

July 2, 2012

**VIA HAND DELIVERY & ELECTRONIC MAIL**

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

**RE: Tariff Advice Filing to Amend R.I.P.U.C. No. 2081, Long-Term Contracting for  
Renewable Energy Recovery Provision  
Docket No. \_\_\_\_\_**

Dear Ms. Massaro:

Pursuant to Commission Rule 1.9, enclosed please find ten (10) copies of National Grid's<sup>1</sup> tariff advice filing to request approval of the Company's Long-Term Contracting for Renewable Energy Recovery Provision, R.I.P.U.C. No. 2125 ("LTCRER"), which would supersede the Company's existing LTCRER, R.I.P.U.C. No. 2081, to take effect August 1, 2012. The tariff is necessary to implement certain cost-recovery provisions contained in R.I.G.L. § 39-26.1 *et seq.*, the Long-Term Contracting Standard for Renewable Energy ("LTC Standard"), the Commission's Rules and Regulations Governing Long-Term Contracting Standard for Renewable Energy (the "Regulations"), and §39-26.2. *et seq.*, the Distributed Generation Standard Contracts Act ("DG Standard Contracts Act"). In support of its tariff advice filing, the Company is submitting the pre-filed direct testimony of Ms. Margaret M. Janzen and Ms. Jeanne A. Lloyd. Schedule JAL-1 to Ms. Lloyd's testimony contains the clean version and a redlined version of the proposed LTCRER, which has been marked to show changes from the LTCRER currently in effect.

Section 39-26.1-5(f) authorizes the Company to file tariffs with the Commission that net the cost of payments made to projects under long-term contracts against the proceeds obtained from the sale of energy, capacity and renewable energy certificates ("RECs"). In addition, pursuant to Section 39-26.1-4 the Company is entitled to financial remuneration equal to 2.75% of the actual annual payments made under the contracts for projects that are commercially operating. The Company previously filed its LTCRER with the Commission for recovery of certain administrative costs associated with the Town of New Shoreham and the Town of Johnston projects pursuant to R.I.G.L. §§ 39-26.1-7 and 39-26.1-9(8). The existing LTCRER was approved by the Commission pursuant to an Open Meeting decision on March 29, 2012 and written order issued on May 3, 2012 in Docket 4308. In this filing the Company is proposing to amend the existing LTCRER to recover (i) the above market cost of the long-term contracts and DG standard contracts (collectively, the "Contracts") that the Company has entered into pursuant to the LTC Standard, the Regulations, and the DG Standard Contracts Act,<sup>2</sup> respectively, as authorized by R.I.G.L. §39-26.1-5(f); (ii) the 2.75% contract remuneration authorized pursuant to R.I.G.L. §39-26.1-4; and (iii) certain administrative and other costs as further described in Ms. Lloyd's testimony, which the Company is entitled to recover pursuant to the LTC Standard and subsection (7) of the DG Standard

<sup>1</sup> The Narragansett Electric Company d/b/a National Grid ("National Grid" or the "Company").

<sup>2</sup> Pursuant to Section 39-26.2-9, standard contracts entered into under the DG Standard Contracts Act are treated for all purposes as long-term contracts entered into under the LTC Standard.

Contracts Act. The proposed revisions to the LTCRER set forth the recovery mechanism for each of these cost items, as well as an annual reconciliation process. In her testimony, Ms. Janzen presents an overview of the Contracts that the Company has entered into to date, together with the anticipated dates for commercial operation.

Additionally, the revised LTCRER sets forth a proposed LTCRER Factor, which will be a uniform cents-per-kilowatt-hour factor that is applicable to all customers, and will be included in the Renewable Energy Distribution Charge line item on all customers' bills. The Company is proposing to submit the LTCRER Factor filing twice annually on May 15 and November 15 for January 1 and July 1 effective dates, respectively, to coincide with the Company's Standard Offer Service ("SOS") rate changes.

As more fully described in the testimony of Ms. Lloyd and Ms. Janzen, to determine the above market component of the LTCRER Factor, the Company is proposing to estimate the total payments expected to be incurred under the Contracts during the upcoming pricing period, less the estimated market price of the energy, capacity and RECs. In her testimony, Ms. Janzen explains in more detail how the Company proposes to estimate the market price of the energy, capacity and RECs using the spot market price estimate included in the Company's SOS prices<sup>3</sup> as a proxy for the market value of energy and capacity, and the New REC market price estimate used in the annual RES charge as a proxy for the market value of the RECs. The proposed LTCRER Factor also includes an estimate of the contract remuneration based upon the expected cost of each Contract multiplied by 2.75%. Schedule JAL-2 to Ms. Lloyd's testimony provides an illustrative calculation of the LTCRER Factor. Schedule JAL-3 to Ms. Lloyd's testimony provides an illustrative annual reconciliation that shows how the LTCRER Factor will be adjusted for a true-up of estimated revenue billed through the LTCRER Factor with the actual payments made under the Contracts

Thank you for your attention to this matter. If you have any questions regarding this filing, please feel free to contact me at (401) 784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

Enclosures

cc: Steve Scialabba  
Leo Wold, Esq.

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<sup>3</sup> As explained in Ms. Janzen's testimony, the process for establishing the SOS prices was approved by the Commission in Docket 4149.


National Grid

The Narragansett Electric Company

Revised Long-Term Contracting for Renewable  
Energy Recovery Provision

July 2012

Submitted to:  
Rhode Island Public Utilities Commission  
R.I.P.U.C. Docket No. \_\_\_\_\_

Submitted by:  
nationalgrid

**THE NARRAGANSETT ELECTRIC COMPANY**  
**d/b/a NATIONAL GRID**  
**R.I.P.U.C. Docket No. \_\_\_\_**  
**Witness: Janzen**

**PRE-FILED DIRECT TESTIMONY**  
**OF**

**Margaret M. Janzen**

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1 **I. Introduction and Qualifications**

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

3 A. My name is Margaret M. Janzen, and my business address is 100 East Old Country  
4 Road, Hicksville, NY 11801.

5

6 **Q. Please state your position with and describe your duties at National Grid.**

7 A. I am the Director of Wholesale Electric Supply for National Grid USA Service  
8 Company, Inc. I oversee the procurement of energy, capacity and ancillary services,  
9 portfolio hedging strategies and other energy supply related activities for National  
10 Grid's operating companies, including The Narragansett Electric Company d/b/a/  
11 National Grid ("National Grid" or "Company"). For the Company, these activities  
12 include the procurement of power for Standard Offer Service ("SOS") as well as the  
13 procurement of Renewable Energy Certificates ("RECs").

14

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

16 A. I graduated from The Cooper Union in 1993 with a Bachelor of Engineering in Civil  
17 Engineering. I received a Masters in Business Administration in Finance from Baruch  
18 College in 2000.

19

20 **Q. Please describe your professional experience.**

21 A. In July 1993, I joined the Brooklyn Union Gas Company as a management trainee and  
22 have held various positions of increasing responsibility at KeySpan Corporation and  
23 National Grid in the areas of Engineering, Strategic Planning, Treasury, Investor

1 Relations, and Regulatory. In March 2008, I assumed my current role as Director of  
2 Wholesale Electric Supply.

3

4 **Q. Have you previously testified before the Rhode Island Public Utilities Commission**  
5 **(“Commission”)?**

6 A. Yes.

7

8 **Q. Have you testified before any other state regulatory agencies?**

9 A. Yes. I have testified before the New Hampshire Public Utilities Commission and the  
10 New York Public Service Commission regarding electric supply procurement activities  
11 and rates.

