

# BULK GENERATION SOLE USE INSTALLATION INTERCONNECTION AGREEMENT

This bulk generation sole use installation (BGSUI) interconnection agreement (the "Agreement") is made the day of \_\_\_\_\_ (the "Effective Date")

BETWEEN: \_\_\_\_\_ (the "Customer")

AND: BERMUDA ELECTRIC LIGHT COMPANY LIMITED ("BELCO")

**WHEREAS**, Customer owns and/or occupies the Location (as more particularly defined herein) that has a BGSUI (as more particularly defined herein) on site;

**AND WHEREAS**, Customer has contracted for the supply of electricity by BELCO to the Location;

**AND WHEREAS**, Customer desires to engage in the interconnected parallel operation of the BGSUI with the electrical network owned by BELCO;

**AND WHEREAS**, this Agreement provides for the safe and orderly interconnection of the BGSUI at the Location and the BELCO Network (as more particularly defined herein).

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

## 1. Definitions, Agreement Parts

1.1. In this Agreement the following terms shall have the following meanings:

**Agent** – means any third party authorized to act on the Customer's behalf in all matters in relation to the Application, Feasibility Study, Network Modifications, Interconnection Request, testing, commissioning and generation start-up including taking and responding to queries from BELCO and providing any relevant instructions.

**Appendices** – means the appendices attached to this Agreement, as amended at BELCO's sole discretion from time to time, which are an integral part of this Agreement.

**Application** – means the BGSUI Application Form set forth in Annex 1 to Appendix A used to apply for a Feasibility Study with proposed systems or an Interconnection Request for As Built Systems. The Application includes supporting documentation including but not limited to electrical one-line diagram, site plan, and protective device data.

**Applicable Laws and Regulations** – means all duly promulgated applicable laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions, from time to time, of any governmental authority in Bermuda (including without limitation the Regulatory Authority, established under the Regulatory Authority Act 2011 or any successors thereto.)

**As Built** – mean a precise record drawings or documents that detail the final, actual condition of a construction project, reflecting all changes, modifications, and deviations from the original design and specifications that occurred during the construction process and should include all solar panels, inverters, wind turbines, generators, automatic transfer switches, protection equipment, energy storage and the interconnection details.

**BELCO Network** – means the BELCO transmission and distribution networks, including the Point of Interconnection, which operate at a range of voltages, that are used to transfer and distribute electric power between generators, substations and customer loads.

**Bulk Generation Sole Use Installation (BGSUI)** – means all of the Customer- and/or third-party-owned equipment that is connected to the Point of Interconnection at the Location (including, without limitation, inverters, storage devices, and Interconnection and ancillary equipment) that is used to generate electricity from a Renewable Energy resource that has a maximum alternating current output in kW<sub>AC</sub> that exceeds the Licence Threshold, but produces energy that is entirely or primarily for self-consumption. While any energy exported each month to BELCO may exceed 30% of the MEP or such lesser amount as specified in the BGSUI Licence, but in no event will BELCO compensate the Customer for any energy exported each month in excess of the MMC. BELCO may only prohibit exports above 30% of the MEP in the instance that there is a technical reason, including but not limited to grid stability considerations and the Grid Code.

**BGSUI Licence** – means a licence granted under section 32C of the EA, and “BGSUI Licence holder” shall be construed accordingly.

**Business Day** – means any day other than a Saturday, Sunday or other public holiday in Bermuda.

**Complete Application** – means a consistent and complete Application for a Feasibility Study, as determined by BELCO in its sole discretion.

**Complete Interconnection Request** – means a consistent and complete Interconnection Request for an As Built system, as determined by BELCO in its sole discretion.

**Disconnect Device** – means a manual load-break disconnect switch, lockable in the open position and accessible by BELCO as a means of electrically isolating the entire BGSUI from the BELCO Network and to establish working clearance for maintenance and repair work in accordance with accepted electrical practice.

**EA** – means the Electricity Act 2016, as amended.

**ELTR** – means the Electricity (Licence Threshold) Regulations 2018, as amended or superseded.

**Feasibility Study** – means a study to determine the feasibility of interconnecting a BGSUI to the BELCO Network and, if feasible, establishes the technical requirements for Interconnection, which may include the need for BELCO to first install BELCO Network upgrades to accommodate the requested BGSUI Interconnection.

**Feasibility Study Quotation** – means a quotation of the costs to carry out the Feasibility Study, which must be accepted by the Customer and paid in full prior to the Feasibility Study being carried out.

**Grid Code** shall have the meaning set out in the EA.

**Interconnection** – means the electrical connection of a BGSUI in parallel with the BELCO Network and **Interconnect**, **Interconnecting**, and **Interconnected** shall be construed accordingly.

**Interconnection Request** – means a request for Interconnection made by the Customer with the documentation required in section 7 (Interconnection Request) of Appendix A.

**Islanding** – means a condition in which a portion of the BELCO Network is energized by a BGSUI, while that portion of the BELCO Network is electrically separated from the rest of the BELCO Network.

**kilo-Watt (kW)** – means the unit of electric power equal to 1,000 watts.

**kiloWatt-hour (kWh)** – means a measure of electrical energy equal to consumption of 1 kW for one hour.

**Licence Threshold** – has the meaning set out in the ELTR and for the purposes of this Agreement is assumed to apply to the maximum alternating current output of the system in kW<sub>AC</sub>.

**Location** – means the premises upon which the BGSUI is located.

**Maximum Monthly Compensation (MMC)** – means the maximum amount of energy exported to the grid that BELCO will compensate the Customer for on a monthly basis. The MMC is 30% of the MEP or such lesser amount as specified in the BGSUI Licence.

**MEP Meter** – means a meter owned, installed at the Location at a specific site determined by BELCO, operated and maintained by BELCO. The MEP meter shall record all energy production from the BGSUI before any self-consumption.

**Month** - means a period of one month, or any equivalent period of approximately one month, whether or not commencing on the first day of a calendar month.

**Monthly Energy Production (MEP)** – means the total energy generated in kWh by the BGSUI per month, as recorded by the MEP Meter. In lieu of a MEP meter or energy production modelling verified by BELCO in its sole discretion, the BGSUI is assumed to produce 100 kWh<sub>AC</sub>/kW<sub>DC</sub> installed (i.e., one-twelfth of the annual assumed production of 1,200 kWh<sub>AC</sub>/kW<sub>DC</sub> installed).

**Network Modifications Agreement**– means the agreement for network modifications required to Interconnect the BGSUI to the BELCO Network, as per the example in Annex 4 of Appendix A.

**Point of Interconnection** – means the interface point between the BELCO Network and the BGSUI at which electricity is imported to and exported from a Location.

**Reasonable Hours** – means 8:00 am to 5:00 pm Monday to Friday.

**Renewable Energy** – means energy that is replenished for the foreseeable future by naturally occurring processes such as sunshine, wind and tides.

**Renewable Energy System (RES)** – means equipment used to generate electricity from a Renewable Energy resource.

**Safety Procedures** – means any of BELCO’s safety and operating procedures as amended by BELCO from time to time.

**Service Rules** – means the rules for electric service in place and posted on BELCO’s website from time to time.

**Source Requirements Document (SRD)** – means the BELCO document that specifies the inverter certification testing requirements that the Customer’s selected inverter must be proven to have met, and which testing shall have been properly completed and certified prior to obtaining approval from BELCO to Interconnect and interoperate their inverter with the BELCO Network as may be amended from time to time. The current SRD can be found on the BELCO website [www.belco.bm](http://www.belco.bm).

**Technical Verification Letter** – means Annex 2 - the letter provided to the Customer by BELCO determining that the BGSUI as applied for is suitable for operation in parallel with the BELCO Network.

**Testing and Commissioning Report**– means a report that details the commissioning, inspection and testing of the BGSUI by the solar installer. The report shall contain the results of all tests and clearly establish that the tests have been completed in full compliance with all performance requirements. The Testing and Commissioning Report shall further list the settings of all protection devices and the Customer shall keep a copy of the Commissioning Test Report within close proximity to the BGSUI. An example Testing and Commissioning Report is provided in Annex 1 – Appendix B.

**Utility-Required Profile (URP)** – means the full set of default configuration parameters that establish the required behavior of inverters connected to the BELCO Network as may be amended from time to time. The default configuration parameters in the URP may be superseded by the technical requirements for Interconnection of the

Customer's BGSUI, as established by the Feasibility Study. The current URP can be found on the BELCO website [www.belco.bm](http://www.belco.bm).

- 1.2. Other terms used but not defined in this Agreement shall have the meaning generally understood in the energy industry.

