ADDENDUM to the Standard Agreement for Electricity Supply to [*address of the Premise* **] dated [ ] between [** *Name of the Licensee* **] and [** *Name of the Consumer* **]**
Account No [*Electricity Account No. of the Premise* **]**
Additional Conditions applicable for Net Metering Consumers

A.1 Applicability

This Addendum is only applicable where the Consumer has requested for and the Licensee has agreed to provide Net Energy metering facilities allowing the Consumer to install a Renewable Energy based Electricity Generation facility at his Premises and deliver electricity to the electricity distribution network owned and operated by the Licensee.

A.2 Effectiveness

The provisions of this Addendum shall come into effect on this date of 20 and will continue to be in force until the expiry of date of 20 . [*Note: the expiry date inserted herein shall not exceed twenty (20) years from the date first stated above*] Notwithstanding such expiry date, this Addendum is co-terminus with the Principal Agreement.

A.3 Additional definitions

Section 1.1 of the Principal Agreement is supplemented by addition of the following words, phrases and expressions. Unless the context otherwise requires, the words, phrases and expressions set out in this Clause (including the Clauses of this Addendum above) shall have the meanings given to them in this Section.

Billing Period means the period for which the Consumer's electricity consumption is measured by the Licensee;

Consumer's Generating Facility means all of the plant and equipment, including interconnection, protective and control equipment, owned by the Consumer and located at his Premises to generate and deliver electricity to the Licensee in terms of this Agreement;

Effective Period means the period of effectiveness of this Addendum stated in Paragraph 2 of this Addendum.

Energy Credit means the Net Energy for a Billing Period and credited to the Consumer's electricity account in the subsequent Billing Period.

IEC Standard or **IEC Technical Report** means the latest editions of the respective documents published by the International Electrotechnical Commission, 3, rue de Varembé, P.O. Box 131, 1211 Geneva 20, Switzerland;

IEEE Standard means the latest editions of respective standards specifications published by the Institute of Electrical and Electronics Engineers, 445, Hoes Lane, Piscataway, New Jersey 08855-1331, USA;

Net Energy means the amount of electrical energy delivered by the Consumer's Generating Facility to the electricity distribution network of Licensee, expressed in kilowatt-hours less the amount of electrical energy supplied from the electricity distribution network of the Licensee to the Consumer, where the result is a positive number;

Parallel Operation means the operation of the Consumer's Generating Facility while connected to the distribution network of the Licensee;

Principal Agreement means the standard agreement for electricity supply dated … …. …. …. …. … …. …. between and , and;

Renewable Energy based Electricity Generation means generation of electricity by solar, wind, biomass or micro hydro power plants.

A.4 Consumer's Generating Facility

In addition to the provisions of Section 6 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable.

A.4.1 The Consumer's Generating Facility shall use one or any combination of the types of Renewable Energy based Electricity Generation to generate electricity, as stated in the Annex to this Addendum.

A.4.2 The Consumer shall have obtained the written permission of the Licensee prior to Parallel Operation of Consumer's Generating Facility with the distribution system of the Licensee, which permission shall not be withheld unreasonably by the Licensee.

A.4.3 The Consumer acknowledges that the Consumer's Generating Facility is be intended to meet all or a part of the Consumer's electricity demand and electrical energy requirements at the Premises. Parallel Operation under this Agreement does not confer the Consumer of any right to use distribution system of the Licensee for the transmission, distribution or wheeling of electricity to any party other than the Licensee.

A.4.4 The Licensee shall have the right to inspect or review the design of Consumer's Generating Facility, prior to the commencement of Parallel Operation or during the term of effectiveness of this Addendum. The Licensee shall have the right to require the Consumer to effect modifications as necessary to comply with the requirements specified in this Addendum. Such review, inspection or permission for Parallel Operation shall not be construed as confirming or endorsing the Consumer's design or safety, durability or reliability of the Consumer's Generating Facility. The Licensee shall not, by reason of such action or lack of such action, be responsible for the suitability, adequacy or capability of the equipment comprising of the Consumer's Generating Facility.

A.4.5 The installed capacity of the Consumer's Generating Facility shall not exceed the Contract Demand of the Consumer, as stated in Paragraph 2 of the Schedule of the Principal Agreement. If the Consumer wishes to change the installed capacity, he shall first apply to amend the Contract Demand as appropriate, after fulfilling the requirements specified by Licensee. The term of effectiveness of this Addendum shall not be affected in any way by such amendment.

A.4.6 The Consumer's Generating Facility shall be built, operated and maintained according to the relevant standards and other guidelines stipulated in the Annex to this Addendum, to ensure safe operation and avoiding interference with reliable operation of the distribution network of the Licensee.

A.4.7 The Consumer shall be responsible for keeping all electrical wiring, apparatus or works (excluding those owned by the Licensee) located in the Premises, which are installed for the purposes of this Addendum, in safe and good working order.

A.4.8 The Licensee shall not assume any cost of building, operating and maintaining of the Consumer's Generating Facility in terms of the Paragraph 4.6 above.

A.5 Metering

In addition to the provisions of Section 7 of the Principal Agreement, the following provisions shall apply to the Consumers to whom this Addendum is applicable.

A.5.1 The Consumer's electricity usage and his deliveries of electricity to the electricity distribution network of the Licensee shall be metered with a meter, which shall be capable of making separate measurements of the amounts of electricity usage and delivered to the electricity distribution network of the Licensee.

A.5.2 The meter and appurtenant equipment for the purposes of Paragraph 5.1 above, shall be installed and maintained by the Licensee. The initial cost of installation of such equipment shall be borne by the Consumer.

A.6 Tariff and Billing

In addition to the provisions of Section 8 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable. During any Billing Period, the charges for the energy supplied shall be calculated as follows:

A.6.1 If $E_s > (E_d + EC_{m-1})$

$$C_m = T\big(E_s - (E_d + EC_{m-1})\big)$$

Where:

C_m is the charge payable by the Consumer for the electrical energy consumption in the Billing Period *m*, expressed in Rupees;

E_s is the amount of electrical energy supplied by the Licensee to the Consumer in the Billing Period *m*, expressed in kilowatt-hours;

E_d is the amount of electrical energy delivered by the Consumer to the electricity distribution network of the Licensee in the Billing Period *m*, expressed in kilowatt-hours;

EC_{m-1} is the total amount of Energy Credit available to the Consumer at the end of previous Billing Period *(m-1)*, expressed in kilowatt-hours, and;

T is the tariff rate applicable to the Consumer under Paragraph 3 of the Schedule of this Agreement, expressed in Rupees per kilowatt-hours.

In addition, any fixed charge and/or a minimum charge applicable for the relevant tariff category shall also be payable by the Consumer.

