

CITY OF ST.GEORGE Energy Services Department (SGESD)	<b>Renewable Net Metering Program ESD-PRG-001-1</b>	<u>Document No.</u> ESD-PRG-001-1	<u>Revision No.</u> 4.0	<u>Review Cycle</u> Annually
		<u>Effective Date</u> 10/15/2005	<u>Review Date</u> 06/01/2015	<u>Creation Date</u> 10/15/2005
<u>Other Documents this program references</u> Renewable Net Metering Policy #10.95 Net Metering Application Net Metering Agreement			<u>Reviewer</u> R Fleming	<u>Owner</u> R Fleming

<b>REVISION HISTORY</b>				
<b>City of St. George Energy Services Department RENEWABLE NET METERING PROGRAM ESD-PRG-001-1 DOCUMENT NO. ESD-PRG-001-1</b>				
<b>Revision No.</b>	<b>Effective Date</b>	<b>Description</b>	<b>Reviewer</b>	<b>Approved By</b>
4.0	3.8.2024	Changes to the review timeline and updates to the application submittal process.	R Fleming	Legal
3.0	10/19/17	Added Text to clarify the need to protect the system from reverse power flows	R Fleming	City Council
2.0	06/30/2016	Program updated to reflect changes in fees and program updates.	R Fleming	City Council
1.0	4/14/2016	Change to typographic error in the SRC definition	R Fleming	N/A
0.0	10/15/2005	Document created.	R Fleming	City Council
		Signature:		
		Date:		

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## Scope

The Renewable Net Metering Program (also referred to as “Net Metering”) sets forth requirements for the interconnection of customer electric generating facilities that generate Renewable Energy within the City of St. George Energy Services Department (SGESD) distribution system. SGESD is a municipal electric utility located in St. George Utah.

There are three (3) main documents related to the Program.

1. Net Metering Program Energy Services Department-PRG-001-1
2. Net Metering Application
3. Net Metering Agreement

## 1. Definitions

The following words and terms, when used in this policy shall have the following meanings, unless the context clearly indicates otherwise.

### 1.1 Bi-Directional Meter. A meter that has 3 registers which measures the following:

- DELIVERED - kWh Delivered to a customer from the utility.
- RECEIVED – kWh Received by the utility from the customer’s solar generation facility.
- NET – The difference between the DELIVERED AND RECEIVED kWh as recorded on the other 2 registers.

**1.2 Customer Generator.** A SGESD customer that generates electricity, on the customer's side of the meter and receives an electric utility bill from the City of St. George.

**1.3 Customer Generating Facility.** The equipment used by a Customer Generator to generate, manage, and monitor electricity. A Customer Generating Facility typically includes an electric generator and/or an Equipment Package, as defined herein.

**1.4 Customer Load.** The kilowatt hours (kWh) used by Customer Generator within a billing cycle to supply their home with energy.

**1.5 Electric Distribution System.** That portion of an electric system which delivers electricity from transformation points on the transmission system to points of connection at a Customer Generator’s premises. An Electric Distribution System generally carries less than 69 kilovolts (kV) of electricity.

**1.6 Equipment Package.** A group of components connecting an electric generator with an Electric Distribution System, and includes all interface equipment including switchgear, inverters, or other interface devices. An Equipment Package may include an integrated generator or electric source.

**1.7 IEEE.** The standards published by the Institute of Electrical and Electronic Engineers, available at [www.ieee.org](http://www.ieee.org).

**1.8 kW.** Kilowatt, a unit of power representing 1,000 watts. A kW equals 1/1000 of a MW, as defined herein.

**1.9 kWh.** A unit of energy equivalent to one kW of power expended for one hour.

**1.10 MW.** Megawatts, a unit of power representing 1,000,000 watts. A megawatt equals 1000 kW.

**1.11 Net Metering.** A system of metering electricity in which the City Credits a Customer Generator for energy produced in excess of the Customer Load, and which a Customer Generator may opt to be compensated at the end of the annual billing period for any remaining kWh credits, at a rate equal to the Renewable Power Rate Available to SGESD.

**1.12 Production Meter.** A meter that measures total kWh produced by the Customer Generating Facility.

**1.13 Renewable Net Metering Agreement.** An agreement between a Customer Generator and the City which governs the connection of the Customer Generating Facility to the Electric Distribution System, as well as the ongoing operation of the Customer Generating Facility after it is connected to the system. An interconnection agreement will follow the standard form agreement developed by the SGESD and posted on the City's web site, [www.sgcity.org](http://www.sgcity.org).

**1.14 Renewable Power Rate Available.** The average price of energy delivered for a renewable portfolio which is available to SGESD.