## **2. Applicability and Scope of Interconnection**

- 2.1. This Agreement shall govern the terms and conditions upon which the BGSUI is Interconnected to the BELCO Network and the terms and conditions upon which a Customer may sell and exchange electric energy from its BGSUI to BELCO, with a maximum of 30% of the MEP or such lesser amount as specified in the BGSUI Licence. The Customer shall not transmit, distribute or sell electricity generated by the BGSUI to any party other than BELCO. Only one BGSUI shall be Interconnected to the BELCO Network per Location.
- 2.2. It is the Customer's responsibility to manage its export of energy to the BELCO Network, relative to the MMC. BELCO will not compensate the Customer for any excess energy above the MMC in any given month. Should the BGSUI export energy in a month to BELCO in excess of the MMC, this Agreement may be terminated by BELCO. In the event of the BGSUI exporting more than the MMC in any month or months, BELCO's failure to act on such breach does not constitute a waiver of BELCO's right to terminate the Agreement.
- 2.3. The supply of electricity by BELCO to the Location shall not be governed by this Agreement, but shall be governed by any BELCO Service Rules. The Customer shall be responsible for separately contracting for the supply of electricity by BELCO to the Location. BELCO shall, however, reimburse the Customer up to the MMC in accordance with this Agreement, provided that the Customer is and remains at all times in good standing with respect to its account for the supply of electricity by BELCO to the Location. For the avoidance of doubt, if the Customer's account for the supply of electricity by BELCO to the Location becomes at any time delinquent, the Customer may be disconnected from BELCO's supply of electricity under BELCO's Service Rules and, furthermore, this Agreement may be terminated by BELCO.
- 2.4. BELCO reserves the right and is hereby authorized by the Customer to withhold initial Interconnection of the BGSUI: (i) until the qualifying criteria for Interconnection in Appendix A hereto are met, including the requirement that all of the Customer's accounts are and remain in good standing; (ii) until the BGSUI is demonstrated, to BELCO's satisfaction, to be operating safely and in compliance with this Agreement; and (iii) until the operation of the BGSUI is compatible with BELCO Network plans, including the completion of any required BELCO Network upgrades as determined in the Feasibility Study, regardless of whether or not the BGSUI is found to be operating safely and otherwise in compliance with this Agreement.
- 2.5. If the Customer is the occupier of the Location, but the Customer is not the owner of the Location, then such Customer: (i) represents and warrants to BELCO that it has the permission of the owner of the Location and the authority to enter into this Agreement and agrees that it shall be fully responsible and liable to BELCO with respect to all matters under this Agreement; and (ii) must notify BELCO in advance, if possible, but in any event no later than seven (7) days thereafter if Customer ceases to occupy the Location and such notice shall include the date that Customer no longer occupied the Location. For the avoidance of doubt, if the Customer is the occupier of the Location, but is not the owner of the Location, then such Customer is only entitled to Interconnect the BGSUI with the BELCO Network while the Customer is occupying the Location.
- 2.6. Should an upgrade or other modification to the BELCO Network be required as a result of the BGSUI's proposed Interconnection or actual Interconnection, then any cost incurred by BELCO in making such upgrade or modification shall be paid by the Customer. BELCO reserves the right not to carry out the upgrade or modification, and to withhold initial Interconnection, or to suspend Interconnection, until such time as Customer has paid the costs of such upgrade or modification in advance.

## **3. Interconnection Process**

- 3.1. The entire process for Interconnection, as set out in Appendix A hereto, requires the following subprocesses to be carried out in order to avoid untimely delays in the process of evaluation, inspection and Interconnection:

- 1) Customer submits Complete Application;
- 2) Assessment of proposed BGSUI by BELCO;
- 3) Bermuda Department of Planning Application, with all permissions required under the Companies Act 1981, Development and Planning Act 1974, Building Act 1988, Clean Air Act 1991 and any other Applicable Laws and Regulations obtained;
- 4) Bermuda Regulatory Authority BGSUI Licence Application
- 5) Customer completes BGSUI Installation, Testing and Commissioning;
- 6) Bermuda Department of Planning Inspection;
- 7) Customer submits Interconnection Request; and
- 8) BELCO Inspection, Meter Installation, Testing and Interconnection.

#### **4. Metering**

- 4.1. The Customer must have meters installed which comply with the specifications stipulated by BELCO from time to time that are capable of measuring the flow of electricity imported to and exported from the Location at the Point of Interconnection. An additional meter, the MEP Meter, is required to determine the MEP of the BGSUI. BELCO shall own any such meters and shall be responsible for its reading and maintenance. However, the initial cost of the MEP Meter and its installation shall be borne solely by the Customer. If the existing meter in service at the Location is not capable of measuring the flow of electricity imported to and exported from the BGSUI, then BELCO shall, upon written request of the Customer and at the Customer's own expense, acquire and install a meter selected by BELCO that is capable of meeting these requirements or, at the Customer's own expense and at BELCO's option, modify the existing meter at the Location before the anticipated generation start date of the BGSUI.
- 4.2. BELCO, at its own expense and with written consent of the Customer (such consent not to be unreasonably withheld), may install at the Location additional meters to monitor the flow of electricity. BELCO will own such meter(s) and will be responsible for the maintenance of the meter(s).
- 4.3. The Customer shall supply, at no expense to BELCO, a suitable location for any meter required to be used under this Agreement. Such location shall be approved by BELCO prior to the installation of any meter.

#### **5. BGSUI Operating Requirements**

- 5.1. The BGSUI, to ensure its safe and dependable operation, shall be installed, operated, and maintained in accordance with: (i) all applicable electrical, construction and safety codes, including without limitation, the National Electrical Code adopted by the Department of Planning from time to time; (ii) applicable qualifying criteria set out in Appendix A hereto; (iii) the BGSUI Technical Requirements set out in Appendix B hereto; (iv) all planning regulations and requirements; (v) any Grid Code developed in accordance with the EA; and (vi) with all other Applicable Laws and Regulations.
- 5.2. The Customer shall operate and maintain the BGSUI, once Interconnected, in accordance with this Agreement and any instructions and requirements provided by the BGSUI's equipment manufacturers. In the event of a conflict between the instructions and requirements provided by the BGSUI's equipment manufacturers and the requirements under this Agreement, the provisions of this Agreement shall prevail.
- 5.3. The Customer shall operate and maintain the BGSUI in accordance with good utility practice, including, without limitation, in a manner that places the utmost importance on the safety of individuals, including BELCO's agents and employees.
- 5.4. The Customer shall operate and maintain the BGSUI in accordance with the technical requirements set out in of this Agreement.
- 5.5. The Customer shall not expand, add to, or alter the BGSUI in any manner without having received BELCO's prior written consent and any other prior written consent, approval, permit and/or license that the Customer is required by Applicable Laws and Regulations to obtain.

- 5.6. Any requests made to alter or expand the BGSUI shall be made to BELCO at least ninety (90) days prior to the intended operation of the altered or expanded capabilities of the BGSUI.
- 5.7. Nothing in this Agreement shall be construed to supersede or replace any obligations under the BGSUI Licence or Applicable Laws and Regulations.
- 5.8. Subject to Section 2.4, the Customer is not required to give BELCO notice prior to starting or stopping generation by the BGSUI, with the exception of the initial generation startup, which shall be subject to the requirements set out in Appendix A.
- 5.9. Interconnected operation of the BGSUI shall in no way adversely affect, compromise, or impair BELCO's operational requirements or protection devices that it maintains or considers appropriate for the safe and reliable supply of electrical power to the Customer and/or third parties.
- 5.10. The Customer acknowledges and agrees that the Customer has been advised that there are no synchronization schemes in place on BELCO's facilities, and that the upstream BELCO Network contains automatic equipment that will provide for voltage regulation and/or automatic reclosing as part of normal operation.
- 5.11. Islanding of the BGSUI with any portion of the BELCO Network is not permitted under any circumstances whatsoever.
- 5.12. The design, installation, operation and maintenance of the BGSUI shall comply with BELCO-approved control and protection equipment, which shall include a manual load-break Disconnect Device.

## **6. Access & Inspection**

- 6.1. The Customer hereby grants BELCO and/or its authorized agent the right to enter the Location and its surrounding property and to enjoy safe and adequate access to the BGSUI for the purpose of inspecting its equipment or the BGSUI, conducting any feasibility studies and carrying out any necessary upgrades or modifications to the BELCO Network in connection therewith, maintaining and operating its equipment, for meter reading and testing, and/or disconnecting the BGSUI and/or any ancillary equipment as the case may be, without prior notice to the Customer provided such entry and access is made during Reasonable Hours except in cases of emergency. To the extent that the Customer must procure any such grant of entry and access to the BGSUI from a third party, the Customer represents and warrants to BELCO that it has done so and agrees that it shall do so for the duration of this Agreement. For the avoidance of doubt, nothing articulated herein shall limit or otherwise affect any other right of entry which BELCO may have from time to time pursuant to its incorporating legislation, as amended, its Service Rules and/or Applicable Laws and Regulations.
- 6.2. BELCO and/or its authorized agent reserves the right, but does not assume any obligation, to inspect the BGSUI prior to and/or during generation start-up to ensure that the installation complies with this Agreement.
- 6.3. BELCO shall have access to the metering equipment at the Location and means of isolating and locking out the BGSUI. The Customer is required to include a Disconnect Device in the BGSUI. Lack of a Disconnect Device may result in temporary or permanent disconnection of electricity service to the BGSUI in the event of a breach of the Agreement.
- 6.4. The Disconnect Device shall be furnished and installed by the Customer and shall be connected between the BGSUI and the BELCO Network. The Disconnect Device shall be located in the immediate vicinity of the electric meter at the main service entrance or may be located at an alternate location which is easily accessible by BELCO personnel on a 24-hour basis. Where the Disconnect Device is in an alternative location, a placard shall be placed at the electric meter at the main service entrance identifying the exact location of the Disconnect Device. The Disconnect Device shall be clearly labelled "BGSUI Disconnect".