A.6.2 If $(E_d + EC_{m-1}) \geq E_s$:

The Consumer shall be charged only for the applicable fixed charge and/or the minimum charge, and the remainder $(E_d + EC_{m-1}) - E_s$ shall be carried over to the next Billing Period and shall appear as Energy Credit.

A.6.3 Energy Credit may be carried over from one Billing Period to another, during the Effective Period. In the event that the Principal Agreement or this Addendum is terminated, any Energy Credit accumulated as on the day of such termination shall accrue to the Licensee without any financial compensation to the Consumer. Energy Credit shall not be transferable in any manner to any other person or premises.

A.6.4 If the tariff rate applicable to the Consumer is a time-of-use tariff, following provisions shall apply:

i. Net Energy shall be computed time interval wise.

ii. In the event that Energy Credit is available in a particular time interval, it shall be carried forward to the same time interval of the next billing period.

iii. In the event that the Consumer's tariff category is converted to a time-of-use tariff during the effectiveness of this Addendum, the Energy Credit at the end of the last Billing Period before such conversion shall be carried forward to the first Billing Period (of not less than 21 days) after the conversion.

iv. The total Energy Credit accrued to the Consumer prior to such conversion shall be credited to the time interval having the highest credit in that first billing period. If no credit is available in any of the time intervals, that amount carried forward shall be credited to the time interval where the highest amount of energy has been delivered by the Consumer's Generating Facility.

A.6.5 The provisions of this Section shall survive the expiry or termination of this Agreement or this Addendum and continue to have effect in terms of this Agreement or this Addendum, as the case may be.

A.7 Disconnection of the Consumer's Generating Facility

In addition to the provisions of Section 12 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable.

A.7.1 *The Consumer's Generating Facility shall be disconnected if the permit issued to it in terms of Sri Lanka Sustainable Energy Authority Act, No. 35 of 2007 is cancelled or expired*.

A.7.2 The Consumer's Generating Facility may be disconnected temporarily or permanently, upon written request by the Consumer.

A.7.3 The Consumer's Generating Facility may be disconnected for having failed to comply with a notice from the Licensee requiring the Consumer to cease Parallel Operation of the Consumer's Generating Facility if it:

i. unduly or improperly interferes with the supply of electricity by the Licensee to any other consumer, or;

ii. operates in breach of the Clause A.4.6 to this Addendum, or;

iii. compromises operation of the Licensee's network within the requirements specified by Electricity (Safety, Quality and Continuity) Regulations made by the Gazette Extraordinary No.1975/44 dated 2016.07.13 and any amendment thereto, or;

A.7.4 The Consumer's Generating Facility may be disconnected upon any material breach by the Consumer of any term or condition of this Addendum, which remain not remedied after 30 days of bringing the breach to the notice of the Consumer.

A.8 Re-connection of the Consumer's Generating Facility

In addition to the provisions of Section 12 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable.

A.8.1 If all other circumstances remain unchanged, and subject to any applicable guideline made by the Commission, a Consumer's Generating Facility disconnected from the Licensee's distribution network may be reconnected under the same terms and conditions of this Agreement, after the cause that warranted disconnection is remedied.

A.8.2 The Consumer may be required to execute a fresh Addendum with the Licensee, if any of the requirements specified in the Annex to this Addendum is changed.

A.8.3 The fees for reconnection shall be as advised by the Licensee.

A.9 Adjustment of the Effectiveness of this Addendum

The Consumer acknowledges that in the event of termination of the Principal Agreement prior to the expiry of this Addendum upon occurrence of any of the events in Section 13 of the Principal Agreement, the expiry date for any new addendum for this Premises will be governed by the relevant sections of the Supply Services Code.

IN WITNESS WHEREOF the Parties have executed this Addendum as of the date first written above.

<table>
<tr><td>Name of the Licensee</td><td>Full Name of the Consumer</td></tr>
<tr><td>Authorised officer of the Licensee</td><td>Authorised officers of / The Consumer</td></tr>
<tr><td rowspan="4">Signature:</td><td>Signature:</td></tr>
<tr><td>Name:</td></tr>
<tr><td>National Identity Card No:</td></tr>
<tr><td>Position:</td></tr>
<tr><td>Name:</td><td rowspan="2">Signature:</td></tr>
<tr><td>Position:</td></tr>
<tr><td rowspan="3"></td><td>Name:</td></tr>
<tr><td>National Identity Card No:</td></tr>
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</table>

ADDENDUM to the Standard Agreement for Electricity Supply to [*address of the Premise* **] dated [ ] between [** *Name of the Licensee* **] and [** *Name of the Consumer* **]**
Account No [*Electricity Account No. of the Premise* **]**

Annex: GENERATING FACILITY DESIGN AND OPERATING REQUIREMENTS

X.1 The installed capacity of the Consumer's Generating Facility is kVA[1]

The source for Renewable Energy based Electricity Generation at the Consumer's Generating Facility[2]:

X.2 All protective functions and requirements defined in this Annex are intended to protect the Licensee's distribution network ad not the Consumer's Generating Facility. The Consumer shall solely be responsible for providing adequate protection for Consumer's Generating Facility. The Consumer's protective functions shall not impact or interfere with the operation of other protective functions of Licensee's distribution network in a manner that would affect Licensee's capability of providing reliable service to its other consumers.

X.3 Consumer's Generating Facility operating in parallel with Licensee's distribution network shall be equipped at least with the following protective functions to recognize any abnormal conditions on Licensee's distribution network and cause the Consumer's Generating Facility to be automatically and timely disconnected from Licensee's distribution network or to prevent it from being connected improperly to Licensee's distribution network.

X.3.1 Over and under voltage trip functions and over and under frequency trip functions

X.3.2 Consumer's Generating Facility shall have a time-delayed operating function, based on voltage and frequency of Licensee's distribution network, to prevent it from:

a. connecting with the Licensee's distribution network while it is de-energized, or;

b. reconnecting with Licensee's distribution network unless Licensee's distribution network voltage is within nominal voltage (as specified in Clause A.4 below) and its frequency is between 47 Hz to 52 Hz and both the parameters are being held stable for at least 3 minutes

X.3.3 Consumer's Generating Facility shall automatically prevent itself from being connected or contributing to formation of an unintended island and cease energizing the Licensee's distribution network within half a second (0.5 second) of the formation of such unintended island.

X.3.4 In terms of IEEE Standard 1547-2003 Clause 4.2.1, the Consumer's Generating Facility shall cease energizing the Licensee's distribution network for faults on Licensee's distribution network.

X.3.5 In terms of IEEE Standard 1547-2003 Clause 4.2.2, the Consumer's Generating Facility shall cease energizing the Licensee's distribution network prior to reclosing of its connection with Consumer's Generating Facility.

