

Raquel Webster Senior Counsel

January 29, 2016

BY HAND DELIVERY AND ELECTRONIC MAIL

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

RE: Docket 4589-A-Proposed 2016 Renewable Energy Growth Program Tariff and Rule Changes and Proposed SolarWise Program <u>Responses to PUC Data Requests – Set 3</u>

Dear Ms. Massaro:

I have enclosed ten copies of National Grid's¹ responses to the third set of data requests issued by the Public Utilities Commission in the above-referenced docket.

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

Very truly yours,

Raquel J. Webster

Enclosure

cc: Docket 4589 Service List Leo Wold, Esq. Jon Hagopian, Esq. Steve Scialabba, Division

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

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.

Joanne M. Scanlon

<u>January 29, 2016</u> Date

Docket No. 4589-A National Grid 2016 Renewable Energy Growth Program Tariff and Rule Changes and Proposed SolarWise Program; and

Docket No. 4589-B RI Distributed Generation Board (DG Board) Report and Recommendation Regarding 2016 Renewable Energy Growth Classes, Ceiling Prices and Targets

Service List updated 12/23/15

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<u>COMM 3-1</u>

Request:

This is a re-statement of the question asked in COMM 1-1. Include in your response the name of the project that was rejected in the 2015 First Enrollment due to anti-segmentation.

Response:

The name of the project that was rejected in the 2015 First Enrollment due to anti-segmentation is Wind Energy Development Coventry 5.

<u>COMM 3-2</u>

Request:

Referring to COMM 1-7, describe the Company's *InDemand* system in more detail, including specifically how it tracks EE measures and for how long, and state whether SolarWise customers will be notified of the Company's monitoring of their energy efficiency project activities. If yes, what form of notification will they receive?

Response:

The Company has an internal work management system called "InDemand", which tracks commercial and industrial and residential energy efficiency measures through various stages of the administrative process while the energy efficiency measure is being completed. The tracking of measures through the implementation process depends on the type of project and program. Once the measure is completed, the associated savings are entered for reporting purposes.

The Company does not notify customers of the Company's monitoring of their project activities in InDemand. However, customers are engaged and aware of certain steps in the process, such as application signing, installation inspection, and payment processing.

<u>COMM 3-3</u>

Request:

The RE Growth Tariff first proposed in 2014 contained numbered paragraphs. The Tariff revisions proposed in this docket contain lettered paragraphs. This anomaly creates challenges in comparing proposed revisions to existing language. Was the change from numbers to letters intentional, and if so, why?

Response:

The change from a numbered format to a lettered format in the Renewable Energy (RE) Growth Program for Residential Customers, RIPUC No. 2151-A, was unintentional. Attachment COMM 3-3 is a clean version of the residential tariff, reformatted to numerically identify the various sections of the tariff. The Company will submit a tariff compliance filing that will incorporate any and all proposed changes to the currently effective RE Growth Program tariffs, including those agreed upon by the Company during discovery, as approved by the PUC.

1. Introduction

This tariff ("Tariff") describes the terms and conditions under which an Applicant for a solar electricity generating facility ("Residential Small-Scale Solar Project" or "Project") will receive funding pursuant to Chapter 26.6 of Title 39 of the Rhode Island General Laws ("Chapter 26.6"), which refers to the Renewable Energy Growth Program ("RE Growth Program").

This Tariff will apply to an Applicant who has installed a Project with a nameplate capacity of up to and including 25 kilowatts at a Residential Customer's service location. For this purpose, a Residential Customer ("Customer") is defined as an electric customer receiving retail delivery service on either Basic Residential Rate A-16 or Low Income Rate A-60. The Project must be reasonably designed and sized to produce electricity at an annual level equal to or less than 1) the Residential Customer's On-Site Use as measured over the previous three (3) years at the electric service account located at the Residential Customer's service location; 2) the annualized On-Site Use over the period of service to the Residential Customer's service location if such service has been provided for less than three years; or 3) a reasonable estimate of annual On-Site Use if the Project is located at a new service location. The Applicant and the Customer for the Project may be the same person, or different persons, subject to the eligibility standards in the Solicitation and Enrollment Process Rules for Small-Scale Solar Projects ("Rules") and this Tariff.

This Tariff applies to the Applicant for a Project that is awarded a Certificate of Eligibility pursuant to the Rules, and any successor Applicant for the Project. Upon being awarded a Certificate of Eligibility, a Project has 24 months to meet all requirements to receive compensation pursuant to this Tariff.

The Applicant is required to complete and update, as appropriate, the Application information for the Project, including but not limited to: the Project owner, the Customer, the electric service account, and the recipient of Performance-Based Incentive Payments. Also, an Applicant may designate a successor Applicant for the Project. The Applicant may, but need not be, the same person or entity to pursue the interconnection of the Project with the Company's electric distribution system. The Applicant maintains the obligation to ensure that all aspects of the Project comply with the terms of the Rules and this Tariff. Upon notice to the Company, the Applicant may transfer the compensation under this Tariff to another person or entity without the consent of the Company.

2. **Definitions**

The following words and terms shall have the following meanings when used in this Tariff:

- a. Applicant: the person or entity with legal authority to enroll the Project in the RE Growth Program, and with the obligation to ensure that all aspects of the Project comply with the Rules and Tariff.
- b. Application: the RE Growth Program Enrollment short form application submitted by the Applicant.

- c. Board: the Distributed Generation Board established pursuant to R.I. Gen. Laws § 39-26.2-10 and having expanded responsibilities under Chapter 26.6.
- d. Certificate of Eligibility: written notice by the Company that a Project has been enrolled in the RE Growth Program. Upon an award of a Certificate of Eligibility, a Project will be entitled to receive Performance-Based Incentive Payments for a specified term, pursuant to the terms and conditions of the applicable Tariff supplement.
- e. Commission: the Rhode Island Public Utilities Commission.
- f. Company: The Narragansett Electric Company d/b/a National Grid.
- g. Nameplate Capacity: the total rated power output of all the Project's panels, measured in direct current.
- h. On-Site Use: the amount of energy used at a Customer's service location during a billing period that may be delivered by the Company, or supplied by the Project, or both.
- i. Performance-Based Incentive: the standard price per kilowatt-hour ("kWh") recommended by the Board and approved by the Commission that is applicable to the output of a Project when the Applicant has been awarded a Certificate of Eligibility, pursuant to the Solicitation and Enrollment Process Rules.
- j. Program Year: a year beginning April 1 and ending March 31, unless otherwise approved by the Commission.
- k. Project: a solar photovoltaic electricity generating facility that meets the eligibility requirements of the Rules and this Tariff, that is located in the Company's service territory, and that is interconnected with the Company's electric distribution system at a residential service location.
- 1. Renewable Energy Certificate ("REC"): an electronic record produced by the New England Power Pool Generation Information System ("NEPOOL-GIS") that identifies the relevant generation attributes of each megawatt-hour accounted for in the NEPOOL-GIS.
- m. SolarWise Program: an energy efficiency and solar program, which, pursuant to RI Gen Laws § 39-26.6-19, encourages the use of residential and non-residential solar photovoltaic equipment by offering extra incentives from the RE Growth Program when customers pursue greater energy efficiency savings through the Energy Efficiency Program Plan, which the Company files pursuant to R.I. Gen. Laws. § 39-1-27.7.

Solicitation and Enrollment Process Rules for Small-Scale Solar Projects: the rules that govern the solicitation, enrollment, and award processes for the RE Growth Program applicable to Customers, established pursuant to Chapter 26.6, and approved by the Commission.

3. Project Segmentation

Rhode Island law prohibits project segmentation in the RE Growth Program. In no case may a project developer be allowed to segment a distributed generation project on the same parcel or contiguous parcels into smaller sized projects in order to fall under a smaller size project classification. Subject to the exceptions below, projects proposed by a developer on the same parcel or contiguous parcels will be presumed to have been segmented, and only one of the projects will be eligible for a Certificate of Eligibility. An Applicant may appeal the Company's decision to the Commission.

Before making its determination, the Company will look for one of the following exceptions to the prohibition on project segmentation:

- i. The Projects use different renewable energy resources; or
- ii. The Projects use the same renewable energy resource, but they are: (1) electrically segregated; (2) separately metered; and (3) can demonstrate that 24 months have elapsed between the commencement of operation for one Project and the commencement of construction of any additional Project.
- iii. Projects on contiguous parcels will not be considered as segmented if they serve different Residential Customers.

If the Company determines that a Project is ineligible to enroll in the RE Growth Program due to project segmentation, such project may be eligible for compensation pursuant to the Net Metering Provision or through other energy market participation. Rhode Island law requires eligible Projects must not already be operating to participate in the RE Growth Program, therefore any Project receiving compensation pursuant to the Net Metering Provision is not eligible for the RE Growth Program. Furthermore, if an Applicant is awarded a Certificate of Eligibility for a Project and that Project is receiving Performance-Based Incentive Payments pursuant to this Tariff, the Project will not receive compensation pursuant to the Net Metering Provision for the same Project during the term of service specified in the applicable Tariff supplement.

4. Metering

a. The Company shall install a Company-owned meter on all Projects for the purpose of measuring the output of the Project. The meter for the Project shall be wired in parallel with and be adjacent to the existing service meter.

b. The Company must be provided with adequate access to read the meter(s), and to install, repair, maintain, and replace the meter(s).

5. Renewable Energy Certificates and Other Environmental Attributes

For the term specified in the applicable Tariff supplement, the Company shall have the rights and title to the RECs and any other environmental attributes, as described below, or market products associated with the generation output of the Project. Pursuant to Chapter 26.6, the Customer shall retain title to all energy and capacity produced by the Project, shall be deemed to have consumed such energy and capacity on-site during the applicable billing period, and no sale of the Project's energy or capacity by the Customer to the Company shall be deemed to have occurred.