## **7. Compensation**

- 7.1. BELCO shall provide the Customer with information on its exported energy at the Point of Interconnection with each monthly bill for the supply of electricity by BELCO to the Location. The meter shall record all energy flow from the BGSUI into the BELCO Network.

- 7.2. The Customer shall be compensated for energy not in excess of the MMC that is exported to BELCO in each month in the manner mandated or approved by the Regulatory Authority of Bermuda from time to time.
- 7.3. The Customer's compensation for the BGSUI's exported energy and any charges for Customer usage of energy supplied by BELCO will be displayed on each monthly bill of the Customer's for the supply of energy from BELCO to the Location.
- 7.4. For the avoidance of doubt, if the Customer owes BELCO an amount for the supply of energy, this amount is due to be paid under the BELCO's Service Rules regardless of any compensation to be paid to the Customer.

## **8. Effective Date, Term, Termination, and Disconnection**

- 8.1. This Agreement shall commence on the Effective Date.
- 8.2. This Agreement shall remain in effect for a five (5) year term from the Effective Date, unless terminated in accordance with this Agreement. Thirty days (30) before the expected termination date, the Customer shall provide evidence to demonstrate that the facility is performing under safe operations according to BELCO's satisfaction, including but not limited to the protection tests identified in Appendix A. If BELCO is satisfied with the information, BELCO may renew the Agreement for another five (5) years.
- 8.3. Notwithstanding anything else herein, no termination shall become effective until the Customer and BELCO have complied with all Applicable Laws and Regulations, if any, applicable to such termination.
- 8.4. The Customer may terminate this Agreement at any time by giving BELCO thirty (30) days' notice.
- 8.5. If the Customer is the occupier of the Location, but the Customer is not the owner of the Location, then this Agreement shall terminate on the date that BELCO is notified that the Customer no longer occupies the Location. If no such notification has been received by BELCO, but BELCO reasonably believes that the Customer no longer occupies the Location, then BELCO may terminate this Agreement by giving the Customer thirty (30) days' notice of breach, provided that the Customer may cure such breach during the notice period by providing BELCO with cogent evidence that it still occupies the Location.
- 8.6. This Agreement shall terminate automatically and without notice in the event that the Customer terminates its account for the supply of electricity to the Location from BELCO.
- 8.7. BELCO may terminate this Agreement for any breach by the Customer after following the notification procedure set out in Section 9.2 of this Agreement, provided that BELCO may immediately and without prior notice terminate this Agreement if the BGSUI is not in compliance with Applicable Laws and Regulations.
- 8.8. In the event that the BGSUI has not generated electricity for a period of twelve (12) months, BELCO may terminate this Agreement upon the provision of thirty (30) days' notice to the Customer. Upon termination of this Agreement, the BGSUI shall be disconnected from the BELCO Network.
- 8.9. The costs of disconnection shall be borne by the Customer.
- 8.10. For the avoidance of doubt, the termination of this Agreement shall not relieve either the Customer or BELCO of their liabilities and obligations, owed or continuing at the time of the termination.
- 8.11. In the event that this Agreement is terminated for any reason, any compensation to be paid to the Customer shall be paid to the Customer in the next billing cycle following termination.
- 8.12. In the event that this Agreement is terminated, the Customer shall provide written notice of such termination to the Regulatory Authority.

## **9. Suspension of Interconnection/Breach**

- 9.1. BELCO may immediately isolate or disconnect the BGSUI if BELCO becomes aware that any of the following technical breaches of this Agreement have occurred, in its sole discretion:
  - a) the BGSUI is not operating in accordance with this Agreement;
  - b) the operation of the BGSUI is or may become a threat to the safety of anyone;

- c) the operation of the BGSUI is or may become a threat to any other RES or bulk generator; and/or
  - d) the operation of the BGSUI is or may become a threat to the integrity of any part of the BELCO Network or to other BELCO customers.
- 9.2. Except as otherwise expressly set out herein, in the event that BELCO becomes aware of a breach under this Agreement (which, for the avoidance of doubt, shall not be limited to the breaches enumerated in Section 9.1 above) that is capable of remedy, BELCO shall provide the Customer with notice of the breach setting out the nature of the breach. In the event that Customer does not remedy such breach within thirty (30) days of receipt of the notice of the breach, BELCO may, at its sole discretion, terminate this Agreement or grant such written extensions of time to the Customer to remedy the breach as BELCO sees fit. Except as otherwise expressly set out herein, in the event that BELCO becomes aware of a breach under this Agreement (which, for the avoidance of doubt, shall not be limited to the breaches enumerated in Section 9.1 above) that is not capable of being remedied, BELCO may, at its sole discretion, terminate this Agreement immediately and without prior notice, but in such case BELCO shall within fourteen (14) days after such termination provide the Customer with notice of the breach that sets out the nature of the breach.
- 9.3. If an effective Disconnect Device is not installed, BELCO may immediately disconnect the service to the Location.
- 9.4. The Customer agrees that the Customer shall not be entitled to any form of compensation from BELCO as a result of: (i) the BGSUI being off line as a result of any disconnection (temporary or otherwise); or (ii) any reduction of output of the BGSUI.

## **10. Outages**

- 10.1. BELCO may temporarily disconnect the BGSUI or reduce the BGSUI's output for scheduled and unscheduled outages, emergency conditions, forced outages or to comply with good utility practice. To the extent reasonably practicable, advance notice of such disconnection or reduction shall be provided.
- 10.2. BELCO shall provide, to the extent reasonably practicable, advance notice that interruption or reduction of the BGSUI's output shall be required in order to permit BELCO to construct, install, maintain, repair or inspect any part of the BELCO Network.
- 10.3. If at any time BELCO determines that the continued operation of the BGSUI may endanger any person or property or the BELCO Network, or have an adverse effect on the safety or power quality of other BELCO customers, BELCO shall have the right to disconnect the BGSUI from the BELCO Network and the Customer will be promptly informed in writing of the action taken and the reasons for such action. The BGSUI shall remain disconnected until such time as BELCO and, if required, the Bermuda Government's electrical inspector, are satisfied that the endangering or power quality conditions have been corrected and BELCO shall not be obligated to accept any electrical energy from the Customer during such period. It is the responsibility of the Customer to protect their BGSUI from voltage imbalances from the BELCO Network or reclosing operations after a power interruption.

## **11. Information**

- 11.1. BELCO reserves the right to require the Customer to provide BELCO with additional information other than that supplied in the Interconnection Request if BELCO deems such additional information is necessary to adequately serve the Customer.
- 11.2. The Customer consents to BELCO holding and processing data relating to them for legal, administrative and management purposes and, in particular, to the processing of any "sensitive personal data" (as defined in the Personal Information Protection Act 2016), in accordance with the Privacy Notice set forth on the Company's website and the Liberty Bermuda Privacy Policy.

## **12. Safe Work System**

- 12.1. The work procedures described in BELCO's Safety Procedures shall be followed by BELCO in providing isolation for work on any part of the Interconnection.



12.2. In the event of a conflict between the terms of this Agreement and the Safety Procedures, the terms of the Safety Procedures shall take precedence.

### **13. Limitation of Liability and Third-Party Claim Indemnity**

- 13.1. BELCO shall not be liable to the Customer for any loss, cost, claim, injury (including death), liability, or expense, including reasonable attorney's fees relating to this Agreement (including damage to the BGSUI due to voltage spikes, surges or total or partial failure of electricity supply and damage caused as a result of any third party's equipment connected to the BGSUI, regardless of whether such equipment is there with BELCO's knowledge or consent, and/or third-party interference with the BGSUI) except to the extent that such loss, cost, claim, injury (including death), liability, or expense is caused by the negligence, intentional misconduct or intentional failure to act of BELCO.
- 13.2. Each party's liability to the other party for any loss, cost, claim, injury (including death), liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever whether based in whole or in part in contract, or in tort, including negligence, strict liability or any other theory of liability, except as allowed under section 13.3.
- 13.3. Each Party ("indemnifying party") shall at all times indemnify, defend, and hold the other party ("indemnified party") harmless from and against, any and all actions, claims, demands, losses, judgments, interest, costs (including legal fees, court costs and disbursements), damages, and expenses whatsoever (including claims and actions relating to injury to or death of any person or damage to property) by or to third parties that may be brought against or suffered by the indemnified party or which the indemnified party may suffer or sustain, pay or incur, relating to or arising from the indemnifying party's performance of this Agreement, except in cases of negligence, intentional wrongdoing and/or intentional failure to act by the indemnified party.
- 13.4. Every limitation of liability, defence and immunity of any nature available to a party shall extend to and for the benefit of the directors, officers, employees, agents, subcontractors and shareholders of that party.

