

National Grid's 2016 SolarWise Rhode Island "Customer Guide"

Integrating Solar and Energy Efficiency to Help Customers Manage their Energy Future

Overview

Each year in Rhode Island, thousands of customers seek to reduce their energy use and save money by accessing services and incentives through National Grid's Energy Efficiency (EE) Program. Similarly, many customers are interested in enrolling in the Renewable Energy (RE) Growth Program, which compensates participating customers for the output from their solar photovoltaic (PV) equipment at their homes or businesses.

The SolarWise program helps customers do both. SolarWise enables customers who are pursuing EE options to easily access information regarding solar opportunities available to them. Customers who choose to install solar in conjunction with investment in significant EE savings may qualify for additional solar payment incentives under the RE Growth Program. Specifically, National Grid's EE Programs identify savings opportunities for both Residential and Commercial and Industrial (C&I) customers and the RE Growth program offers customers Performance Based Incentives (PBIs) for each kilowatt-hour of generation, as governed by the RE Growth Tariffs which can be accessed at: www.ngrid.com/regrowth.

How It Works

SolarWise provides several solar-related services. First, customers will receive, at no cost to them, a Solar PV Screening as part of an EE assessment. After completion of the EE assessment, customers will be provided the assessment results, a list of potential energy savings, a solar PV screening and an invitation to the on-line SolarWise Marketplace, where they can request, and compare, offers from independent solar installation companies to install solar PV at their location. Finally, customers can qualify for a bonus award from National Grid's RE Growth Program when they reach a set level of energy savings and properly size their solar array to their new, smaller, electric load. The SolarWise Bonus Awards will be available for solar PV systems participating in the Small Solar (1-25 kW DC) or Medium Solar (26-250 kW DC) classes of the RE Growth Program. Approval for such bonus payment must be obtained through the SolarWise program prior to applying for enrollment in the RE Growth program.

Program Offerings

Solar PV Screenings

All Rhode Island residential customers are eligible for a No-cost EE Assessment through National Grid's EnergyWise Program. The No-cost EE Assessment includes no-cost installation of energy efficient light bulbs, shower aerators, and advanced power-strips and a provides a list of energy saving measures that customers can choose to implement. For more information or to sign up for the No-cost EE Assessment, please visit www.myngrid.com/energywise.

For non-residential customers, the Commercial Technical Study helps customers find the right mix of energy-efficient technologies for their operations and identify financial incentives to implement them. For more information or to sign up for the Technical Study, please visit www.ngrid.com/ri-ee or call 1-866-903-2811.

The EE Programs are also available to residential and commercial new construction projects, which includes some substantial renovations of existing buildings. Technical support offered during the design phase and in the field will help customers achieve a high-efficiency project. Efficiency of a project is measured based on the level above which a project exceeds the commercial building code or the residential User Defined Reference Home (UDRH).

When a customer arranges for any of the above-referenced EE Assessment Services, the SolarWise program will provide a no-cost solar PV screening for adding solar PV to the customer's home or building, which will be provided during the EE Assessment. Customers will receive information about the appropriateness of solar at their locations, and the potential amount and value of solar energy that could be produced. Customers should visit www.ngrid.com/ri-solarwise to obtain customized solar assessment results and gain access to the SolarWise Marketplace (see "SolarWise Marketplace Services" below).

Important things to know regarding the Solar PV Screening:

- There is no charge for the Solar PV Screening to the customer
- All Solar PV Screening information is confidential to the customer, and subject to National Grid's Data Privacy Policy
- Customers only need to receive an EE audit, or register for the EE New Construction Program to receive the solar screening
- There is no obligation to follow up on the Solar PV Screening
- Customers will receive Solar PV Screenings after the start of the RE Growth program year on April 1, 2016. Customers who received EE Assessments prior to April 1 in 2016, as well as those in program years 2015 and 2014, will also be eligible for the SolarWise program. They will be provided a Solar PV Screening by email only.
- Upon entry into the residential or commercial new construction program, customers will be informed about the potential for solar PV on their proposed building (assuming it is not already part of the new construction plan).
- A service provider to National Grid, Energy Sage, Inc., will provide the Solar PV Assessment under the SolarWise Program.