X.3.6 In terms of IEEE Standard 1547-2003 Clause 4.1.8.3, the paralleling device of Consumer's Generating Facility shall be capable of withstanding 220% of the rated voltage of Licensee's distribution network

X.3.7 The interconnection equipment of Consumer's Generating Facility shall have the capability to withstand voltage and current surges in accordance with the environments in terms of IEEE Standard 1547-2003 Clause 4.1.8.2

X.3.8 Consumer's Generating Facility shall automatically be disconnected from the Licensee's distribution network within half a second (0.5 second) of losing interconnectivity with the Licensee's distribution network

[1] *To insert the installed capacity of the Consumer's Generating Facility*
[2] *The source for the renewable energy is at the option of the Consumer. The present scheme is applicable for solar, wind, hydro or biomass. This Addendum and the Annex are for use for the solar roof top applications only. The Licensee is required to verify the applicability of the standards and procedures for the other sources.*

X.3.9 The Consumer shall not change any of the settings stated above without the prior written permission of the Licensee.

X.4 Suitability of equipment

Circuit breakers or other interrupting devices located at the point of common coupling must be certified by the Licensee as suitable for their intended operation. This includes certification of being capable of interrupting the maximum available fault current expected at their location. The Consumer's Generating Facility shall be designed so that the failure of any one device shall not potentially compromise the safety and reliability of Licensee's distribution network.

X.5 Licensee's Distribution Network parameters are as follows:

Nominal Voltage	33 kV	11 kV	400 V
System Highest Voltage	36 kV	12 kV	440 V
Rated fault current	25 kA	20 kA	20 kA
No. of Phases	3	3	3 phases and neutral
System Frequency	50 Hz	50 Hz	50 Hz
Method of Earthing	Non-effectively earthed	Solidly earthed	Solidly earthed

X.6 Visible disconnect required

When required by the Licensee's operating practices, the Consumer shall, at his own cost, install a ganged-manually-operated isolating device near the point of interconnection to isolate the Consumer's Generating Facility from the Licensee's distribution network. This devise is not required to be rated for load breaks or equipped with over current protection. The device, must:

a. Allow visible verification that separation has been accomplished. (This requirement may be met by opening the enclosure to observe contact separation)

b. Include marking or signage that clearly open and closed positions;

c. Be capable of being reached quickly and conveniently all the time by Licensee's personnel for construction, maintenance, inspection, testing or reading without obstacles or requiring those seeking access to obtain keys, special permission, or security clearance;

d. Be secured in a weather-proof enclosure and capable of being locked in the open position to prevent unauthorized or accidental closing;

e. Be clearly marked on a single line diagram submitted by the Consumer and its type and location shall be approved by the Licensee prior to installation, where such approval must not be unreasonably withheld, and;

f. If the device is not located adjacent to the point of common coupling, permanent signage must be installed at a location approved by the Licensee, providing a clear description of the location of the device.

g. The Consumer shall not change any of the requirements stated above without the prior written permission of the Licensee.

X.7 Protective function and control diagrams

Prior to parallel operation or momentary parallel operation of the Consumer's Generating Facility, the Licensee shall approve the Consumer's protective function and control diagrams. Those generating facilities equipped with protective function and control diagrams previously approved by the Licensee for its network-wide application or only certified equipment may satisfy this requirement by reference to the diagrams that had previously been approved by the Licensee.

X.8 Waveform

The output voltage wave form of the Consumer's Generating Facility shall be of 50 Hz, with a sinusoidal wave form. The Total Harmonic Distortion (THD) for current and individual harmonic limits shall be as follows:

Individual harmonic order	h<11	11<h<17	17<h<23	23<h<35	35<h	THD
Allowable limit (%)	4	2	1.5	0.6	0.3	5

If the Consumer's Generating Facility uses a direct current generator, it shall use an inverter to convert the direct current to alternating current, while complying with the THD for current and individual harmonic limits as in table above.

X.9 The inverters used for interconnection

The inverters used for interconnection shall only be those which have received the type approval of the Licensee.

X.10 The Power Quality at the point of inter connection

i. Power quality measurement at the point of inter connection of the Licensee's Distribution Network shall comply with the requirements of the IEC Standard No. 61400-21.
ii. Emission of inter-harmonic currents from the power electronic converter up to 2 kHz =
iii. Current distortions above 2 kHz up to 9 kHz during operation =
iv. The individual inter-harmonic currents below 2 kHz and the current distortions in the range 2 kHz up to 9 kHz (shall be given as ten-minute average data for each frequency at the output power) =
v. The maximum individual inter-harmonic current or current distortion=

X.11 Flicker

Flicker at the point of inter connection of the Licensee's Distribution Network shall comply with the requirements of the IEC Technical Report No. 61000-3-7.

ADDENDUM to the Standard Agreement for Electricity Supply to [*address of the Premise* **] dated [ ] between [** *Name of the Licensee* **] and [** *Name of the Consumer* **]**
Account No [*Electricity Account No. of the Premise* **]**

Additional Conditions applicable for Net Accounting Consumers

A.1 Applicability

This Addendum is only applicable where the Consumer has requested for and the Licensee has agreed to provide Net Energy metering facilities allowing the Consumer to install a Renewable Energy based Electricity Generation facility at his Premises and deliver electricity to the electricity distribution network owned and operated by the Licensee.

A.2 Effectiveness

The provisions of this Addendum shall come into effect on this date of 20 and will continue to be in force until the expiry of date of 20 . [*Note: the expiry date inserted herein shall not exceed twenty (20) years from the date first stated above*] Notwithstanding such expiry date, this Addendum is co-terminus with the Principal Agreement.

A.3 Additional definitions

Section 1.1 of the Principal Agreement is supplemented by addition of the following words, phrases and expressions. Unless the context otherwise requires, the words, phrases and expressions set out in this Clause (including the Clauses of this Addendum above) shall have the meanings given to them in this Section.

Billing Period means the period for which the Consumer's electricity consumption is measured by the Licensee;

Consumer's Generating Facility means all of the plant and equipment, including interconnection, protective and control equipment, owned by the Consumer and located at his Premises to generate and deliver electricity to the Licensee in terms of this Agreement;

Effective Period means the period of effectiveness of this Addendum stated in Paragraph 2 of this Addendum.

Energy Credit means the Net Energy for a Billing Period and credited to the Consumer's electricity account in the subsequent Billing Period.