### **14. Insurance, Incident Notification**

- 14.1. The Customer shall, at its own expense, at all times during this Agreement, maintain in force general liability insurance, including bodily injury and property damage liability coverage, that would be considered sufficient by a prudent person to insure against all reasonably foreseeable claims that may arise out of this Agreement. The Customer shall provide BELCO, upon request at any time, with a certificate of insurance confirming that such coverage is in place. The Customer agrees to immediately, but in no case later than three (3) days, notify BELCO in the event that an accident or incident occurs that relates to the BGSUI and/or the BELCO Network resulting in any injuries or damages.

### **15. Right and Title, No Partnership**

- 15.1. Nothing in this Agreement operates to convey to either party any implied right, interest or title to any equipment of the other party.
- 15.2. Nothing in this Agreement shall limit BELCO's ability to modify its BELCO Network or to change, in part or in whole, the design, function, operation or layout of its BELCO Network.
- 15.3. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the parties or to impose any partnership obligation or partnership liability upon either party. Neither party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other party.
- 15.4. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the parties, and the obligations herein assumed are solely for the use and benefit of the parties, their successors in interest and where permitted, their assigns.

15.5. The Customer represents and warrants that the operation of the BGSUI shall not violate or infringe upon any patent, copyright, trade secret or the proprietary rights of others.

## **16. Force Majeure**

16.1. Notwithstanding anything to the contrary contained in this Agreement, neither BELCO nor the Customer shall be liable to the other for any breach of this Agreement if such breach is caused or arises by reason of any force majeure matter or thing beyond the reasonable control of either party, including but not limited to:

- a) Acts of God, insurrection or civil disorder, riot, military operations, national or local emergency;
- b) Acts or omissions of any government authority, other competent authority or court;
- c) Industrial disputes of any kind;
- d) Fire, lightning, explosion, floods, subsidence, storm, or weather of exceptional severity;
- e) Failure of power supply or embargo; and/or
- f) Any other cause or reason outside either party's reasonable control.

Provided, however, that the rights and obligations of BELCO and the Customer are only temporarily suspended during the force majeure period to the extent that performance is reasonably affected thereby.

## **17. Notice**

17.1. Except as expressly set out herein, any notice, demand or other communication required or permitted to be given or made under this Agreement shall be in writing and shall be sufficiently given or made if delivered in person, by courier, by mail, by facsimile or by email.

The parties' addresses for notice hereunder shall be as follows:

In case of BELCO:

BELCO

27 Serpentine Road Pembroke, Bermuda

Attention:

Email: solar@belco.bm

In case of the Customer

Name:

Address:

Attention:

Email:

Each notice sent in accordance with this Section shall be deemed to have been received:

- a) on the day that it was delivered, if delivered personally, or on the first Business Day thereafter if the day on which it was delivered was not a business day;
- b) within two (2) Business Days, if sent by courier;
- c) within five (5) Business Days, if sent by mail;
- d) on the day that it was sent by email, or on the first Business Day thereafter if the day on which it was sent by email was not a Business Day.

Either party may change any of the details of its address for notice by giving notice as provided herein to the other party.

## **18. Disputes**

18.1. The Customer and BELCO agree to attempt in good faith to resolve any dispute arising out of this Agreement. In the event of a dispute, either party shall provide the other party with a written notice of dispute. Such notice of dispute shall describe in detail the nature of the dispute. If such dispute has not been resolved within fourteen (14) days after receipt of the notice of dispute, then, either party may pursue any dispute resolution procedure allowed under Applicable Laws and Regulations. In the absence of another dispute resolution procedure required pursuant to Applicable Laws and Regulations, the parties may agree to refer it to be determined by a single arbitrator. In the event that the parties agree to arbitration, the arbitrator shall be appointed by agreement between the parties or, if an agreement cannot be reached within a seven (7) day period, then the arbitrator shall be selected and appointed by the Appointments Committee of the Chartered Institute of Arbitrators, Bermuda Branch. Any such arbitration shall be held in Bermuda. Any such arbitration shall be subject to and governed by the Arbitration Act 1986 or any re-enactment or statutory modification thereof for the time being in force. The commencement of any dispute resolution procedure hereunder shall not automatically stay or suspend the rights or obligations of either the Customer or BELCO under this Agreement.

18.2. Either party may handle any dispute resulting from an act or omission of the other party that allegedly contravenes the Regulatory Authority Act 2011 (the "RAA"), the EA, any regulations made by a minister or administrative determination made by the Regulatory Authority in accordance with Section 58 of the RAA.

## **19. Governing Law**

19.1. This Agreement and disputes arising hereunder shall be governed by and construed in accordance with the laws of Bermuda.

## **20. Severability of Terms**

20.1. If any term or provision of this Agreement is found to be unenforceable, invalid or illegal, it shall be considered separate and severable and the remaining provisions of the Agreement shall remain in force and be binding upon BELCO and the Customer as though the provision had not been included, provided that the Agreement, as modified, remains operable.

## **21. Entire Agreement**

21.1. This Agreement, including its Appendices, contain the entire understanding between BELCO and the Customer with respect to the subject matter hereof. All prior agreements, representations, statements, negotiations and undertakings are hereby superseded with respect to the subject matter of this Agreement. In the event of a conflict between this Agreement and the Service Rules, this Agreement shall govern with respect to the subject matter hereof unless otherwise stated herein.

## **22. Modification to this Agreement**

22.1. Subject to Applicable Laws and Regulations, no addition to or modification of this Agreement shall be effective unless it is in writing, signed by the duly authorized representative of BELCO and by the Customer, provided that should any modification to this Agreement be, in BELCO's sole opinion, appropriate or necessary for technical, safety and/or legal reasons, BELCO may amend this Agreement to incorporate such modifications.

## **23. Assignment**

23.1. Neither party may assign this Agreement or any interest created hereunder or any portion thereof, to any person without the express consent of the other party, which consent shall not be unreasonably withheld.

## **24. Successors**

24.1. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and permitted assigns.

## **25. Waiver of Terms**

25.1. No forbearance, delay or indulgence by either party in enforcing the provisions of this Agreement shall prejudice or restrict the rights, power or remedies herein conferred upon or reserved for either party.

## **26. Subcontractors**

26.1. Nothing in this Agreement shall prevent either party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that: (i) such subcontractor shall be qualified and/or certified in accordance with Applicable Laws and Regulations; (ii) each party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in carrying out any services; and (iii) each party shall remain primarily liable to the other party for the performance of such subcontractor.

## **27. Survival of Terms**

27.1. Any term of this Agreement that, by its nature, is intended to survive the termination of this Agreement, shall so survive.

## **28. Regulatory**

28.1. The Customer shall, in relation to the BGSUI, immediately notify BELCO of the service upon it of any requirement to cease operation of the BGSUI under any Applicable Laws and Regulations.

28.2. Nothing in this Agreement shall prevent either party from petitioning or making a filing with any regulatory authority established under the Applicable Laws and Regulations should such petitioning or filing be authorized under any Applicable Laws and Regulations.

**THE PARTIES, INTENDING TO BE LEGALLY BOUND,** have executed this Agreement.

BERMUDA ELECTRIC LIGHT COMPANY LIMITED

[Customer]

---

Date:

---

Date:

## **APPENDIX A**

### **BGSUI QUALIFYING CRITERIA FOR INTERCONNECTION**

**If the Customer is delinquent with respect to any payment for the supply of electricity from BELCO, BELCO may, at its sole option, refuse to enter into a Bulk Generation Sole Use Installation Interconnection Agreement with the Customer and/or refuse to interconnect the BGSUI to the BELCO Network.**

To be eligible for Interconnection with the BELCO Network, the BGSUI must meet the following qualifying criteria:

- a) All Customer accounts for the supply of electricity are and remain in good standing.
- b) The BGSUI must be a RES and must operate in parallel with the BELCO Network.
- c) The Customer must satisfy BELCO that they have complied with all Applicable Laws and Regulations and that all required regulatory approvals for the BGSUI have been obtained, including planning permissions and any such other permissions and licenses as may be required.
- d) The BGSUI must be able to be connected electrically to the BELCO Network and to operate in synchronism with voltage and frequency maintained by BELCO at the Point of Interconnection.
- e) The BGSUI must meet all applicable safety and performance standards established by the National Electrical Code adopted by the Department of Planning from time to time, the Institute of Electrical and Electronic Engineers (IEEE), Underwriters Laboratories (UL), or any other agency which has been approved by BELCO.
- f) The BGSUI must, at a minimum, meet the following standards, as applicable:
  - i. IEEE Standard 1547-2018 (or later) for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces;
  - ii. IEEE Standard 1547.1-2020 (or later) for Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems and Associated Devices; and
  - iii. UL 1741 Standard for Inverters, Converters and Controllers for Use in Independent Power Systems.
- g) The BGSUI must meet the technical requirements in Appendix B.
- h) The BGSUI may need to meet additional requirements based on the results of the Feasibility Study.

## **Process for Interconnection**

Figure 1 to this Appendix A (Interconnection Agreement Process) illustrates the required process steps described in this section.