Prior to receiving compensation pursuant to Section 6 of this Tariff, an Applicant must cooperate with the Company to obtain Commission certification of a Project as an Eligible Renewable Energy Resource pursuant to the Commission's Rules and Regulations Governing the Implementation of a Renewable Energy Standard. In addition, the Applicant is required to cooperate with the Company to qualify the DG Project under the renewable portfolio standard or similar law and/or regulation of New York, Massachusetts, and/or one or more New England states and/or any federal renewable energy standard.

RECs must be delivered to the Company's appropriate NEPOOL-GIS account. This will be accomplished through registration of the Project with the NEPOOL-GIS. The Applicant shall provide all necessary information and cooperate with the Company to enable the Company to obtain the appropriate asset identification for reporting generation to the NEPOOL-GIS for the creation of RECs and direct all RECs from the Project to the Company's appropriate NEPOOL-GIS account. The Applicant will provide approvals or assignments, including, but not limited to, completing the REC Assignment and Aggregation Form to facilitate the Project's participation in asset aggregation or other model of asset registration and reporting.

Environmental attributes shall include any and all generation attributes or energy services as established by regional, state, federal, or international law, rule, regulation or competitive market or business method that are attributable, now or in the future, to the output produced by the Project during the term of service specified on the applicable Tariff supplement.

6. Performance-Based Incentive Payment

a. Eligibility

Upon receipt of a Certificate of Eligibility, the Applicant is entitled to the Performance-Based Incentive Payment for the term specified in the applicable Tariff supplement, provided that the Applicant has complied with all other requirements of this Tariff and the Rules.

As a condition for receiving monthly payments pursuant to Section 6.c, the Applicant must provide confirmation of the following: (1) the Company's written authority to interconnect to its

electric distribution system and the Applicant's payment of all amounts due, as assessed by the Company; (2) Commission certification of the Project as an Eligible Renewable Energy Resource pursuant to the Commission's Rules and Regulations Governing the Implementation of a Renewable Energy Standard and NEPOOL-GIS asset registration; as demonstrated by the Applicant's completion of the Renewable Energy Certificate Assignment and Aggregation Form; and (3) the Customer's associated electric service account is not in arrears and the Customer is current on any approved payment plan. Applicants qualified for Solar Bonus Payments must complete the requisite energy efficiency measures prior to receiving payment under this Tariff.

b. Performance-Based Incentive

The Performance-Based Incentive shall be the Performance-Based Incentive that is recommended by the Board and approved by the Commission and will be a fixed per-kWh price for the term specified in the applicable Tariff supplement, and indicated on the Certificate of Eligibility provided to the Applicant.

c. Performance-Based Incentive Payment

The Performance-Based Incentive Payment will be the fixed per-kWh Performance-Based Incentive applied to the measured kWh produced by the Project and it shall be provided to the Applicant and/or to the Customer as follows:

The Customer's bill will be based upon the On-Site Use, the retail delivery service charges, and the Standard Offer Service or Non-Regulated Power Producer charges in effect during the billing period and which applies to the Customer's retail delivery service rate class. The Company shall apply a Bill Credit, as calculated below, to offset the Customer's bill. The Bill Credit will appear as a separate line item on the Customer's bill.

$$BC = OSU x (DCHG + SOS)$$

Where:

- BC = Bill Credit
- OSU = On-Site Use kWh at the lesser of 1) the On-Site Use measured in kWh for the applicable billing month, or 2) the Project's output measured in kWh for the applicable billing month.
- DCHG = the sum of all retail delivery service per-kWh charges applicable to the Customer's retail delivery service rate class per RIPUC No. 2095, Summary of Retail Delivery Rates, as may be amended from time to time.

The remaining amount of the Performance-Based Incentive Payment will be paid in the form a check (or by other agreed-upon means) to the recipient as identified on the Application. The Customer will be responsible for paying any balance due on the electric bill in accordance with the Terms and Conditions for Distribution Service.

If the Bill Credit in a given month exceeds the Performance-Based Incentive Payment, the Customer shall receive the full amount of the Bill Credit, which will not exceed the total of the per kWh delivery service charges and applicable Standard Offer Service charge, excluding the customer charge and any applicable taxes. There will be no additional amounts related to the calculation of the Performance-Based Incentive Payment charged or credited to the Customer or the recipient identified on the Application.

Only one billing account will be eligible to receive Bill Credits from each Project pursuant to this provision.

d. SolarWise Program

Applicants who have been approved as qualifying for a SolarWise Bonus Tier are eligible to receive SolarWise Bonus Payments. The PBI payments pursuant to Section 6.c of this Tariff will be adjusted to reflect the percentage increase applicable to the SolarWise Bonus Tier indicated on the Applicant's SolarWise Approval and Certificate of Eligibility.

Bill credits will be applied to the billing account of the customer that received the energy efficiency audit and must be located at the same premise at which the solar DG Project is installed. The solar DG Project must be sized such that it produces output that is no greater than the historic or projected load (per Section 1 above) less the energy efficiency savings from installed energy efficiency measures used to qualify the customer for the SolarWise Bonus Award.

7. Other Company Tariff Requirements

- a. The Company will provide the Customer with retail delivery service under the applicable retail delivery service tariff and the Company's Terms and Conditions for Distribution Service.
- b. The Applicant is required to comply with the Company's Standards for Connecting Distributed Generation.
- c. To be eligible to receive Renewable Net Metering Credits and Excess Renewable Net Metering Credits pursuant to the Company's Net Metering Provision following the

SOS = the Residential Standard Offer Service charge per RIPUC No. 2096, Summary of Standard Offer Service Rates, as may be amended from time to time.

termination of the Customer's participation in the RE Growth Program, the Project and the Customer must comply with the applicable provisions of the Company's Net Metering Provision.

d. The Company's recovery of all costs it incurs to implement and administer the RE Growth Program is pursuant to the Renewable Energy Growth Program Cost Recovery Provision.

8. Dispute Resolution

If any dispute arises between the Company and either the Applicant or the Customer, the dispute shall be brought before the Commission for resolution. Such disputes may include but are not limited to those concerning the Rules, terms, conditions, rights, responsibilities, the termination of the Tariff or Tariff supplement, or the performance of the Applicant, the Customer, or the Company.

9. Termination

The Applicant and the Customer shall comply with the provisions of this Tariff through the end of the term specified in the applicable Tariff supplement. The Applicant and the Customer may not terminate their obligations under this Tariff unless and until the Company consents to such termination. The Company will not unreasonably delay or withhold its consent to an Applicant's request to terminate if the Applicant cannot fulfill the obligations because of an event or circumstance that is beyond the Applicant's reasonable control and for which the Applicant could not prevent or provide against by using commercially reasonable efforts.

Only the Project described on the Certificate of Eligibility is eligible to participate under this Tariff. In no event shall an Applicant expand a Project's nameplate capacity beyond what is allowed by the Certificate of Eligibility. If a Project exceeds the nameplate capacity allowed by the Certificate of Eligibility, the Company may revoke the Certificate of Eligibility.

The Customer and Applicant are required to comply with this Tariff. If the Company determines that a Customer or Applicant has violated the terms and conditions of this Tariff, or the provisions of any other applicable Company tariffs or applicable rules, regulations, or laws, the Company may revoke the Customer or Applicant's Certificate of Eligibility.

10. Statutory Authority

This Tariff is filed in compliance with R.I. Gen. Laws § 39-26.6-10. The Company will file Tariff supplements and all revisions to this Tariff annually by November 15. This Tariff and its supplements are subject to review, approval, and the exclusive jurisdiction of the Commission.

The Narragansett Electric Company Renewable Energy Growth Program for Residential Customers Tariff Supplement

Program Year: April 1, 2016 through March 31, 2017

Performance-Based Incentives and associated Performance-Based Incentive Payment shall remain in effect during the term of service noted below in accordance with R.I. Gen. Laws § 39-26.6-20.

Term of Service represents the period of time during which the Project earns Performance-Based Incentive Payments. The billing month during which Performance-Based Incentive Payments begin will be specific to each individual Project, and the Term of Service for a particular Project will commence upon the first month of operation.

Renewable Energy Class	System Size	Ceiling Price/Standard Performance- Based Incentive (per kWh)	Ceiling Price/Standard Performance- Based Incentive (per kWh) with Solarwise Tier I 5% increase	Ceiling Price/Standard Performance- Based Incentive (per kWh) with Solarwise Tier II 10% increase	Ceiling Price/Standard Performance- Based Incentive (per kWh) with Solarwise Tier I Third-Party Owned 2% increase	Ceiling Price/Standard Performance- Based Incentive (per kWh) with Solarwise Tier II Third-Party Owned 4% increase	Term of Service
Small- Scale Solar I, Host Owned	1 to 10 kW	37.65¢	39.53¢	41.42¢	n/a	n/a	15 years
Small- Scale Solar I, Host Owned	1 to 10 kW	33.45¢	35.12¢	36.80¢	n/a	n/a	20 years
Small- Scale Solar I, Third- Party Owned	1 to 10 kW	29.90¢	n/a	n/a	30.50¢	31.10¢	15 years
Small- Scale Solar I, Third- Party Owned	1 to 10 kW	26.10¢	n/a	n/a	26.62¢	27.14¢	20 years

The Narragansett Electric Company Renewable Energy Growth Program for Residential Customers Tariff Supplement

Renewable Energy Class	System Size	Ceiling Price/Standard Performance- Based Incentive (per kWh)	Ceiling Price/Standard Performance- Based Incentive (per kWh) with Solarwise Tier I 5% increase	Ceiling Price/Standard Performance- Based Incentive (per kWh) with Solarwise Tier II 10% increase	Ceiling Price/Standard Performance- Based Incentive (per kWh) with Solarwise Tier I Third-Party Owned 2% increase	Ceiling Price/Standard Performance- Based Incentive (per kWh) with Solarwise Tier II Third-Party Owned 4% increase	Term of Service
Small- Scale Solar II	11 to 25 kW	26.15¢	27.46¢	28.77¢	n/a	n/a	20 years
Small- Scale Solar II, Third- Party Owned	11 to 25 kW	26.15¢	n/a	n/a	26.67¢	27.20¢	20 years

<u>COMM 3-4</u>

Request:

These 2 questions relate to the Red-lined Residential Tariff, Sheet 4.

