$135.00		\$135.00
RE Growth Factor		\$3.37		\$11.85
LIHEAP Charge		\$0.81		\$0.81
Transmission Demand Charge	kW x	\$4.37		\$4.37
Transmission Energy Charge	kWh x	\$0.01096		\$0.01096
Distribution Demand Charge-xcs 10 kW	kW x	\$5.52		\$5.52
Distribution Energy Charge	kWh x	\$0.00738		\$0.00738
Transition Energy Charge	kWh x	\$0.00057		\$0.00057
Energy Efficiency Program Charge	kWh x	\$0.01154		\$0.01154
Renewable Energy Distribution Charge	kWh x	\$0.00677		\$0.00677
Gross Earnings Tax		4%		4%
Standard Offer Charge	kWh x	\$0.06156		\$0.06156

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

Hours Use: 500

Monthly Power kW	Approved Rates as of July 1, 2017					Proposed Rates					Increase (Decrease)							
	Delivery	SOS	GET	Total	Total	Delivery	SOS	GET	Total	Total	\$			% of Total Bill				
											Delivery	SOS	GET	Delivery	SOS	GET	Delivery	SOS
20	\$653.98	\$615.60	\$52.90	\$1,322.48	\$1,331.31	\$662.46	\$615.60	\$53.25	\$1,331.31	\$8.48	\$0.00	\$0.35	\$8.83	\$0.00	\$0.00	0.0%	0.0%	0.7%
50	\$1,508.98	\$1,539.00	\$127.00	\$3,174.98	\$3,183.81	\$1,517.46	\$1,539.00	\$127.35	\$3,183.81	\$8.48	\$0.00	\$0.35	\$8.83	\$0.00	\$0.00	0.0%	0.0%	0.3%
100	\$2,933.98	\$3,078.00	\$250.50	\$6,262.48	\$6,271.31	\$2,942.46	\$3,078.00	\$250.85	\$6,271.31	\$8.48	\$0.00	\$0.35	\$8.83	\$0.00	\$0.00	0.0%	0.0%	0.1%
150	\$4,358.98	\$4,617.00	\$374.00	\$9,349.98	\$9,358.81	\$4,367.46	\$4,617.00	\$374.35	\$9,358.81	\$8.48	\$0.00	\$0.35	\$8.83	\$0.00	\$0.00	0.0%	0.0%	0.1%

Approved Rates as of July 1, 2017

	Approved Rates as of July 1, 2017	Proposed Rates
Customer Charge	\$135.00	\$135.00
RE Growth Factor	\$3.37	\$11.85
LIHEAP Charge	\$0.81	\$0.81
Transmission Demand Charge	\$4.37	\$4.37
Transmission Energy Charge	KW x \$0.01096	\$0.01096
Distribution Demand Charge-xcs 10 kW	KW x \$5.52	\$5.52
Distribution Energy Charge	KW/h x \$0.00738	\$0.00738
Transition Energy Charge	KW/h x \$0.00057	\$0.00057
Energy Efficiency Program Charge	KW/h x \$0.01154	\$0.01154
Renewable Energy Distribution Charge	KW/h x \$0.00677	\$0.00677
Gross Earnings Tax	4%	4%
Standard Offer Charge	KW/h x \$0.06156	\$0.06156

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

Hours Use: 600

Monthly Power kW	Approved Rates as of July 1, 2017				Proposed Rates				Increase (Decrease)			
	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
20	\$728.42	\$738.72	\$61.13	\$1,528.27	\$736.90	\$738.72	\$61.48	\$1,537.10	\$8.48	\$0.00	\$0.35	\$8.83
50	\$1,695.08	\$1,846.80	\$147.58	\$3,689.46	\$1,703.56	\$1,846.80	\$147.93	\$3,698.29	\$8.48	\$0.00	\$0.35	\$8.83
100	\$3,306.18	\$3,693.60	\$291.66	\$7,291.44	\$3,314.66	\$3,693.60	\$292.01	\$7,300.27	\$8.48	\$0.00	\$0.35	\$8.83
150	\$4,917.28	\$5,540.40	\$435.74	\$10,893.42	\$4,925.76	\$5,540.40	\$436.09	\$10,902.25	\$8.48	\$0.00	\$0.35	\$8.83