12

13 **II. Purpose of Testimony**

14 **Q. What is the purpose of your testimony?**

15 A. The purpose of my testimony is to explain the statutory framework for the Company’s  
16 proposal to recover costs incurred under the long-term contracts that the Company has  
17 entered into to date pursuant to Title 39, Chapter 26.1 of the Rhode Island General  
18 Laws, the Long-term Contracting Standard for Renewable Energy (“LTC Standard”)  
19 and the Commission’s Rules and Regulations Governing Long-Term Contracting  
20 Standards for Renewable Energy (the “Regulations”), and pursuant to Chapter 26.2, the  
21 Distributed Generation Standard Contracts Act (“DG Standard Contracts Act”). In  
22 addition, I will present an overview of the long-term contracts entered into by the

1 Company to date pursuant to both statutes, as well as an overview of the Company's  
2 cost-recovery proposal.

3  
4 **Q. How is your testimony organized?**

5 A. In Section III, I will present an overview of the statutory framework for the Company's  
6 cost-recovery proposal under the LTC Standard and the DG Standard Contracts Act,  
7 and the Company's obligations under both statutes. Section IV describes the Contracts  
8 that the Company has executed to date under the LTC Standard and the DG Standard  
9 Contracts Act, including how the Company intends to utilize the energy and RECs  
10 purchased under the Contracts. In Section V, I describe the Company's cost-recovery  
11 proposal, including how the Company plans to estimate the market price of energy,  
12 capacity and RECs (collectively, the "Contract Products") in calculating the cost-  
13 recovery factor, and how the Company plans to account for the proceeds of the Contract  
14 Products.

15  
16 **III. Statutory Framework for Cost-Recovery Under the LTC Standard and the DG**  
17 **Standard Contracts Act**

18 **Q. Please describe the basis for the Company's cost-recovery proposal under the LTC**  
19 **Standard and the DG Standard Contracts Act.**

20 A. Pursuant to the LTC Standard, the Company is obligated to annually solicit proposals  
21 from renewable energy developers and, provided commercially reasonable proposals  
22 have been received, enter into long-term contracts with terms of not less than 10 years  
23 for the purchase of capacity, energy, and RECs from newly developed renewable



1 energy resources. The Company must achieve a minimum of 90 megawatts (“MW”) of  
2 long-term contract capacity by December 30, 2013.

3  
4 Section 39-25.1-5(f) of the LTC Standard authorizes the Company to file tariffs with the  
5 Commission that net the cost of payments made to projects under the long-term  
6 contracts against the proceeds obtained from the sale of energy, capacity, RECs, and  
7 other attributes. The difference is then credited or charged to all delivery service  
8 customers through a uniform, fully reconciling annual factor in distribution rates. This  
9 factor is designed to ensure that any net savings are passed on to customers, and that the  
10 Company recovers its costs under the long-term contracts, including its 2.75 percent  
11 financial remuneration. As discussed below and in the testimony of Jeanne A. Lloyd,  
12 the Company is proposing revisions to the Long-Term Contracting for Renewable  
13 Energy Recovery (“LTCRER”) Provision in order to effectuate this statutory  
14 requirement.

15  
16 In addition, the DG Standard Contracts Act, which took effect on June 29, 2011,  
17 requires the Company to procure distributed generation contract capacity equal to 10%  
18 of the 90 MW minimum long-term contract capacity, referenced above (inclusive of 3  
19 MW of solar photovoltaic projects), or 9 MW. The Company is required to conduct at  
20 least three standard contract enrollments during each program year, and to enter into  
21 standard contracts for an aggregate nameplate capacity of at least 40 MW of DG  
22 projects by the end of 2014.

23

1 The DG Standard Contracts Act further provides that the standard contracts are treated  
2 as long-term contracts under the LTC Standard.<sup>1</sup> Therefore, the Company is presenting  
3 one proposal for recovery of its costs incurred under the contracts entered into pursuant  
4 to both statutes. For convenience, I will refer to the DG standard contracts and the  
5 long-term contracts as, collectively, the “Contracts” in those parts of my testimony,  
6 which are intended to address both.

7  
8 **IV. Overview of Contracts Executed Pursuant to the LTC Standard and the DG**  
9 **Standard Contracts Act**

10 **Q. Please describe the long-term contracts that the Company has executed to date**  
11 **pursuant to the LTC Standard.**

12 A. To date, the Company has executed purchased power agreements (“PPAs”) pursuant to  
13 the LTC Standard and the Regulations with the following entities:

- 14 1. Rhode Island LFG Genco, LLC, a 27.3 MW contract capacity landfill gas  
15 facility
- 16 2. Deepwater Wind Block Island, LLC, a 12 MW contract capacity off-shore  
17 wind farm
- 18 3. Orbit Energy Rhode Island, LLC, a 2.6 MW contract capacity facility  
19 utilizing high solids anaerobic digester technology
- 20 4. Black Bear Development Holdings, LLC, a 3.4 MW contract capacity run-  
21 of-river hydroelectric project located in Orono, Maine.

22  

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<sup>1</sup> See R.I.G.L. § 39-26.2-9.

1 These PPAs require the Company to purchase energy, capacity, RECs and any other  
2 environmental attributes generated by each facility at a fixed bundled price over the  
3 contract term.

4  
5 **Q. Has the Company conducted the required standard contract open enrollments and**  
6 **executed any standard contracts pursuant to the DG Standard Contracts Act?**

7 A. Yes. The Company has conducted two Standard Contract Open Enrollments in  
8 December 2011 and April 2012, and has executed four and two standard contracts in  
9 those enrollments, respectively. These six standard contracts executed to date have an  
10 aggregate total of 11.05 MW of the required 40 MW of nameplate capacity.

11  
12 **Q. When does the Company expect to begin purchasing the Contract Products under**  
13 **the terms of the Contracts?**

14 A. The Company expects Rhode Island LFG Genco, LLC to become commercially  
15 operational in October 2012. Prior to commercial operation, "test" energy and RECs  
16 may be sold during start-up testing. Starting in 2013, the Company expects several  
17 contracted distributed generation projects to commence generation.

18  
19 **Q. What does the Company intend to do with the energy and RECs that are**  
20 **purchased under the Contracts?**

21 A. The Company will receive credit for the energy from these renewable energy projects  
22 from the Independent System Operator-New England ("ISO-NE"). This revenue will

1 be credited to all delivery service customers as described in the testimony of Jeanne A.  
2 Lloyd.

3  
4 The Company will utilize the RECs produced by the renewable generation projects and  
5 purchased under the Contracts to satisfy its Renewable Energy Standard (“RES”)  
6 obligations for its SOS load. This approach is consistent with the Company’s proposal  
7 to utilize the RECs purchased under the Contracts in its 2013 Renewable Energy  
8 Standard Procurement Plan (“RES Procurement Plan”) in Docket No. 4315, which was  
9 approved by the Commission at an Open Meeting on June 12, 2012. As set forth in the  
10 Company’s RES Procurement Plan, to the extent that the Company purchases RECs  
11 through these Contracts in excess of the SOS RES obligation, the Company will sell the  
12 excess, and proceeds will be used to offset contract costs.

13  
14 **V. Cost Recovery Proposal**

15 **Q. Please describe the Company’s proposal for recovering costs incurred under the**  
16 **Contracts from customers.**

17 A. As described in the testimony of Ms. Lloyd, the Company is proposing to recover the  
18 costs associated with the Contracts through the LTCRER Factor. The Commission  
19 approved the Company’s LTCRER Provision, R.I.P.U.C. No. 2081, and the initial  
20 LTCRER Factor in Docket No. 4308. The approved LTCRER provision is intended to  
21 provide for the recovery of certain administrative costs related to the Town of New  
22 Shoreham and Town of Johnstown projects. As presented in the testimony of Ms.  
23 Lloyd, the Company is proposing to revise the LTCRER Provision to include a recovery

1 mechanism that will recover the above market cost of the Contracts, as well as the  
2 contract remuneration and certain other administrative costs incurred under the DG  
3 Standard Contracts Act.

4  
5 **Q. Please explain how the LTCRER Factor will be calculated.**

6 A. As proposed, the LTCRER Factor will be revised twice annually, coincident with the  
7 Standard Offer Service price changes in January and July. To determine the LTCRER  
8 Factor applicable to each pricing period, the Company will estimate the total payments  
9 for energy, capacity, and RECs expected to be incurred under the Contracts during the  
10 upcoming six-month period. The estimated payments will be determined as the product  
11 of the bundled price applicable to each Contract, multiplied by the estimated output of  
12 each facility that the Company expects to purchase during the period. From this  
13 estimate of total payments, the Company will deduct the estimated market price of the  
14 energy, capacity, and the estimated cost of the RECs. The amount remaining, or the  
15 estimated above market contract costs, would then be recovered from all of the  
16 Company's delivery service customers through the LTCRER Factor.