- Explain the reasons justifying deletion of the language that the Company "shall assume the obligation" to qualify RECS in other states. Given the Company's reason for the edits in this section are to clarify that the Applicant's cooperation is necessary in order to qualify the RECs, wouldn't it be reasonable to maintain the current language that the Company "shall assume the obligation" to qualify RECs in other states, and then add, "provided, however, that the Applicant is required to cooperate with the Company in so qualifying RECs," or other similar qualifying language?
- 2) Explain the reasons justifying deletion of the language "designate the Company or another party as directed by the Company, as the Applicant's Responsible Party under the NEPOOL GIS rules."
- 3) Please share any specific issues or circumstances the Company has encountered in its dealings with customers which may support the necessity for these edits.

Response:

1) In Sheet 4 of the Residential Tariff, the Company will maintain the language in the Residential Tariff that reads: "shall assume the obligation." The Company will add to this language: "provided, however, that the Applicant is required to cooperate with the Company in so qualifying RECs."

The revised language will be as follows: "The Company shall assume the obligation to qualify the DG Project under the renewable portfolio standard or similar law and/or regulation of New York, Massachusetts, and/or one or more New England states and/or any federal renewable energy standard provided, however, that the Applicant is required to cooperate with the Company in so qualifying RECs."

- In seeking approval to aggregate the small-scale solar projects, the Company found that the NEPOOL GIS Rules do not require the Company to be designated as the "Responsible Party". Therefore, the Company removed that language.
- 3) The edits were added in response to the Company receiving PUC approval to act as Aggregator Owner on behalf of all small-scale solar projects. The Company seeks to simplify the information to customers contained in the Tariff and sought to strike unnecessary language and terms.

<u>COMM 3-5</u>

Request:

- 1) Referring to COMM 1-9, since the RE Growth Act does not define the term "project developer," if an adjacent project is owned by an affiliate or subsidiary of a contiguous project, would the Company consider that arrangement to violate the anti-segmentation provision? Include specific reasons supporting your response.
- 2) If the Company has encountered such an arrangement, provide a full and complete explanation of how the Company resolved the issue, including the specific documentation sought and received from the developer to assist the Company in resolving the issue.

Response:

 Yes, if an adjacent project is owned by an affiliate or subsidiary of a contiguous project, the Company would consider that arrangement to violate the anti-segmentation provision. An "affiliate" is generally described as an organization, business entity, or individual that is related to, controlled by, or controls another party. For example, for purposes of distributed generation (DG) interconnections, the Company's distributed generation interconnection tariff defines an "affiliate" as a person or entity controlling, controlled by or under common control with a party." *See* RIPUC No. 2078¹, Section 1.2. The Renewable Energy (RE) Growth Law's anti-segmentation provision would have little meaning or effect if a project developer could circumvent the provision by forming separate affiliate entities under which the projects would be developed.

The anti-segmentation provision protects customers who pay for the program from overpaying for projects that have greater economies of scale and, therefore, should be paid lower prices relative to other smaller projects without those economies of scale. The provision also prevents large developers from depriving smaller developers of the opportunity to build projects under the RE Growth Program. Notably, the RE Growth Program has a 5 megawatt (MW) cap on project size, which prevents developers from developing projects greater than 5 MW. Creating an exception for affiliates and/or subsidiaries would not only afford large developers a new way to take advantage of higher ceiling prices, but also permit projects to circumvent the 5MW project size cap. This would not only harm the customers paying for the program, but also harm smaller developers.

¹ Note that this Tariff number will change upon the PUC's approval of the Company's revised Distributed Generation Interconnection Tariff in PUC Docket No. 4483.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4589-A In Re: Renewable Energy Growth Program and SolarWise Proposal Responses to Commission's Third Set of Data Requests Issued on January 15, 2016

COMM 3-5, page 2

2) The Company has not encountered such an arrangement. As noted in the Company's response to COMM 1-9, if there is more than one project proposed on the same parcel or contiguous parcels of land, the Company would then review whether such projects belong to a single-project developer. To the extent a project developer is a corporate entity, this determination requires an intimate knowledge of the developer's corporate structure. Applicants, not the Company, should have direct knowledge of, and/or access to, this information and are, therefore, in the best position to ensure that their proposed projects comply with the segmentation rules. As such, the Company will request and rely upon the representations and assurances of the applicant (and any person acting on or behalf of applicant), as to whether projects proposed on the same parcel or contiguous parcels of land belong to a single-project developer. To the extent the Company has any questions or concerns regarding a developer's status as set forth in such representations, the Company may request that applicants provide additional supporting documentation, such as the corporate articles of organization and corporate filings with the State of Rhode Island Office of the Secretary of State. The Company may also seek guidance from the PUC for any disagreements as to multiple person/entities status as a "single developer" under the anti-segmentation provisions.

<u>COMM 3-6</u>

Request:

COMM 3-6. The Company's response to COMM 1-10 states that the same edit contained in the Small Solar Rules (NG-3, page 6 of 15), Paragraph 1.2.2.3.2) is also contained in the Introduction Section of the Residential and Non-Residential Tariff. Since the language of the Non-Residential Tariff does not appear to corroborate this response, please provide an exact duplicate of the Non-Residential Tariff provision, including the full citation, which supposedly mirrors the language proposed in the aforementioned Small Solar Rule section.

Response:

The Company's prior response to COMM 1-10 inadvertently cited to the wrong section of the Non-Residential Tariff. The proposed edit contained in the Small Solar Rules (NG-3, page 6 of 15, Paragraph 1.2.2.3.2) is a restatement of the provision contained in the Non-Residential Tariff RI PUC 2152-A at Section 8.c. For the PUC's reference, the Company has attached the relevant excerpt of the Non-Residential Tariff to this response as Attachment COMM 3-6.

The Narragansett Electric Company d/b/a National Grid RIPUC Docket No. 4371 Attachment COMM 3-6 Page 1 of 1

RIPUC No. 2152<u>-A</u> Sheet 9

THE NARRAGANSETT ELECTRIC COMPANY RENEWABLE ENERGY GROWTH PROGRAM FOR NON-RESIDENTIAL CUSTOMERS

As a condition for receiving monthly payments pursuant to Section 9c, the Applicant must provide confirmation of the following: 1) the Company's written authority to interconnect to its electric distribution system and Applicant's payment of all amounts due; 2) Commission certification of the DG Project as an Eligible Renewable Energy Resource; 3) registration of the DG Project with the ISO-NE and NEPOOL GIS; and 4) except for small-scale and medium-scale solar, the Output Certification. <u>Small-Scale Solar Projects can demonstrate completion of items 2 and 3 by the completion of the</u> <u>Renewable Energy Certificate Assignment and Aggregation Form.</u> If an Applicant or Customer is no longer in good standing with regard to payment plans or agreements, if applicable, and other obligations to the Company (including but not limited to meeting all obligations under an interconnection service agreement), the Company may withhold payments under this Tariff. In addition, the Customer must remain in good standing with regard to the electric service account receiving Bill Credits pursuant to this tariff.

b. Performance-Based Incentive

The Performance-Based Incentive will be a fixed per-kWh price for the term specified in the applicable Tariff supplement.

The Performance-Based Incentive for Small-Scale Solar and Medium-Scale Solar shall be a standard Performance-Based Incentive that is recommended by the Board and approved by the Commission. The Performance-Based Incentive for other DG Projects shall be determined through competitive bidding.

Zonal Incentive: In addition to the Performance-Based Incentive, the Company may propose, and the Commission may approve, a zonal incentive, which is in addition to the Performance-Based Incentive for DG Projects that are: 1) located in designated geographic areas; or 2) comply with other specified conditions. Any Zonal Incentive shall be reflected in the applicable Tariff supplement.

c. Performance Based Incentive Payment

The Performance-Based Incentive Payment will be the fixed per-kWh Performance-Based Incentive, plus any Zonal Incentive where applicable, applied to the measured kilowatt-hours (kWh) produced by the DG Project, net of any Station Service.

Before a DG Project begins to operate, an Applicant must notify the Company of the manner by which it will be compensated for its output under one of the two options below. The Applicant may select Option 2 only if the DG Project can be configured to serve on-site load and the DG Project is reasonably designed and sized to produce electricity at an annual level equal to or less than 1) the Customer's On-Site Use as measured over the previous three (3) years at the electric service account located at the Customer's service location; 2) the annualized On-Site Use over the period of service to the Customer's service location if such service has been provided for less than three years; or 3) a reasonable estimate of annual On-Site Use if the Project is located at a new service location. The Applicant may change the selection only one time after the DG Project begins to operate provided that

<u>COMM 3-7</u>

Request:

This question refers to COMM 2-4, and more specifically, the statement that National Grid customer service employees "are not generally expected or available to work with customers on specific questions regarding bill calculations." Does this mean that if the customer has a question about how the calculation of the PBI, a National Grid customer service representative may, but is not required to, answer the question? What specific types of questions are National Grid customer service reps expected and not expected to answer? Also, does the Company record calls made to customer service reps?