Approved Rates as of July 1, 2017

Proposed Rates

Customer Charge		\$135.00		\$135.00
RE Growth Factor		\$3.37		\$3.37
LIHEAP Charge		\$0.81		\$0.81
Transmission Demand Charge	kW x	\$4.37		\$4.37
Transmission Energy Charge	kWh x	\$0.01096		\$0.01096
Distribution Demand Charge-xcs 10 kW	kW x	\$5.52		\$5.52
Distribution Energy Charge	kWh x	\$0.00738		\$0.00738
Transition Energy Charge	kWh x	\$0.00057		\$0.00057
Energy Efficiency Program Charge	kWh x	\$0.01154		\$0.01154
Renewable Energy Distribution Charge	kWh x	\$0.00677		\$0.00677
Gross Earnings Tax		4%		4%
Standard Offer Charge	kWh x	\$0.06156		\$0.06156

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

Hours Use: 200

Monthly Power kW	Approved Rates as of July 1, 2017				Proposed Rates				Increase (Decrease)			
	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
200	\$3,302.30	\$2,205.60	\$229.50	\$5,737.40	\$3,364.67	\$2,205.60	\$232.09	\$5,802.36	\$62.37	\$0.00	\$2.59	\$64.96
750	\$12,470.80	\$8,271.00	\$864.24	\$21,606.04	\$12,533.17	\$8,271.00	\$866.84	\$21,671.01	\$62.37	\$0.00	\$2.60	\$64.97
1,000	\$16,638.30	\$11,028.00	\$1,152.76	\$28,819.06	\$16,700.67	\$11,028.00	\$1,155.36	\$28,884.03	\$62.37	\$0.00	\$2.60	\$64.97
1,500	\$24,973.30	\$16,542.00	\$1,729.80	\$43,245.10	\$25,035.67	\$16,542.00	\$1,732.40	\$43,310.07	\$62.37	\$0.00	\$2.60	\$64.97
2,500	\$41,643.30	\$27,570.00	\$2,883.89	\$72,097.19	\$41,705.67	\$27,570.00	\$2,886.49	\$72,162.16	\$62.37	\$0.00	\$2.60	\$64.97

	Approved Rates as of July 1, 2017	Proposed Rates
Customer Charge	\$825.00	\$825.00
RE Growth Factor	\$24.49	\$86.86
LJHEAP Charge	\$0.81	\$0.81
Transmission Demand Charge	kWh x \$4.69	\$4.69
Transmission Energy Charge	kWh x \$0.01123	\$0.01123
Distribution Demand Charge-xcs 10 kW	kWh x \$4.41	\$4.41
Distribution Energy Charge	kWh x \$0.00774	\$0.00774
Transition Energy Charge	kWh x \$0.00057	\$0.00057
Energy Efficiency Program Charge	kWh x \$0.01154	\$0.01154
Renewable Energy Distribution Charge	kWh x \$0.00677	\$0.00677
Gross Earnings Tax	4%	4%
Standard Offer Charge	kWh x \$0.05514	\$0.05514