17  
18 **Q. How will the Company determine the estimated market price of energy, capacity  
19 and RECs to be used in the calculation of the LTCRER Factor?**

20 A. The Company proposes to use the spot market price estimate that is included in the SOS  
21 prices for the Commercial procurement group as a proxy for the market value of the  
22 energy and capacity. Since the spot market price is a bundled price for energy and  
23 capacity based upon market prices at the time that the SOS rates are set, the Company

1 believes that this estimate is the best representation of the market price for energy and  
2 capacity. This process for establishing the SOS prices was approved by the  
3 Commission in Docket 4149.

4  
5 Similarly, the Company proposes to use the New REC market price estimate used to  
6 establish the annual RES charge as a proxy for the market value of the RECs expected  
7 to be purchased under the LTC Standard. The RES charge implemented each year is  
8 based upon the Company's estimate of market prices for RECs to be procured during  
9 the obligation year. Therefore, the New REC price estimate is an appropriate proxy for  
10 the market value of RECs to be purchased through the Contracts.

11  
12 Ms. Lloyd's testimony includes an illustrative calculation of the LTCRER Factor for a  
13 representative pricing period that demonstrates how the Company intends to estimate  
14 the cost and market value of the Contract Products.

15  
16 **Q. Since the Company is proposing to calculate the LTCRER Factor based upon**  
17 **projected output and estimated market prices, how will the Company ensure that**  
18 **delivery service customers pay only for the above market price of the Contract**  
19 **Products?**

20 A. The Company will annually reconcile the actual revenue billed through the LTCRER  
21 Factor to the actual costs incurred under the LTC Standard and the DG Standard  
22 Contract Act, less any proceeds received from the sale or use of the Contract Products.

23

1 **Q. How will the Company account for the proceeds received from the sale or**  
2 **utilization of the Contract Products?**

3 A. As indicated above, the energy purchased from suppliers will be settled in the ISO-NE  
4 spot market. Therefore, credit received from ISO-NE for each generating facility will  
5 be tracked on a monthly basis through the ISO-NE invoices.

6

7 In addition, any capacity revenues that are received, or should have been received<sup>2</sup>, by a  
8 facility from the ISO-NE Forward Capacity Market (“FCM”) would be reflected in an  
9 adjustment to the contract price on a monthly settlement.

10

11 Further, any capacity revenues that are received by the Company on behalf of an  
12 eligible DG facility<sup>3</sup>, will be credited to customers through the LTCRER Factor.

13

14 Finally, in order to determine the market cost of the New RECs to assess to SOS  
15 customers, the Company proposes to utilize the most representative market data  
16 sources, such as recent standalone RES solicitation results, broker information,  
17 published REC indexes, competitive solicitations in other states with a similar REC  
18 class, or other data sources that may not yet be available. The Company proposes to  
19 perform this determination of the market costs of the New RECs on a quarterly basis as  
20 they are delivered. RECs will be delivered to the Company through the New England

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<sup>2</sup> Provisions under the PPAs require that projects must make commercially reasonable efforts to qualify in the FCM.

<sup>3</sup> To be eligible, a DG facility must be a “newly developed renewable energy resource” as defined in § 39-26.1-2 that uses exclusively an eligible renewable energy resource, as defined in R.I.G.L. § 39-26-5 and Section 5 of the Rules and Regulations governing the Implementation of a Renewable Energy Standard, effective July 25, 2007.

1 Power Pool Generator Information System (“GIS”) on a quarterly basis, and the  
2 Company will assess their value at delivery every three months by calculating the  
3 average of the available market prices two weeks before and after the delivery. To  
4 illustrate, after the first quarter of generation is completed, the New RECs are “minted”  
5 or created within the GIS and then delivered to the Company. At this point, the  
6 Company would average the available market price points for the period two weeks  
7 prior to and after the delivery date. This calculation would produce the current market  
8 value, which then would be applied to the quantity of New RECs delivered for that  
9 quarterly period. On an annual basis, there would be four REC deliveries through the  
10 GIS, and those quarterly deliveries would be valued using this methodology. Thus the  
11 value of the each delivery of New RECs would reflect the market price at the time they  
12 were delivered.

13  
14 The mechanics of the annual reconciliation process are described in detail in Ms.  
15 Lloyd’s testimony.

16  
17 **VI. Conclusion**

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

19 **A. Yes.**



**THE NARRAGANSETT ELECTRIC COMPANY**  
**d/b/a NATIONAL GRID**  
**R.I.P.U.C. Docket No. \_\_\_\_\_**  
**Witness: Lloyd**

**PRE-FILED DIRECT TESTIMONY**  
**OF**  
**JEANNE A. LLOYD**

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1 **I. Introduction and Qualifications**

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

3 A. My name is Jeanne A. Lloyd, and my business address is 40 Sylvan Road, Waltham,  
4 Massachusetts 02451.

5

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

7 A. I am the Manager of Electric Pricing, New England in the Regulation and Pricing group  
8 of National Grid USA Service Company, Inc. This department provides rate related  
9 support to The Narragansett Electric Company d/b/a National Grid (“National Grid” or  
10 “Company”).

11

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

13 A. In 1980, I graduated from Bradley University in Peoria, Illinois with a Bachelor’s Degree  
14 in English. In December 1982, I received a Master of Arts Degree in Economics from  
15 Northern Illinois University in De Kalb, Illinois.

16

17 **Q. Please describe your professional experience.**

18 A. I was employed by EUA Service Corporation in December 1990 as an Analyst in the  
19 Rate Department. I was promoted to Senior Rate Analyst on January 1, 1993. My  
20 responsibilities included the study, analysis and design of the retail electric service rates,  
21 rate riders and special contracts for the EUA retail companies. After the merger of New  
22 England Electric System and Eastern Utilities Associates in April 2000, I joined the

1 Distribution Regulatory Services Department as a Principal Financial Analyst. I  
2 assumed my present position October 1, 2006. Prior to my employment at EUA, I was  
3 on the staff of the Missouri Public Service Commission in Jefferson City, Missouri in the  
4 position of research economist. My responsibilities included presenting both written and  
5 oral testimony before the Missouri Commission in the areas of cost of service and rate  
6 design for electric and natural gas rate proceedings.

7  
8 **Q. Have you previously testified before Rhode Island Public Utilities Commission**  
9 **(“Commission”)?**

10 A. Yes.

11  
12 **II. Purpose of Testimony**

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

14 A. The purpose of my testimony is to present the Company’s proposal to recover costs  
15 associated with the Company’s long-term contracts executed pursuant to Title 39,  
16 Chapter 26.1 of the Rhode Island General Laws, the Long-Term Contracting Standard for  
17 Renewable Energy (“LTC Standard”) and the Commission’s Rules and Regulations  
18 Governing Long-Term Contracting Standards for Renewable Energy (the “Regulations”),  
19 and the Company’s standard contracts executed pursuant to Chapter 26.2, the Distributed  
20 Generation Standard Contracts Act (“DG Standard Contracts Act, as well as proposed  
21 revisions to the Long-Term Contracting for Renewable Energy Recovery (“LTCRER”)  
22 Provision, R.I.P.U.C. No. 2081, which are necessary to recover these costs. For

1 convenience, I will refer to the LTCs executed under the LTC Standard and the standard  
2 contracts executed under the DG Standard Contracts Act as, collectively, the “Contracts”  
3 in those parts of my testimony, which are intended to refer to both. In addition, I will  
4 describe the mechanics of the proposed methodology for calculating the LTCRER Factor,  
5 and the process for reconciling revenue billed through the LTCRER Factor and the actual  
6 expenses incurred through the Contracts.

7  
8 **Q. How is your testimony organized?**

9 A. In Section III, I will present an overview of the Company’s proposal for recovering the  
10 costs associated with the Contracts. Section IV describes the proposed revisions to the  
11 LTCRER Provision. Section V presents an illustrative calculation of the LTCRER  
12 Factor and in Section VI, I demonstrate how the annual reconciliation will be performed.