Response:

In COMM 2-4. the above-quoted statement referred to management employees in the billing, regulation and pricing, or legal departments of National Grid and not to customer service employees. For the PUC's reference, the Company has included the exact language of its response to COMM 2-4 below:

"For any customer billing inquiries, including inquiries regarding charges for delivery and commodity services or other charges on the bill, or calculation of the RE Growth Program performance-based incentive (PBI), customers can contact the National Grid Customer Service line at 800-322-3223. Customer service representatives and their supervisors are available to answer any questions customers may have regarding the calculation of their bills. There is a pool of approximately 100 employees who serve customers that call the Customer Service number. If questions arise that customer service representatives or their supervisors are not able to address, the supervisors may seek clarification or other solutions from management employees in the Billing, Regulation and Pricing, or Legal departments of National Grid. However, employees in these departments are not generally expected or available to work with customers on specific questions regarding bill calculations." (National Grid's response to COMM 2-4).

All calls to the Customer Contact Center are recorded, and recordings are kept for one year.

<u>COMM 3-8</u>

Request:

In order to receive the message referenced in COMM 2-5, do customers have to request it, or do they receive it as a matter of course when enrolling in the RE Growth program?

Response:

Customers who inquire either before or during the RE Growth Program application process about details regarding how their tariff payments and bill credits will work are provided with the referenced message when National Grid staff determines it would be helpful in educating the customer in question. The message in question is not included in any communications that are automatically sent to the customer upon applying for enrollment in RE Growth Program.

<u>COMM 3-9</u>

Request:

This question relates to the message referenced in COMM 2-5, and specifically the sentence, "...all value is paid out each month, so there is no carryover of credits between months." Explain more specifically what is meant by this caveat, and would there ever be any circumstance that would cause a customer to lose or forfeit a bill credit due, for instance, to the closing of an account or some other reason?

Response:

The statement refers to the design of the RE Growth Program tariff mechanism, which provides a residential customer with bill credits from their solar generation unit up to the level of their kWh usage in a month, or the level of kWh generation of the system, whichever is less. All other value of the generation, which is calculated by multiplying the total generation kWh by the applicable performance base incentive (PBI) that the customer is enrolled under, net of the bill credits, is then paid in a check or funds transfer to that customer for that billing period. In this way, the customer is fully compensated for their generation and no bill credits or PBI values are carried forward to future billing periods. Because of initial delays in processing payments to RE Growth Program system owners, two customers experienced the carry-forward of net PBI amounts until those amounts could be physically processed and paid to them.

The Company is not aware of any circumstance that would cause a customer to lose or forfeit a valid bill credit. However, a customer account must abide by the terms of the tariff in order to generate bill credits. For example, if a residential account that is also enrolled in the RE Growth Program with an active solar generation system is subsequently closed upon a customer's request, it is up to the system owner and recipient of the remaining tariff period to indicate a new account with which the system would be linked. Because residential solar PV systems in the RE Growth Program must be associated with a residential account, and such accounts must receive bill credits, a system without a residential account associated with it would be placed on hold until a residential account was again linked with the solar PV system meter in question.

<u>COMM 3-10</u>

Request:

COMM 3-10. Is it more beneficial, from the customer's perspective, to receive net metering credits or PBIs? Include specific reasons supporting your response.

Response:

In the current first year of the program, the per-kWh Performance Based Incentives (PBIs) approved for residential solar systems are higher than the total of the per-kWh residential rates that would be used to calculate a customer's net metering credit, and non-residential customer ceiling prices/PBIs are all higher, on average over the last six months of 2015, than the total of the per-kWh C&I rates that would be used to calculate a C&I customer's net metering credit.

For an illustration, please see the table below for a summary of these per-kWh rate comparisons for solar PV systems.

The overall balance of costs and remuneration to customers for a solar or other renewable resource that could enroll in either the RE Growth Program or net metering is more complex than a comparison of per-kWh rates. The availability of grant funds from the Renewable Energy Fund of Commerce Rhode Island, the value of renewable energy certificates available to the facility owner, the future value of the kWh rates, and the potential of differing rates for a public entity net metering facility that is not behind the meter of the public entity load, are all variables that can produce differing answers for varied customer situations. The RE Growth Program tariff-based PBIs, which are fixed for the term of the tariff, provide price certainty for potential renewable generation owners to consider when evaluating what state-provided subsidies to seek to support their potential renewable energy investment.

Rate Class/Solar PV System Size	Total Per-kWh Rate for Net Metering Credit, with SOS, based on average rates from 7/1/15-12/31/15	2015 20-Year RE Growth Program PBI/Ceiling Price for Solar PV System Size Indicated	Difference	
	(a)	(b)	(b) – (a)	
A-16/10 kW Host-owned	16.36¢/kWh	37.75 ¢/kWh	21.39 ¢/kWh	
C-06/ 25 kW	14.27¢/kWh	29.80 ¢/kWh	15.53 ¢/kWh	
G-02/150 kW	10.19¢/kWh	24.40 ¢/kWh	14.21 ¢/kWh	
G-32/ 500 kW	8.40¢/kWh	20.95 ¢/kWh	12.55 ¢/kWh	
G-62/ 2,000 kW	8.07¢/kWh	16.70 ¢/kWh	8.63 ¢/kWh	

<u>COMM 3-11</u>

Request:

What is the estimated total incremental, itemized cost of the RE Growth Program, through March 31, 2020, that will be charged to customers through the RE Growth Factor?

Response:

Please see Attachment COMM 3-11 for the estimate of incremental costs and illustrative RE Growth Factors based on those estimated costs through March 31, 2021. The cumulative incremental cost of the five RE Growth Program years through Year 6, which ends in March 2021, is shown in column (f). Please note the Company assumes that approximately half of all projects will complete construction and be online in the year of enrollment and that the second half of the projects will complete construction and be online in the following year. As such, the Company extended the analysis in the Attachment COMM 3-11 to Year 6 to allow all 160 MW¹ in the program to be reflected in the analysis. While the analysis presented in Attachment COMM 3-11 extends through the end of Year 6, it is important to note that costs of the program will continue to be incurred through the term of the underlying tariffs, and, therefore, extend beyond the period reflected in the analysis.

¹ Pursuant to R.I.G.L. §39-26.6-12, the Renewable Energy Growth Program is intended to achieve at least an aggregate amount of 160 nameplate megawatts over five years, plus any shortfall amount from distributed generation procurements in 2014.

Renewable Energy Growth Program Cost Recovery Summary of Costs by Year

			Year 1 Y/E 3/31/2016 (a)	Year 2 Y/E 3/31/2017 (b)	Year 3 Y/E 3/31/2018 (c)	Year 4 Y/E 3/31/2019 (d)	Year 5 Y/E 3/31/2020 (e)	Year 6 Y/E 3/31/2021 (f)	Cumulative Cost (g)
			(a)	(0)	(0)	(u)	(0)	(1)	(g)
(1)	YEAR 1 BUILD	PBI Payments	\$609,597	\$1,219,195	\$1,219,195	\$1,219,195	\$1,219,195	\$1,219,195	\$6,705,572
(2)	YEAR 1 BUILD	Market Value	\$94,188	\$188,375	\$188,375	\$188,375	\$188,375	\$188,375	\$1,036,063
(3)	YEAR 1 BUILD	Net Cost	\$515,410	\$1,030,820	\$1,030,820	\$1,030,820	\$1,030,820	\$1,030,820	\$5,669,509
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(4)	YEAR 2 BUILD	PBI Payments	\$0	\$6,183,693	\$12,367,385	\$12,367,385	\$12,367,385	\$12,367,385	\$55,653,233
(5)	YEAR 2 BUILD	Market Value	\$0	\$2,869,501	\$5,739,003	\$5,739,003	\$5,739,003	\$5,739,003	\$25,825,512
(6)	YEAR 2 BUILD	Net Cost	\$0	\$3,314,191	\$6,628,382	\$6,628,382	\$6,628,382	\$6,628,382	\$29,827,721
(7)	YEAR 3 BUILD	PBI Payments	\$0	\$0	\$6,183,693	\$12,367,385	\$12,367,385	\$12,367,385	\$43,285,848
(8)	YEAR 3 BUILD	Market Value	\$0	\$0	\$2,869,501	\$5,739,003	\$5,739,003	\$5,739,003	\$20,086,509
(9)	YEAR 3 BUILD	Net Cost	\$0	\$0	\$3,314,191	\$6,628,382	\$6,628,382	\$6,628,382	\$23,199,338
(10)	YEAR 4 BUILD	PBI Payments	\$0	\$0	\$0	\$6,183,693	\$12,367,385	\$12,367,385	\$30,918,463
(11)	YEAR 4 BUILD	Market Value	\$0	\$0	\$0	\$2,869,501	\$5,739,003	\$5,739,003	\$14,347,507
(12)	YEAR 4 BUILD	Net Cost	\$0	\$0	\$0	\$3,314,191	\$6,628,382	\$6,628,382	\$16,570,956
(13)	YEAR 5 BUILD	PBI Payments	\$0	\$0	\$0	\$0	\$5,125,623	\$10,251,246	\$15,376,869
(14)	YEAR 5 BUILD	Market Value	\$0	\$0	\$0	\$0	\$2,452,263	\$4,904,526	\$7,356,790
(15)	YEAR 5 BUILD	Net Cost	\$0	\$0	\$0	\$0	\$2,673,360	\$5,346,719	\$8,020,079
(16)	YEAR 6 BUILD	PBI Payments	\$0	\$0	\$0	\$0	\$0	\$540.368	\$540,368
(17)	YEAR 6 BUILD	Market Value	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$331,215	\$331,215
(18)	YEAR 6 BUILD	Net Cost	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$209,154	\$209,154
(10)	12 III O DOILD	1101 0001	00	00	90	\$ 0	\$ 0	\$207,101	\$207,101
(19)	TOTAL	PBI Payments	\$609,597	\$7,402,887	\$19,770,273	\$32,137,658	\$43,446,973	\$49,112,964	\$152,480,353
(20)	TOTAL	Market Value	\$94,188	\$3,057,876	\$8,796,879	\$14,535,882	\$19,857,646	\$22,641,124	\$68,983,595
(21)	TOTAL	Net Cost	\$515,410	\$4,345,011	\$10,973,393	\$17,601,776	\$23,589,327	\$26,471,840	\$83,496,757
(22)	Admin/Metering Costs		\$1,183,104	\$625,000	\$625,000	\$625,000	\$625,000	\$625,000	\$4,308,104
(23)	Estimated Remuneration		\$10,668	\$129,551	\$345,980	\$562,409	\$760,322	\$859,477	\$2,668,406
(24)	Total Estimated RE Growth	Program Expense	\$1,709,182	\$5.099.562	\$11.944.373	\$18,789,185	\$24,974,649	\$27,956,317	\$90.473.268
(24)	Total Estimated RE Olowill	r rogram Expense	\$1,709,182	\$5,099,502	\$11,944,575	\$10,709,105	\$24,974,049	<i>427,930,317</i>	\$70,475,200

