

Rhode Island Distributed Generation Board Public Workshop

Community Net Metering, RE Growth Community Remote DG, and Shared Solar Provisions Overview

Sept. 12, 2016



2016 Changes to Net Metering

- Recent legislation in Rhode Island includes several important provisions to the net metering law
- Third Party Ownership of net metered systems is now allowed
- Maximum system size increased from 5MW to 10 MW
- Law also includes 30MW community net metering (CNM) pilot, which will be implemented between now and 2018
 - Allows residential customers and low-moderate income (LMI) housing eligible to receive net metering credits from remote systems

CNM Pilot – Eligibility Requirements for Credit Recipients

- CNM systems must designate at least three eligible recipients, or at least one recipient *if* that recipient is a LMI housing unit
- There is no maximum number of credit recipients
- No more than 50% of the net metering credits may go to one recipient, if not one LMI account
- At least 50% of the net metering credits must go to individual customers in amounts no greater than the annual kWh produced by a 25 kW AC system, if not just one LMI account

CNM Pilot – Threshold Criteria

- The CNM Pilot is capacity limited, and provides a valuable right. Therefore, National Grid proposes that applicants must meet threshold criteria to qualify for the pilot:
 - Interconnection application must be made, and a valid Interconnection Study for Renewable DG (ISRDG) or a valid Interconnection Service Agreement (ISA) must be in possession -- CNM designation will be selected after these steps
 - At the time of application, at least 50% of the capacity of the system must be enrolled to be received by eligible customers, and at least 25% of the output must be enrolled in by individual customers, if not a single LMI customer
 - For systems serving an eligible low-moderate income housing account only, a single entity is allowed to enroll for all of the output, and only one customer will be required to be enrolled for at least 50% of the output value to hold a place in the Pilot queue

CNM Pilot – Application Process

- Applicants apply to National Grid for interconnection and receive completed ISRDG and/or a valid ISA, as applicable
- Projects seeking to serve an LMI customer account must receive written approval from Rhode Island housing prior to enrolling the project with National Grid
- Applicants submit enrollee information on new Schedule B to Net Metering Provision, including any eligibility letters for LMI participants from RI Housing
- National Grid will approve system for participation in Pilot once all requirements have been met
- Applicants must adhere to all deadlines, and pay required costs on time
- Prior to commercial operation permission, all eligibility requirements must be met, with eligible recipients designated on Schedule B

Rhode Island Housing Process and Low-Moderate Income Housing Recipient Eligibility Requirements

CNM Pilot – Applications of Net Metering Credits for Remote Systems

- CNM system must designate each recipient's percentage share of net metering credits on Schedule B
- Net Metering Credits will be calculated based upon the rate class associated with the CNM's billing account
- Monthly credit will be calculated as excess generated kWh multiplied by the Renewable Net Metering Credit (sum of Standard Offer, transmission, distribution, transition)
- Each recipient's account will be credited with the designated share of the total net metering credit

CNM Pilot – Applications of Net Metering Credits for Remote Systems (continued)

- Example:

Monthly generation: 1000 kWh

Monthly Renewable Net Metering Credit (C-06): \$145.00

Recipient 1 (50%): \$72.50

Recipient 2 (25%): \$36.25

Recipient 3 (25%): \$36.25

CNM Pilot – Applications of Net Metering Credits for Remote Systems (continued)

- If CNM system annual output exceeds the aggregate 3-yr average use of all recipients, an adjustment will be made to the CNM system account
 - Generation that is between 100% and 125% of on-site use valued at Standard Offer Rate
 - Generation in excess of 125% of on-site use has no value

RE Growth Program

Community Remote DG and Shared Solar Provisions for Program Year 2017

Renewable Energy Growth Program – New Provisions for 2017

- Shared Solar
- Community Remote Distributed Generation (CRDG)
- Zero Energy/Green Building (ZEGB) Renewable Energy Certificate (REC) Buy-Back Provision

Shared Solar Overview

- For Small and Medium Scale Solar installations, customers may share bill credits with other electric service accounts that are nearby
- Provides flexibility for locating arrays, owner-tenant situations, multifamily/multi-business buildings, campuses
- Shared Solar will receive same Performance Based Incentive (PBI) as other arrays of the same size