### **1) Customer Submits Complete Application for Feasibility Study**

Any party seeking to Interconnect a BGSUI to the BELCO Network must first submit an Application for a Feasibility Study to BELCO. The required form of the Application is set forth in Annex 1 to this Appendix A.

The supporting documents required in the Application (as listed in Annex 1) include:

- i. Electrical One-Line Diagram;
- ii. Site Plan; and
- iii. Protective Device Data.

BELCO will assess the Application to determine whether all required information is provided, in its sole judgment. If so, BELCO will deem such Application to be a Complete Application for a Feasibility Study.

### **2) Assessment of proposed BGSUI by BELCO**

Upon receipt of a Complete Application for a Feasibility Study, BELCO shall provide the Customer with a written quotation of costs associated with Feasibility Study within twenty (20) Business Days from the date of the Complete Application. The cost of the Feasibility Study shall be borne by the Customer.

If the qualifying criteria in this Appendix are met, but BELCO finds through the Feasibility Study that upgrades or modifications to the BELCO Network are required to Interconnect the proposed BGSUI, BELCO shall provide the Customer with a Network Modification Agreement of estimated costs associated with completion by BELCO of any such upgrades or modifications within fifty (50) Business Days from the date of the Customer's written acceptance of the Feasibility Study Quotation. The Customer must provide acceptance of the Network Modifications Agreement within the timeline set forth therein to confirm agreement for BELCO to proceed with such network modifications. The Customer may also be required to pay for such costs in advance. Upon receipt of the acceptance of the Network Modifications Agreement and any required payment, BELCO will carry out the necessary upgrades or modifications within a reasonable period of time. A proposed BGSUI will not be allowed to operate until all required BELCO Network upgrades or modifications have been completed.

If BELCO, in its sole judgement, deems through the Feasibility Study that the proposed BGSUI is compatible with the BELCO Network, BELCO shall provide the Customer with a written acceptance of the proposed BGSUI in the form of the Technical Verification Letter. An example of the Technical Verification Letter is provided in Annex 2 to this Appendix.

### **3) Department of Planning Application**

The Customer shall be responsible for liaising with the Bermuda Department of Planning ("DOP") and ensuring that all appropriate applications are complete with all permissions required under the Companies Act 1981, Development and Planning Act 1974, Building Act 1988, Clean Air Act 1991 and any other Applicable Laws and Regulations obtained.

### **4) Regulatory Authority BGSUI Licence Application**

The Customer shall be responsible for completing the Regulatory Authority's BGSUI Licence application process and obtaining the necessary BGSUI Licence.

### **5) Installation, Testing and Commissioning**

The Customer shall undertake any testing specified in any guidelines provided by the RES manufacturer and shall ensure that the results of such testing are made available to BELCO within the Interconnection Request.

At least fifteen (15) business days in advance, the Customer shall agree the permitted time frame for testing and commissioning of the BGSUI with BELCO, to validate its proper and safe operation in parallel with the BELCO Network. These tests shall include an anti-islanding protection test, reconnection to mains test and any other tests recommended by the RES manufacturer. At its discretion, BELCO may require that on-site tests be witnessed by BELCO or its agent, and the Customer shall provide BELCO with adequate opportunity and reasonable notice of not less than ten (10) business days to witness the tests. BELCO reserves the right to delay this permitted time frame should the need arise, in BELCO's sole discretion, for maintenance, modification and operation of the BELCO Network.

The Customer shall provide BELCO with a Testing and Commissioning Report for the BGSUI which contains the results of all tests and which clearly establishes that the tests have been completed in full compliance with all performance requirements. The Testing and Commissioning Report shall further list the settings of all protection devices and the Customer shall keep a copy of the Testing and Commissioning Report within close proximity to the BGSUI. An example Testing and Commissioning Report is provided in Annex 1: Appendix B.

#### **6) Department of Planning Inspection**

The inspections required by the DOP are conducted and approved. Once the BGSUI has (1) passed all DOP inspections and the Customer has received an occupancy certificate for the BGSUI from the DOP, and (2) the Customer has completed all necessary testing and commissioning of the installed BGSUI as set forth herein in process step 5, the Customer can proceed to submit the Interconnection Request to BELCO, subject to obtaining all such other licences as may be required under Applicable Laws and Regulations.

#### **7) Customer submits Interconnection Request**

After testing and commissioning is complete, the Customer shall isolate the BGSUI and submit the Interconnection Request to BELCO. The Interconnection Request shall contain:

- a) The Application Form set forth in Annex 1 to this Appendix A. If any information set forth in the As Built Application has been modified from the original submitted for the Feasibility Study of the proposed BGSUI by BELCO as set forth herein above in process step 2, a reassessment of the Feasibility Study may be required. The cost of any reassessment will be borne by the Customer;
- b) The supporting documents required in the Application (as listed in Annex 1):
  - i. Electrical One-Line Diagram;
  - ii. Site Plan; and
  - iii. Protective Device Data;
- c) Occupancy certificate from DOP; and
- d) Testing and Commissioning Report for the BGSUI containing the results of all tests and listing of the protection settings.

BELCO will assess the Interconnection Request to determine whether all information is provided and consistent with the Complete Application, in its sole judgment. Specifically, information provided in Annex 1 must exactly match the information in the occupancy certificate. If so, BELCO will deem such Interconnection Request to be a Complete Interconnection Request.

If the information differs from that submitted in the Complete Application, an additional or modified Feasibility Study may be required and the Interconnection Request will not yet be deemed complete. The cost of any additional Feasibility Study shall be borne by the Customer.

#### **8) BELCO Inspection, Meter Installation, Testing and Interconnection**

Upon receipt of a Complete Interconnection Request, BELCO shall schedule inspection and meter installation (if required), testing and Interconnection.

If:

- i. the Customer has submitted a Complete Application to BELCO prior to submitting a Complete Interconnection Request; and
- ii. BELCO has deemed the BGSUI to be suitable with no BELCO Network modifications or upgrades required,

then BELCO will contact the Customer within fifteen (15) Business Days of receipt of the Complete Interconnection Request to schedule an inspection of the BGSUI at the Customer's expense.

If:

- i. the Customer has submitted a Complete Application to BELCO prior to submitting a Complete Interconnection Request;
- ii. BELCO has deemed the BGSUI to be suitable, subject to upgrades or modifications to the BELCO Network that are required to Interconnect the proposed BGSUI; and
- iii. and the Customer has accepted the costs of the required BELCO Network upgrades or modifications and remitted any required payment,

then BELCO will contact the Customer within fifteen (15) Business Days of receipt of the Complete Interconnection Request to schedule an inspection of the BGSUI at the Customer's expense.

If the Customer has not submitted a Complete Application prior to submitting the Interconnection Request, the Customer will be required to complete the entire process outlined herein, commencing at process step 1 (Customer Submits Complete Application) as set forth hereinabove.

Inspection, meter installation (if required), testing and Interconnection shall be scheduled to occur within fifty (50) Business Days of the receipt of a Complete Interconnection Request or completion of the BELCO Network modifications or upgrades, if required, at a time mutually agreeable to the parties. BELCO may not determine that a BGSUI has failed BELCO's inspection unless there is evidence of failure to comply with the qualifying criteria set out in this Appendix A. If a BGSUI initially fails BELCO's inspection, BELCO shall provide detailed information on the reason(s) for failure and shall offer to repeat the inspection at the Customer's expense at a time mutually agreeable to both parties.

**The BGSUI shall not be Interconnected to the BELCO Network prior to the completion of all Interconnection process steps set forth herein. For the avoidance of doubt, prior to the completion of process step 6 (BELCO Inspection, Meter Installation, Testing and Interconnection) set forth herein, the BGSUI shall be isolated from the BELCO Network and may not:**

- a) be interconnected in any fashion; or**
- b) generate, self-consume or limit export.**

Following completion of the inspection, any required meter installation and testing, and provided the Agreement remains in effect, the BGSUI may begin Interconnected operation with the BELCO Network.

The procedures and requirements set forth herein are based on the characteristics of the BELCO Network and may be modified by BELCO from time to time. Such modified processes and requirements may result in changes to the procedures and requirements involved with Interconnection to the BELCO Network. BELCO shall notify the Customer of any updates to the Grid Code and provide a reasonable period for the Customer to implement such changes.



1) Customer Submits Application for Feasibility Study

Customer Submits Annex 1:  
BGSUI Application Form

Is  
Annex 1: BGSUI  
Application Form  
complete?

BELCO request missing or  
correct data from  
the Customer

3) Department of Planning Application

Planning Application  
& Building Control Approval

4) Regulatory Authority BGSUI Licence Application

BGSUI Licence Application  
& RA Approval

5) Installation, Commissioning & Testing

Customer Installs,  
Commissions and Tests the  
BGSUI at Location\*\*

2) Assessment of Proposed  
BGSUI by BELCO

BELCO provide quote for  
Feasibility Study

Does the  
Customer accept the  
Feasibility Study  
Quotation?

Customer pays for 100%  
of Feasibility Study cost

BELCO carry out Feasibility  
Study

Are  
modifications required  
to the BELCO  
Network?