Line Notes:

28:			
Line (1), Column (a):	Page 8, Line (4), Column (f)	Line (13), Column (e):	Page 12, Line (10), Column (e)
Line (1), Column (b):	Line (1), Column (a) x 2 (for full year production)	Line (13), Column (f):	Line (13), Column (e) x 2 (for full year production)
Line (2), Column (a):	Page 8, Line (8), Column (1)	Line (14), Column (e):	Page 12, Line (20), Column (k)
Line (2), Column (b):	Line (2), Column (a) x 2 (for full year production)	Line (14), Column (f):	Line (14), Column (e) x 2 (for full year production)
Line (3):	Line (1) - Line (2)	Line (15):	Line (13) - Line (14)
Line (4), Column (b):	Page 9, Line (10), Column (e)	Line (16), Column (f):	Page 13, Line (10), Column (e)
Line (4), Column (c):	Line (4), Column (b) x 2 (for full year production)	Line (17), Column (f):	Page 13, Line (20), Column (k)
Line (5), Column (b):	Page 9, Line (20), Column (k)	Line (18):	Line (16) - Line (17)
Line (5), Column (c):	Line (5), Column (b) x 2 (for full year production)	Line (19):	Sum of Lines (1), (4), (7), (10), (13) & (16)
Line (6):	Line (4) - Line (5)	Line (20):	Sum of Lines (2), (5), (8), (11), (14) & (17)
Line (7), Column (c):	Page 10, Line (10), Column (e)	Line (21):	Line (19) - Line (20)
Line (7), Column (d):	Line (7), Column (c) x 2 (for full year production)	Line (22), Column (a):	From docket 4542, Schedule NG-1, Supplemental Page 4, Column (c) Line
Line (8), Column (c):	Page 10, Line (20), Column (k)		(4)
Line (8), Column (d):	Line (8), Column (c) x 2 (for full year production)	L: (22) G1 (1)	
			- Estimated Administrative Expenses for years 2-6 are between \$500K and
Line (9):	Line (7) - Line (8)	(f):	\$750K, the average of \$625K was used for this analysis
Line (10), Column (d):	Page 11, Line (10), Column (e)	Line (23):	Line (19) * 1.75%
Line (10), Column (e):	Line (10), Column (d) x 2 (for full year production)	Line (24):	Line (21) + Line (22) + Line (23)
Line (11), Column (d):	Page 11, Line (20), Column (k)	Column (g):	Sum of Column (a) through (f)
Line (11), Column (e):	Line (11), Column (d) x 2 (for full year production)		
Line (12):	Line (10) - Line (11)		

Renewable Energy Growth Program Factors Through March 31, 2016

Line No		Total (a)	Residential <u>A16 / A60</u> (b)	Small Commercial & Industrial $\frac{C-06}{(c)}$	General Commercial & Industrial <u>G-02</u> (d)	Large Demand <u>B32 / G32</u> (e)	Optional Large Demand <u>B62 / G62</u> (f)	Street Lighting <u>S10 / S14</u> (g)
(1)	Estimated Renewable Energy Growth Expense	\$1,709,182						
(2)	Total Rate Base (\$000s)	\$561,737	\$296,489	\$54,542	\$82,460	\$77,651	\$21,309	\$29,286
(3)	Percentage of Total	100.00%	52.78%	9.71%	14.68%	13.82%	3.79%	5.21%
(4)	Allocated Expense	\$1,709,011	\$902,106	\$165,962	\$250,908	\$236,209	\$64,778	\$89,048
(5)	Forecasted Number of Bills	7,162,273	5,243,935	616,196	103,064	13,445	189	1,185,444
(6)	Current RE Growth Factor - monthly per bill charge		\$0.17	\$0.26	\$2.43	\$17.56	\$342.74	\$0.07
(7)	Uncollectible Percentage	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
(8)	Current RE Growth Factors		\$0.17	\$0.26	\$2.46	\$17.78	\$347.07	\$0.07

Line Descriptions:

- (1) Page 1, Line (24), Column (a)
- per RIPUC 4323, Compliance Attachment 3A, (Schedule HSG-1), page 2, Line 10
 Line (2) ÷ Line (2) Total Column
 Line (1) Total Column x Line (3)

- per Company forecast for the period April 1, 2015 through March 31, 2016; for Streetlighting number represents individual fixtures (5)
- Line (4) \div Line (5), truncated to 2 decimal places Uncollectible Percentage approved in RIPUC Docket No. 4323 Line (6) \div (1-Line (7)) (6)
- (7)

(8)

Illustrative Renewable Energy Growth Program Factors From April 1, 2016 through March 31, 2017

Line No	х.	Total (a)	Residential A16 / A60 (b)	Small Commercial & Industrial <u>C-06</u> (c)	General Commercial & Industrial $\frac{G-02}{(d)}$	Large Demand <u>B32 / G32</u> (e)	Optional Large Demand <u>B62 / G62</u> (f)	Street Lighting <u>S10 / S14</u> (g)
(1)	Estimated RE Growth Program Expense	\$5,099,562						
(2)	Total Rate Base (\$000s)	\$561,737	\$296,489	\$54,542	\$82,460	\$77,651	\$21,309	\$29,286
(3)	Percentage of Total	100.00%	52.78%	9.71%	14.68%	13.82%	3.79%	5.21%
(4)	Allocated Expense	\$5,099,052	\$2,691,549	\$495,167	\$748,616	\$704,759	\$193,273	\$265,687
(5)	Forecasted Number of Bills	7,139,873	5,250,413	593,944	97,341	12,593	138	1,185,444
(6)	Illustrative RE Growth Factor - monthly per bill charge		\$0.51	\$0.83	\$7.69	\$55.96	\$1,400.53	\$0.22
(7)	Uncollectible Percentage	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
(8)	Illustrative RE Growth Factors		\$0.51	\$0.84	\$7.78	\$56.66	\$1,418.25	\$0.22

Line Descriptions:

(1) Page 1, Line (24), Column (b)

(1) Fage 1, Elle (24), Cotalin (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)

(1) Find Column A Line (5)
 (5) per Company forecast for the period April 1, 2016 through March 31, 2017; 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))

Illustrative Renewable Energy Growth Program Factors From April 1, 2017 through March 31, 2018

Line No).	Total (a)	Residential A16 / A60 (b)	Small Commercial & Industrial <u>C-06</u> (c)	General Commercial & Industrial <u>G-02</u> (d)	Large Demand B32/G32 (e)	Optional Large Demand <u>B62 / G62</u> (f)	Street Lighting S10/S14 (g)
(1)	Estimated RE Growth Program Expense	\$11,944,373						
(2)	Total Rate Base (\$000s)	\$561,737	\$296,489	\$54,542	\$82,460	\$77,651	\$21,309	\$29,286
(3)	Percentage of Total	100.00%	52.78%	9.71%	14.68%	13.82%	3.79%	5.21%
(4)	Allocated Expense	\$11,943,179	\$6,304,240	\$1,159,799	\$1,753,434	\$1,650,712	\$452,692	\$622,302
(5)	Forecasted Number of Bills	7,139,873	5,250,413	593,944	97,341	12,593	138	1,185,444
(6)	Illustrative RE Growth Factor - monthly per bill charge		\$1.20	\$1.95	\$18.01	\$131.08	\$3,280.37	\$0.52
(7)	Uncollectible Percentage	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
(8)	Illustrative RE Growth Factors		\$1.21	\$1.97	\$18.23	\$132.73	\$3,321.89	\$0.52

Line Descriptions:

(1) Page 1, Line (24), Column (c)

(3) Line (2) \div Line (2) Total Column

(4) Line (1) Total Column x Line (3)

per Company forecast for the period April 1, 2016 through March 31, 2017; for Streetlighting number represents individual fixtures (5)

(6)

Line $(4) \div$ Line (5), truncated to 2 decimal places Uncollectible Percentage approved in RIPUC Docket No. 4323 (7)

(8) Line (6) ÷ (1- Line (7))

per RIPUC 4323, Compliance Attachment 3A, (Schedule HSG-1), page 2, Line 10 (2)