IEC Standard or **IEC Technical Report** means the latest editions of the respective documents published by the International Electrotechnical Commission, 3, rue de Varembé, P.O. Box 131, 1211 Geneva 20, Switzerland;

IEEE Standard means the latest editions of respective standards specifications published by the Institute of Electrical and Electronics Engineers, 445, Hoes Lane, Piscataway, New Jersey 08855-1331, USA;

Net Energy means the amount of electrical energy delivered by the Consumer's Generating Facility to the electricity distribution network of Licensee, expressed in kilowatt-hours less the amount of electrical energy supplied from the electricity distribution network of the Licensee to the Consumer, where the result is a positive number;

Parallel Operation means the operation of the Consumer's Generating Facility while connected to the distribution network of the Licensee;

Principal Agreement means the standard agreement for electricity supply dated … …. …. …. …. … …. …. between and , and;

Renewable Energy based Electricity Generation means generation of electricity by solar, wind, biomass or micro hydro power plants.

A.4 Consumer's Generating Facility

In addition to the provisions of Section 6 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable.

A.4.1 The Consumer's Generating Facility shall use one or any combination of the types of Renewable Energy based Electricity Generation to generate electricity, as stated in the Annex to this Addendum.

A.4.2 The Consumer shall have obtained the written permission of the Licensee prior to Parallel Operation of Consumer's Generating Facility with the distribution system of the Licensee, which permission shall not be withheld unreasonably by the Licensee.

A.4.3 The Consumer acknowledges that the Consumer's Generating Facility is be intended to meet all or a part of the Consumer's electricity demand and electrical energy requirements at the Premises. Parallel Operation under this Agreement does not confer the Consumer of any right to use distribution system of the Licensee for the transmission, distribution or wheeling of electricity to any party other than the Licensee.

A.4.4 The Licensee shall have the right to inspect or review the design of Consumer's Generating Facility, prior to the commencement of Parallel Operation or during the term of effectiveness of this Addendum. The Licensee shall have the right to require the Consumer to effect modifications as necessary to comply with the requirements specified in this Addendum. Such review, inspection or permission for Parallel Operation shall not be construed as confirming or endorsing the Consumer's design or safety, durability or reliability of the Consumer's Generating Facility. The Licensee shall not, by reason of such action or lack of such action, be responsible for the suitability, adequacy or capability of the equipment comprising of the Consumer's Generating Facility.

A.4.5 The installed capacity of the Consumer's Generating Facility shall not exceed the Contract Demand of the Consumer, as stated in Paragraph 2 of the Schedule of the Principal Agreement. If the Consumer wishes to change the installed capacity, he shall first apply to amend the Contract Demand as appropriate, after fulfilling the requirements specified by Licensee. The term of effectiveness of this Addendum shall not be affected in any way by such amendment.

A.4.6 The Consumer's Generating Facility shall be built, operated and maintained according to the relevant standards and other guidelines stipulated in the Annex to this Addendum, to ensure safe operation and avoiding interference with reliable operation of the distribution network of the Licensee.

A.4.7 The Consumer shall be responsible for keeping all electrical wiring, apparatus or works (excluding those owned by the Licensee) located in the Premises, which are installed for the purposes of this Addendum, in safe and good working order.

A.4.8 The Licensee shall not assume any cost of building, operating and maintaining of the Consumer's Generating Facility in terms of the Paragraph 4.6 above.

A.5 Metering

In addition to the provisions of Section 7 of the Principal Agreement, the following provisions shall apply to the Consumers to whom this Addendum is applicable.

A.5.1 The Consumer's electricity usage and his deliveries of electricity to the electricity distribution network of the Licensee shall be metered with a meter, which shall be capable of making separate measurements of the amounts of electricity usage and delivered to the electricity distribution network of the Licensee.

A.5.2 The meter and appurtenant equipment for the purposes of Paragraph 5.1 above, shall be installed and maintained by the Licensee. The initial cost of installation of such equipment shall be borne by the Consumer.

A.6 Tariff and Billing

In addition to the provisions of Section 8 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable. During any Billing Period, the charges for the energy supplied shall be calculated as follows:

A.6.1 Payments in the event of the amount of electrical energy delivered by the Consumer's Generating Facility is less than the amount of electrical energy supplied by the Licensee

i. During any Billing Period, if the amount of electrical energy delivered by the Consumer's Generating Facility to the electricity distribution network of the Licensee is less than the amount of electrical energy supplied by the Licensee to the Consumer, the Consumer shall be required pay to the Licensee as follows:

$$C_m = T(E_s - E_d)$$

C_m is the charge payable by the Consumer for the electrical energy consumption in the Billing Period *m*, expressed in Rupees;

E_d is the amount of electrical energy delivered by the Consumer to the electricity distribution network of the Licensee in the Billing Period *m*, expressed in kilowatt-hours;

E_s is the amount of electrical energy supplied by the Licensee to the Consumer in the Billing Period *m*, expressed in kilowatt-hours;

T is the tariff rate applicable to the Consumer under Paragraph 3 of the Schedule of this Agreement, as approved from time to time by the Commission, and expressed in Rupees per kilowatt-hours.

ii. In addition, any kVA demand charge, fixed charge and/or a minimum charge etc. applicable for the relevant tariff category shall also be payable by the Consumer.

iii. If the tariff applicable to the Consumer is a time-of-use tariff, the amount of electrical energy supplied by the Licensee to the Consumer shall be computed time interval wise, and E_d and E_s shall be the sums of electrical energy amounts supplied by the Consumer to the Licensee and electrical energy amounts supplied by the Licensee to the Consumer in each time interval.

A.6.2 Payments in the event of the amount of electrical energy delivered by the Consumer's Generating Facility exceeds the amount of electrical energy supplied by the Licensee

i. During any Billing Period, if the amount of electrical energy delivered by the Consumer to the electricity distribution network of the Licensee exceeds the amount of electrical energy supplied by the Licensee to the Consumer, the Consumer shall be paid by the Licensee as follows:

$$C_m = R(E_d - E_s)$$

Where:

C_m is the charge payable to the Consumer for the electrical energy consumption in the Billing Period *m*, expressed in Rupees;

E_d is the amount of electrical energy delivered by the Consumer to the electricity distribution network of the Licensee in the Billing Period *m*, expressed in kilowatt-hours;

E_s is the amount of electrical energy supplied by the Licensee to the Consumer in the Billing Period *m*, expressed in kilowatt-hours;

R is the fixed rate of payment for electrical energy for different sub-periods of the Effective Period, as given in Table 1 below.

Table 1

Start date	End date	Applicable fixed rate R (Rs/kWh)
from the date hereof	until expiry of the seventh anniversary of the date hereof	22.00

from the day after the seventh anniversary of the date hereof	until expiry of the Effective Period	15.50

ii. In addition, any kVA demand charge, fixed charge and/or a minimum charge etc. applicable under the relevant tariff category shall be payable by the Consumer to the Licensee.

iii. If the tariff applicable to the Consumer is a time-of-use tariff, the amount of electrical energy supplied by the Licensee to the Consumer shall be computed time interval wise, and E_d and E_s shall be the sums of electrical energy amounts supplied by the Consumer to the Licensee and electrical energy amounts supplied by the Licensee to the Consumer in each time interval.