SolarWise Marketplace Services

Along with the Solar PV Screening Services outlined above, each customer will receive access to the SolarWise Marketplace. The Marketplace will allow customers to request and review quotes from multiple solar installers in a standardized, comparable format. If a customer chooses to use the Marketplace, they will update their solar screening information with additional details about their

energy efficiency savings as implemented, and submit their profile to solar installers participating in the Solar Marketplace. Participating solar installers will then provide quotes for the installation of solar, and the customer will be able to compare these quotes on the Marketplace.

Customers who choose to move forward with a solar installer will be responsible for all aspects of their contractual relationship with the installer. Other than providing access to the on-line SolarWise Marketplace, National Grid will not be involved in the transaction between the customer and the solar installer. Once a customer and a solar installer have agreed upon terms and conditions of a proposed solar array, either the customer or the installer, on behalf of the customer, may submit applications for interconnection services and RE Growth incentives to National Grid. More information on the RE Growth Program, including interconnection application forms, can be found at www.ngrid.com/regrowth.

If a customer chooses not to utilize the SolarWise Marketplace to identify a solar installer, that customer can still apply to the RE Growth Program for the SolarWise Bonus Award as long as they meet the energy savings requirements of the SolarWise program as outlined in Table 1 and Table 2 below.

Important things to note about the SolarWise Marketplace Services:

- Customers whose premises have been screened and are appropriate for solar can move forward on their own schedule
- Customers are not obligated to seek quotes from solar installers
- A customer eligible for the SolarWise program must apply for and receive approval for a SolarWise Bonus Payment from April 1, 2016 through March 31, 2017. Please note that the number of installers may fluctuate over the course of the program year.
- A service provider to National Grid, Energy Sage, Inc., will provide the solar PV screening and the Marketplace under the SolarWise Program.

Solar Comparison and Support Services

When considering offers to install solar PV, customers may have questions about comparing quotes, the amount of solar to install at their location, equipment or services available from different installers, financing, leasing, and /or other issues. Customers can access no-cost SolarWise Support through email, on-line chat, or telephone to obtain assistance with these and other issues. These support services will be provided by Energy Sage, Inc., and will pertain only to Solar PV Screening and SolarWise Marketplace services in the SolarWise Program. SolarWise support can be reached at:

Email: solarwiseRI@energysage.com

Telephone: 888.838.4638

On-line chat support available at www.ngrid.com/ri-solarwise

For electric service issues, including billing, interconnection, RE Growth payments, metering, and similar matters, customers should call National Grid Customer Service at 1-800-322-3223.

SolarWise Bonus Awards

Overview and Award Eligibility Criteria

National Grid’s EE programs strive to incentivize the most energy efficient homes and buildings through the No-Cost Energy EE Assessment and Commercial Technical Study recommendations for energy savings, supported by all associated incentives. However, the level of efficiency savings pursued by any customer is subject to the customer’s discretion. In an effort to help encourage owners to pursue solar while also taking substantial steps toward deeper energy efficiency, the SolarWise Bonus Awards offer increased RE Growth payments when high levels of energy savings are reached by a customer at their location.

SolarWise eligibility criteria are based on existing EE program levels and/or measures – all of which have been reviewed and approved by the Rhode Island Public Utilities Commission as elements of National Grid’s Energy Efficiency Program Plans. To be counted toward qualifying for a SolarWise Bonus Award, measures must be approved as part of their respective EE Program Plan in 2014, 2015 or 2016, and implemented or committed to prior to the end of the RE Growth program year, on March 31, 2017, when the application to SolarWise is made. In addition, applications for RE Growth eligibility accompanied by approval for any SolarWise Bonus Award, as detailed below, must be received and approved before the end of the RE Growth program year.