Shared Solar – Eligibility

- Bill Credit Recipients must be in same customer class – residential or commercial
- Bill Credit Recipients must be located on the same or adjacent parcel of land as the generator (Exception: Public Entities)
- Must designate at least 2 and no more than 50 recipients
- Applicant must provide all Bill Credit Recipient billing account(s), percentage share of output and other required information on the Payment/Credit Transfer Form at time of application
- Other tariff requirements apply

Shared Solar – Sharing of Credits

- Billing will be on Option 2 (combination of bill credits and cash)
- If monthly generation exceeds the sum of the Recipients' on-site use, Recipient will receive kWh allocation equal to on-site use, otherwise, Recipient will receive designated percentage share of generated kWh
- Recipients subject to annual limit on kWh allocation equal to 3-yr annual average on-site use
- Annual limit will be estimated if historical use is not available, but may be updated once data is available

Shared Solar – Billing and Payments

- Monthly Bill Credit: generated kWh allocation multiplied by the applicable kWh charges
- Cash payment will be the Total PBI less the sum of the Bill Credit Recipients' monthly Bill Credits
- Total PBI is the Standard PBI or PBI on Certificate of Eligibility, as adjusted by SolarWise Bonus Payments and/or ZEGB Rate Value, if applicable
- Any kWh not allocated to Recipients will be valued at PBI and be distributed to the cash payment recipient, as it works with single customer RE Growth systems

Illustrative Billing – Shared Solar

Electric Service Bill - Recipient 1

Delivery & Supply Service

Customer Charge		\$5.00
Delivery Service Chgs	\$0.08400 x 500 kWh	\$42.00
Supply Charges	\$0.08700 x 500 kWh	<u>\$43.50</u>
<i>Current Charges</i>		<i>\$90.50</i>

Bill Credit

Delivery Service Chgs	\$0.08400 x 500 kWh	\$42.00
Energy Charges	\$0.08700 x 500 kWh	<u>\$43.50</u>
<i>Total Bill Credit</i>		<i>\$85.50</i>

Net Bill ***\$5.00***

Electric Service Bill - Recipient 2

Delivery & Supply Service

Customer Charge		\$ 5.00
Delivery Service Chgs	\$0.08400 x 500 kWh	\$ 42.00
Supply Charges	\$0.08700 x 500 kWh	<u>\$ 43.50</u>
<i>Current Charges</i>		<i>\$90.50</i>

Bill Credit

Delivery Service Chgs	\$0.08400 x 500 kWh	\$ 42.00
Energy Charges	\$0.08700 x 500 kWh	<u>\$ 43.50</u>
<i>Total Bill Credit</i>		<i>\$85.50</i>

Net Bill ***\$ 5.00***

Performance-Based Incentive Payment

PBI Payment \$0.2500 x 1,200 kWh **\$300.00**

<i>Less Bill Credits:</i>	Recipient 1	<i>\$85.50</i>
	Recipient 2	<i><u>\$85.50</u></i>
		<i>\$171.00</i>

Cash Payment: \$129.00

- **Billing for Shared Solar identical to billing for current program**
- **Unallocated kWh valued at PBI and included in cash payment**

Community Remote Distributed Generation (CRDG) Overview

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- Sharing credits to spread solar benefits
- Limit on value
- Threshold criteria
- Competitive price (separate ceiling price)
- Separate class to be proposed

CRDG – Eligibility Criteria

- Unit must be >250kW (DC Solar or AC other technology)
- As a threshold criteria, National Grid proposes that when Applicant submits application for Certificate of Eligibility, 50% of the output must be enrolled
 - 25% of the total output must be allocated to multiple Bill Credit Recipients in an amount not to exceed that which is produced annually by a twenty-five kilowatt (25 kW) AC capacity system
- Must designate at least three Recipients; otherwise no limit on number of Recipients