13  
14 **III. Overview of the Company’s Cost Recovery Proposal**

15 **Q. Please describe the Company’s proposal for recovering the costs associated with the**  
16 **Contracts?**

17 A The Company is proposing to establish a cost recovery mechanism to recover the above  
18 market costs of the Contracts, along with the contract remuneration as authorized  
19 pursuant to R.I.G.L. §39-26.1-4, plus administrative and other costs authorized for  
20 recovery through various sections of the LTC Standard and the DG Standard Contracts  
21 Act.

1 As described in the testimony of Ms. Margaret Janzen, pursuant to the LTC Standard and  
2 the DG Standard Contracts Act, the Company is required to enter into Contracts for the  
3 purchase of energy, capacity and Renewable Energy Certificates (“RECs”) (collectively,  
4 the “Contracts Products”). The Company will sell the energy purchased through the  
5 Contracts into the ISO-NE energy market and will use the RECS to satisfy the  
6 Company’s REC obligation associated with Standard Offer Service (“SOS”). The  
7 difference between the cost incurred under each Contract, equal to the fixed contract  
8 price multiplied by the generation of the facility, and the proceeds that the Company  
9 receives for the sale of the Contract Products, is referred to as the above market contract  
10 cost. As mandated per R.I.G.L. § 39-26.1-5(f), the above market contract costs are to be  
11 recovered from all retail delivery service customers through a uniform per kWh factor.

12  
13 In addition, the Company is authorized pursuant to R.I.G.L. § 39-26.1-4 to recover 2.75  
14 percent of the total payments made under each Contract as remuneration.

15 Finally, certain administrative and other costs authorized through various sections of the  
16 statutes will be tracked and recovered annually. These costs include the costs associated  
17 with the Town of New Shoreham and the Town of Johnston projects, which were  
18 approved by the Commission in Docket 4308 for recovery pursuant to the current  
19 LTCRER Provision, in addition to other types of costs that will be described in more  
20 detail later in my testimony.

1 **IV. Tariff Provision**

2 **Q. Please describe R.I.P.U.C. No. 2081, LTCRER Provision.**

3 A. R.I.P.U.C. No. 2081 was approved by the Commission in Docket No. 4308. This  
4 provision was designed to recover the costs incurred in accordance with the provisions of  
5 Rhode Island General Laws § 39-26.1-7, the Town of New Shoreham project and § 39-  
6 26.1-9, the Town of Johnston project.

7

8 **Q. Please describe the revisions to R.I.P.U.C. No. 2081 that the Company proposing in  
9 this filing.**

10 A. Schedule JAL-1 contains clean and marked versions of the revised LTCRER Provision.  
11 The revisions to the LTCRER Provision in this filing are intended to ensure that the  
12 Company recovers all costs incurred under the Contracts, which includes the above  
13 market cost, certain administrative and other costs, and the contract remuneration. The  
14 revised tariff establishes how each of these costs would be recovered from the  
15 Company's customers, and provides for an annual reconciliation of the costs that is  
16 intended to true-up estimated revenue and expense to actual costs and actual billed  
17 revenue. The proposed LTCRER Factor is a uniform cents-per-kilowatt-hour factor  
18 applicable to all customers and would be included in the Renewable Energy Distribution  
19 Charge line item on customers' bills.<sup>1</sup>

20

21

---

<sup>1</sup> The Renewable Distribution Energy Charge line item also includes the Net Metering Charge.

1 **Q. Please discuss the above market component of the proposed LTCRER Factor.**

2 A. Prior to the implementation of each LTCRER Factor, the Company will estimate the total  
3 payments for energy, capacity, and RECs expected to be incurred through the Contracts  
4 during the upcoming pricing period. The estimated payments will be determined as the  
5 product of the fixed contract price multiplied by the estimated generation of each  
6 facility. From this estimate of total payments, the Company will deduct the estimated  
7 market value of the Contract Products as described in the testimony of Ms. Janzen. The  
8 remainder represents the estimate of the above market cost.

9

10 **Q. Please explain Company's proposal to recover the contract remuneration from**  
11 **customers?**

12 A. The Company proposes that an estimate of contract remuneration be included semi-  
13 annually in the LTCRER Factor and trued-up to the actual amount, which is based on  
14 actual payments under the Contracts through a reconciliation process.

15

16 **Q. Please describe the administrative costs and other costs to be recovered through the**  
17 **LTCRER Factor.**

18 A. In addition to the administrative costs associated with the Town of New Shoreham and  
19 the Town of Johnston projects already approved for recovery through the current  
20 LTCRER Provision, the revised tariff includes a provision for the recovery of the  
21 following costs authorized for recovery pursuant to the DG Standard Contracts Act:



- 1           1) the costs incurred by the Company under reimbursement agreements (R.I.G.L. § 39-  
2           26.2-7(1)(vi));
- 3           2) the costs incurred by the Company associated with required system upgrades that are  
4           not recovered directly from Distributed Generation Facilities (R.I.G.L. § 39-26.2-  
5           7(2)(i));
- 6           3) forfeited Performance Guarantee Deposits which shall be an offset to expense  
7           (R.I.G.L. § 39-26.2-7(2)(iv)); and
- 8           4) The costs incurred for consultants hired to assist the Commission in proceedings  
9           involving contract disputes (R.I.G.L. § 39-26.2-7(3)).
- 10

11 **Q. Please describe the proposed timing of the LTCRER Factor filings.**

12 A. The Company proposes to submit two filings per year to determine the LTCRER Factor.  
13 The LTCRER Factor effective dates would be timed to coincide with the SOS rate  
14 changes. The filings would be submitted by May 15 and November 15 for January 1 and  
15 July 1 effective dates, respectively. The reconciliation of billed revenue and actual  
16 expense will occur annually as part of the November filing.<sup>2</sup>

17

18 **V. Illustrative Calculation of the LTCRER Factor**

19 **Q. Can you please demonstrate the calculation of the LTCRER Factor.**

20 A. Yes. Schedule JAL-2, page 1, provides an illustrative calculation of the LTCRER Factor  
21 for a representative pricing period. As described above, the LTCRER Factor will recover  
22 the costs associated with above market contract costs and contract remuneration. In  
23 addition, past-period reconciliation amounts and an adjustment for uncollectible expense  
24 will be included in each LTCRER factor computation.

1 Section 1 of page 1 shows the calculation of the above market component of the recovery  
2 factor, which is described more fully in the testimony of Ms. Janzen. The above market  
3 component, divided by the forecasted kWh deliveries for the pricing period results in the  
4 per kWh factor attributable to the above market component.

5  
6 **Q. How is the total estimated annual contract cost shown on Section 1, Line (1) of**  
7 **Schedule JAL-2, page 1 calculated?**

8 A. The total estimated annual Contract costs shown on Line (1) of Section 1 is calculated by  
9 multiplying each individual Contract's price by the estimated annual output of the unit.  
10 This calculation is shown on Schedule JAL-2, page 2, Section 1.

11  
12 **Q. How is the illustrative market value of the Contract Products, as shown on Section**  
13 **1, Line (2) of Schedule JAL-2, page 1 determined?**

14 A. The market value of the Contract Products is the sum of the estimated market value of the  
15 energy, capacity and the RECs. As described in Ms. Janzen's testimony, the market  
16 value of the energy will be based upon the spot market price estimates included in the  
17 SOS prices for the Commercial SOS group, as adjusted for estimates of capacity and  
18 ancillary services. The market value of the RECs will be estimated using the same  
19 market price estimate of New RECs that is used to develop the Renewable Energy  
20 Standard charge.

21  

---

<sup>2</sup>The Company is proposing to reconcile revenue and expense on an annual basis, however, has included language in

1 **Q. Please describe the development of the contract remuneration factor.**

2 A. The contract remuneration is the estimated pricing period cost of each Contract  
3 multiplied by 2.75 percent. This calculation is shown in Section 2 of Schedule JAL-2,  
4 page 1. The total contract remuneration divided by the forecasted kWh deliveries results  
5 in the contract remuneration component of the factor.

6  
7 **Q. How is the past period reconciliation amount developed?**

8 A. An illustrative calculation of the past period reconciliation amount is developed in  
9 Schedule JAL-3. However, since the Company is proposing to reconcile estimated to  
10 actual revenue and expenses on an annual basis, this component will be \$0 for the initial  
11 two LTCRER filings.