A.6.3 The provisions of this Section shall survive the expiry or termination of this Agreement or this Addendum and continue to have effect in terms of this Agreement or this Addendum, as the case may be.

A.7 Disconnection of the Consumer's Generating Facility

In addition to the provisions of Section 12 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable.

A.7.1 *The Consumer's Generating Facility shall be disconnected if the permit issued to it in terms of Sri Lanka Sustainable Energy Authority Act, No. 35 of 2007 is cancelled or expired*.

A.7.2 The Consumer's Generating Facility may be disconnected temporarily or permanently, upon written request by the Consumer.

A.7.3 The Consumer's Generating Facility may be disconnected for having failed to comply with a notice from the Licensee requiring the Consumer to cease Parallel Operation of the Consumer's Generating Facility if it:

i. unduly or improperly interferes with the supply of electricity by the Licensee to any other consumer, or;

ii. operates in breach of the Clause A.4.6 to this Addendum, or;

iii. compromises operation of the Licensee's network within the requirements specified by Electricity (Safety, Quality and Continuity) Regulations made by the Gazette Extraordinary No.1975/44 dated 2016.07.13 and any amendment thereto, or;

A.7.4 The Consumer's Generating Facility may be disconnected upon any material breach by the Consumer of any term or condition of this Addendum, which remain not remedied after 30 days of bringing the breach to the notice of the Consumer.

A.8 Re-connection of the Consumer's Generating Facility

In addition to the provisions of Section 12 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable.

A.8.1 If all other circumstances remain unchanged, and subject to any applicable guideline made by the Commission, a Consumer's Generating Facility disconnected from the Licensee's distribution network may be reconnected under the same terms and conditions of this Agreement, after the cause that warranted disconnection is remedied.

A.8.2 The Consumer may be required to execute a fresh Addendum with the Licensee, if any of the requirements specified in the Annex to this Addendum is changed.

A.8.3 The fees for reconnection shall be as advised by the Licensee.

A.9 Adjustment of the Effectiveness of this Addendum

Net Accounting

The Consumer acknowledges that in the event of termination of the Principal Agreement prior to the expiry of this Addendum upon occurrence of any of the events in Section 13 of the Principal Agreement, the expiry date for any new addendum for this Premises will be governed by the relevant sections of the Supply Services Code.

IN WITNESS WHEREOF the Parties have executed this Addendum as of the date first written above.

<table>
<tr><td>Name of the Licensee</td><td>Full Name of the Consumer</td></tr>
<tr><td>Authorised officer of the Licensee</td><td>Authorised officers of / The Consumer</td></tr>
<tr><td rowspan="4">Signature:</td><td>Signature:</td></tr>
<tr><td>Name:</td></tr>
<tr><td>National Identity Card No:</td></tr>
<tr><td>Position:</td></tr>
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ADDENDUM to the Standard Agreement for Electricity Supply to [*address of the Premise* **] dated [ ] between [** *Name of the Licensee* **] and [** *Name of the Consumer* **]**
Account No [*Electricity Account No. of the Premise* **]**

Annex: GENERATING FACILITY DESIGN AND OPERATING REQUIREMENTS

X.1 The installed capacity of the Consumer's Generating Facility is kVA[3]

The source for Renewable Energy based Electricity Generation at the Consumer's Generating Facility[4]:

X.2 All protective functions and requirements defined in this Annex are intended to protect the Licensee's distribution network ad not the Consumer's Generating Facility. The Consumer shall solely be responsible for providing adequate protection for Consumer's Generating Facility. The Consumer's protective functions shall not impact or interfere with the operation of other protective functions of Licensee's distribution network in a manner that would affect Licensee's capability of providing reliable service to its other consumers.

X.3 Consumer's Generating Facility operating in parallel with Licensee's distribution network shall be equipped at least with the following protective functions to recognize any abnormal conditions on Licensee's distribution network and cause the Consumer's Generating Facility to be automatically and timely disconnected from Licensee's distribution network or to prevent it from being connected improperly to Licensee's distribution network.

X.3.1 Over and under voltage trip functions and over and under frequency trip functions

X.3.2 Consumer's Generating Facility shall have a time-delayed operating function, based on voltage and frequency of Licensee's distribution network, to prevent it from:

c. connecting with the Licensee's distribution network while it is de-energized, or;

d. reconnecting with Licensee's distribution network unless Licensee's distribution network voltage is within nominal voltage (as specified in Clause A.4 below) and its frequency is between 47 Hz to 52 Hz and both the parameters are being held stable for at least 3 minutes

X.3.3 Consumer's Generating Facility shall automatically prevent itself from being connected or contributing to formation of an unintended island and cease energizing the Licensee's distribution network within half a second (0.5 second) of the formation of such unintended island.

X.3.4 In terms of IEEE Standard 1547-2003 Clause 4.2.1, the Consumer's Generating Facility shall cease energizing the Licensee's distribution network for faults on Licensee's distribution network.

X.3.5 In terms of IEEE Standard 1547-2003 Clause 4.2.2, the Consumer's Generating Facility shall cease energizing the Licensee's distribution network prior to reclosing of its connection with Consumer's Generating Facility.

X.3.6 In terms of IEEE Standard 1547-2003 Clause 4.1.8.3, the paralleling device of Consumer's Generating Facility shall be capable of withstanding 220% of the rated voltage of Licensee's distribution network

X.3.7 The interconnection equipment of Consumer's Generating Facility shall have the capability to withstand voltage and current surges in accordance with the environments in terms of IEEE Standard 1547-2003 Clause 4.1.8.2

X.3.8 Consumer's Generating Facility shall automatically be disconnected from the Licensee's distribution network within half a second (0.5 second) of losing interconnectivity with the Licensee's distribution network

[3] *To insert the installed capacity of the Consumer's Generating Facility*
[4] *The source for the renewable energy is at the option of the Consumer. The present scheme is applicable for solar, wind, hydro or biomass. This Addendum and the Annex are for use for the solar roof top applications only. The Licensee is required to verify the applicability of the standards and procedures for the other sources.*

X.3.9 The Consumer shall not change any of the settings stated above without the prior written permission of the Licensee.

X.4 Suitability of equipment

Circuit breakers or other interrupting devices located at the point of common coupling must be certified by the Licensee as suitable for their intended operation. This includes certification of being capable of interrupting the maximum available fault current expected at their location. The Consumer's Generating Facility shall be designed so that the failure of any one device shall not potentially compromise the safety and reliability of Licensee's distribution network.