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

Hours Use: 300

Monthly Power kW	Approved Rates as of July 1, 2017					Proposed Rates					Increase (Decrease)				
	Delivery	SOS	GET	Total		Delivery	SOS	GET	Total		Delivery	SOS	GET	Total	
	\$	\$	\$	\$		\$	\$	\$	\$		\$	\$	\$	\$	
200	\$4,059.30	\$3,308.40	\$306.99	\$7,674.69		\$4,121.67	\$3,308.40	\$309.59	\$7,739.66		\$62.37	\$0.00	\$2.60	\$64.97	0.8%
750	\$15,309.55	\$12,406.50	\$1,154.84	\$28,870.89		\$15,371.92	\$12,406.50	\$1,157.43	\$28,935.85		\$62.37	\$0.00	\$2.59	\$64.96	0.2%
1,000	\$20,423.30	\$16,542.00	\$1,540.22	\$38,505.52		\$20,485.67	\$16,542.00	\$1,542.82	\$38,570.49		\$62.37	\$0.00	\$2.60	\$64.97	0.2%
1,500	\$30,650.80	\$24,813.00	\$2,310.99	\$57,774.79		\$30,713.17	\$24,813.00	\$2,313.59	\$57,839.76		\$62.37	\$0.00	\$2.60	\$64.97	0.1%
2,500	\$51,105.80	\$41,355.00	\$3,852.53	\$96,313.33		\$51,168.17	\$41,355.00	\$3,855.13	\$96,378.30		\$62.37	\$0.00	\$2.60	\$64.97	0.1%

Approved Rates as of July 1, 2017

	Approved Rates as of July 1, 2017	Proposed Rates
Customer Charge	\$825.00	\$825.00
RE Growth Factor	\$24.49	\$86.86
LIHEAP Charge	\$0.81	\$0.81
Transmission Demand Charge	\$4.69	\$4.69
Transmission Energy Charge	kWh x	\$0.01123
Distribution Demand Charge-xcs 10 kW	kWh x	\$4.41
Distribution Energy Charge	kWh x	\$0.00774
Transition Energy Charge	kWh x	\$0.00057
Energy Efficiency Program Charge	kWh x	\$0.01154
Renewable Energy Distribution Charge	kWh x	\$0.00677
Gross Earnings Tax	4%	4%
Standard Offer Charge	kWh x	\$0.05514

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

Hours Use: 400

Monthly Power kW	Approved Rates as of July 1, 2017					Proposed Rates					Increase (Decrease)								
	Delivery	SOS	GET	Total	Total	Delivery	SOS	GET	Total	Total	Delivery	SOS	GET	Total	Delivery	SOS	GET	Total	
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
200	\$4,816.30	\$4,411.20	\$384.48	\$9,611.98	\$9,676.95	\$4,878.67	\$4,411.20	\$387.08	\$9,676.95	\$9,676.95	\$62.37	\$0.00	\$2.60	\$64.97	\$62.37	\$0.00	\$2.60	\$64.97	\$64.97
750	\$18,148.30	\$16,542.00	\$1,445.43	\$36,135.73	\$36,200.70	\$18,210.67	\$16,542.00	\$1,448.03	\$36,200.70	\$36,200.70	\$62.37	\$0.00	\$2.60	\$64.97	\$62.37	\$0.00	\$2.60	\$64.97	\$64.97
1,000	\$24,208.30	\$22,056.00	\$1,927.68	\$48,191.98	\$48,256.95	\$24,270.67	\$22,056.00	\$1,930.28	\$48,256.95	\$48,256.95	\$62.37	\$0.00	\$2.60	\$64.97	\$62.37	\$0.00	\$2.60	\$64.97	\$64.97
1,500	\$36,328.30	\$33,084.00	\$2,892.18	\$72,304.48	\$72,369.45	\$36,390.67	\$33,084.00	\$2,894.78	\$72,369.45	\$72,369.45	\$62.37	\$0.00	\$2.60	\$64.97	\$62.37	\$0.00	\$2.60	\$64.97	\$64.97
2,500	\$60,568.30	\$55,140.00	\$4,821.18	\$120,529.48	\$120,594.45	\$60,630.67	\$55,140.00	\$4,823.78	\$120,594.45	\$120,594.45	\$62.37	\$0.00	\$2.60	\$64.97	\$62.37	\$0.00	\$2.60	\$64.97	\$64.97