12  
13 **VI. Illustrative Reconciliation**

14 **Q. Is the Company proposing to reconcile the revenue billed through the LTCRER**  
15 **Factor with actual payments made under the Contracts?**

16 A. Yes. The Company is proposing that, on an annual basis, the revenue billed through the  
17 LTCRER Factor be compared to the actual payments made under the Contracts and the  
18 excess or deficiency refunded to or collected from all delivery service customers.  
19 Schedule JAL-3 includes an illustrative annual reconciliation, showing how the LTCRER  
20 Factor will be adjusted for a true-up of actual revenue and expenses to the estimated  
21 amounts included in the calculation of each LTCRER Factor.

---

the proposed tariff to allow for interim rate adjustments should significant over or under collection of expense occur.

1 **Q. What will the payments under the Contracts reflect?**

2 A. The payments under the Contracts will be based on the fixed contract price but will also  
3 include adjustments for capacity revenue received by eligible facilities on the Company's  
4 behalf, as more fully explained in Ms. Janzen's testimony.

5

6 **Q. Will there be any adjustment to reflect the market price of Contract Products and**  
7 **the associated impact on the above-market cost?**

8 A. Yes. As described in Ms. Janzen's testimony, the energy purchased by the Company  
9 under the Contracts will be sold in the ISO-NE wholesale energy market. The payments  
10 received from ISO-NE reflecting the value of the Contract Products sold will be included  
11 in the annual LTCRER reconciliation and will have the effect of adjusting the above-  
12 market component of the LTCRER Factors that were in effect during the two pricing  
13 periods preceding the annual reconciliation.

14

15 In addition, as described by Ms. Janzen, the above market component will be adjusted to  
16 reflect the market value of the RECs utilized for the SOS Renewable Energy Standard  
17 obligation. Pages 3 and 4 of Schedule JAL-3 demonstrate the determination of actual  
18 expense incurred under two illustrative Contracts.

19

20 **Q. Please describe the administrative costs shown in column (d) of Schedule JAL-3,**  
21 **page 1.**

22 A. The administrative costs described earlier in my testimony will be tracked as incurred

1 and included in the annual reconciliation for recovery during the subsequent pricing  
2 period.

3

4 **VII. Conclusion**

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

6 **A. Yes it does.**

Schedules

Schedule JAL-1	Proposed Renewable Energy Recovery Provision
Schedule JAL-2	Long-Term Contracting for Renewable Energy Recovery Factor Illustrative Calculation
Schedule JAL-3	Long-Term Contracting for Renewable Energy Recovery Factor Illustrative Annual Reconciliation

**THE NARRAGANSETT ELECTRIC COMPANY**  
**d/b/a NATIONAL GRID**  
**R.I.P.U.C. Docket No. \_\_\_\_\_**  
**Witness: Lloyd**

**Schedule JAL-1**  
**Revised Long-Term Contracting for Renewable Energy Recovery**  
**Provision**

THE NARRAGANSETT ELECTRIC COMPANY  
LONG-TERM CONTRACTING FOR RENEWABLE ENERGY  
RECOVERY PROVISION

The Company's rates for Retail Delivery Service are subject to adjustment to reflect recovery of costs incurred in accordance with the provisions of Chapter 39-26.1, Long-Term Contracting Standard for Renewable Energy and Chapter 39-26.2, Distributed Generation Standard Contracts.

1) DEFINITIONS

Contract Remuneration shall mean the annual compensation as authorized by § 39-26.1-4, which shall be equal to two and three quarter percent (2.75%) of the actual annual payments made under the Long Term Contracts and Distributed Generation Standard Contracts for those projects that are commercially operating.

Contract Products shall mean the energy, capacity, Renewable Energy Certificates, or other attributes individually or any combination thereof, associated with the output from a Newly Developed Renewable Energy Resource, or a Distributed Generation Facility, which are purchased by the Company pursuant to a Long-term Contract or a Distributed Generation Standard Contract.

Distributed Generation Facility shall mean an electrical generation facility that is a newly developed renewable energy resource as defined in § 39-26.1-2, located in the Company's load zone with a nameplate capacity no greater than five megawatts (5 MW), using eligible renewable energy resources as defined by § 39-26-5, including biogas created as a result of anaerobic digestion, but, specifically excluding all other listed eligible biomass fuels, and connected to an electrical power system owned, controlled, or operated by the Company.

Distributed Generation Standard Contract shall mean a contract with a term of fifteen (15) years at a fixed rate for the purchase of all Contract Products generated by a Distribution Generation Facility, which is executed with the Company pursuant to R.I.G.L. 39-26.2.

Forecasted kWh shall mean the forecasted amount of electricity to be delivered to the Company's retail delivery service customers.

Long-term Contract shall mean a contract of not less than ten (10) years, for the purchase of Contract Products, which is executed with the Company pursuant to R.I.G.L. 39-26.1.

Newly Developed Renewable Energy Resource shall have the meaning set forth in §39-26.1-2(6).

Performance Guarantee Deposit shall mean a deposit as required pursuant to § 39-26.2-7(2)(ii) paid to the Company of fifteen dollars (\$15.00) for a small Distributed Generation Facility or twenty-five dollars (\$25.00) for a large Distributed Generation Facility for every Renewable Energy Certificate estimated to be generated per year under the Distributed Generation Standard Contract, but at least five hundred dollars (\$500) and not more than



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seventy-five thousand dollar (\$75,000) paid at the time of contract execution.

Reimbursement Agreement shall mean a cost reimbursement agreement entered into between the Company and a lawyer designated by the Office of Energy Resources (“OER”) that is intended to compensate such lawyer for the time spent serving in the contract working group established pursuant to the provisions of § 39-26.2-7(1) at a reasonable hourly rate negotiated by OER.

Renewable Energy Certificate shall mean a New England Generation Information System renewable energy certificate as defined in § 39-26-2(15).

Town of New Shoreham Project shall mean a small-scale offshore wind demonstration project off the coast of Block Island, including an undersea transmission cable that interconnects Block Island to the mainland as provided for in § 39-26.1-7.

Town of Johnston Project shall mean a newly developed renewable energy resource fueled by landfill gas from the central landfill in the Town of Johnston as provided for in § 39-26.1-9.

2) APPLICABILITY

Costs recovered under this provision are authorized for recovery pursuant to the following provisions of Rhode Island General Law:

- i) § 39-26.1-4: Financial remuneration and incentives;
- ii) § 39-26.1-5: Commission approval and regulations, subsection (f)
- iii) § 39-26.1-7: the Town of New Shoreham Project, subsection (d);
- iv) § 39-26.1-9: the Town of Johnston Project, subsection (8);
- v) § 39-26.2-6: Standard contract enrollment program, subsection (f);
- vi) § 39-26.2-7: Standard contract – Form and provisions, subsections (1)(vi), (2)(i), (2)(iv) and (3);

3) RATE

The Long-term Contracting for Renewable Energy Recovery (“LTCRER”) factor shall be established semi-annually based upon the costs expected to be incurred during the subsequent six-month period. In addition, on an annual basis, the Company shall reconcile its revenue billed through the LTCRER factor, as adjusted for uncollectible amounts at the Company’s currently

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approved uncollectible allowance rate, to the actual expenses incurred, including the approved uncollectible allowance, during the reconciliation period, and the excess or deficiency, including interest at the interest rate paid on customer deposits, shall be refunded to, or collected from, all customers in the two subsequent period's LTCRER factor. The Company may file to adjust the LTCRER at any time should significant over or under recovery of costs occur.

The LTCRER factor shall be a uniform per kilowatt-hour factor applicable to all customers based on the Forecasted kWhs during the six month period that the LTCRER factor will be in effect. For billing purposes, the LTCRER factor will be included with the Renewable Energy Distribution kWh charge on customers' bills.