X.5 Licensee's Distribution Network parameters are as follows:

Nominal Voltage	33 kV	11 kV	400 V
System Highest Voltage	36 kV	12 kV	440 V
Rated fault current	25 kA	20 kA	20 kA
No. of Phases	3	3	3 phases and neutral
System Frequency	50 Hz	50 Hz	50 Hz
Method of Earthing	Non-effectively earthed	Solidly earthed	Solidly earthed

X.6 Visible disconnect required

When required by the Licensee's operating practices, the Consumer shall, at his own cost, install a ganged-manually-operated isolating device near the point of interconnection to isolate the Consumer's Generating Facility from the Licensee's distribution network. This devise is not required to be rated for load breaks or equipped with over current protection. The device, must:

a. Allow visible verification that separation has been accomplished. (This requirement may be met by opening the enclosure to observe contact separation)

b. Include marking or signage that clearly open and closed positions;

c. Be capable of being reached quickly and conveniently all the time by Licensee's personnel for construction, maintenance, inspection, testing or reading without obstacles or requiring those seeking access to obtain keys, special permission, or security clearance;

d. Be secured in a weather-proof enclosure and capable of being locked in the open position to prevent unauthorized or accidental closing;

e. Be clearly marked on a single line diagram submitted by the Consumer and its type and location shall be approved by the Licensee prior to installation, where such approval must not be unreasonably withheld, and;

f. If the device is not located adjacent to the point of common coupling, permanent signage must be installed at a location approved by the Licensee, providing a clear description of the location of the device.

g. The Consumer shall not change any of the requirements stated above without the prior written permission of the Licensee.

X.7 Protective function and control diagrams

Prior to parallel operation or momentary parallel operation of the Consumer's Generating Facility, the Licensee shall approve the Consumer's protective function and control diagrams. Those generating facilities equipped with protective function and control diagrams previously approved by the Licensee for its network-wide application or only certified equipment may satisfy this requirement by reference to the diagrams that had previously been approved by the Licensee.

X.8 Waveform

The output voltage wave form of the Consumer's Generating Facility shall be of 50 Hz, with a sinusoidal wave form. The Total Harmonic Distortion (THD) for current and individual harmonic limits shall be as follows:

Individual harmonic order	h<11	11<h<17	17<h<23	23<h<35	35<h	THD
Allowable limit (%)	4	2	1.5	0.6	0.3	5

If the Consumer's Generating Facility uses a direct current generator, it shall use an inverter to convert the direct current to alternating current, while complying with the THD for current and individual harmonic limits as in table above.

X.9 The inverters used for interconnection

The inverters used for interconnection shall only be those which have received the type approval of the Licensee.

X.10 The Power Quality at the point of inter connection

i. Power quality measurement at the point of inter connection of the Licensee's Distribution Network shall comply with the requirements of the IEC Standard No. 61400-21.
ii. Emission of inter-harmonic currents from the power electronic converter up to 2 kHz =
iii. Current distortions above 2 kHz up to 9 kHz during operation =
iv. The individual inter-harmonic currents below 2 kHz and the current distortions in the range 2 kHz up to 9 kHz (shall be given as ten-minute average data for each frequency at the output power) =
v. The maximum individual inter-harmonic current or current distortion=

X.11 Flicker

Flicker at the point of inter connection of the Licensee's Distribution Network shall comply with the requirements of the IEC Technical Report No. 61000-3-7.

ADDENDUM to the Standard Agreement for Electricity Supply to [*address of the Premise* **] dated [ ] between [** *Name of the Licensee* **] and [** *Name of the Consumer* **]**
Account No [*Electricity Account No. of the Premise* **]**

Additional Conditions applicable for Net Plus Consumers

A.1 Applicability

This Addendum is only applicable where the Consumer has requested for and the Licensee has agreed to provide Net Energy metering facilities allowing the Consumer to install a Renewable Energy based Electricity Generation facility at his Premises and deliver electricity to the electricity distribution network owned and operated by the Licensee.

A.2 Effectiveness

The provisions of this Addendum shall come into effect on this date of 20 and will continue to be in force until the expiry of date of 20 . [*Note: the expiry date inserted herein shall not exceed twenty (20) years from the date first stated above*] Notwithstanding such expiry date, this Addendum is co-terminus with the Principal Agreement.

A.3 Additional definitions

Section 1.1 of the Principal Agreement is supplemented by addition of the following words, phrases and expressions. Unless the context otherwise requires, the words, phrases and expressions set out in this Clause (including the Clauses of this Addendum above) shall have the meanings given to them in this Section.

Billing Period means the period for which the Consumer's electricity consumption is measured by the Licensee;

Consumer's Generating Facility means all of the plant and equipment, including interconnection, protective and control equipment, owned by the Consumer and located at his Premises to generate and deliver electricity to the Licensee in terms of this Agreement;

Effective Period means the period of effectiveness of this Addendum stated in Paragraph 2 of this Addendum.

Energy Credit means the Net Energy for a Billing Period and credited to the Consumer's electricity account in the subsequent Billing Period.

IEC Standard or **IEC Technical Report** means the latest editions of the respective documents published by the International Electrotechnical Commission, 3, rue de Varembé, P.O. Box 131, 1211 Geneva 20, Switzerland;

IEEE Standard means the latest editions of respective standards specifications published by the Institute of Electrical and Electronics Engineers, 445, Hoes Lane, Piscataway, New Jersey 08855-1331, USA;

Net Energy means the amount of electrical energy delivered by the Consumer's Generating Facility to the electricity distribution network of Licensee, expressed in kilowatt-hours less the amount of electrical energy supplied from the electricity distribution network of the Licensee to the Consumer, where the result is a positive number;

Parallel Operation means the operation of the Consumer's Generating Facility while connected to the distribution network of the Licensee;

Principal Agreement means the standard agreement for electricity supply dated … …. …. …. …. … …. …. between and , and;

Renewable Energy based Electricity Generation means generation of electricity by solar, wind, biomass or micro hydro power plants.

A.4 Consumer's Generating Facility

In addition to the provisions of Section 6 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable.

A.4.1 The Consumer's Generating Facility shall use one or any combination of the types of Renewable Energy based Electricity Generation to generate electricity, as stated in the Annex to this Addendum.

A.4.2 The Consumer shall have obtained the written permission of the Licensee prior to Parallel Operation of Consumer's Generating Facility with the distribution system of the Licensee, which permission shall not be withheld unreasonably by the Licensee.

A.4.3 The Consumer acknowledges that the Consumer's Generating Facility is be intended to meet all or a part of the Consumer's electricity demand and electrical energy requirements at the Premises. Parallel Operation under this Agreement does not confer the Consumer of any right to use distribution system of the Licensee for the transmission, distribution or wheeling of electricity to any party other than the Licensee.