Approved Rates as of July 1, 2017

Customer Charge	\$825.00	
RE Growth Factor	\$24.49	
LIHEAP Charge	\$0.81	
Transmission Demand Charge	\$4.69	kW x
Transmission Energy Charge	\$0.01123	kWh x
Distribution Demand Charge	\$4.41	kW x
Distribution Energy Charge	\$0.00774	kWh x
Transition Energy Charge	\$0.00057	kWh x
Energy Efficiency Program Charge	\$0.01154	kWh x
Renewable Energy Distribution Charge	\$0.00677	kWh x
Gross Earnings Tax	4%	
Standard Offer Charge	\$0.05514	kWh x

Proposed Rates

Customer Charge	\$825.00	
RE Growth Factor	\$86.86	
LIHEAP Charge	\$0.81	
Transmission Demand Charge	\$4.69	kW x
Transmission Energy Charge	\$0.01123	kWh x
Distribution Demand Charge	\$4.41	kW x
Distribution Energy Charge	\$0.00774	kWh x
Transition Energy Charge	\$0.00057	kWh x
Energy Efficiency Program Charge	\$0.01154	kWh x
Renewable Energy Distribution Charge	\$0.00677	kWh x
Gross Earnings Tax	4%	
Standard Offer Charge	\$0.05514	kWh x

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

Hours Use: 500

Monthly Power kW	Approved Rates as of July 1, 2017					Proposed Rates					Increase (Decrease)				
	Delivery	SOS	GET	Total		Delivery	SOS	GET	Total		Delivery	SOS	GET	Total	
	\$	\$	\$	\$		\$	\$	\$	\$		\$	\$	\$	\$	
200	\$5,573.30	\$5,514.00	\$461.97	\$11,549.27		\$5,635.67	\$5,514.00	\$464.57	\$11,614.24		\$62.37	\$0.00	\$2.60	\$64.97	0.6%
750	\$20,987.05	\$20,677.50	\$1,736.02	\$43,400.57		\$21,049.42	\$20,677.50	\$1,738.62	\$43,465.54		\$62.37	\$0.00	\$2.60	\$64.97	0.1%
1,000	\$27,993.30	\$27,570.00	\$2,315.14	\$57,878.44		\$28,055.67	\$27,570.00	\$2,317.74	\$57,943.41		\$62.37	\$0.00	\$2.60	\$64.97	0.1%
1,500	\$42,005.80	\$41,355.00	\$3,473.37	\$86,834.17		\$42,068.17	\$41,355.00	\$3,475.97	\$86,899.14		\$62.37	\$0.00	\$2.60	\$64.97	0.1%
2,500	\$70,030.80	\$68,925.00	\$5,789.83	\$144,745.63		\$70,093.17	\$68,925.00	\$5,792.42	\$144,810.59		\$62.37	\$0.00	\$2.59	\$64.96	0.0%

Approved Rates as of July 1, 2017

	Approved Rates as of July 1, 2017	Proposed Rates
Customer Charge	\$825.00	\$825.00
RE Growth Factor	\$24.49	\$86.86
LIHEAP Charge	\$0.81	\$0.81
Transmission Demand Charge	\$4.69	\$4.69
Transmission Energy Charge	\$0.01123	\$0.01123
Distribution Demand Charge-xcs 10 kW	\$4.41	\$4.41
Distribution Energy Charge	\$0.00774	\$0.00774
Transition Energy Charge	\$0.00057	\$0.00057
Energy Efficiency Program Charge	\$0.01154	\$0.01154
Renewable Energy Distribution Charge	\$0.00677	\$0.00677
Gross Earnings Tax	4%	4%
Standard Offer Charge	\$0.05514	\$0.05514