**1.15 Renewable Energy.** A system that generates solar power which is installed in the SGESD service territory.

**1.16 Solar Reliability Charge.** A monthly kWh charge to Customer Generators as metered by the Production Meter.

**1.17 Standard Application Form.** A City of St. George Renewable Net Metering Program Application for Interconnection Review.

**1.18 Verification.** The process of verifying the system is installed as approved by the SGESD Engineer and that all requirements of the Net Metering Program have been met. The Bi-directional and Production meters will be set only if the Verification meets all requirements of the Net Metering Program.

## **2. Net Metering General Provisions**

SGESD will offer Net Metering to their customers that generate electricity, on the customer's side of the meter using Renewable Energy sources on a first come first serve basis. Net Metering is available to customers, provided that the generating capacity of the Customer Generating Facility does not exceed the customer's peak electric needs or exceed the capacity of

the distribution circuits. The provisions of this policy that apply to interconnection are primarily intended for Customer Generator Facilities that are eligible for Net Metering; that is renewable generation facilities with a rating no greater than 250 kW, which generate electricity for customer use.

### **2.1 Qualification of customer-generator facilities**

In order to qualify for all levels of interconnection review procedures, a Customer Generating Facility must be certified as complying with the following standards, as applicable:

- IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, as amended and supplemented, which is incorporated by reference herein. IEEE standard 1547 can be obtained through the IEEE website at [www.ieee.org](http://www.ieee.org); and
- UL 1741, Inverters, Converters, and Controllers for Use in Independent Power Systems (January 2001), as amended and supplemented, which is incorporated by reference herein. UL standards can be obtained through the Underwriters Laboratories website at [www.ul.com](http://www.ul.com).

### **2.2 Equipment Package**

An Equipment Package shall be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing and certification laboratory and has been tested and listed by the laboratory for continuous interactive operation with an Electric Distribution System in compliance with the applicable codes and standards as stated above.

If the Equipment Package has been tested and listed as an integrated package, which includes a generator or other electric source, the Equipment Package shall be deemed approved, and SGESD generally will not require further design review, testing or additional equipment.

If the Equipment Package includes only the interface components (switchgear, inverters, or other interface devices), the Customer Generator must show that the generator or other electric source being utilized with the Equipment Package is compatible with the Equipment Package and consistent with the testing and listing specified for the package. If the generator or electric source being utilized with the Equipment Package is consistent with the testing and listing performed by the nationally recognized testing and certification laboratory, the Equipment Package will be deemed approved.

The aggregate generation capacity on the distribution circuit to which the Customer Generating Facility will interconnect, including the rating of the Customer Generating Facility, shall not contribute more than the distribution circuit standard operation limits (SOL).

### **2.3 Customer Generator Requirements**

Customer Generators must install a manual AC disconnect located within three (3) feet of the meter and be readily assessable by utility personnel.

New Customer Generators are required to complete a Net Metering Agreement (NMA) which requires an original notarized signature. The NMA agreement can be downloaded from the Net Metering page on the City's website. [www.sgcity.org](http://www.sgcity.org)

If using a contractor to install the equipment, a Utah licensed electrical contractor (S200, S201 or S202) must install the photovoltaic systems. The contractor must obtain a current City of St. George Business License and complete the SGESD Pre-Qualified Solar PV Contractor class and maintain the pre-qualification status.

## **2.4 Review Procedures for Applications for Interconnection of Customer-Generating Facilities**

The City provides the following review procedures:

Level 1 – SGESD uses this review procedure for all applications to connect inverter-based Customer Generating Facilities, which has a power rating of 10 kW or less AC installed and is a single-phase system.

Level 2 – SGESD uses this review procedure for applications to connect Customer Generating Facilities with a power rating above 10 kW AC to a maximum of 250 kW AC or:

- Any system that includes a generator or battery storage or
- any three-phase system or
- Commercial customer installation. Any three-phase system or system installed for a commercial customer is required to be designed and stamped by an electrical engineer licensed in the State of Utah.

If the proposed system includes a battery backup or generator backup, a detailed wiring diagram and shop drawings of all equipment shall be submitted with the application.

***SGESD must protect their system from any potential reverse power flows. Therefore, SGESD will refuse or limit the size of Customer Generating Facility based on the potential energy flows on any given circuit.***

## **3. Net Metering Workflow**

**3.1** Customer submits Application via the Building Department online portal. Customers or contractors contact the Building Department for access to the web portal.

**3.2** The Building Department notifies SGESD that the Application is received and provides customer contact information.

**3.3** SGESD emails the customer with program information and requests the customer reply to the email with questions and/or to confirm they are moving forward with solar PV installation. If there is no response from the customer in 10 working days, the Application will be submitted for review.

**3.4** Customer Application is submitted to the SGESD Engineer for review. If all requirements are met, SGESD Engineer will approve the Net Metering Application and the Building Department review process will begin.