Illustrative Renewable Energy Growth Program Factors From April 1, 2018 through March 31, 2019

Line No	x.	<u>Total</u> (a)	Residential A16 / A60 (b)	Small Commercial & Industrial <u>C-06</u> (c)	General Commercial & Industrial <u>G-02</u> (d)	Large Demand <u>B32 / G32</u> (e)	Optional Large Demand <u>B62 / G62</u> (f)	Street Lighting <u>S10 / S14</u> (g)
(1)	Estimated RE Growth Program Expense	\$18,789,185						
(2)	Total Rate Base (\$000s)	\$561,737	\$296,489	\$54,542	\$82,460	\$77,651	\$21,309	\$29,286
(3)	Percentage of Total	100.00%	52.78%	9.71%	14.68%	13.82%	3.79%	5.21%
(4)	Allocated Expense	\$18,787,306	\$9,916,932	\$1,824,430	\$2,758,252	\$2,596,665	\$712,110	\$978,917
(5)	Forecasted Number of Bills	7,139,873	5,250,413	593,944	97,341	12,593	138	1,185,444
(6)	Illustrative RE Growth Factor - monthly per bill charge		\$1.88	\$3.07	\$28.33	\$206.19	\$5,160.21	\$0.82
(7)	Uncollectible Percentage	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
(8)	Illustrative RE Growth Factors		\$1.90	\$3.10	\$28.68	\$208.80	\$5,225.52	\$0.83

Line Descriptions:

(1) Page 1, Line (24), Column (d)

(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)

(1) Find (1) four contains a Line (2)
 (5) per Company forecast for the period April 1, 2016 through March 31, 2017; 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))

Illustrative Renewable Energy Growth Program Factors From April 1, 2019 through March 31, 2020

Line No	x.	Total (a)	Residential A16 / A60 (b)	Small Commercial & Industrial <u>C-06</u> (c)	General Commercial & Industrial $\underline{G-02}$ (d)	Large Demand <u>B32 / G32</u> (e)	Optional Large Demand <u>B62 / G62</u> (f)	Street Lighting <u>S10 / S14</u> (g)
(1)	Estimated RE Growth Program Expense	\$24,974,649						
(2)	Total Rate Base (\$000s)	\$561,737	\$296,489	\$54,542	\$82,460	\$77,651	\$21,309	\$29,286
(3)	Percentage of Total	100.00%	52.78%	9.71%	14.68%	13.82%	3.79%	5.21%
(4)	Allocated Expense	\$24,972,151	\$13,181,620	\$2,425,038	\$3,666,278	\$3,451,496	\$946,539	\$1,301,179
(5)	Forecasted Number of Bills	7,139,873	5,250,413	593,944	97,341	12,593	138	1,185,444
(6)	Illustrative RE Growth Factor - monthly per bill charge		\$2.51	\$4.08	\$37.66	\$274.08	\$6,858.97	\$1.09
(7)	Uncollectible Percentage	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
(8)	Illustrative RE Growth Factors		\$2.54	\$4.13	\$38.13	\$277.54	\$6,945.79	\$1.10

Line Descriptions:

(1) Page 1, Line (24), Column (e)

(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)

(1) Find (1) four contains a Line (2)
 (5) per Company forecast for the period April 1, 2016 through March 31, 2017; 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))

Illustrative Renewable Energy Growth Program Factors From April 1, 2020 through March 31, 2021

				Small	General			
				Commercial &	Commercial &		Optional Large	
T . M		T ()	Residential	Industrial	Industrial	Large Demand	Demand	Street Lighting
Line No).	Total	<u>A16 / A60</u>	<u>C-06</u>	<u>G-02</u>	<u>B32 / G32</u>	<u>B62 / G62</u>	<u>S10 / S14</u>
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
(1)	Estimated RE Growth Program Expense	\$27,956,317						
(2)	Total Rate Base (\$000s)	\$561,737	\$296,489	\$54,542	\$82,460	\$77,651	\$21,309	\$29,286
(3)	Percentage of Total	100.00%	52.78%	9.71%	14.68%	13.82%	3.79%	5.21%
(4)	Allocated Expense	\$27,953,521	\$14,755,344	\$2,714,558	\$4,103,987	\$3,863,563	\$1,059,544	\$1,456,524
(5)	Forecasted Number of Bills	7,139,873	5,250,413	593,944	97,341	12,593	138	1,185,444
(6)	Illustrative RE Growth Factor - monthly per bill charge		\$2.81	\$4.57	\$42.16	\$306.80	\$7,677.85	\$1.22
(7)	Uncollectible Percentage	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
(8)	Illustrative RE Growth Factors		\$2.84	\$4.62	\$42.69	\$310.68	\$7,775.03	\$1.23

Line Descriptions:

Page 1, Line (24), Column (f)
 per RIPUC 4323, Compliance Attachment 3A, (Schedule HSG-1), page 2, Line 10
 Line (2) ÷ Line (2) Total Column
 Line (1) Total Column x Line (3)

(4) Ellie (1) Fold Column X Ellie (3)
(5) per Company forecast for the period April 1, 2016 through March 31, 2017; 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))

Renewable Energy Growth Program Cost Recovery Estimated Performance-Based Incentive Payments and Market Value for the Initial Program Year through March 31, 2016

	Section 1: Estimated Annual Perfo	rmance-Based Incentive P	ayments				
	Unit	Unit <u>Capacity (kW)</u> (a)	Number of <u>Units</u> (b)	Unit Availability <u>Factor</u> (c)	Estimated Program Year <u>Output (kWh)</u> (d)	Tariff Price (<u>\$ per kWh)</u> (e)	Estimated Program Year <u>Cost</u> (f)
(1) (2) (3)	Small Scale Solar - HO (1) Small Scale Solar - TPO (1) Small Scale Solar II (1)	7.5 7.5 20.0		100 1	4% 459,900 4% 459,900 4% 919,800	\$0.40 \$0.33 \$0.30	\$183,960 \$151,537 <u>\$274,100</u>
(4)	Total				1,839,600		\$609,597
	Section 2: Estimated Market Value	2					
	Class	Estimated kWh Purchased <u>Under Tariffs</u> (g)	Market Energy <u>Proxy</u> (h)	Energy Market <u>Value</u> (i)	REC <u>Proxy</u> (j)	REC Market <u>Value</u> (k)	Total Market <u>Value</u> (1)
(5) (6) (7)	Small Scale Solar - HO (1) Small Scale Solar - TPO (1) Small Scale Solar II (1)	459,900 459,900 919,800	n/a n/a n/a	n/a n/a n/a	\$0.0512 \$0.0512 \$0.0512	\$23,547 \$23,547 <u>\$47,094</u>	\$23,547 \$23,547 <u>\$47,094</u>
(8)	Total				\$0	\$94,188	\$94,188
	Section 3: Estimated Net Cost						
							Estimated <u>Net Cost</u> (m)
(9) (10) (11)	Small Scale Solar - HO (1) Small Scale Solar - TPO (1) Small Scale Solar II (1)						\$160,413 \$127,990 <u>\$227,007</u>
(12)	Total Estimated Above (Below) Mar	ket Cost					\$515,410
(1)	"HO" = Host Owned, 1-10 kW	""T	PO" = Third-Party	Owned, 1-10 kW	S	mall Scale Solar II =	Commercial 11-25 kW
Colu (a) (b) (c) (d) (e) (f) (g) (h)	mn Descriptions: estimated commercially operable units estimated column (a) x column (b) x column (c per tariff column (d) x column (e) per column (d) Standard Offer Service Spot Market	, , , , , ,			 (i) column (g) x column (h) (j) REC price estimate based (k) column (g) x column (j) (l) column (i) + column (k) (m) column (f) - column (l) ces components 	l on most recent mark	et information

Renewable Energy Growth Program Cost Recovery Estimated Performance-Based Incentive Payments and Market Value for the Units Approved in the Second Program Year through March 31, 2017

Section 1: Estimated Annual Performance-Based Incentive Payments

				Estimated		Estimated
		Unit	Unit Availability	Program Year	Tariff Price	Program Year
	Unit	Capacity (kW)	Factor	Output (kWh)	<u>(\$ per kWh)</u>	Cost
		(a)	(b)	(c)	(d)	(e)
(1)	Small Scale Solar - HO (1)	4,000.0	13%	2,363,448	\$0.38	\$896,219
(2)	Small Scale Solar - TPO (1)	830.0	13%	490,415	\$0.27	\$131,824
(3)	Small Scale Solar II (1)	1,670.0	13%	986,740	\$0.26	\$256,671
(4)	Medium Solar	6,000.0	13%	3,534,660	\$0.26	\$901,586
(5)	Commercial Solar	8,000.0	14%	4,761,936	\$0.19	\$919,054
(6)	Large Solar	9,000.0	14%	5,589,756	\$0.15	\$844,053
(7)	Wind	9,000.0	21%	8,278,200	\$0.18	\$1,494,215
(8)	Hydro	750.0	40%	1,314,000	\$0.18	\$237,177
(9)	Anaerobic Digestion	750.0	74%	2,417,760	\$0.21	\$502,894
(10)	Total			29,736,915		\$6,183,693