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

Hours Use: 600

Monthly Power kW	Approved Rates as of July 1, 2017					Proposed Rates					Increase (Decrease)				
	Delivery	SOS	GET	GET	Total	Delivery	SOS	GET	GET	Total	Delivery	SOS	GET	GET	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
200	\$6,330.30	\$6,616.80	\$539.46	\$542.06	\$13,486.56	\$6,392.67	\$6,616.80	\$542.06	\$542.06	\$13,551.53	\$62.37	\$0.00	\$2.60	\$2.60	\$64.97
750	\$23,825.80	\$24,813.00	\$2,026.62	\$2,029.22	\$50,665.42	\$23,888.17	\$24,813.00	\$2,029.22	\$2,029.22	\$50,730.39	\$62.37	\$0.00	\$2.60	\$2.60	\$64.97
1,000	\$31,778.30	\$33,084.00	\$2,702.60	\$2,705.19	\$67,564.90	\$31,840.67	\$33,084.00	\$2,705.19	\$2,705.19	\$67,629.86	\$62.37	\$0.00	\$2.59	\$2.59	\$64.96
1,500	\$47,683.30	\$49,626.00	\$4,054.55	\$4,057.15	\$101,363.85	\$47,745.67	\$49,626.00	\$4,057.15	\$4,057.15	\$101,428.82	\$62.37	\$0.00	\$2.60	\$2.60	\$64.97
2,500	\$79,493.30	\$82,710.00	\$6,758.47	\$6,761.07	\$168,961.77	\$79,555.67	\$82,710.00	\$6,761.07	\$6,761.07	\$169,026.74	\$62.37	\$0.00	\$2.60	\$2.60	\$64.97

Approved Rates as of July 1, 2017

	Approved Rates as of July 1, 2017	Proposed Rates
Customer Charge	\$825.00	\$825.00
RE Growth Factor	\$24.49	\$86.86
LHHEAP Charge	\$0.81	\$0.81
Transmission Demand Charge	\$4.69	\$4.69
Transmission Energy Charge	\$0.01123	\$0.01123
Distribution Demand Charge-xcs 10 kW	\$4.41	\$4.41
Distribution Energy Charge	\$0.00774	\$0.00774
Transition Energy Charge	\$0.00057	\$0.00057
Energy Efficiency Program Charge	\$0.01154	\$0.01154
Renewable Energy Distribution Charge	\$0.00677	\$0.00677
Gross Earnings Tax	4%	4%
Standard Offer Charge	\$0.05514	\$0.05514

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

Hours Use: 200

Monthly Power kW	Approved Rates as of July 1, 2017					Proposed Rates					Increase (Decrease)					
	Delivery	SOS	GET	Total		Delivery	SOS	GET	Total		Delivery	SOS	GET	Total		
	\$60,914.11	\$33,084.00	\$3,916.59	\$97,914.70		\$62,302.89	\$33,084.00	\$3,974.45	\$99,361.34		\$1,388.78	\$0.00	\$57.86	\$1,446.64		
3,000																
5,000																
7,500																
10,000																
20,000																

Approved Rates as of July 1, 2017

Customer Charge	\$17,000.00	
RE Growth Factor	\$539.30	
LIHEAP Charge	\$0.81	
Transmission Demand Charge	\$3.40	kWh x
Transmission Energy Charge	\$0.01524	kWh x
Distribution Demand Charge-xcs 10 kW	\$3.90	kWh x
Distribution Energy Charge	\$0.00167	kWh x
Transition Energy Charge	\$0.00057	kWh x
Energy Efficiency Program Charge	\$0.01154	kWh x
Renewable Energy Distribution Charge	\$0.00677	kWh x