The LTCRER factor will be calculated as follows:

$$\text{LTCRER Factor}_x = \frac{\{[(AM_x + CR_x) \div \text{FkWh}_x] + [\text{PPRA}_x(i) \div \text{FkWh}_{[x + (x+1)]}]\}}{(1 + \text{UP})} \times$$

where

- x = The six-month period during which the annual LTCRER will be in effect;
- LTCRER Factor<sub>x</sub> = The Long-term Contracting Renewable Energy Recovery Factor for the current six-month period;
- AM<sub>x</sub> = The estimated annual above-market cost associated with Long-term Contracts and Distributed Generation Standard Contracts, calculated as the sum of the estimated payments expected to be made during period x under each of the approved Contracts less the expected proceeds to be received during period x by the Company resulting from the sale of the Contract Products;
- CR<sub>x</sub> = The estimated Contract Remuneration associated with approved Long-term Contracts and Distributed Generation Standard Contracts, calculated as the estimated payments expected to be made under the contracts during period x multiplied by 2.75 percent;

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- PPRA<sub>x</sub> = The Past Period Reconciliation Amount to be collected through the LTCRER Factor during period x and x+1, defined as the ending balance of the difference between:
- (a) the actual cost incurred during the Reconciliation Period, defined as most recent twelve month period ending June 30, which shall include the sum of:
- 1) actual payments made during the Reconciliation Period under the individual approved Long-term Contracts and Distributed Generation Standard Contracts less any proceeds received by the Company resulting from the sale of the Contract Products;
  - 2) Contract Remuneration during the Reconciliation Period;
  - 3) all costs incurred during the Reconciliation Period in the negotiation, administration, enforcement, and implementation of the projects and related agreements, and costs associated with the design of an undersea transmission cable interconnecting Block Island (Town of New Shoreham) to the mainland that are not otherwise recovered through the Transmission Service Cost Adjustment Provision pursuant to Sections 2.iii and 2.iv;
  - 4) the costs incurred during the Reconciliation Period by the Company under Reimbursement Agreements pursuant to Section 2.vi;
  - 5) the costs incurred during the Reconciliation Period associated with required system upgrades that are not recovered directly from Distributed Generation Facilities pursuant to Section 2.vii;
  - 6) forfeited Performance Guarantee Deposits during the Reconciliation Period pursuant to Section 2.viii which shall be an offset to expense; and

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- 7) The costs incurred during the Reconciliation Period for consultants hired to assist the Commission in proceedings involving contract disputes pursuant to Section 2.ix.

(b) the revenues billed through the LTCRER Factors as approved by the Commission for the Reconciliation Period;

i	=	interest calculated as the sum of the beginning period and ending period balance divided by 2, multiplied by the rate paid on customer deposits;
FkWh <sub>x</sub>	=	The Forecasted kWh for the six-month period following the effective date of the LTCRER;
FkWh <sub>[x + (x+1)]</sub>	=	The Forecasted kWh for the twelve month period following the effective date of the LTCRER; and
UP	=	The uncollectible percentage approved by the Commission in the Company's most recent rate case.

4) ADJUSTMENTS TO RATES

Adjustments to rates pursuant to the LTCRER Provision are subject to review and approval by the Commission. The Company shall file its revised LTCRER factor semi-annually at least forty-five (45) days prior to the effective date of the revised LTCRER factor. Modifications to the factors contained in this LTCRER Provision shall be in accordance with a notice filed with the Commission pursuant to R.I.G.L. § 39-3-11(a) setting forth the amount(s) of the revised factor(s) and the amount(s) of the increase(s) or decrease(s). The notice shall further specify the effective date of such charges.

Effective Date: August 1, 2012

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The Company's rates for Retail Delivery Service are subject to adjustment to reflect recovery of costs incurred in accordance with the provisions of Chapter 39-26.1, Long-Term Contracting Standard for Renewable Energy and Chapter 39-26.2, Distributed Generation Standard Contracts.

1) DEFINITIONS

Contract Remuneration shall mean the annual compensation as authorized by § 39-26.1-4, which shall be equal to two and three quarter percent (2.75%) of the actual annual payments made under the Long Term Contracts and Distributed Generation Standard Contracts for those projects that are commercially operating.

Contract Products shall mean the energy, capacity, Renewable Energy Certificates, or other attributes individually or any combination thereof, associated with the output from a Newly Developed Renewable Energy Resource, or a Distributed Generation Facility, which are purchased by the Company pursuant to a Long-term Contract or a Distributed Generation Standard Contract.

Distributed Generation Facility shall mean an electrical generation facility that is a newly developed renewable energy resource as defined in § 39-26.1-2, located in the Company's load zone with a nameplate capacity no greater than five megawatts (5 MW), using eligible renewable energy resources as defined by § 39-26-5, including biogas created as a result of anaerobic digestion, but, specifically excluding all other listed eligible biomass fuels, and connected to an electrical power system owned, controlled, or operated by the Company.

Distributed Generation Standard Contract shall mean a contract with a term of fifteen (15) years at a fixed rate for the purchase of all Contract Products generated by a Distribution Generation Facility, which is executed with the Company pursuant to R.I.G.L. 39-26.2.

Forecasted kWh shall mean the forecasted amount of electricity to be delivered to the Company's retail delivery service customers.

Long-term Contract shall mean a contract of not less than ten (10) years, for the purchase of Contract Products, which is executed with the Company pursuant to R.I.G.L. 39-26.1.

Newly Developed Renewable Energy Resources shall have the meaning set forth in §39-26.1-2(6).

Performance Guarantee Deposit shall mean a deposit as required pursuant to § 39-26.2-7(2)(ii) paid to the Company of fifteen dollars (\$15.00) for a small Distributed Generation Facility or twenty-five dollars (\$25.00) for a large Distributed Generation Facility for every Renewable Energy Certificate estimated to be generated per year under the Distributed Generation Standard Contract, but at least five hundred dollars (\$500) and not more than

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seventy-five thousand dollar (\$75,000) paid at the time of contract execution.

Reimbursement Agreement shall mean a cost reimbursement agreement entered into between the Company and a lawyer designated by the Office of Energy Resources (“OER”) that is intended to compensate such lawyer for the time spent serving in the contract working group established pursuant to the provisions of § 39-26.2-7(1) at a reasonable hourly rate negotiated by OER.

Renewable Energy Certificate shall mean a New England Generation Information System renewable energy certificate as defined in § 39-26-2(15).

Town of New Shoreham Project shall mean a small-scale offshore wind demonstration project off the coast of Block Island, including an undersea transmission cable that interconnects Block Island to the mainland as provided for in § 39-26.1-7.

Town of Johnston Project shall mean a newly developed renewable energy resource fueled by landfill gas from the central landfill in the Town of Johnston as provided for in § 39-26.1-9.

2) APPLICABILITY

Specifically, ~~Costs~~ recovered under this provision ~~shall include~~ are authorized for recovery pursuant to the following provisions of Rhode Island General Law:

- i) § 39-26.1-4: Financial remuneration and incentives;
- ii) § 39-26.1-5: Commission approval and regulations, subsection (f)
- iii) § 39-26.1-7:~~(d)~~; the Town of New Shoreham Project, subsection (d); ~~and~~
- iv) § 39-26.1-9:~~(8)~~; the Town of Johnston Project, subsection (8);
- v) § 39-26.2-6: Standard contract enrollment program, subsection (f);
- vi) § 39-26.2-7: Standard contract – Form and provisions, subsections (1)(vi), (2)(i), (2)(iv) and (3);

;

3) RATE

The Long-term Contracting for Renewable Energy Recovery (“LTCRER”) factor shall be established semi-annually based upon the costs expected to be incurred during the subsequent six-month period prior year. In addition, on an annual basis, the Company shall reconcile its revenue billed through the LTCRER factor, as adjusted for uncollectible amounts at the

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Company's currently approved uncollectible allowance rate ~~of 0.94%~~, to the actual expenses incurred, including the approved uncollectible allowance, amount allowed to be recovered during the reconciliation period, and the excess or deficiency, including interest at the interest rate paid on customer deposits, shall be refunded to, or collected from, all customers in the two subsequent ~~period~~year's LTCRER factor. The Company may file to adjust the LTCRER at any time should significant over or under recovery of costs occur.

