

Docket No. 4672 – 2017 Renewable Energy Growth Tariff and Rule Changes

Rhode Island Public Utility Commission Technical Session January 11, 2017



Overview of Presentation

- Renewable Energy Growth Program overview
- Enrollment Processes Review and Overview
- New Program Elements for 2017
- Billing and Payment Options Details, Existing and New Elements

One Program for Different Installations and Owners



RE Growth Program

Solar >250kW and Other Technologies, up to 5 MW

- Competitive
- Three solicitations per year
- Classes for wind, AD, hydro
- Performance Deposits required

Medium Solar (>25 – 250 kW)

- Fixed PBI
- Three solicitations per Year
- No deposits
- SolarWise eligible

Small Solar Multiple classes, up to 25 KW

- Fixed PBIs
- Open enrollment
- Apply via interconnection application
- SolarWise eligible
- No deposits

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RE Growth Highlights

- Statutory program to finance the development, construction, and operation of renewable-energy distributed-generation projects over five (5) years through a performance-based incentive (PBI) system that is designed to achieve specified megawatt targets at reasonable cost through competitive processes. R.I. Gen. Laws 39-26.6-2
- Program will be in its third year, offering support for 40 MW out of 160 MW total nameplate capacity
- National Grid pays customers directly for their renewable generation via an approved tariff no contracts are signed or required
- Different size arrays are paid different tariff rates, and 15 and 20 year terms are options for small solar systems (up to 10 kW)
- Separate tariffs for residential and non-residential customers
- Payments for generation are made via check or direct deposit (EFT), as well as bill credits (required for residential, optional for non-residential)
- Bill credits are calculated at the kWh rate incurred by the customer, and are deducted from the total PBI payment
- Small Solar (25kW and less) enrolls through the interconnection process

RE Growth Allows for Different Payment Options



Larger Solar and Other DG

Stand-Alone DG

Sized to Load with Bill Credits

Community Remote DG (2017)

Medium and Small Solar

Stand-alone DG (except residential)

Sized to Load with Bill Credits

Shared Solar (2017)



Class Qualification and Sizing

- The RE Growth program classes for solar are all measured in peak power DC, and include all fractions up to the next kW of total DC nameplate
 - Systems in the 1-10 kW class include 10.9 kW DC; systems in 26-250 kW class include 250.9 kW DC; etc.
- Sizing of maximum allowed system is also calculated to the DC nameplate. The following example illustrates:
 - A customer with 9,000 kWh 3-year average annual use / 13.5% capacity factor / 8,760 hours/year = a maximum 7.61 kW DC system would be allowed



Renewable Energy Growth Program Performance Summary and Enrollment Details



2015 Program Year Summary

Small-Scale Solar Technology Class

- 3 MW 2015 Program Year Target
- 479 projects representing 3.3 MW awarded Certificates Of Eligibility (COEs)
- 110% of 2015 Program Year Target achieved

2015 Program Year Summary



Medium/Commercial/Large Solar; Wind; Anaerobic Digestion; Hydropower Technology Classes

- 22 MW Nameplate Capacity Target for 2015 Program Year
- 19.5 MW of projects awarded COEs
- 89% of 2015 Program Year Target
- 2.2 MW remaining capacity (inclusive of 0.3 MW excess of Small-Scale Solar enrollments) → 2019 RE Growth Program Year

2015 RE Growth Program Year Open Enrollment	Number of Certificates of Eligibility Awarded	Nameplate Capacity (kW)
First Open Enrollment (August)	6	12,848
Second Open Enrollment (October)	14	6,648
Total	20	19,496

Solar > 25 kW and Other **Technologies: 2015 Performance Based Incentives (PBIs)**



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Renewable Energy Class (Nameplate kW)	Annual Enrollment Target (Nameplate MW)		Ceiling Price with ITC (cents/kWh)	Ceiling Price with PTC (cents/kWh)	Ceiling Price without ITC/PTC (cents/kWh)
Medium-Scale Solar (26-250 kW DC)	4	24.40	24.40	N/A	N/A
Commercial-Scale Solar (251-999 kW DC)	5.5	N/A	20.95	N/A	N/A
Large-Scale Solar (1,000-5,000 kW DC)	6	N/A	16.70	N/A	N/A
Wind (1,500-5,000 kW) 1,500-2,999 kW	5	N/A	18.40	19.85	22.75
3,000-5,000 kW Anaerobic Digestion (up to 1,000 kW)		N/A	18.20	19.45	22.35
150-1,000 kW		N/A	N/A	20.20	20.60
Small-Scale Hydropower (up to 1,000 kW)	1.5				
10-250 kW 251-1,000 kW		N/A N/A	N/A N/A	19.80 18.55	21.35 20.10