Proposed Rates

Customer Charge	\$17,000.00	
RE Growth Factor	\$1,928.08	
LIHEAP Charge	\$0.81	
Transmission Demand Charge	\$3.40	kWh x
Transmission Energy Charge	\$0.01524	kWh x
Distribution Demand Charge-xcs 10 kW	\$3.90	kWh x
Distribution Energy Charge	\$0.00167	kWh x
Transition Energy Charge	\$0.00057	kWh x
Energy Efficiency Program Charge	\$0.01154	kWh x
Renewable Energy Distribution Charge	\$0.00677	kWh x
Gross Earnings Tax	4%	
Standard Offer Charge	\$0.05514	kWh x

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

Hours Use: 300

Monthly Power kW	Approved Rates as of July 1, 2017					Proposed Rates					Increase (Decrease)									
	Delivery	SOS	GET	Total	Total	Delivery	SOS	GET	Total	Total	\$									
											Delivery	SOS	GET	Total	Delivery	SOS	GET	Total		
3,000	\$71,651.11	\$49,626.00	\$5,053.21	\$126,330.32	\$127,776.97	\$73,039.89	\$49,626.00	\$5,111.08	\$127,776.97	\$1,388.78	\$0.00	\$57.87	\$1,446.65	\$1,388.78	\$0.00	\$57.87	\$1,446.65	1.1%	0.0%	1.1%
5,000	\$107,725.11	\$82,710.00	\$7,934.80	\$198,369.91	\$199,816.55	\$109,113.89	\$82,710.00	\$7,992.66	\$199,816.55	\$1,388.78	\$0.00	\$57.86	\$1,446.64	\$1,388.78	\$0.00	\$57.86	\$1,446.64	0.7%	0.0%	0.7%
7,500	\$152,817.61	\$124,065.00	\$11,536.78	\$288,419.39	\$289,866.03	\$154,206.39	\$124,065.00	\$11,594.64	\$289,866.03	\$1,388.78	\$0.00	\$57.86	\$1,446.64	\$1,388.78	\$0.00	\$57.86	\$1,446.64	0.5%	0.0%	0.5%
10,000	\$197,910.11	\$165,420.00	\$15,138.75	\$378,468.86	\$379,915.51	\$199,298.89	\$165,420.00	\$15,196.62	\$379,915.51	\$1,388.78	\$0.00	\$57.87	\$1,446.65	\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.4%	0.0%	0.4%
20,000	\$378,280.11	\$330,840.00	\$29,546.67	\$738,666.78	\$740,113.43	\$379,668.89	\$330,840.00	\$29,604.54	\$740,113.43	\$1,388.78	\$0.00	\$57.87	\$1,446.65	\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.2%	0.0%	0.2%

Approved Rates as of July 1, 2017

Customer Charge	\$17,000.00	
RE Growth Factor	\$539.30	
LJHEAP Charge	\$0.81	
Transmission Demand Charge	\$3.40	kWh x
Transmission Energy Charge	\$0.01524	kWh x
Distribution Demand Charge-xcs 10 kW	\$3.90	kWh x
Distribution Energy Charge	\$0.00167	kWh x
Transition Energy Charge	\$0.00057	kWh x
Energy Efficiency Program Charge	\$0.01154	kWh x
Renewable Energy Distribution Charge	\$0.00677	kWh x
Gross Earnings Tax	4%	
Standard Offer Charge	\$0.05514	kWh x

Proposed Rates

Customer Charge	\$17,000.00	
RE Growth Factor	\$1,928.08	
LJHEAP Charge	\$0.81	
Transmission Demand Charge	\$3.40	kWh x
Transmission Energy Charge	\$0.01524	kWh x
Distribution Demand Charge-xcs 10 kW	\$3.90	kWh x
Distribution Energy Charge	\$0.00167	kWh x
Transition Energy Charge	\$0.00057	kWh x
Energy Efficiency Program Charge	\$0.01154	kWh x
Renewable Energy Distribution Charge	\$0.00677	kWh x
Gross Earnings Tax	4%	
Standard Offer Charge	\$0.05514	kWh x