The LTCRER factor shall be a uniform per kilowatt-hour factor applicable to all customers based on the Forecasted estimated kWh kilowatt hours to be delivered by the Company during the ~~six~~twelve month period that the LTCRER factor will be in effect. For billing purposes, the LTCRER factor will be included with the Renewable Energy Distribution kWh charge on customers' bills.

The LTCRER factor will be calculated as follows:

$$\text{LTCRER Factor}_x = \frac{\{[(AM_x + CR_x) \div FkWh_x] + [PPRA_x(i) \div FkWh_{[x+(x+1)}]\}] \times (1 + UP)}{x}$$

where

x = The six-month period during which the annual LTCRER will be in effect;

LTCRER Factor<sub>x</sub> = The Long-term Contracting Renewable Energy Recovery Factor for the current six-month period;

AM<sub>x</sub> = The estimated annual above-market cost associated with Long-term Contracts and Distributed Generation Standard Contracts, calculated as the sum of the estimated payments expected to be made during period x under each of the approved Contracts less the expected proceeds to be received during period x by the Company resulting from the sale of the Contract Products;

CR<sub>x</sub> = The estimated Contract Remuneration associated with approved Long-term Contracts and Distributed Generation Standard Contracts, calculated as the estimated payments expected to be made under the contracts during period x multiplied by 2.75 percent;

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PPRA<sub>x</sub> = The Past Period Reconciliation Amount to be collected through the LTCRER Factor during period x and x+1, defined as the ending balance of the difference between:

(a) the actual cost incurred during the Reconciliation Period, defined as most recent twelve month period ending June 30, which shall include the sum of:

- 1) actual payments made during the Reconciliation Period under the individual approved Long-term Contracts and Distributed Generation Standard Contracts less any proceeds received by the Company resulting from the sale of the Contract Products;
- 2) Contract Remuneration during the Reconciliation Period;
- 3) all costs incurred during the Reconciliation Period in the negotiation, administration, enforcement, and implementation of the projects and related agreements, and costs associated with the design of an undersea transmission cable interconnecting Block Island (Town of New Shoreham) to the mainland that are not otherwise recovered through the Transmission Service Cost Adjustment Provision pursuant to Sections 2.iii and 2.iv;
- 4) the costs incurred during the Reconciliation Period by the Company under Reimbursement Agreements pursuant to Section 2.vi;
- 5) the costs incurred during the Reconciliation Period associated with required system upgrades that are not recovered directly from Distributed Generation Facilities pursuant to Section 2.vii;
- 6) forfeited Performance Guarantee Deposits during the Reconciliation Period pursuant to Section 2.viii which shall be an offset to expense; and



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- 7) The costs incurred during the Reconciliation Period for consultants hired to assist the Commission in proceedings involving contract disputes pursuant to Section 2.ix.

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	=	<u>(b) the revenues billed through the LTCRER Factors as approved by the Commission for the Reconciliation Period;</u>
<u>i</u>	=	<u>interest calculated as the sum of the beginning period and ending period balance divided by 2, multiplied by the rate paid on customer deposits;</u>
<u>FkWh<sub>x</sub></u>	=	<u>The Forecasted kWh for the six-month period following the effective date of the LTCRER;</u>
<u>FkWh<sub>[x + (x+1)]</sub></u>	=	<u>The Forecasted kWh for the twelve month period following the effective date of the LTCRER; and</u>
<u>UP</u>	=	<u>The uncollectible percentage approved by the Commission in the Company's most recent rate case.</u>

4) ADJUSTMENTS TO RATES

Adjustments to rates pursuant to the LTCRER Provision are subject to review and approval by the Commission. The Company shall file its revised LTCRER factor semi-annually at least forty-five (45) days prior to the effective date of the revised LTCRER factor. Modifications to the factors contained in this LTCRER Provision shall be in accordance with a notice filed with the Commission pursuant to R.I.G.L. § 39-3-11(a) setting forth the amount(s) of the revised factor(s) and the amount(s) of the increase(s) or decrease(s). The notice shall further specify the effective date of such charges.

Effective Date: August 1, 2012~~April 1,~~

2012

**THE NARRAGANSETT ELECTRIC COMPANY**  
**d/b/a NATIONAL GRID**  
**R.I.P.U.C. Docket No. \_\_\_\_\_**  
**Witness: Lloyd**

**Schedule JAL-2**  
**Long-Term Contracting for Renewable Energy Recovery Factor**  
**Illustrative Calculation**

**Long-Term Contracting for Renewable Energy Recovery Factor Illustrative Calculation**  
**Six-Month Pricing Period Beginning January or July**

**Section 1: Above-Market Cost**

	<u>PPA-1</u>	<u>PPA-2</u>	<u>Total</u>
(1) Total Estimated Six-Month Contract Cost	\$13,402,800	\$306,600	\$13,709,400
(2) Illustrative Six-Month Market Value	<u>\$10,075,555</u>	<u>\$276,584</u>	<u>\$10,352,139</u>
(3) Illustrative Above-Market Cost	\$3,327,245	\$30,016	\$3,357,261

- (1) Page 2, Section 1, column (e)
- (2) Page 2, Section 2, column (g)
- (3) Line (1) - Line (2)

**Section 2: Contract Remuneration**

	<u>PPA-1</u>	<u>PPA-2</u>	<u>Total</u>
(1) Total Estimated Six-Month Contract 1 Cost	13,402,800	306,600	13,709,400
(2) Remuneration Percentage	<u>2.75%</u>	<u>2.75%</u>	
(3) Estimated Six-Month Contract Remuneration	\$368,577	\$8,432	377,009

- (1) Section 1, Line 1
- (2) Per R.I.G.L. § 39-26.1-4
- (3) Line (1) x Line (2)

**Section 3: Total LTCRER**

(1) Above Market and Remuneration Cost	\$3,734,270
(2) Forecasted Six Month kWh Deliveries	4,066,674,603
(3) Recovery Factor for Above Market Cost and Remuneration	\$0.00092
(4) Adjustment for Uncollectibles	0.94%
(5) LTCRER Factor	\$0.00092

- (1) Section 1, Line (3) + Section 2, Line (3)
- (2) per Company forecast
- (3) Line (1) ÷ Line (2), truncated after 5 decimal places
- (4) uncollectible percentage approved in RIPUC Docket No. 4065
- (5) Line (3) x (1 + Line (4)), truncated to five decimal places

**Long-Term Contracting for Renewable Energy Recovery Factor Illustrative Calculation  
Six-Month Pricing Period Beginning January or July**

**Section 1: Estimated Six-Month Contract Cost**

Unit	Unit Capacity (MW) (a)	Capacity Factor (b)	Total Estimated Six- Month Output (MWh) (c)	Contract Price (\$ per MWh) (d)	Estimated Six- Month Contract Cost (e)
PPA-1	30	0.85	111,690	\$120	\$13,402,800
PPA-2	5	0.14	3,066	\$100	<u>\$306,600</u>
				Total	\$13,709,400

- (a) Illustrative
- (b) Illustrative
- (c) column (a) x column (b) x (8,760 ÷ 2) hours
- (d) Illustrative
- (e) column (c) x column (d)

**Section 2: Illustrative Market Value**

<u>Class</u>	<u>Estimated MWh Purchased Under Contracts</u> (a)	<u>Market Energy Proxy</u> (b)	<u>Energy Market Value</u> (c)	<u>REC Proxy</u> (d)	<u>REC Market Value</u> (e)	<u>Capacity</u> (f)	<u>Total Market Value</u> (g)
PPA-1	111,690	\$47	\$5,272,885	\$43	\$4,802,670	n/a	\$10,075,555
PPA-2	3,066	\$47	\$144,746	\$43	\$131,838	n/a	<u>\$276,584</u>
						Total	\$10,352,139

- (a) Section 1, Column (c)
- (b) Standard Offer Service Spot Market Estimate
- (c) Column (a) x Column (b)
- (d) New REC price estimate included in calculation of currently effective RES charge
- (e) Column (a) x Column (d)
- (f) capacity estimate included in spot market price
- (g) Column (c) + Column (e)

**THE NARRAGANSETT ELECTRIC COMPANY**  
**d/b/a NATIONAL GRID**  
**R.I.P.U.C. Docket No. \_\_\_\_\_**  
**Witness: Lloyd**