BELCO provide Customer with  
BGSUI Technical Acceptance  
subject to Network  
Modifications Agreement if  
applicable (Annex 2)

BELCO provide Customer with  
Network Modifications  
Agreement

Does the  
Customer accept  
the Network Modifications  
Agreement?

BELCO  
Perform Network  
Modifications

Customer pays for Network  
Modifications

6) Department of Planning Inspection

DoP Inspection &  
Occupancy Certificate

7) Interconnection Request

Customer signed BGSUI  
Interconnection Agreement

As Built Application Form  
Supporting Documents  
-Electrical One-Line Diagram;  
-Site Plan  
-Protective Device Data

Testing and Commissioning Report

Customer submits  
Interconnection  
Request.\*

Is the  
Interconnection  
Request consistent with the  
Feasibility Study, Technical  
Acceptance Letter &  
Occupancy Certificate?

Customer pays  
remaining balance of  
Network Modification costs  
(if applicable)

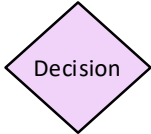
8) BELCO Inspection, Meter Installation  
Testing and Interconnection

BELCO inspects, exchanges  
meters and installs MEP  
Meter, protection testing and  
Interconnection\*\*

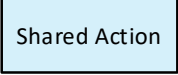
Execution of BGSUI  
Interconnection Agreement

Happy Customer  
😊

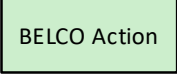
LEGEND



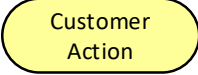
Decision



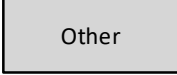
Shared Action



BELCO Action



Customer  
Action



Other

\*Any Interconnection Request that is made without a Feasibility Study will incur longer timelines as the Feasibility Study must be performed.

\*\*All BGSUI systems must remain isolated from the grid prior to BELCO Inspection, Meter Installation, Testing and Interconnection, except for commissioning and testing when the time frame is agreed upon by at least 15 days in advance with BELCO.

# **APPENDIX A: ANNEX 1**

## **BGSUI APPLICATION FORM**

The BGSUI Application Form may be used for either the:

- 1) Application for Feasibility Study
- 2) Interconnection Request for the system as built.

# BGSUI APPLICATION FORM

## **Section 1: CUSTOMER CONTACT INFORMATION**

Name:	
Address:	Mailing Address:
BELCO supply account #:	
E-mail Address:	
Telephone No:	
Name of RES Provider:	
RES Provider Contact or Consultant E-mail Address:	
RES Provider Contact or Consultant Telephone No:	

If the Interconnection and generation start-up process is to be coordinated through a party or individual other than the Customer (the "Agent"), please provide their contact details:

## **Section 2: AGENT CONTACT INFORMATION (OPTIONAL)**

By providing the contact details below, Customer hereby authorizes the Agent to act in their name and on their behalf in all matters in relation to such Feasibility Study, Network Modifications, Interconnection Request, testing, commissioning and generation start-up including taking and responding to queries from BELCO and providing any relevant instructions.

Agent Contact Name:
Agent Company Name:
Agent Mailing Address:
Agent E-mail Address:
Agent Telephone No:

**Section 3: APPLICATION TYPE & EXPECTED TIMELINES (YYYY/MM/DD)**

Application Type (select one):	Application for Feasibility Study <input type="checkbox"/> Interconnection Request (As Built) <input type="checkbox"/>	
[Expected] BGSUI Licence Application Date:		
[Expected] Planning Application Date:		
Requested Testing & Commissioning Dates:	From:	To:
Expected Interconnection Date:		

**Section 4: INTERCONNECTION DETAILS**

Appropriate Interconnection (select one):	Single Phase <input type="checkbox"/>	Three Phase <input type="checkbox"/>
BELCO system Interconnection voltage (select one):	120V <input type="checkbox"/>	240V <input type="checkbox"/> Other:
Maximum System AC Output (kVA):		
Anticipated annual energy generation (kWh):		
Anticipated annual energy export (kWh):		
Anticipated peak demand (kW):		

**Section 5: EQUIPMENT INFORMATION****General RES Information**

Renewable Energy Resource	Solar <input type="checkbox"/>	Other:
Energy Storage System	None <input type="checkbox"/>	AC Coupled <input type="checkbox"/> DC Coupled <input type="checkbox"/>

**Solar Energy Information (where applicable)**

Solar Panel Details	Manufacturer:	Model:
	Quantity:	DC Power Output (kW):
Inverter Type	Micro Inverter <input type="checkbox"/>	String Inverter <input type="checkbox"/>
Inverter Details	Manufacturer:	Model:
	Quantity:	Unit AC Output (kVA):
	Frequency:	Rated Power Factor:
	IEEE 1547-2018 Compliant:Y/N	Total AC Output (kVA):
Product Certification Info:		
DC/AC Ratio:		

**Other Energy Resource Information (where applicable)**

Other Energy Details:	Manufacturer:	Model:
	Quantity:	AC Output (kVA):
	Frequency:	Rated Power Factor:
	IEEE 1547-2018 Compliant (Y/N)	Total AC Output (kVA):
Product Certification Info:		

**Energy Storage Information (where applicable)**

Manufacturer:	
Model:	
Quantity:	
Unit AC Output (kVA):	
Unit Energy Capacity (kWh):	
Total AC Output (kVA):	
Total Energy Capacity (kWh):	
IEEE 1547-2018 Compliant:	
Product Certification Info:	

**Interconnection Transformer and Fuse Information (where applicable)**

Manufacturer:		Model No:	
No. of Units:		Nameplate kVA:	
Primary Voltage:		Secondary Voltage:	
Single Phase Connection: <input type="checkbox"/>	Three Phase Connection: <input type="checkbox"/> <div style="float: right;">           Delta <input type="checkbox"/>            Wye <input type="checkbox"/>            Grounded Wye <input type="checkbox"/> </div>		
Primary Fuse Data:	Fuse Type:	Fuse Size:	Fuse Speed:

## **Section 6: PROTECTIVE EQUIPMENT**

### **5.1 Interconnection Circuit Breaker Information (where applicable)**

Manufacturer:	Type No:
Load Rating (Amps):	Interrupting Rate (Amps):
Trip Speed:	Cycles:
Tripping Curves:	

**(Complete all applicable items, attach a separate sheet if necessary)**

5.1 Provide manufacturer's information for the protection package or devices	Provide manufacturer's documentation for protective functions: 1. Under/Over Voltage 2. Over/Under Frequency 3. Anti-Islanding 4. Over-Current
5.2 Range of available settings for each Protective Function	Provide list of Protection Functions with ranges of protection settings for tripping or shutdown, along with time delays.
5.3 Proposed Settings (Set point and times)	Provide list of Protection Functions with settings for tripping or shutdown, along with time delays.

## **Section 7: DOCUMENTATION REQUIRED**

The information set forth in this section is required to be submitted for all projects. All diagrams are to be neatly drawn- 11"x 17" size preferred. Free hand drawn and illegible diagrams will not be accepted by BELCO.

### **6.1 Electrical One-Line Diagram**

A single-line drawing showing the electrical relationship and descriptions of the significant electrical components such as the generator, inverters, cables and wiring switches, meters, transformers, circuit breakers, with operating voltages and ratings.

### **6.2 Site Plan**

A site plan showing the physical arrangement of the major equipment, including generating equipment, transformers, switches, control panels, the Customer's existing metered services and the Interconnection with BELCO's Distribution System.

### **6.3 Protective Device Data**

For all protective devices used to protect and control the Interconnection, please provide proposed protective device settings, circuit breaker and fuse data and coordination curves, and a description of how the protection scheme is intended to function.

**Section 8: AVERAGE MONTHLY ENERGY FLOWS**

Please provide the monthly energy flows for a typical meteorological year in kilowatt-hours.

Month	Total Consumption (kWh)	Generation (kWh)	Self Consumption from BGSUI (kWh)	Export (kWh)
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

**Section 9: DECLARATION**

I hereby declare that the information set forth herein is complete and accurate.

If I have appointed an Agent in Section 2 above, I hereby authorize the Agent to act in my name and on my behalf, in all matters in relation to such Feasibility Study, Network Modifications, Interconnection Request, testing, commissioning and generation start-up including taking and responding to queries from BELCO and providing any relevant instructions.

Name:

Company:

Signature:

Date:

**APPENDIX A: ANNEX 2**  
**FEASIBILITY STUDY QUOTATION**



**FEASIBILITY STUDY QUOTATION**

[Date]

[Customer Name]

[Customer Address]

Dear [Customer],  
Bermuda Electric Light Company Limited (BELCO) has reviewed your application for Feasibility Study of a BGSUI. The Feasibility Study of the BGSUI components detailed in Annex 1 of the Application has been determined to cost [amount].

The proposed system listed below will be verified to be compatible with the BELCO network, and determine if the network currently has adequate capacity to accept the renewable energy injection at the requested location.

Technology	Manufacturer	Model Number	Quantity	Total Power/ Energy Output
Solar Panels				
Micro Inverters				
String Inverters				
Storage Systems				
Wind Turbines				
Other System				

The Feasibility Study will only be performed once the quote has been accepted.