Section 2: Estimated Market Value

	<u>Class</u>	Estimated kWh Purchased <u>Under Tariffs</u> (f)	Market Energy <u>Proxy</u> (g)	Energy Market <u>Value</u> (h)	REC <u>Proxy</u> (i)	REC Market <u>Value</u> (j)	Total Market <u>Value</u> (k)
(11)	Small Scale Solar - HO (1)	2,363,448	n/a	n/a	\$0.0485	\$114,698	\$114,698
(12)	Small Scale Solar - TPO (1)	490,415	n/a	n/a	\$0.0485	\$23,800	\$23,800
(13)	Small Scale Solar II (1)	986,740	n/a	n/a	\$0.0485	\$47,886	\$47,886
(14)	Medium Solar	3,534,660	\$0.055	\$194,689	\$0.0485	\$171,537	\$366,226
(15)	Commercial Solar	4,761,936	\$0.055	\$262,287	\$0.0485	\$231,097	\$493,384
(16)	Large Solar	5,589,756	\$0.055	\$307,884	\$0.0485	\$271,271	\$579,155
(17)	Wind	8,278,200	\$0.055	\$455,963	\$0.0485	\$401,741	\$857,704
(18)	Hydro	1,314,000	\$0.055	\$72,375	\$0.0485	\$63,768	\$136,144
(19)	Anaerobic Digestion	2,417,760	\$0.055	\$133,170	\$0.0485	<u>\$117,334</u>	<u>\$250,504</u>
(20)	Total			\$1,426,369		\$1,443,132	\$2,869,501

Section 3: Estimated Net Cost

			Estimated <u>Net Cost</u> (1)
(21)	Small Scale Solar - HO (1)		\$781,521
(22)	Small Scale Solar - TPO (1)		\$108,024
(23)	Small Scale Solar II (1)		\$208,784
(24)	Medium Solar		\$535,360
(25)	Commercial Solar		\$425,669
(26)	Large Solar		\$264,899
(27)	Wind		\$636,511
(28)	Hydro		\$101,033
(29)	Anaerobic Digestion		<u>\$252,390</u>
(30)	Total Estimated Above (Below) Market Cost		\$3,314,191
(1)	"HO" = Host Owned, 1-10 kW	""TPO" = Third-Party Owned, 1-10 kW	Small Scale Solar II = Commercial 11-25 kW
Colu	mn Descriptions:		

Column Descriptions:

(a) estimated

(b) estimated

(c) column (a) x column (b) x $(8,760 \div 2)$ hours (partial year)

(d) average of tariffs

(e) column (c) x column (d)

(f) per column (c)

(g) Standard Offer Service Spot Market Estimate for Commercial Group, excluding capacity and ancillary services components

(i) REC price estimate based on most recent market information (j) column (f) x column (i)

(k) column (h) + column (j)

(h) column (f) x column (g)

(l) column (e) - column (k)

Renewable Energy Growth Program Cost Recovery Estimated Performance-Based Incentive Payments and Market Value for the Units Approved in the Third Program Year through March 31, 2018

Section 1: Estimated Annual Performance-Based Incentive Payments

				Estimated		Estimated
		Unit	Unit Availability	Program Year	Tariff Price	Program Year
	Unit	Capacity (kW)	Factor	Output (kWh)	<u>(\$ per kWh)</u>	Cost
		(a)	(b)	(c)	(d)	(e)
(1)	Small Scale Solar - HO (1)	4,000.0	13%	2,363,448	\$0.38	\$896,219
(2)	Small Scale Solar - TPO (1)	830.0	13%	490,415	\$0.27	\$131,824
(3)	Small Scale Solar II (1)	1,670.0	13%	986,740	\$0.26	\$256,671
(4)	Medium Solar	6,000.0	13%	3,534,660	\$0.26	\$901,586
(5)	Commercial Solar	8,000.0	14%	4,761,936	\$0.19	\$919,054
(6)	Large Solar	9,000.0	14%	5,589,756	\$0.15	\$844,053
(7)	Wind	9,000.0	21%	8,278,200	\$0.18	\$1,494,215
(8)	Hydro	750.0	40%	1,314,000	\$0.18	\$237,177
(9)	Anaerobic Digestion	750.0	74%	2,417,760	\$0.21	\$502,894
(10)	Total			29,736,915		\$6,183,693

Section 2: Estimated Market Value

	<u>Class</u>	Estimated kWh Purchased <u>Under Tariffs</u> (f)	Market Energy <u>Proxy</u> (g)	Energy Market <u>Value</u> (h)	REC <u>Proxy</u> (i)	REC Market <u>Value</u> (j)	Total Market <u>Value</u> (k)
(11)	Small Scale Solar - HO (1)	2,363,448	n/a	n/a	\$0.0485	\$114,698	\$114,698
(12)	Small Scale Solar - TPO (1)	490,415	n/a	n/a	\$0.0485	\$23,800	\$23,800
(13)	Small Scale Solar II (1)	986,740	n/a	n/a	\$0.0485	\$47,886	\$47,886
(14)	Medium Solar	3,534,660	\$0.055	\$194,689	\$0.0485	\$171,537	\$366,226
(15)	Commercial Solar	4,761,936	\$0.055	\$262,287	\$0.0485	\$231,097	\$493,384
(16)	Large Solar	5,589,756	\$0.055	\$307,884	\$0.0485	\$271,271	\$579,155
(17)	Wind	8,278,200	\$0.055	\$455,963	\$0.0485	\$401,741	\$857,704
(18)	Hydro	1,314,000	\$0.055	\$72,375	\$0.0485	\$63,768	\$136,144
(19)	Anaerobic Digestion	2,417,760	\$0.055	\$133,170	\$0.0485	<u>\$117,334</u>	<u>\$250,504</u>
(20)	Total			\$1,426,369		\$1,443,132	\$2,869,501

Section 3: Estimated Net Cost

			Estimated <u>Net Cost</u> (1)
(21)	Small Scale Solar - HO (1)		\$781,521
(22)	Small Scale Solar - TPO (1)		\$108,024
(23)	Small Scale Solar II (1)		\$208,784
(24)	Medium Solar		\$535,360
(25)	Commercial Solar		\$425,669
(26)	Large Solar		\$264,899
(27)	Wind		\$636,511
(28)	Hydro		\$101,033
(29)	Anaerobic Digestion		<u>\$252,390</u>
(30)	Total Estimated Above (Below) Market Cost		\$3,314,191
(1)	"HO" = Host Owned, 1-10 kW	""TPO" = Third-Party Owned, 1-10 kW	Small Scale Solar II = Commercial 11-25 kW
Colu	mn Descriptions:		

(h) column (f) x column (g)

(j) column (f) x column (i)

 $(k) \ column \ (h) + column \ (j)$

(l) column (e) - column (k)

(i) REC price estimate based on most recent market information

estimated (a)

(b) estimated

(c) column (a) x column (b) x (8,760 ÷ 2) hours (partial year)

average of tariffs (d)

(e) column (c) x column (d)

per column (c) (f)

Standard Offer Service Spot Market Estimate for Commercial Group, excluding capacity and ancillary services components (g)

Renewable Energy Growth Program Cost Recovery Estimated Performance-Based Incentive Payments and Market Value for the Units Approved in the Fourth Program Year through March 31, 2019

Section 1: Estimated Annual Performance-Based Incentive Payments

				Estimated		Estimated
		Unit	Unit Availability	Program Year	Tariff Price	Program Year
	Unit	Capacity (kW)	Factor	Output (kWh)	<u>(\$ per kWh)</u>	Cost
		(a)	(b)	(c)	(d)	(e)
(1)	Small Scale Solar - HO (1)	4,000.0	13%	2,363,448	\$0.38	\$896,219
(2)	Small Scale Solar - TPO (1)	830.0	13%	490,415	\$0.27	\$131,824
(3)	Small Scale Solar II (1)	1,670.0	13%	986,740	\$0.26	\$256,671
(4)	Medium Solar	6,000.0	13%	3,534,660	\$0.26	\$901,586
(5)	Commercial Solar	8,000.0	14%	4,761,936	\$0.19	\$919,054
(6)	Large Solar	9,000.0	14%	5,589,756	\$0.15	\$844,053
(7)	Wind	9,000.0	21%	8,278,200	\$0.18	\$1,494,215
(8)	Hydro	750.0	40%	1,314,000	\$0.18	\$237,177
(9)	Anaerobic Digestion	750.0	74%	2,417,760	\$0.21	<u>\$502,894</u>
(10)	Tota	1		29,736,915		\$6,183,693

Section 2: Estimated Market Value

	<u>Class</u>	Estimated kWh Purchased <u>Under Tariffs</u> (f)	Market Energy <u>Proxy</u> (g)	Energy Market <u>Value</u> (h)	REC <u>Proxy</u> (i)	REC Market <u>Value</u> (j)	Total Market <u>Value</u> (k)
(11)	Small Scale Solar - HO (1)	2,363,448	n/a	n/a	\$0.0485	\$114,698	\$114,698
(12)	Small Scale Solar - TPO (1)	490,415	n/a	n/a	\$0.0485	\$23,800	\$23,800
(13)	Small Scale Solar II (1)	986,740	n/a	n/a	\$0.0485	\$47,886	\$47,886
(14)	Medium Solar	3,534,660	\$0.055	\$194,689	\$0.0485	\$171,537	\$366,226
(15)	Commercial Solar	4,761,936	\$0.055	\$262,287	\$0.0485	\$231,097	\$493,384
(16)	Large Solar	5,589,756	\$0.055	\$307,884	\$0.0485	\$271,271	\$579,155
(17)	Wind	8,278,200	\$0.055	\$455,963	\$0.0485	\$401,741	\$857,704
(18)	Hydro	1,314,000	\$0.055	\$72,375	\$0.0485	\$63,768	\$136,144
(19)	Anaerobic Digestion	2,417,760	\$0.055	\$133,170	\$0.0485	<u>\$117,334</u>	<u>\$250,504</u>
(20)	Total			\$1,426,369		\$1,443,132	\$2,869,501