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

Hours Use: 400

Monthly Power kW	Approved Rates as of July 1, 2017					Proposed Rates					Increase (Decrease)				
	Delivery	SOS	GET	Total	Total	Delivery	SOS	GET	Total	Total	Delivery	SOS	GET	Total	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
3,000	\$82,388.11	\$66,168.00	\$6,189.84	\$154,745.95	\$156,192.59	\$83,776.89	\$66,168.00	\$6,247.70	\$156,192.59	\$1,388.78	\$0.00	\$57.86	\$1,446.64	\$0.9%	0.9%
5,000	\$125,620.11	\$110,280.00	\$9,829.17	\$245,729.28	\$247,175.93	\$127,008.89	\$110,280.00	\$9,887.04	\$247,175.93	\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.6%	0.6%
7,500	\$179,660.11	\$165,420.00	\$14,378.34	\$359,458.45	\$360,905.09	\$181,048.89	\$165,420.00	\$14,436.20	\$360,905.09	\$1,388.78	\$0.00	\$57.86	\$1,446.64	0.4%	0.4%
10,000	\$233,700.11	\$220,560.00	\$18,927.50	\$473,187.61	\$474,634.26	\$235,088.89	\$220,560.00	\$18,985.37	\$474,634.26	\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.3%	0.3%
20,000	\$449,860.11	\$441,120.00	\$37,124.17	\$928,104.28	\$929,550.93	\$451,248.89	\$441,120.00	\$37,182.04	\$929,550.93	\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.1%	0.2%

Approved Rates as of July 1, 2017

Proposed Rates

Customer Charge	\$17,000.00	\$17,000.00
RE Growth Factor	\$539.30	\$1,928.08
LIHEAP Charge	\$0.81	\$0.81
Transmission Demand Charge	\$3.40	\$3.40
Transmission Energy Charge	\$0.01524	\$0.01524
Distribution Demand Charge-xcs 10 kW	\$3.90	\$3.90
Distribution Energy Charge	\$0.00167	\$0.00167
Transition Energy Charge	\$0.00057	\$0.00057
Energy Efficiency Program Charge	\$0.01154	\$0.01154
Renewable Energy Distribution Charge	\$0.00677	\$0.00677
Gross Earnings Tax	4%	4%
Standard Offer Charge	\$0.05514	\$0.05514

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

Hours Use: 500

Monthly Power kW	Approved Rates as of July 1, 2017					Proposed Rates					Increase (Decrease)				
	Delivery	SOS	GET	Total		Delivery	SOS	GET	Total		Delivery	SOS	GET	Total	
	\$	\$	\$	\$		\$	\$	\$	\$		\$	\$	\$	\$	% of Total Bill
3,000	\$93,125.11	\$82,710.00	\$7,326.46	\$183,161.57		\$94,513.89	\$82,710.00	\$7,384.33	\$184,608.22		\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.8%
5,000	\$143,515.11	\$137,850.00	\$11,723.55	\$293,088.66		\$144,903.89	\$137,850.00	\$11,781.41	\$294,535.30		\$1,388.78	\$0.00	\$57.86	\$1,446.64	0.5%
7,500	\$206,502.61	\$206,775.00	\$17,219.90	\$430,497.51		\$207,891.39	\$206,775.00	\$17,277.77	\$431,944.16		\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.3%
10,000	\$269,490.11	\$275,700.00	\$22,716.25	\$567,906.36		\$270,878.89	\$275,700.00	\$22,774.12	\$569,353.01		\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.3%
20,000	\$521,440.11	\$551,400.00	\$44,701.67	\$1,117,541.78		\$522,828.89	\$551,400.00	\$44,759.54	\$1,118,988.43		\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.1%