To proceed with the Feasibility Study, please confirm acceptance of the quotation and scope by signing below.

[Customer]:

Signature:

Date:

**APPENDIX A : ANNEX 3**  
**TECHNICAL VERIFICATION LETTER**

## TECHNICAL VERIFICATION LETTER

[Date]

[Customer Name]

[Address]

Dear [Customer],

Bermuda Electric Light Company Limited (BELCO) has reviewed your Application for a Feasibility Study of a BGSUI. BELCO has undergone technical verification of the BGSUI components detailed in Annex 1 of the Application and has determined that the proposed system listed below is compatible with the BELCO network, and that the network currently has adequate capacity to accept the renewable energy injection at the requested location. This acceptance is valid for 12 months from the date of this letter.

Technology	Manufacturer	Model Number	Quantity	Total Power/ Energy Output
Solar Panels				
Micro Inverters				
String Inverters				
Storage Systems				
Wind Turbines				
Other System				

Upon a successful planning application, building permit application, installation, testing, commissioning, please submit your Interconnection Request to [solar@belco.bm](mailto:solar@belco.bm), including the following:

1. Signed and dated records of commissioning checks and tests. (See example BGSUI Testing and Commissioning Report in Annex 1 – Appendix B)
2. Final Certificate of Completion and Occupancy, issued by the Department of Planning, Government of Bermuda

The meter exchange will only be scheduled once the above documentation is provided. The solar system shall not be operational prior to the meter exchange and BELCO has observed anti-islanding tests. The meter exchange appointment requires that the solar installer or operator is present at the agreed appointment time to operate the system and verify operation after the meter exchange.

You shall ensure that the solar energy system and all sensitive equipment are turned off prior to the meter exchange. Under no circumstances shall BELCO be liable to you and/or any parties designated to act on your behalf (collectively, the “Customer Parties”) for any damages during the meter exchange. The meter will not be exchanged if the solar installer or operator is not present at the agreed time.

**APPENDIX A : ANNEX 4**  
**NETWORK MODIFICATIONS AGREEMENT**

## NETWORK MODIFICATIONS AGREEMENT

[Date]

[Customer Name]

[Customer Address]

Dear [Customer],

Bermuda Electric Light Company Limited (BELCO) has reviewed your Application for a Feasibility Study of a BGSUI. BELCO has undergone technical verification of the BGSUI components detailed in Annex 1 of the Application and has determined that the proposed system listed below is not currently compatible with the BELCO network for the following reasons:

1. The network requires modification to accept the renewable energy injection at the requested location.
2. The components specified are not compatible with the BELCO network. For a list of compatible devices and parameters please refer to the BELCO Utility Requirements Profile (URP) or Source Requirement Documents (SRD).

The Network Modification includes [list scope]:

The cost of the network modification is [amount].

This offer for Network Modification is valid for 3 months from the date of this letter. Once the offer is accepted and paid in full, the proposed BGSUI capacity will be reserved on the system for a period of 2 years.

To proceed with the Network Modifications, please confirm acceptance of the quotation and scope by signing below.

Customer:

Signature:

Date:

## **APPENDIX B**

### **BGSUI TECHNICAL REQUIREMENTS**

#### **1. Installation and Operating Requirements**

##### **1.1. Certifications**

This Appendix B (BGSUI Technical Requirements) shall apply to all Interconnections of all BGSUI, which, unless otherwise mutually agreed upon by the parties to this Agreement, shall be certified to IEEE 1547-2018 requirements by a nationally recognized testing laboratory (NRTL). BGSUI are required to be certified to the entirety of the IEEE 1547-2018 requirements, except as otherwise indicated in BELCO's latest Source Requirements Document (SRD).

These requirements are intended to be consistent with IEEE 1547-2018 Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces. In the event of conflict between these BGSUI Technical Requirements and IEEE 1547-2018, these BGSUI Technical Requirements shall take precedence. Refer to BELCO's latest SRD for equipment certification requirements, including all exceptions to IEEE 1547-2018 and to BELCO's latest Utility Required Profile (URP) for default settings. The applicable URP will be assigned to the BGSUI by BELCO as a result of the Completed Application technical reviews, Feasibility Study, or other mutually agreed upon method between the parties to this Agreement. BGSUI settings different than the URP shall be allowable with mutual agreement between BELCO and the Customer.

Inverter-based resources that are to be installed in parallel with the BELCO Network must employ a non-islanding synchronous inverter. The inverter shall be certified to comply with the requirements of IEEE 1547-2018 and UL 1741 (latest version) and be certified to have anti-islanding protection such that the synchronous inverter will automatically disconnect upon separation from the BELCO Network.

##### **1.2. Prevention of Interference**

A BGSUI shall not superimpose a voltage or current upon the BELCO Network that interferes with BELCO's operations, service to other customers, or communication facilities. If such interference occurs, the Customer must diligently pursue and take corrective action at its own expense after being given notice and a reasonable time to do so by BELCO. If the Customer does not take corrective action in a timely manner, or continues to operate the facilities causing interference without restriction or limit, BELCO may, without liability, disconnect the BGSUI from the BELCO Network, in accordance with Section 1.2.2 of this Appendix B.

###### **1.2.1. Disconnection of BGSUI for Utility Reasons**

Upon providing reasonable notice (generally not to be less than ten (10) Business Days for scheduled work), BELCO may require the BGSUI to temporarily disconnect from the BELCO Network when necessary for BELCO to construct, install, maintain, repair, replace, remove, investigate, test, or inspect any of its equipment or other customer's equipment, or any part of its system. The BGSUI shall not energize a de-energized BELCO Network under any circumstances, but may operate isolated from the BELCO Network with an open tie point in accordance with Section 1.2.2 of this Appendix B.

If BELCO determines that such disconnection is necessary because of unexpected system emergencies, forced outages, operating conditions on the BELCO Network, or compliance with good engineering practices as determined by the BELCO's engineers and/or operations personnel, BELCO will immediately attempt to notify, in person, by telephone or by electronic mail, the Customer's designated representatives of the need to disconnect the Customer's BGSUI. Unless the emergency condition requires immediate disconnection as determined by BELCO, BELCO shall allow sufficient time for the BGSUI operator to manually disconnect the generator. (As stated in Section

1.2.2 below, there are circumstances where BELCO may disconnect the BGSUI without prior notice to the Customer.) Following the completion of work and/or rectification of the emergency conditions by BELCO, BELCO shall reset the Customer's isolation device, if open, as soon as practicable and shall provide, within fifteen (15) Business Days or such other period as is mutually agreed upon in writing by BELCO and the Customer, written documentation of the occurrence and nature of BELCO's work and/or emergency condition, and the disconnection of the Customer's BGSUI.

BELCO shall take reasonable steps to minimize the number and duration of such disconnections. BELCO may disconnect the BGSUI from the BELCO Network for failure by the Customer to disconnect their BGSUI under this Section 1.2.1, until such time that the utility work or emergency condition has been corrected and the normal system condition has been restored.

The BGSUI may be disconnected by BELCO at the BGSUI Location or remotely by SCADA, if available.

#### **1.2.2. Personnel and System Safety**

BELCO may disconnect the BGSUI from the BELCO Network, without prior notice to the Customer: (a) to eliminate conditions that constitute a potential hazard to BELCO's personnel or the general public; (b) if pre-emergency<sup>1</sup> or emergency conditions exist on the BELCO Network; (c) if a hazardous condition relating to the BGSUI is observed by BELCO's inspection; (d) if the BGSUI interferes with BELCO's equipment or equipment belonging to other customers (including non-utility generating equipment); or (e) if the Customer or a party with whom the Customer has contracted for ownership and/or operation of the BGSUI has tampered with any protective device. The BGSUI shall remain disconnected until such time as BELCO is satisfied that the endangering condition(s) has been corrected, and BELCO shall not be obligated to allow parallel operation of the BGSUI during such period. If BELCO disconnects the BGSUI under this Section 1.2.2, it shall as soon as practicable notify the Customer in person, by telephone, or by electronic mail and provide the reason(s) why the BGSUI was disconnected from the BELCO Network. Following the rectification of the endangering conditions, BELCO shall provide, within fifteen (15) Business Days or such other period as is mutually agreed upon in writing by BELCO and the Customer, written documentation of the occurrence and nature of the endangering conditions, and the disconnection of the Customer's BGSUI.

The BGSUI may be disconnected by BELCO at the BGSUI Location or remotely by SCADA, if available.

### **1.3. Basic Protection Requirements**

#### **1.3.1. Integration with BELCO Network Grounding and Ground System Protection**

The grounding scheme and the ground fault protection of the BGSUI shall be coordinated with the BELCO Network to ensure a ground fault is properly cleared on the BELCO Network. Any ground faults detected by the BELCO Network's protection scheme (for faults between the BELCO substation and the BGSUI) must also be detected by the protection scheme of the BGSUI. For a single line to ground fault, the BGSUI's ground fault protection must be sufficient to prevent damage to the BELCO Network and the equipment of the Customer and all other customers due to overvoltage caused by ferroresonance, displaced neutral, or self-excitation.