Section 3: Estimated Net Cost

			Estimated <u>Net Cost</u> (l)
(21)	Small Scale Solar - HO (1)		\$781,521
(22)	Small Scale Solar - TPO (1)		\$108,024
(23)	Small Scale Solar II (1)		\$208,784
(24)	Medium Solar		\$535,360
(25)	Commercial Solar		\$425,669
(26)	Large Solar		\$264,899
(27)	Wind		\$636,511
(28)	Hydro		\$101,033
(29)	Anaerobic Digestion		\$252,390
(30)	Total Estimated Above (Below) Market Cost		\$3,314,191
(1)	"HO" = Host Owned, 1-10 kW	""TPO" = Third-Party Owned, 1-10 kW	Small Scale Solar II = Commercial 11-25 kW
Calu	mn Decemintions:		

Column Descriptions:

(a) estimated

(b) estimated

(c) column (a) x column (b) x $(8,760 \div 2)$ hours (partial year)

(d) average of tariffs

(e) column (c) x column (d)

(f) per column (c)

(g) per column (d)

(h) Standard Offer Service Spot Market Estimate for Commercial Group, excluding capacity and ancillary services components

(h) column (f) x column (g)

(i) REC price estimate based on most recent market information(j) column (f) x column (i)(k) column (h) + column (j)

(l) column (e) - column (k)

Renewable Energy Growth Program Cost Recovery Estimated Performance-Based Incentive Payments and Market Value for the Units Approved in the Fifth Program Year through March 31, 2020

Section 1: Estimated Annual Performance-Based Incentive Payments

				Estimated		Estimated
		Unit	Unit Availability	Program Year	Tariff Price	Program Year
	Unit	Capacity (kW)	Factor	Output (kWh)	<u>(\$ per kWh)</u>	Cost
		(a)	(b)	(c)	(d)	(e)
(1)	Small Scale Solar - HO (1)	3,250.0	13%	1,920,302	\$0.38	\$728,178
(2)	Small Scale Solar - TPO (1)	80.0	13%	47,269	\$0.27	\$12,706
(3)	Small Scale Solar II (1)	170.0	13%	100,447	\$0.26	\$26,128
(4)	Medium Solar	6,000.0	13%	3,534,660	\$0.26	\$901,586
(5)	Commercial Solar	8,000.0	14%	4,761,936	\$0.19	\$919,054
(6)	Large Solar	7,000.0	14%	4,347,588	\$0.15	\$656,486
(7)	Wind	6,875.0	21%	6,323,625	\$0.18	\$1,141,414
(8)	Hydro	750.0	40%	1,314,000	\$0.18	\$237,177
(9)	Anaerobic Digestion	750.0	74%	2,417,760	\$0.21	<u>\$502,894</u>
(10)	Total			24,767,586		\$5,125,623

Section 2: Estimated Market Value

	<u>Class</u>	Estimated kWh Purchased <u>Under Tariffs</u> (f)	Market Energy <u>Proxy</u> (g)	Energy Market <u>Value</u> (h)	REC <u>Proxy</u> (i)	REC Market <u>Value</u> (j)	Total Market <u>Value</u> (k)
(11)	Small Scale Solar - HO (1)	1,920,302	n/a	n/a	\$0.0485	\$93,192	\$93,192
(12)	Small Scale Solar - TPO (1)	47,269	n/a	n/a	\$0.0485	\$2,294	\$2,294
(13)	Small Scale Solar II (1)	100,447	n/a	n/a	\$0.0485	\$4,875	\$4,875
(14)	Medium Solar	3,534,660	\$0.055	\$194,689	\$0.0485	\$171,537	\$366,226
(15)	Commercial Solar	4,761,936	\$0.055	\$262,287	\$0.0485	\$231,097	\$493,384
(16)	Large Solar	4,347,588	\$0.055	\$239,465	\$0.0485	\$210,988	\$450,454
(17)	Wind	6,323,625	\$0.055	\$348,305	\$0.0485	\$306,886	\$655,191
(18)	Hydro	1,314,000	\$0.055	\$72,375	\$0.0485	\$63,768	\$136,144
(19)	Anaerobic Digestion	2,417,760	\$0.055	\$133,170	\$0.0485	<u>\$117,334</u>	<u>\$250,504</u>
(20)	Total			\$1,250,292		\$1,201,971	\$2,452,263

Section 3: Estimated Net Cost

			Estimated <u>Net Cost</u> (1)
(21)	Small Scale Solar - HO (1)		\$634.986
(22)	Small Scale Solar - TPO (1)		\$10,412
(23)	Small Scale Solar II (1)		\$21,253
(24)	Medium Solar		\$535,360
(25)	Commercial Solar		\$425,669
(26)	Large Solar		\$206,032
(27)	Wind		\$486,224
(28)	Hydro		\$101,033
(29)	Anaerobic Digestion		\$252,390
(30)	Total Estimated Above (Below) Market Cost		\$2,673,360
(1)	"HO" = Host Owned, 1-10 kW	""TPO" = Third-Party Owned, 1-10 kW	Small Scale Solar II = Commercial 11-25 kW
Colu	mn Descriptions:		

Column Descriptions:

(a) estimated

(b) estimated

(c) column (a) x column (b) x $(8,760 \div 2)$ hours (partial year)

(d) average of tariffs

(e) column (c) x column (d)

(f) per column (c)

(g) per column (d)

(h) Standard Offer Service Spot Market Estimate for Commercial Group, excluding capacity and ancillary services components

(h) column (f) x column (g)(i) REC price estimate based on most recent market information

(i) relie price estimated based on most recent market more (j) column (i) x column (i)

 $(k) \ column \ (h) + column \ (j)$

(l) column (e) - column (k)

Renewable Energy Growth Program Cost Recovery Estimated Performance-Based Incentive Payments and Market Value for the Units Approved in Year Five and Constructed in the Sixth Program Year through March 31, 2021

Section 1: Estimated Annual Performance-Based Incentive Payments

				Estimated		Estimated
		Unit	Unit Availability	Program Year	Tariff Price	Program Year
	Unit	Capacity (kW)	Factor	Output (kWh)	<u>(\$ per kWh)</u>	Cost
		(a)	(b)	(c)	(d)	(e)
(1)	Small Scale Solar - HO (1)	0.0	13%	0	\$0.38	\$0
(2)	Small Scale Solar - TPO (1)	0.0	13%	0	\$0.27	\$0
(3)	Small Scale Solar II (1)	0.0	13%	0	\$0.26	\$0
(4)	Medium Solar	0.0	13%	0	\$0.26	\$0
(5)	Commercial Solar	0.0	14%	0	\$0.19	\$0
(6)	Large Solar	2,000.0	14%	1,242,168	\$0.15	\$187,567
(7)	Wind	2,125.0	21%	1,954,575	\$0.18	\$352,801
(8)	Hydro	0.0	40%	0	\$0.18	\$0
(9)	Anaerobic Digestion	0.0	74%	<u>0</u>	\$0.21	<u>\$0</u>
(10)	Total			3,196,743		\$540,368

Section 2: Estimated Market Value

	Class	Estimated kWh Purchased <u>Under Tariffs</u> (f)	Market Energy <u>Proxy</u> (g)	Energy Market <u>Value</u> (h)	REC <u>Proxy</u> (i)	REC Market <u>Value</u> (j)	Total Market <u>Value</u> (k)
(11)	Small Scale Solar - HO (1)	0	n/a	n/a	\$0.0485	\$0	\$0
(12)	Small Scale Solar - TPO (1)	0	n/a	n/a	\$0.0485	\$0	\$0
(13)	Small Scale Solar II (1)	0	n/a	n/a	\$0.0485	\$0	\$0
(14)	Medium Solar	0	\$0.055	\$0	\$0.0485	\$0	\$0
(15)	Commercial Solar	0	\$0.055	\$0	\$0.0485	\$0	\$0
(16)	Large Solar	1,242,168	\$0.055	\$68,419	\$0.0485	\$60,282	\$128,701
(17)	Wind	1,954,575	\$0.055	\$107,658	\$0.0485	\$94,856	\$202,514
(18)	Hydro	0	\$0.055	\$0	\$0.0485	\$0	\$0
(19)	Anaerobic Digestion	0	\$0.055	\$0	\$0.0485	<u>\$0</u>	<u>\$0</u>
(20)	Total			\$176,077		\$155,138	\$331,215

Section 3: Estimated Net Cost

			Estimated <u>Net Cost</u> (1)
(21)	Small Scale Solar - HO (1)		\$0
(22)	Small Scale Solar - TPO (1)		\$0
(23)	Small Scale Solar II (1)		\$0
(24)	Medium Solar		\$0
(25)	Commercial Solar		\$0
(26)	Large Solar		\$58,866
(27)	Wind		\$150,287
(28)	Hydro		\$0
(29)	Anaerobic Digestion		<u>\$0</u>
(30)	Total Estimated Above (Below) Market Cost		\$209,154
(1)	"HO" = Host Owned, 1-10 kW	""TPO" = Third-Party Owned, 1-10 kW	Small Scale Solar II = Commercial 11-25 kW
Colu	mn Descriptions:		

estimated (a)

(b) estimated

(c) column (a) x column (b) x (8,760 ÷ 2) hours (partial year)

average of tariffs (d)

(e) column (c) x column (d)

per column (c) (f)

per column (d) (g)

Standard Offer Service Spot Market Estimate for Commercial Group, excluding capacity and ancillary services components (h)

(h) column (f) x column (g)

(i) REC price estimate based on most recent market information (j) column (f) x column (i)

(l) column (e) - column (k)

 $(k) \ column \ (h) + column \ (j)$