Approved Rates as of July 1, 2017

Customer Charge		\$17,000.00
RE Growth Factor		\$539.30
LIHEAP Charge		\$0.81
Transmission Demand Charge	kW x	\$3.40
Transmission Energy Charge	kWh x	\$0.01524
Distribution Demand Charge-xcs 10 kW	kW x	\$3.90
Distribution Energy Charge	kWh x	\$0.00167
Transition Energy Charge	kWh x	\$0.00057
Energy Efficiency Program Charge	kWh x	\$0.01154
Renewable Energy Distribution Charge	kWh x	\$0.00677
Gross Earnings Tax		4%
Standard Offer Charge	kWh x	\$0.05514

Proposed Rates

Customer Charge		\$17,000.00
RE Growth Factor		\$1,928.08
LIHEAP Charge		\$0.81
Transmission Demand Charge	kW x	\$3.40
Transmission Energy Charge	kWh x	\$0.01524
Distribution Demand Charge-xcs 10 kW	kW x	\$3.90
Distribution Energy Charge	kWh x	\$0.00167
Transition Energy Charge	kWh x	\$0.00057
Energy Efficiency Program Charge	kWh x	\$0.01154
Renewable Energy Distribution Charge	kWh x	\$0.00677
Gross Earnings Tax		4%
Standard Offer Charge	kWh x	\$0.05514

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

Hours Use: 600

Monthly Power kW	Approved Rates as of July 1, 2017					Proposed Rates					Increase (Decrease)				
	Delivery	SOS	GET	Total		Delivery	SOS	GET	Total		Delivery	SOS	GET	Total	
	\$	\$	\$	\$		\$	\$	\$	\$		\$	\$	\$	\$	%
3,000	\$103,862.11	\$99,252.00	\$8,463.09	\$211,577.20		\$105,250.89	\$99,252.00	\$8,520.95	\$213,023.84		\$1,388.78	\$0.00	\$57.86	\$1,446.64	0.7%
5,000	\$161,410.11	\$165,420.00	\$13,617.92	\$340,448.03		\$162,798.89	\$165,420.00	\$13,675.79	\$341,894.68		\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.4%
7,500	\$233,345.11	\$248,130.00	\$20,061.46	\$501,536.57		\$234,733.89	\$248,130.00	\$20,119.33	\$502,983.22		\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.3%
10,000	\$305,280.11	\$330,840.00	\$26,505.00	\$662,625.11		\$306,668.89	\$330,840.00	\$26,562.87	\$664,071.76		\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.2%
20,000	\$593,020.11	\$661,680.00	\$52,279.17	\$1,306,979.28		\$594,408.89	\$661,680.00	\$52,337.04	\$1,308,425.93		\$1,388.78	\$0.00	\$57.87	\$1,446.65	0.1%

Approved Rates as of July 1, 2017

Customer Charge	\$17,000.00	
RE Growth Factor	\$539.30	
LIHEAP Charge	\$0.81	
Transmission Demand Charge	\$3.40	kW x
Transmission Energy Charge	\$0.01524	kWh x
Distribution Demand Charge-xes 10 kW	\$3.90	kW x
Distribution Energy Charge	\$0.00167	kWh x
Transition Energy Charge	\$0.00057	kWh x
Energy Efficiency Program Charge	\$0.01154	kWh x
Renewable Energy Distribution Charge	\$0.00677	kWh x
Gross Earnings Tax	4%	
Standard Offer Charge	\$0.05514	kWh x

Proposed Rates

Customer Charge	\$17,000.00	
RE Growth Factor	\$1,928.08	
LIHEAP Charge	\$0.81	
Transmission Demand Charge	\$3.40	kW x
Transmission Energy Charge	\$0.01524	kWh x
Distribution Demand Charge-xes 10 kW	\$3.90	kW x
Distribution Energy Charge	\$0.00167	kWh x
Transition Energy Charge	\$0.00057	kWh x
Energy Efficiency Program Charge	\$0.01154	kWh x
Renewable Energy Distribution Charge	\$0.00677	kWh x
Gross Earnings Tax	4%	
Standard Offer Charge	\$0.05514	kWh x