2016 Program Year Summary



Medium/Commercial/Large Solar; Wind; Anaerobic Digestion; Hydropower Technology Classes

- 34.5 MW nameplate capacity Annual Enrollment Target
- 22.9 MW of projects awarded Certificates of Eligibility (pending Public Utilities Commission approval)
- 66.4% of Annual Enrollment Target
- Up to 11.6 MW → 2019 RE Growth Program Year

2016 RE Growth Program Year Open Enrollment	Number of Certificates of Eligibility Awarded	Nameplate Capacity (kW)
First (April)	3	2,990
Second (July)	5	10,482
Third (October)	22 (4 pending PUC approval)	9,437
Total	30	22,909

Solar > 25 kW and Other **Technologies: 2016 Performance Based Incentives**

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Renewable Energy Class (Nameplate kW)	Annual Enrollment Target (Nameplate MW)	Standard PBI applicable to Medium-Scale Solar only (Including ITC/PTC & Bonus Depreciation) (cents/kWh)	Ceiling Price (Including ITC/PTC & Bonus Depreciation) (cents/kWh)
Medium-Scale Solar (26-250 kW DC)	5	22.55	N/A
Commercial-Scale Solar (251-999 kW DC)	8	N/A	19.30
Large-Scale Solar (1,000-5,000 kW DC)	11	N/A	15.10
Wind (1,500-2,999 kW 3,000-5,000 kW; 2-turbine 3,000-5,000 kW; 3- turbine)	9	N/A N/A N/A	18.75 18.00 17.40
Anaerobic Digestion (150-500 kW 501-1,000 kW)		N/A N/A	20.00 20.00
Small-Scale Hydropower (up to 1,000 kW) 10-250 kW 251-1,000 kW	1.5	N/A N/A	18.65 17.45

Eligibility Requirements for Solar Projects > 25 kW and Other Technologies



- Eligible Renewable Energy Classes as approved by PUC
- Not fully financed, under construction, or already operating
- Have a completed Impact Study Renewable DG (ISRDG) and/or Interconnection Service Agreement prior to enrollment
- Interconnect to Narragansett Electric Company distribution system and located in ISO-NE load zone
- Not a segment of a larger project
- Site control
- Assessor's maps for Solar (Greater than 25 kW), Wind, Hydro and Anaerobic Digester Projects

Solar > 25 kW and Other Technologies: Enrollment Process Overview



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Pre-Open Enrollment



Open Enrollment



Project Selection



Award Certificate of Eligibility



Payment for Output

- Eligible Facilities criteria
 - Approved Class
 - Interconnection to Narragansett Elec. Load zone
- Not already operating
- Interconnection Application
- ISRDG/ISA*
- Site Control
- Assessor's maps

- Two Week Period
- Short-form webbased application
- Application completeness and timeliness requirements
- Based on lowest priced bids at or below applicable ceiling price -Medium-Scale Solar (26 - 250 kW) projects not required to submit competitive priced
- Performance Guarantee Deposit

bid

- Company issues COE to Medium Solar projects
- Provide list of selected larger projects to PUC
- PUC awards
 Certificate of
 Eligibility to larger
 projects
- Construction
- Interconnection

- a Quitout
- Output Certification
- ISO-NE & NEPOOL GIS
- Renewable Energy Resource Eligibility Form -Commission approval

*Impact Study for Renewable Distributed Generation and/or valid Interconnection Service Agreement required prior to enrollment

^{**36} months for anaerobic digestion projects, 48 months for hydropower

Solar > 25 kW and Other Technologies: Open Enrollment



- Web-based application during two-week open enrollment periods three per year
- ngrid.com/REGrowth
 - Applicants provide info on Project Technical Details; Ownership/Site Control; Bid Pricing; Interconnection; Financing/Development Costs
 - Impact Study for Renewable DG and/or Interconnection Service Agreement
 - Project Segmentation and Tax Credit Eligibility Affidavit
 - Assessor's maps
- Solar > 250 kW and DG projects for Other Eligible Technologies required to submit competitive priced bid (\$/kWh) for output of facility.
- Selection of projects based on ranking of pricing bids at or below applicable ceiling price for each technology class
 - Projects awarded a Certificate of Eligibility (COE) will be paid Performance-Based Incentive (PBI) equal to their respective bid price
- Medium-Scale Solar (26 250 kW) projects are not required to submit competitive priced bid selected on a first come, first served basis and paid Standard PBI
- Must be operational within 24 months of award of Certificate of Eligibility
 - 36 months for anaerobic digestion; 48 months for hydropower