**Schedule JAL-3**  
**Long-Term Contracting for Renewable Energy Recovery Factor**  
**Illustrative Annual Reconciliation**

**Long-Term Contracting for Renewable Energy Recovery Factor Illustrative Annual Reconciliation**

**Section 1. Reconciliation**

<u>Month</u>	<u>Over/(Under) Beginning Balance</u> (a)	<u>Revenue</u> (b)	<u>Expense</u> (c)	<u>Administrative Expense</u> (d)	<u>Monthly Over/(Under)</u> (e)	<u>Over/(Under) Ending Balance</u> (f)
July	\$0	\$626,786	\$695,612	\$1,000	(\$69,826)	(\$69,826)
August	(\$69,826)	\$591,305	\$695,612	\$1,000	(\$105,307)	(\$175,133)
September	(\$175,133)	\$586,907	\$695,612	\$1,000	(\$109,704)	(\$284,837)
October	(\$284,837)	\$574,692	\$695,612	\$1,000	(\$121,920)	(\$406,757)
November	(\$406,757)	\$528,362	\$695,612	\$1,000	(\$168,250)	(\$575,007)
December	(\$575,007)	\$569,611	\$695,612	\$1,000	(\$127,000)	(\$702,007)
January	(\$702,007)	\$670,371	\$695,612	\$1,000	(\$26,241)	(\$728,248)
February	(\$728,248)	\$693,684	\$695,612	\$1,000	(\$2,928)	(\$731,176)
March	(\$731,176)	\$645,441	\$695,612	\$1,000	(\$51,170)	(\$782,346)
April	(\$782,346)	\$569,864	\$695,612	\$1,000	(\$126,748)	(\$909,094)
May	(\$909,094)	\$547,787	\$695,612	\$1,000	(\$148,824)	(\$1,057,919)
June	(\$1,057,919)	\$607,122	\$695,612	\$1,000	(\$89,489)	(\$1,147,408)
	\$0	\$7,211,933	\$8,347,341	\$12,000	(\$1,147,408)	(\$1,147,408)
						Interest (15,949)
						Ending Balance Including Interest (1,163,357)

- (a) Prior Month Column (e)
- (b) Page 2, Column (c)
- (c) Page 3, Column (e)
- (d) illustrative
- (e) Column (b) - Column (c) - Column (d)
- (f) Column (a) + Column (e)

**Section 2. Calculation of Reconciliation Factor**

(1) Past Period Reconciliation Amount	(\$1,163,357)
(2) Forecasted Annual kWh Deliveries	7,853,900,593
(3) LTCRER Factor prior to Uncollectible Adjustment	\$0.00014
(4) Adjustment for Uncollectibles	0.94%
(5) LTCRER Factor	\$0.00014

- (1) Section 1
- (2) per Company forecast
- (3) Line (1) ÷ Line (2), truncated after 5 decimal places
- (4) uncollectible percentage approved in RIPUC Docket No. 4065
- (5) Line (3) x (1 + Line (4)), truncated to five decimal places

**Long-Term Contracting for Renewable Energy Recovery Factor Illustrative Annual Reconciliation  
Annual Revenue**

	<u>kWh</u> <u>Deliveries</u> (a)	<u>LTCRER Factor</u> (b)	<u>LTCRER</u> <u>Revenue</u> (c)
July	730,043,562	\$0.00092	\$626,786
August	755,431,924	\$0.00092	\$591,305
September	702,895,214	\$0.00092	\$586,907
October	620,590,094	\$0.00092	\$574,692
November	596,548,571	\$0.00092	\$528,362
December	661,165,238	\$0.00092	\$569,611
January	682,579,095	\$0.00092	\$670,371
February	643,939,284	\$0.00092	\$693,684
March	639,150,833	\$0.00092	\$645,441
April	625,847,707	\$0.00092	\$569,864
May	575,394,051	\$0.00092	\$547,787
June	620,315,020	\$0.00092	\$607,122
	7,853,900,593		\$7,211,933

- (a) per Company forecast
  - (b) Page 1, Section 3, Line (3)
  - (c) Column (a) x Column (b)
-

**Long-Term Contracting for Renewable Energy Recovery Factor Illustrative Annual Reconciliation  
Annual Expense - Summary**

**Section 1: Summary of Annual Expense**

	<u>Actual MWh</u> (a)	<u>Total Contract Cost</u> (b)	<u>Capacity Revenue</u> (c)	<u>Net Payment</u> (d)	<u>Remuneration</u> (e)	<u>Energy Market Payments</u> (f)	<u>REC Proceeds</u> (g)	<u>Total Cost</u> (h)
July	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
August	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
September	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
October	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
November	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
December	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
January	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
February	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
March	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
April	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
May	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
June	18,980	2,270,300	78,600	2,191,700	60,272	797,160	759,200	695,612
<b>Total</b>	<u>227,760</u>	<u>27,243,600</u>	<u>943,200</u>	<u>26,300,400</u>	<u>723,261</u>	<u>9,565,920</u>	<u>9,110,400</u>	<u>8,347,341</u>

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- (a) Page 4, sum of column (a) for all contracts
  - (b) Page 4, sum of column (c) for all contracts
  - (c) Page 4, sum of column (d) for all contracts
  - (d) Column (b) - Column (c)
  - (e) Page 4, sum of column (f) for all contracts
  - (f) Page 4, sum of column (g) for all contracts
  - (g) Page 4, sum of column (h) for all contracts
  - (h) Column (d) + Column (e) - Column (f) - Column (g)



**Long-Term Contracting for Renewable Energy Recovery Factor Illustrative Annual Reconciliation  
Annual Expense - Detail by Purchased Power Agreement**

**Derivation of Actual Annual Expense per Individual Contract**

Actual Average Market Clearing Price \$42.00 per MW  
Actual REC Price \$40.00 per MW  
Capacity Clearing Price \$3.00 per kW month

**PPA-1**

	Actual Price MWh	Contract (per kWh)	Total Contract Cost	Capacity Revenue	Net Payment	Remuneration	Energy Market Payments	RECs	Total Cost
	(a)	(b)	(c) = (a) x (b)	(d)	(e) = (c) - (d)	(f) = (e) x 2.75%	(g)	(h)	(i) = (e) + (f) - (g) - (h)
July	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
August	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
September	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
October	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
November	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
December	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
January	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
February	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
March	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
April	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
May	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
June	18,615	\$120.00	\$2,233,800	\$76,500	\$2,157,300	\$59,326	\$781,830	\$744,600	\$690,196
	<u>223,380</u>		<u>26,805,600</u>	<u>918,000</u>	<u>25,887,600</u>	<u>711,909</u>	<u>9,381,960</u>	<u>8,935,200</u>	<u>8,282,349</u>

**PPA-2**

	Actual Contract MWh	Price	Total Contract Cost	Capacity Revenue	Net Payment	Remuneration	Energy Market Payments	RECs	Total Cost
	(a)	(b)	(c) = (a) x (b)	(d)	(e) = (c) - (d)	(f) = (e) x 2.75%	(g)	(h)	(i) = (e) + (f) - (g) - (h)
July	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
August	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
September	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
October	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
November	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
December	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
January	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
February	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
March	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
April	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
May	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
June	365	\$100.00	\$36,500	\$2,100	\$34,400	\$946	\$15,330	\$14,600	\$5,416
	<u>4,380</u>		<u>438,000</u>	<u>25,200</u>	<u>412,800</u>	<u>11,352</u>	<u>183,960</u>	<u>175,200</u>	<u>64,992</u>
Grand Total	<u>227,760</u>		<u>27,243,600</u>	<u>943,200</u>	<u>26,300,400</u>	<u>723,261</u>	<u>9,565,920</u>	<u>9,110,400</u>	<u>8,347,341</u>

(a) & (b) Page 1, Section 1

(d) Estimated unit capacity (kW) x capacity factor x capacity clearing price

(g) column (a) x Actual Market Energy Price (energy market payments will be determined as part of the monthly ISO-NE settlement process and included on the Company's monthly invoice.)

(h) column (a) x Actual Market REC Price, actual REC prices will be determined at the time the RECs are utilized for Standard Offer Service.