Table 1. Residential SolarWise Bonus Award Eligibility Criteria¹

	SolarWise Tier 1	SolarWise Tier 2	Methodology
New Homes and Major Renovation/Rehabilitation	31% 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)	Calculated based on energy modeling (electricity and heating fuel) of proposed efficient total energy use divided by the RI Residential New Construction User Defined Reference Home (UDRH) usage.
Existing Building Retrofit (lighting, weatherization, and individual appliances)	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	Calculated by adding up electricity savings associated with each measure. Savings are predetermined through energy modeling by the EE Program and provided to the customer through the Energy Assessment.

¹ Residential solar PV systems that are Third-Party Owned (not by the resident customer) have a different Tier 1 and Tier 2 bonus level, as described in the SolarWise Bonus Levels section.

Table 2. Commercial and Industrial SolarWise Bonus Award Eligibility Criteria

<p>New Buildings and Major Renovation / Rehab</p>	<p>15% lower total energy use than current IECC modeled energy usage</p>	<p>20% lower total energy use than current IECC modeled energy usage</p>	<p>Calculated based on energy modeling of proposed total energy use (electricity & heating fuel) divided by the modeled International Energy Conservation code (IECC) usage of the same building.</p>
<p>Existing Building Retrofit (lighting, weatherization, individual appliances, and mechanical systems) For customers served on rates C-06 or G-02</p>	<p>Implement electric savings measures totaling at least 20% of last 12 months of electric usage</p>	<p>Implement electric savings measures totaling at least 25% of last 12 months of electric usage</p>	<p>Calculated by adding up electricity savings associated with each measure. Savings are predetermined through energy modeling by the EE Program and through custom estimations in the customer's Technical Study.</p>
<p>Existing Building Retrofit (lighting, weatherization, individual appliances, and mechanical systems) For customers served on Rates B/G-32 or B/G-62</p>	<p>Implement electric savings measures totaling at least 7% of last 12 months of electric usage</p>	<p>Implement electric savings measures totaling at least 12% of last 12 months of electric usage</p>	<p>Calculated by adding up electricity savings associated with each measure. Savings are predetermined through energy modeling by the EE Program and through custom estimations in the customer's Technical Study.</p>

1. International Energy Conservation code (IECC) is currently referenced as the building energy efficiency code in RI
2. RI UDRH – Rhode Island User Defined Reference Home is referenced as the baseline for new construction in RI (<http://www.rieermc.ri.gov/documents/evaluationstudies/2012/Final-RI-RNC-2011-Baseline-Report-sent-10-8-12.pdf>)
3. Commercial New Building Energy Savings Calculations
 - a. Provide Energy consumption for Baseline building (either using simulation model or engineering calcs)=A
 - b. Baseline building = a building designed to 'meet' the 2012 IECC code, with same sqft as the proposed building
 - c. Provide Energy consumption in KBtus (electric plus Therm)for proposed building (either using simulation model or engineering calcs)=B
 - d. Show percentage reduction in total energy consumption: $B/A = X\%$, $1-X = Y$
 - e. If Y equals or is greater than 15%, project is eligible for Tier One SolarWise bonus
 - f. If Y equals or is greater than 20%, project is eligible for Tier Two SolarWise bonus

Excluded Technologies Adjustments

Customers who have recently added one of the technologies listed below will have their 12-month usage recalculated for purposes of qualifying for the SolarWise Bonus Payments, so that energy savings comparisons are based on remaining load. For resistance electric heat customers who have switched fuels in last 12 months, or are committed to do so, the estimated usage associated with the heating system will similarly be deducted from their 12 month usage. Excluded technologies are the following:

- Plug-in electric vehicle (all electric or hybrid plug-in)
- Air Source Heat Pump
- Ground Source Heat Pump
- Fuel switching from electric resistance heat to other source if not an electrically powered Air Source/Ground Source Heat Pump

Application and Approval Process

All customers wishing to access the SolarWise Bonus Awards must show that they have achieved the required savings levels as described above by submitting an application and required documentation to National Grid per the directions on the Residential and C&I SolarWise Application forms, available on the RE Growth and SolarWise webpages. Commercial class customers will also be able to use committed measures, with evidence of commitment as outlined in the application.