Small-Scale Solar (25 kW or Less): Eligibility Requirements



- Apply via Interconnection Application on an open basis
- No study is required, and ISA is offered with acceptance into RE Growth
- Non-residential projects can elect to receive 1) a direct payment or 2) a combination of direct payment and bill credits
- Residential projects must receive bill credits, by law
- No deposit is required
- Projects have 24 months from time of award of Certificate of Eligibility to meet requirements for payment under the tariff
- Interconnect to Narragansett Electric Company distribution system and located in ISO-NE load zone
- Not a segment of a larger project, with some exceptions
- Site control

Small-Scale Solar (25 kW or Less): Continuous Open Enrollment Process



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Pre-Enrollment



Annual Continuous Enrollment



Award Certificate of Eligibility



Eligible Facilities criteria

- Interconnection Application
- On-site load requirements for bill credits
- Residential and non-residential customers
- Not already operating

- No separate Enrollment Application
- Elect to participate via Interconnection Application
- First come, first served
- No competitive bid required

Award Certificate of Eligibility

- Construction
- Interconnection

Payment for RECs*

- Renewable Energy Resources Eligibility Form -PUC approval
- NEPOOL GIS
- Non-residential systems can opt to receive direct payment or combination of direct payment and bill credit

*Renewable Energy Certificates

Small-Scale Solar (25 kW or Less): REC Registration and Certification



- All projects are required to obtain certification from the RI PUC of the project as an Eligible Renewable Energy Resource and register with NEPOOL GIS as a condition for payment under the Tariffs.
- National Grid has received approval from the RI PUC to aggregate the Small-Scale Solar Projects for these purposes.
- The Company will register the projects with NEPOOL GIS and obtain RI PUC certification on the project's behalf
 - REC Assignment and Aggregation Certification Form
- Projects will not be paid until such certification is obtained
- All projects are required to cooperate as needed



RE Growth Program Elements Proposed for 2017
Shared Solar, Community Remote DG, and Zero
Energy Building Rate Option, SolarWise Flexibility



Shared Solar Overview

- Mandated as part Senate Bill 2016- S 2450 and codified at R.I. Gen. Laws 39-26.6-26
- 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
 - For discussion: Issue raised on split customer class situations. Given statute, is an exemption for same parcel accounts of farm entities, and multifamily building accounts possible?
- 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, such as Segmentation test, apply

Community Remote Distributed Generation (CRDG) Overview



- Mandated as part Senate Bill 2016- S 2450 and codified at R.I. Gen. Laws 39-26.6-27
- Sharing credits to spread solar benefits
- Limit on value of credits
- Competitive price under a different ceiling price
- Separate classes for CRDG facilities



CRDG – Eligibility Criteria

- Unit must be greater than 250kW DC Solar or 1 MW AC Wind (per Class proposal of DG Board)
- Must have site control, ISRDG or ISA, and pay deposit on acceptance of Certificate of Eligibility, like non-CRDG
- Must designate at least three Recipients; otherwise no limit on number of Recipients
- To operate and meet CRDG requirements, a CRDG project must allocate at least 50% of credits to customers at amount that is less than generation of 25 kW AC annually AND no more than 50% of credits can go to any one customer

CRDG – Example of Calculation of Number of Bill Credit Recipients



- Size of unit: 500 kW DC
- Estimated annual output: 500 x 8760 x 13.5% = 591,300 kWh
- One recipient may receive 50% of output, or up to 295,650 kWh
- Remaining recipients must be no larger than 25kW AC unit
 - \sim 25 x .153 x 8760 = 33,507 AC kWh
 - Must sign up at least 295,650 kWh to recipients with annual use no greater than 33,507 kWh
- Final guidance on calculation of outputs and limits will be provided in a guidance document posted on the RE Growth website

Zero Energy Building Rate Provision



- RI is developing new goals and guidance on the creation of more Zero Energy Buildings (ZEBs)
- ZEBs use extensive energy efficiency measures then meet other energy use with renewable energy
- Renewable Energy Certificates prove the use of a MWH of renewable energy by law and regional system rules
- The voluntary inclusion of a new ZEB rate option for 2017 will allow such system owners to buy their Renewable Energy Certificates back from the company at the current market price in RE Growth, enabling them to fully claim use of the renewable energy