A.4.4 The Licensee shall have the right to inspect or review the design of Consumer's Generating Facility, prior to the commencement of Parallel Operation or during the term of effectiveness of this Addendum. The Licensee shall have the right to require the Consumer to effect modifications as necessary to comply with the requirements specified in this Addendum. Such review, inspection or permission for Parallel Operation shall not be construed as confirming or endorsing the Consumer's design or safety, durability or reliability of the Consumer's Generating Facility. The Licensee shall not, by reason of such action or lack of such action, be responsible for the suitability, adequacy or capability of the equipment comprising of the Consumer's Generating Facility.

A.4.5 The installed capacity of the Consumer's Generating Facility shall not exceed the Contract Demand of the Consumer, as stated in Paragraph 2 of the Schedule of the Principal Agreement. If the Consumer wishes to change the installed capacity, he shall first apply to amend the Contract Demand as appropriate, after fulfilling the requirements specified by Licensee. The term of effectiveness of this Addendum shall not be affected in any way by such amendment.

A.4.6 The Consumer's Generating Facility shall be built, operated and maintained according to the relevant standards and other guidelines stipulated in the Annex to this Addendum, to ensure safe operation and avoiding interference with reliable operation of the distribution network of the Licensee.

A.4.7 The Consumer shall be responsible for keeping all electrical wiring, apparatus or works (excluding those owned by the Licensee) located in the Premises, which are installed for the purposes of this Addendum, in safe and good working order.

A.4.8 The Licensee shall not assume any cost of building, operating and maintaining of the Consumer's Generating Facility in terms of the Paragraph 4.6 above.

A.5 Metering

In addition to the provisions of Section 7 of the Principal Agreement, the following provisions shall apply to the Consumers to whom this Addendum is applicable.

A.5.1 The amounts of electricity supplied from distribution network of the Licensee to the Consumer shall be metered with a meter, which shall be capable of making separate measurements of the amounts of electricity supplied to the Consumer.

A.5.2 Amounts of electricity generated by the Consumer's Generating Facility shall be metered with a meter, which shall be capable of making separate measurements of the amounts of electricity delivered to the electricity distribution network of the Licensee.

A.5.3 The meter and appurtenant equipment for the purposes of Paragraphs above, shall be installed and maintained by the Licensee. The initial cost of installation of such equipment shall be borne by the Consumer.

A.6 Tariff and Billing

In addition to the provisions of Section 8 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable. During any Billing Period, the charges for the energy supplied shall be calculated as follows:

A.6.1 The Consumer shall be charged for electricity supplied from distribution network of the Licensee in accordance with the Section 8 of the Principal Agreement.

A.6.2 The Consumer shall be paid for electricity delivered to the distribution network of the Licensee as follows:

$$L_m = D \times E_d$$

Where:

L_m is the charge payable by the Licensee to the Consumer for the electrical energy delivered in the Billing Period *m*, expressed in Rupees;

E_d is the amount of electrical energy delivered by the Consumer to the electricity distribution network of the Licensee in the Billing Period *m*, expressed in kilowatt-hours;

D is the fixed rate of payment for electrical energy for different sub-periods of the Effective Period, as given in Table 1 below:

Table 1

Start date	End date	Applicable fixed rate D (Rs/kWh)
from the date hereof	until expiry of the seventh anniversary of the date hereof	22.00
from the day after the seventh anniversary of the date hereof	until expiry of the Effective Period	15.50

iv. In addition, any kVA demand charge, fixed charge and/or a minimum charge etc. applicable under the relevant tariff category shall be payable by the Consumer to the Licensee.

A.6.3 The provisions of this Section shall survive the expiry or termination of this Agreement or this Addendum and continue to have effect in terms of this Agreement or this Addendum, as the case may be.

A.7 Disconnection of the Consumer's Generating Facility

In addition to the provisions of Section 12 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable.

A.7.1 *The Consumer's Generating Facility shall be disconnected if the permit issued to it in terms of Sri Lanka Sustainable Energy Authority Act, No. 35 of 2007 is cancelled or expired*.

A.7.2 The Consumer's Generating Facility may be disconnected temporarily or permanently, upon written request by the Consumer.

A.7.3 The Consumer's Generating Facility may be disconnected for having failed to comply with a notice from the Licensee requiring the Consumer to cease Parallel Operation of the Consumer's Generating Facility if it:

i. unduly or improperly interferes with the supply of electricity by the Licensee to any other consumer, or;

ii. operates in breach of the Clause A.4.6 to this Addendum, or;

iii. compromises operation of the Licensee's network within the requirements specified by Electricity (Safety, Quality and Continuity) Regulations made by the Gazette Extraordinary No.1975/44 dated 2016.07.13 and any amendment thereto, or;

A.7.4 The Consumer's Generating Facility may be disconnected upon any material breach by the Consumer of any term or condition of this Addendum, which remain not remedied after 30 days of bringing the breach to the notice of the Consumer.

A.8 Re-connection of the Consumer's Generating Facility

In addition to the provisions of Section 12 of the Principal Agreement, the following provisions shall also apply to the Consumers to whom this Addendum is applicable.

A.8.1 If all other circumstances remain unchanged, and subject to any applicable guideline made by the Commission, a Consumer's Generating Facility disconnected from the Licensee's distribution network may be reconnected under the same terms and conditions of this Agreement, after the cause that warranted disconnection is remedied.

A.8.2 The Consumer may be required to execute a fresh Addendum with the Licensee, if any of the requirements specified in the Annex to this Addendum is changed.

A.8.3 The fees for reconnection shall be as advised by the Licensee.

A.9 Adjustment of the Effectiveness of this Addendum

The Consumer acknowledges that in the event of termination of the Principal Agreement prior to the expiry of this Addendum upon occurrence of any of the events in Section 13 of the Principal Agreement, the expiry date for any new addendum for this Premises will be governed by the relevant sections of the Supply Services Code.

IN WITNESS WHEREOF the Parties have executed this Addendum as of the date first written above.

<table>
<tr><td>Name of the Licensee</td><td>Full Name of the Consumer</td></tr>
<tr><td>Authorised officer of the Licensee</td><td>Authorised officers of / The Consumer</td></tr>
<tr><td rowspan="4">Signature:</td><td>Signature:</td></tr>
<tr><td>Name:</td></tr>
<tr><td>National Identity Card No:</td></tr>
<tr><td>Position:</td></tr>
<tr><td>Name:</td><td rowspan="2">Signature:</td></tr>
<tr><td>Position:</td></tr>
<tr><td rowspan="3"></td><td>Name:</td></tr>
<tr><td>National Identity Card No:</td></tr>
<tr><td>Position:</td></tr>
</table>

ADDENDUM to the Standard Agreement for Electricity Supply to [*address of the Premise* **] dated [ ] between [** *Name of the Licensee* **] and [** *Name of the Consumer* **]**
Account No [*Electricity Account No. of the Premise* **]**

Annex: GENERATING FACILITY DESIGN AND OPERATING REQUIREMENTS

X.1 The installed capacity of the Consumer's Generating Facility is kVA[5]

The source for Renewable Energy based Electricity Generation at the Consumer's Generating Facility[6]:

X.2 All protective functions and requirements defined in this Annex are intended to protect the Licensee's distribution network ad not the Consumer's Generating Facility. The Consumer shall solely be responsible for providing adequate protection for Consumer's Generating Facility. The Consumer's protective functions shall not impact or interfere with the operation of other protective functions of Licensee's distribution network in a manner that would affect Licensee's capability of providing reliable service to its other consumers.