CRDG – Eligibility Continued

- No more than fifty percent (50%) of the kWh generated by the DG Project may be allocated to a single Bill Credit Recipient
- Remaining 50% of the kWh generated by the DG Project must be allocated to multiple Bill Credit Recipients in an amount not to exceed that which is produced annually by a 25 kW AC system
- Bill Credit Recipients may receive service in any rate class
- Applicants must apply during open enrollment periods and provide a bid at or less than ceiling price for CRDG class

CRDG -- Billing and Credit Transfer Details

- On a monthly basis generated kWh will be allocated to Bill Credit Recipients up to the amount of available generated kWh
- Generated kWh available to allocate during a month is equal to the current month's generated kWh plus any generated kWh not allocated during prior months
 - Bill credits associated with unallocated kWh will accumulate in a “banking” account
- Available generated kWh will be cumulated and allocated to Bill Credit Recipients during a 12-month period that coincides with the RE Growth program year

CRDG -- Billing and Credit Transfer Details (continued)

- If available generation exceeds the sum of the Recipients' on-site use, Recipient will receive kWh allocation equal to on-site use, otherwise, Recipient will receive designated percentage share of available kWh
- Bill Credit Recipients will receive monthly kWh allocations as long as the cumulative annual allocation is less than the Bill Credit Recipient's three (3) year annual average on-site use
- Billing for CRDG will be a combination of bill credits for eligible Bill Credit Recipients and a cash payment to designated payment recipient

CRDG – Credit Value to Participants

- Monthly Bill Credit is equal to allocated generated kWh multiplied by Bill Credit Rate
- Bill Credit Rate - a per kWh rate used to calculate each Bill Credit Recipient's monthly Bill Credit
 - May be either a fixed per kWh rate determined by the Applicant or the Default Bill Credit Rate.
 - The Default Bill Credit Rate: the sum of the Standard Offer Service, Transmission, and Transition Charges, applicable to the Bill Credit Recipient's rate schedule
 - Fixed Rate cannot exceed Default Bill Credit Rate when set

CRDG – Cash Payment

- For generation in a month, the total PBI payment will be reduced by the sum of the Recipient's Bill Credits, and by the default rate for unallocated kWh
- The remaining PBI will be paid to the designated payment recipient
- At the end of each program year, any unallocated kWh credits will be valued at the average wholesale price received for the generation and paid to the Applicant

CRDG – Example of Calculation of Number of Bill Credit Recipients

- Size of unit: 500 kW
- Estimated annual output: $500 \times 8760 \times 15\% = 657,000$ kWh
- One recipient may receive 50% of output
- Remaining recipients must be no larger than 25kW unit
 - $25 \times .15 \times 8760 = 32,850$
 - May designate 10 recipients with annual use no greater than 32,850 kWh ($657,000 \div 2 \div 32,850$), or a larger number of smaller recipients

CRDG – Bill Example

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	Generated kWh	PBI	PBI Payment	kWh Allocation	Bill Credit Rate	Bill Credit	Cash Payment
Project	3,200	25¢	\$800				
Recipient 1				1,000	10¢	\$100	
Recipient 2				1,000	12¢	\$120	
Recipient 3				1,000	14¢	\$140	
Unallocated kWh				200	12¢	\$120	
Cash Payment Recipient							\$320

Zero Energy/Green Building PBI Provision

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- RI Zero Energy Building Task Force is developing new goals and guidance on the creation of more Zero Energy and other green buildings (ZEGBs)
- ZEGBs use extensive energy efficiency measures then meet other energy use with renewable energy
- Renewable Energy Certificates (RECs) prove the use of a MWH of renewable energy by law and regional system rules
- The ZEGB rate option will allow such system owners to buy their RECs back from the company at the current market price in RE Growth, to claim use of the renewable energy

ZEGB Provision -- Calculation

- The REC price used by National Grid for retail rate setting will be the value offered to customers to buy back their RECs
- The REC value will be reduced from the total PBI value in each monthly period
- Example:
 - Performance Based Incentive: 25¢ per kWh
 - REC Market Value: 4¢ per kWh
 - Net PBI: 21¢ per kWh
- CRDG not eligible for ZEGB Rate