**3.5** Once the Building Department has approved the Application, a building permit can be issued. All review, meter and permitting fees must be paid at the time of issuance.

**3.6** When the installation is complete, the contractor schedules a Building Inspection.

**3.7** When the Building Department passes the installation, SGESD will schedule the Verification.

**NOTES:**

- The NMA must be submitted BEFORE the Verification is scheduled.
- If all requirements of the Net Metering Program have been met, the meters will be set and the Customer Generating Facility approved to operate.

## **4. SGESD Review Process**

During the initial review, SGESD may, at the Customer's expense, conduct any studies or tests it deems necessary to evaluate the proposed interconnection. The initial review will result in one of the following determinations:

**4.1** The Customer Generating Facility meets the applicable requirements and is approved for installation.

**4.2** The Customer Generating Facility failed to meet one or more of the applicable requirements, resulting in either:

- The Application is denied and will not be reconsidered for interconnection.
- SGESD identifies the failing requirements and will accept the Application for additional review. The Customer may resubmit the Application with changes as indicated by SGESD. Resubmittals will restart the review process. The Customer is responsible for fees associated with additional reviews. Fees are listed in the Renewable Net Metering Program Appendix ESD-APX-001-1, which is posted on the Net Metering page of the City's website. [www.sgcity.org](http://www.sgcity.org)

**4.3** An electronic version of the approved Application package will be available through the Building Department online web portal. The Building Department may have other required items to be submitted before a permit is issued. All fees must be paid at the time the building permit is issued.

## 5. Information Required for Application

The Application for Interconnection will require the following information:

- Basic information regarding the customer
- Type and specifications of the Customer Generating Facility
- The contractor who will install the Customer Facility including license and contact information.
- Equipment submittals/shop drawings
- Site Plan
- One line or three-line electrical diagram as application for the installation.
- Structural load design and letter from a Utah-licensed structural engineer.
- Other information necessary to determine compliance with this program.
- Other information required by the City Building Department

**Customer/Contractor must contact The Building Department to assure required permits are obtained.**

## 6. Meters and Metering

**6.1** A Customer Generating Facility used for Net Metering shall be equipped with metering equipment that can measure the flow of electricity in both directions at the same rate. This is typically accomplished through use of a single Bi-Directional Meter. Meter equipment shall be provided by SGESD. The Customer is responsible for the cost of the meters.

**6.2** SGESD will require a production meter be installed for each Customer Generating Facility. **The Production Meter will be placed such that it meters total kWh produced from the solar PV system before any load.** SGESD will provide the Production Meter. The Customer must furnish and install the production meter base. at their cost. The production meter base shall be installed no further than five (5) feet from the main meter.

**6.3** The City shall measure the net energy produced or consumed by the Customer during each billing period, in accordance with standard metering practices.

- If the energy supplied by the City exceeds the electricity generated by the Customer and fed back to the City during the billing period, or any portion thereof, the Customer shall be billed for: (i) the net energy supplied to Customer by the City's electric distribution system, (ii) for appropriate customer charge paid by other Customers of the City in the same rate class, and (iii) the **Solar Reliability Charge**.

- If the energy generated by Customer and distributed back to the City's electric distribution system during the billing period, or any portion thereof exceeds the Customer consumption, the Customer shall be credited for: (i) the net excess kilowatt-hours (kWh) generated during the billing period, (ii) billed for the appropriate Customer service charge as other Customers of the City in the same rate class, and (iii) billed for the **Solar Reliability Charge**.

A customer with net kWh credit on the bi-directional meter net register in the December billing cycle can request SGESD buy the kWh credit at the **Renewable Power Rate Available**. Otherwise, the kWh credit will remain on the bi-directional meter. However, if a customer has an excess of 5,000 kWh credit or more in the December billing cycle, SGESD will buy the kWh credit back at the **Renewable Power Rate Available** and reset the bi-directional meter to zero.

The rate for both the **Renewable Power Rate Available** and **Solar Reliability Charge** are stated in the Net Metering Program Appendix 1.

## **7. Meters and Metering**

**7.1** Once a Net Metering interconnection has been approved a Customer Generator must do the following:

- An annual test in which the Customer Generating Facility is disconnected from the City's distribution equipment to ensure that the inverter(s) stops delivering power to the grid; and
- Any post-installation testing necessary to ensure compliance with IEEE 1547 or to ensure safety.

**7.2** SGESD has the right to inspect a Customer Generating Facility after interconnection approval is granted, at reasonable hours and with reasonable prior notice to the Customer Generator.

**7.3** If SGESD discovers that the Customer Generating Facility fails to comply with the requirements of this program, SGESD may disconnect the Customer Generating Facility. Customer must submit an application through the City Inspect process, detailing their plan for correcting the deficiencies. If approved, the Customer may proceed with the corrections and request reinspection by the Building Department and SGESD.