X.3 Consumer's Generating Facility operating in parallel with Licensee's distribution network shall be equipped at least with the following protective functions to recognize any abnormal conditions on Licensee's distribution network and cause the Consumer's Generating Facility to be automatically and timely disconnected from Licensee's distribution network or to prevent it from being connected improperly to Licensee's distribution network.

X.3.1 Over and under voltage trip functions and over and under frequency trip functions

X.3.2 Consumer's Generating Facility shall have a time-delayed operating function, based on voltage and frequency of Licensee's distribution network, to prevent it from:

e. connecting with the Licensee's distribution network while it is de-energized, or;

f. reconnecting with Licensee's distribution network unless Licensee's distribution network voltage is within nominal voltage (as specified in Clause A.4 below) and its frequency is between 47 Hz to 52 Hz and both the parameters are being held stable for at least 3 minutes

X.3.3 Consumer's Generating Facility shall automatically prevent itself from being connected or contributing to formation of an unintended island and cease energizing the Licensee's distribution network within half a second (0.5 second) of the formation of such unintended island.

X.3.4 In terms of IEEE Standard 1547-2003 Clause 4.2.1, the Consumer's Generating Facility shall cease energizing the Licensee's distribution network for faults on Licensee's distribution network.

X.3.5 In terms of IEEE Standard 1547-2003 Clause 4.2.2, the Consumer's Generating Facility shall cease energizing the Licensee's distribution network prior to reclosing of its connection with Consumer's Generating Facility.

X.3.6 In terms of IEEE Standard 1547-2003 Clause 4.1.8.3, the paralleling device of Consumer's Generating Facility shall be capable of withstanding 220% of the rated voltage of Licensee's distribution network

X.3.7 The interconnection equipment of Consumer's Generating Facility shall have the capability to withstand voltage and current surges in accordance with the environments in terms of IEEE Standard 1547-2003 Clause 4.1.8.2

X.3.8 Consumer's Generating Facility shall automatically be disconnected from the Licensee's distribution network within half a second (0.5 second) of losing interconnectivity with the Licensee's distribution network

[5] *To insert the installed capacity of the Consumer's Generating Facility*
[6] *The source for the renewable energy is at the option of the Consumer. The present scheme is applicable for solar, wind, hydro or biomass. This Addendum and the Annex are for use for the solar roof top applications only. The Licensee is required to verify the applicability of the standards and procedures for the other sources.*

X.3.9 The Consumer shall not change any of the settings stated above without the prior written permission of the Licensee.

X.4 Suitability of equipment

Circuit breakers or other interrupting devices located at the point of common coupling must be certified by the Licensee as suitable for their intended operation. This includes certification of being capable of interrupting the maximum available fault current expected at their location. The Consumer's Generating Facility shall be designed so that the failure of any one device shall not potentially compromise the safety and reliability of Licensee's distribution network.

X.5 Licensee's Distribution Network parameters are as follows:

Nominal Voltage	33 kV	11 kV	400 V
System Highest Voltage	36 kV	12 kV	440 V
Rated fault current	25 kA	20 kA	20 kA
No. of Phases	3	3	3 phases and neutral
System Frequency	50 Hz	50 Hz	50 Hz
Method of Earthing	Non-effectively earthed	Solidly earthed	Solidly earthed

X.6 Visible disconnect required

When required by the Licensee's operating practices, the Consumer shall, at his own cost, install a ganged-manually-operated isolating device near the point of interconnection to isolate the Consumer's Generating Facility from the Licensee's distribution network. This devise is not required to be rated for load breaks or equipped with over current protection. The device, must:

a. Allow visible verification that separation has been accomplished. (This requirement may be met by opening the enclosure to observe contact separation)

b. Include marking or signage that clearly open and closed positions;

c. Be capable of being reached quickly and conveniently all the time by Licensee's personnel for construction, maintenance, inspection, testing or reading without obstacles or requiring those seeking access to obtain keys, special permission, or security clearance;

d. Be secured in a weather-proof enclosure and capable of being locked in the open position to prevent unauthorized or accidental closing;

e. Be clearly marked on a single line diagram submitted by the Consumer and its type and location shall be approved by the Licensee prior to installation, where such approval must not be unreasonably withheld, and;

f. If the device is not located adjacent to the point of common coupling, permanent signage must be installed at a location approved by the Licensee, providing a clear description of the location of the device.

g. The Consumer shall not change any of the requirements stated above without the prior written permission of the Licensee.

X.7 Protective function and control diagrams

Prior to parallel operation or momentary parallel operation of the Consumer's Generating Facility, the Licensee shall approve the Consumer's protective function and control diagrams. Those generating facilities equipped with protective function and control diagrams previously approved by the Licensee for its network-wide application or only certified equipment may satisfy this requirement by reference to the diagrams that had previously been approved by the Licensee.

X.8 Waveform

The output voltage wave form of the Consumer's Generating Facility shall be of 50 Hz, with a sinusoidal wave form. The Total Harmonic Distortion (THD) for current and individual harmonic limits shall be as follows:

Individual harmonic order	h<11	11<h<17	17<h<23	23<h<35	35<h	THD
Allowable limit (%)	4	2	1.5	0.6	0.3	5

If the Consumer's Generating Facility uses a direct current generator, it shall use an inverter to convert the direct current to alternating current, while complying with the THD for current and individual harmonic limits as in table above.

X.9 The inverters used for interconnection

The inverters used for interconnection shall only be those which have received the type approval of the Licensee.

X.10 The Power Quality at the point of inter connection

i. Power quality measurement at the point of inter connection of the Licensee's Distribution Network shall comply with the requirements of the IEC Standard No. 61400-21.
ii. Emission of inter-harmonic currents from the power electronic converter up to 2 kHz =
iii. Current distortions above 2 kHz up to 9 kHz during operation =
iv. The individual inter-harmonic currents below 2 kHz and the current distortions in the range 2 kHz up to 9 kHz (shall be given as ten-minute average data for each frequency at the output power) =
v. The maximum individual inter-harmonic current or current distortion=

X.11 Flicker

Flicker at the point of inter connection of the Licensee's Distribution Network shall comply with the requirements of the IEC Technical Report No. 61000-3-7■