ZEB Provision -- Calculation



- The National Grid Renewable Energy Certificate Market Price* 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, and will change annually with that Market Price
- Example:

Performance Based Incentive: 25¢ per kWh

REC Market Value: 4¢ per kWh

■ Net PBI: 21¢ per kWh

Shared Solar and CRDG not eligible for ZEB Rate Option



SolarWise Flexibility Additions

- The SolarWise program introduces solar to Energy Efficiency audit recipients and offers them both a potential bonus PBI and access to a solar marketplace
- Included a new provision to request delegation to DG Board to review and adopt changes in savings tiers and the facility resizing rules during the program year, if proposed, to improve customer experience and program effectiveness
- Included a new provision to notify customers they need at least 6 months of billing history to qualify for the bonus, since qualification is based on EE savings vs. a baseline of usage

Residential Efficiency Savings Tiers for SolarWise Bonus



	SolarWise Bonus Tier 1 (5% Bonus)	SolarWise Bonus Tier 2 (10% Bonus)
Existing Residential Buildings	Implement electricity savings measures totaling at least 15% of last 12-months of usage, as identified through the No Cost Energy Assessment	Tier One threshold PLUS: All Weatherization recommendations from No Cost Energy Assessment, OR Other electric-specific measures that total at least 400 kWh per year
Residential New Construction	30% lower total energy use than RI reference home (Residential New Construction program Tier 2)	45% lower total energy use than RI reference home (Residential New Construction program Tier 3)

https://www9.nationalgridus.com/narragansett/non_html/SolarWise_Customer_Guide.pdf

Small Business Efficiency Savings Tiers for SolarWise Bonus



	SolarWise Bonus Tier 1 (5% Bonus)	SolarWise Bonus Tier 2 (10% Bonus)
Smaller Businesses (Rates C-06 or G-02)	Implement electric savings measures totaling at least 20% of last 12 months of electric usage	Implement electric savings measures totaling at least 25% of last 12 months of electric usage

https://www9.nationalgridus.com/narragansett/non_html/SolarWise_Customer_Guide.pdf



Renewable Energy Growth Program Billing and Payment Options Overview



Re-Growth Billing Options – Option 1

- Available to Commercial customers only who install generators but have no on-site use, or choose to not transfer credits to their onsite account.
- Company will install a single net meter at the generation interconnection.
- The Performance Based Incentive (PBI) payment is calculated as the monthly net export (kWh) multiplied by the customer's PBI (\$ per kWh) specified on the customer's Certificate of Eligibility. This amount is paid to the customer as a cash payment.
- If on-site load is present, Customer will receive electric bill based upon on-site use.
- Applicant may change billing option once during term of tariff



Re-Growth Billing Options – Option 2

- Mandatory for Residential customers
- Available to Commercial customers with on-site use
- Company will install two meters. The first meter measures the onsite use, the second meter measures the generator output.
- The customer will receive a bill from National Grid for the on-site use.
- This bill will include a credit based upon the generator output, or the on-site use, whichever is less.
- The total PBI payment less the bill credit will be paid to the Applicant as a cash payment

Re-Growth Customer Bill - Option 2 nationalgrid

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Charges for On-site use

DETA	AIL OF CURRENT CHARGI	ES		
Deliv	ery Services			
Service F	Period No. of d	lays Current Reading	- Previous Reading :	= Total Usage
Jul 13	- Aug 12 30	26787 Actual	25907 Actual	880 kWh
METER	NUMBER NEXT SCHE	DULED READ DATE ON OR A	мвоит Sep 13	
RATE	Basic Residential Rate A-16	6		
	Customer Charge			5.00
	LIHEAP Enhancement Cha	arge		0.73
	Distribution Energy Chg	0.04283 x	880 kWh	37.69
	Energy Efficiency Prgrms	0.01107 x	880 kWh	9.74
	Renewable Egy Dist Chg	0.00344 x	880 kWh	3.03
	Transmission Charge	0.02705 x	880 kWh	23.80
	Transition Charge	-0.00058 x	880 kWh	-0.51
	RE Growth Program			0.17
		Total Deliv	ery Services	\$ 79.65
Supp	ly Services			
SUPPLIE	ER National Grid			
	Energy Charge	0.08679 x	880 kWh	76.37
		Total Su	ply Services	\$ 76.37

Re-Growth Customer Bill – Option 2 (continued)



Performance Based Incentive Payment and Bill Credit

Performance Based Incentive Program

Service Period	No. of days	Current Reading -	Previous Reading	=	Total Usage
Nov 9 - Dec 12	33	2697 Actual	2313 Actual		384 kWh
METER NUMBER	NEXT SCHEDULED	READ DATE ON OR ABOUT	Jan 12		
RATE Basic Residentia	al Rate A-16				

Performance Based Incentive Payment

	Total Bill Credit	-\$ 63.59
Energy Charge	0.08179 x -384 kWh	-31.42
Transition Charge	-0.00058 x -384 kWh	0.22
Transmission Charge	0.02705 x -384 kWh	-10.38
Renewable Egy Dist Chg	0.00344 x -384 kWh	-1.32
Energy Efficiency Prgrms	0.01107 x -384 kWh	-4.25
Distribution Energy Chg	0.04278 x -384 kWh	-16.44
Bill Credit		
Residual PBI - Cash Payment	\$ 144.58 - \$ 63.59	\$ 80.99
Total PBI Payment	\$ 0.3765 x 384	\$ 144.58

Bill credit does not apply to fixed monthly charges or demand charges



Shared Solar – Billing and Payments

- Each bill credit recipient will receive an allocation of generated kWh monthly.
- Each Bill Credit Recipient will receive a monthly generated kWh allocation equal to the lesser of the Bill Credit Recipient's designated percentage allocation of the kWh output or the Bill Credit Recipient's on-site load for the applicable billing period
- 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.

Shared Solar – Billing and Payments (continued)



- Total PBI payment is PBI (\$ per kWh) on Certificate of Eligibility, as adjusted by SolarWise Bonus and/or ZEB Rate reduction, if applicable, multiplied by the kWh generated during the billing month.
- Monthly Bill Credits: generated kWh allocation for each credit recipient multiplied by the applicable kWh charges.
- Cash payment will be the Total PBI payment less the sum of the bill credit recipients' Monthly Bill Credits.
- Bill credit recipients will receive monthly credits as long as the cumulative annual kWh allocation is less than the recipient's 3-yr average annual use.



Shared Solar - Illustrative Billing

Electric Service Bill - Recipient 1 (50%)							
Delivery & Supply Service							
Customer Charge		\$5.00					
Delivery Service Chgs	\$0.08400 x 700 kWh	\$58.80					
Supply Charges	<u>\$60.90</u>						
Curren	\$124.70						
<u>Bill Credit</u>							
Delivery Service Chgs	\$0.08400 x 500 kWh	\$42.00					
Energy Charges	<u>\$43.50</u>						
Total 1	\$85.50						
Net Bi	<u>u</u>	39.20					

Electric Service Bill - Recipient 2 (50%)								
<u>Delivery & Supply Service</u>								
Customer Charge		\$ 5.00						
Delivery Service Chgs	\$0.08400 x 500 kWh	\$ 42.00						
Supply Charges	Supply Charges \$0.08700 x 500 kWh							
Curren	t Charges	\$90.50						
<u>Bill Credit</u>								
Delivery Service Chgs	\$0.08400 x 500 kWh	\$ 42.00						
Energy Charges	\$ 43.50							
Total Bill Credit \$85.50								
Net Bi	\$ 5.00							

Performance-Based Incentive Payment

PBI Payment \$0.2500 x 1,000 kWh \$250.00

Less Bill Credits: Recipient 1 \$85.50
Recipient 2 \$85.50

\$171.00

Cash Payment: \$79.00

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

Shared Solar – Illustrative Billing (continued)

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Perce	ntage of Generati	ion:	50%		50%	Perf. Based Ir	ncentive	\$0.27750			
3-year Average Use:		15,000		16,500	Bill Crea	lit Value		\$0.17100	\$0.17100		
				Cumulative		Cumulative		Total	Bill	Bill	Cash
	Generation		Account 1	Use	Account 2	Use		PBI	Credit 1	Credit 2	Payment
Apr	3,600		1,800	1,800	1,800	1,800		\$999	\$308	\$308	\$383
May	3,600		1,800	3,600	1,800	3,600		\$999	\$308	\$308	\$383
Jun	4,500		2,250	5,850	2,250	5,850		\$1,249	\$385	\$385	\$479
Jul	4,000		2,000	7,850	2,000	7,850		\$1,110	\$342	\$342	\$426
Aug	3,800		1,900	9,750	1,900	9,750		\$1,055	\$325	\$325	\$405
Sep	3,500		1,750	11,500	1,750	11,500		\$971	\$299	\$299	\$373
Oct	2,100		1,050	12,550	1,050	12,550		\$583	\$180	\$180	\$224
Nov	1,800		900	13,450	900	13,450		\$500	\$154	\$154	\$192
Dec	1,000		500	13,950	500	13,950		\$278	\$86	\$86	\$107
Jan	1,000		500	14,450	500	14,450		\$278	\$86	\$86	\$107
Feb	1,500		550	15,000	750	15,200		\$416	\$94	\$128	\$194
Mar	2,500		1	15,000	1,250	16,450		\$694	\$0	\$214	\$480

Shared Solar – Illustrative Billing (continued)



■ From 39-26.6-3.(16) Definitions: In no case will the annual allocated credits in kWh exceed the prior three (3) year annual average usage, less any reductions for verified energy efficiency measures installed at the customer premises, of the customer account to which the bill credits are transferred.

CRDG -- Billing and Credit Transfer Details



- On a monthly basis generated kWh will be allocated to Bill Credit Recipients up to the amount of <u>available</u> generated kWh
- Generated kWh <u>available</u> to allocate during a month is equal to the current month's generated kWh <u>plus</u> any generated kWh not allocated during prior months
 - Bill credits associated with unallocated kWh will accumulate in the generator's "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 monthly generation exceeds the sum of the Recipients' onsite use, each Recipient will receive kWh allocation equal to on-site use, otherwise, Recipient will receive designated percentage share of generated 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
- Payment for CRDG generation will always be a combination of bill credits for eligible Bill Credit Recipients or unallocated credits, 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 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 Service Rate at the time of the initial selection of the rate



CRDG – Cash Payment

- For generation in a month, the total PBI payment will be reduced by the sum of the Recipient's Bill Credits, <u>and by the</u> <u>default rate for unallocated kWh</u>
- The remaining PBI will be paid to the designated payment recipient
- At the end of each program year, any unallocated credits in generator banking accounts will be cashed out at the average wholesale energy price realized by the system over the course of the prior year or since operation, whichever is less



CRDG Bill Example (1)

	Generated kWh	РВІ	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



CRDG Bill Example (2)

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					Perf. Based Incentive		\$0.20650				
3-year Average Use:		400,000			Bill Credit Value			\$0.14000	\$0.14000		
		Available	Aggregate	Cumulative	Monthly	Cumulative		Total	Bill	Unallocated	Cash
	Generation	Generation	Accounts	Use	Unallocated	Unallocated		PBI	Credit 1	Value	Payment
Apr	36,000		30,000	30,000	6,000	6,000		\$7,434	\$4,200	\$840	\$2,394
May	36,000	42,000	30,000	60,000	6,000	12,000		\$7,434	\$4,200	\$840	\$2,394
Jun	45,000	57,000	20,000	80,000	25,000	37,000		\$9,293	\$2,800	\$3,500	\$2,993
Jul	40,000	77,000	15,000	95,000	25,000	62,000		\$8,260	\$2,100	\$3,500	\$2,660
Aug	40,000	102,000	15,000	110,000	25,000	87,000		\$8,260	\$2,100	\$3,500	\$2,660
Sep	35,000	122,000	35,000	145,000	-	87,000		\$7,228	\$4,900	\$0	\$2,328
Oct	20,000	107,000	40,000	185,000	(20,000)	67,000		\$4,130	\$5,600	(\$2,800)	\$1,330
Nov	15,000	82,000	45,000	230,000	(30,000)	37,000		\$3,098	\$6,300	(\$4,200)	\$997
Dec	10,000	47,000	35,000	265,000	(25,000)	12,000		\$2,065	\$4,900	(\$3,500)	\$665
Jan	12,000	24,000	20,000	285,000	(8,000)	4,000		\$2,478	\$2,800	(\$1,120)	\$798
Feb	15,000	19,000	15,000	300,000	-	4,000		\$3,098	\$2,100	\$0	\$998
Mar	25,000	29,000	20,000	320,000	5,000	9,000		\$5,163	\$2,800	\$700	\$1,663
						TOTAL		\$67,939	\$44,800	\$1,260	\$21,879

CRDG Bill Example (2) (continued)



Year-End Close-out of Unallocated Credits

Unallocated kWh 9,000 kWh

ISO-NE Average Monthly Clearing Price \$0.0400 per kWh

Value of Unallocated kWh \$360

Value of Banked Bill Credits (\$ 1,260)

Value of Unallocated kWh – cash-out at YE \$ 360

Net Reduction in Value (\$ 900)