Applications to the RE Growth Program must then be received and approved before the end of the program year on March 31, 2017 in order to be eligible for the 2016 SolarWise Bonus Awards as described in this Guide. Applicants will receive notification of their approval or rejection, and their Tier level, which can then be included in their application to the RE Growth program.

SolarWise Billing and System Resizing Requirements

In order to be eligible for SolarWise Bonus Awards, non-residential customers must choose payment Option 2 in the RE Growth Non-Residential Tariff, to receive bill credits from the RE Growth program. Residential customers are already required to receive bill credits. Non-residential customers must opt to receive bill credits and must size the solar PV facility appropriately to do so.

All solar PV systems eligible for SolarWise Bonus Award levels must be sized such that the maximum annual electric (kWh) output is not greater than the 3-year historic annual average electric (kWh) usage of the customer at that location minus the estimated annual electric energy (kWh) savings from the realized or committed measures on their SolarWise application. Systems can also be sized to produce less than the annual usage limit. The use of Excluded Technologies can adjust these calculations.

Example: If a residential customer used an average of 10,000 kWh per year over the previous three years, and implemented energy savings of 2,000 kWh per year, the resulting SolarWise eligible system would be sized to produce no more than a maximum of 8,000 kWh in the course of a year. The maximum size of the customer's solar PV system (using a capacity factor of 14% for this example) would then decrease from 8.15 kW DC to 6.52 kW DC.

If a customer application included Excluded Technologies Adjustments, the system may be sized to include generation sufficient to power the eligible “Excluded Technologies.” For example, if the customer example above also provided evidence of an electric vehicle in possession at the time of application that would consume 2,000 kWh per year, the eligible system size would increase to 8.15 kW, in order to generate 10,000 kWh per year. All of this production would be eligible for the SolarWise Bonus Awards.

SolarWise Bonus Levels

When customers meet the EE Eligibility Criteria as outlined in Table 1 and Table 2 above, they will qualify for higher solar incentives as described below.

SolarWise Tier	Renewable Energy Growth Program Performance Based Incentive Percentage Increase
Tier One	5%
Tier Two	10%
Tier One – Small Solar TPO ²	2%
Tier Two – Small Solar TPO	4%

The Tier 1 and Tier 2 PBI percentage increase apply to any of the PBI levels approved for the RE Growth Small Solar and Medium Solar classes, and are shown specifically in the RE Growth Tariffs.

Qualification of Marketplace Vendors

The SolarWise Marketplace is open to all installers that pass a screening process managed by Energy Sage, Inc. and National Grid. Criteria for acceptance of an installer include the installer’s experience, licensing, and customer complaint history. **National Grid does not endorse, guarantee, or warrant any installer or product in connection with the SolarWise Program, and makes no warranties or guarantees in connection with the SolarWise Program, or any item or services performed in connection with the SolarWise Program, whether expressed, or implied, including, without limitation, warranties of merchantability and fitness for a particular purpose. National Grid makes no representations of any kind regarding the benefits or energy savings in connection with the SolarWise Program. National Grid shall have no responsibility or liability to any customer or any third party in connection with the SolarWise Program or otherwise, except the responsibility to provide the incentives to customers (if any) under the SolarWise Program explicitly agreed to in writing by National Grid.**

² Third-party Owned

SolarWise Bonus Reserve Allocation

Each year the Rhode Island Distributed Energy Board (Board) recommends to the Rhode Island Public Utilities Commission (PUC) the amount of capacity in kW that shall be offered to each class of the RE Growth Program, including whether to subdivide classes into smaller groupings. The PUC reviews and approves the Board's recommendations. The RE Growth law allows National Grid to reserve up to 50% of the Small-Scale Solar and Medium-Scale Solar classes for the SolarWise Program in each year.

For the 2016 program year, the SolarWise Bonus Award capacity reserve allocation will be 2,500 kW of the Small-Scale Solar class and 1,000 kW of the Medium-Scale Solar class (from either the Medium or the Non-Profit/Multifamily Medium Classes). Please see the applicable RE Growth Solicitation and Enrollment Rules for a full listing of annual capacity allocations and capacity available for each enrollment.