#### **1.3.2. Interrupting Device**

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<sup>1</sup> Pre-emergency conditions refer to the need for immediate action in response to a situation that has the potential to cause injury, loss of life, or property damage.

Applicable circuit breakers or interrupting devices at the BGSUI must be capable of interrupting the maximum available fault current at the Location, including any contribution from the BGSUI. The BGSUI shall have an interrupting device accessible to BELCO personnel at all times.

#### **1.3.3. Reclosing Coordination**

The BGSUI shall be coordinated with the BELCO Network's reclosing devices, by disconnecting from the BELCO Network within the first reclose interval and remaining disconnected until the voltage and frequency have stabilized, consistent with the enter service criteria specified in IEEE 1547-2018.

#### **1.3.4. Disconnect Device**

The design, installation, operation and maintenance of the BGSUI shall comply with BELCO-approved control and protection equipment, which shall include a manual load-break Disconnect Device.

### **1.4. Supervisory Control and Data Acquisition (SCADA) Requirements**

A computerized SCADA shall be required to ensure the safety of working personnel and prompt response to system abnormalities in case of islanding of the BGSUI.

SCADA shall include monitoring of: (a) gross generation; (b) watts, VARS, watt-hours, current and voltage at the Point of Interconnection; and (c) status of the interrupting device. In addition, the SCADA will allow BELCO to trip the interrupting device during emergency conditions. Monitoring will be performed by system dispatchers or operators at BELCO's control center, unless otherwise agreed by BELCO.

### **1.5. Operating Requirements**

The BGSUI shall be certified to IEEE 1547-2018 and UL 1741 (latest version) as applicable per Section 1.1 of this Appendix B. The BGSUI shall be configured to the Category III default settings for abnormal operating performance requirements within IEEE 1547-2018, unless different capabilities or settings are provided in BELCO's SRD or URP, or determined in the Feasibility Study.

For the avoidance of doubt, the Feasibility Study takes precedence over the SRD and URP, and the SRD and URP take precedence over the requirements of IEEE 1547-2018.

#### **1.5.1. Default Activation State for Functions**

Unless otherwise provided by BELCO, the default activation status for IEEE 1547-2018 functions shall be consistent with IEEE 1547-2018, except as stated below:

- Voltage-active power – Mandatory activation;
- Voltage-reactive power – Mandatory activation;
- Soft-start ramp rate – Mandatory activation (randomized delay deactivated); and
- Constant power factor – Mandatory deactivation.

Default activation states may also be modified by mutual agreement between BELCO and the Customer.



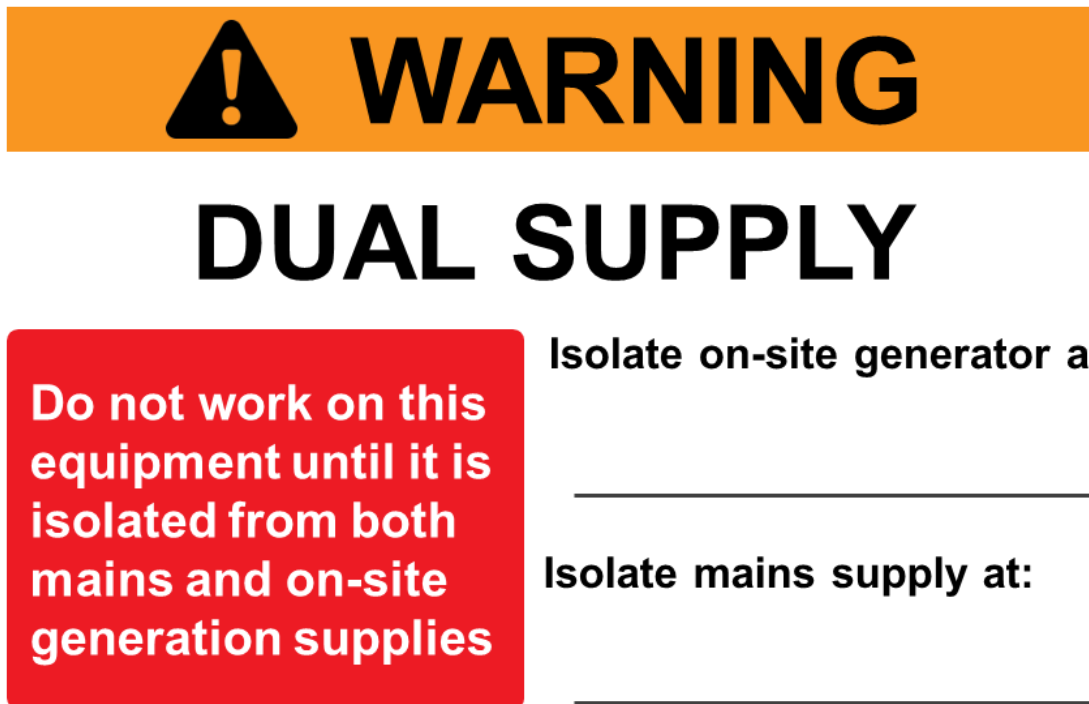
### 1.5.2. Frequency Ride-Through Requirements

The BGSUI shall meet the frequency disturbance ride-through requirements in IEEE 1547-2018, Section 6.5.2, according to the requirements in the table below, which specifies frequency ranges designed for island grids.

Frequency Range (Hz)	Operating Mode	Minimum Time (sec)
$f > 65.0$	No ride-through requirements apply to this range	
$63.0 < f \leq 65.0$	Mandatory operation	299
$57.0 \leq f \leq 63.0$	Continuous operation	Infinite
$50.0 \leq f < 57.0$	Mandatory operation	299
$f < 50.0$	No ride-through requirements apply to this range.	

### 1.6. Signage

A suitable sign shall be placed at the Point of Interconnection. An example is given below.



## **APPENDIX B**

### **ANNEX 1: EXAMPLE BGSUI TESTING AND COMMISSIONING REPORT**

# EXAMPLE BGSUI TESTING AND COMMISSIONING REPORT

Based on IEEE 1547-2018 Standard for Interconnection and Interoperability of Distributed Energy Resources.

## 1. Project Information

Field	Details
Project Name	
Location	
Utility Network	
PV System Capacity	
Inverter Manufacturer	
Commissioning Date	
Commissioning Engineer	

## 2. Pre-Commissioning Checklist

Item	Status	Notes
Site inspection completed	<input type="checkbox"/>	
PV modules installed & wired	<input type="checkbox"/>	
Inverter installation verified	<input type="checkbox"/>	
Grounding and bonding verified	<input type="checkbox"/>	
Communication interfaces configured	<input type="checkbox"/>	
Utility interconnection approval received	<input type="checkbox"/>	
Safety signage and labeling installed	<input type="checkbox"/>	

## 3. Functional Testing Checklist (IEEE 1547-2018)

Description	Status	Notes / Results
<b>Voltage Regulation</b> Verify inverter maintains voltage within prescribed limits	<input type="checkbox"/>	
<b>Frequency Regulation</b> Confirm DER responds appropriately to frequency deviations	<input type="checkbox"/>	
<b>Ride-Through Capability</b> Test inverter's ability to remain connected during voltage/frequency events	<input type="checkbox"/>	
<b>Voltage Ride-Through</b> Simulate voltage sag/swell and verify response	<input type="checkbox"/>	
<b>Frequency Ride-Through</b> Simulate under/over-frequency and verify response	<input type="checkbox"/>	

<b>Anti-Islanding Protection</b> Conduct active anti-islanding test (e.g., Sandia, frequency shift)	<input type="checkbox"/>	
<b>Loss of Mains (LoM)</b> Simulate grid disconnection; verify inverter ceases export within 2 seconds	<input type="checkbox"/>	
<b>Cease to Energize</b> Confirm inverter stops energizing grid during abnormal conditions	<input type="checkbox"/>	
<b>Reconnection Timing</b> Verify reconnection delay after grid restoration	<input type="checkbox"/>	
<b>Power Quality</b> Measure harmonics, flicker, and DC injection	<input type="checkbox"/>	
<b>Communication Protocols</b> Validate interoperability via IEEE 2030.5 or Modbus	<input type="checkbox"/>	
<b>Scheduling &amp; Control</b> Confirm ability to receive and respond to utility dispatch signals	<input type="checkbox"/>	

#### 4. Summary of Results

Parameter	Measured Value	IEEE 1547 Limit	Pass
Voltage Regulation (%)		±10%	<input type="checkbox"/>
Frequency Response (Hz)		59.3–60.5 Hz	<input type="checkbox"/>
Anti-Islanding Trip Time		<2 seconds	<input type="checkbox"/>
Harmonic Distortion (THD)		<5%	<input type="checkbox"/>
DC Injection (mA)		<0.5% of rated	<input type="checkbox"/>

#### 5. Commissioning Statement

I hereby certify that the BGSUI has been tested and commissioned in accordance with IEEE 1547-2018 and utility interconnection requirements. All functional tests have been completed and the system is operating within prescribed limits.

Name:

Company:

Signature:

Date: