

**Model Renewable Energy Wheeling Agreement under Renewable Energy
Certificate (REC) scheme**

This agreement made at _____ on this _____ day
of _____ two thousand _____ between
M/s. _____ (Renewable Energy Generator name and address)
hereinafter called “the Renewable Energy Generator” (REG) which expression
shall wherever the context so permits, mean and include the successors in
interests, executors, administrators and assigns, represented by
Thiru. _____ as party of the First part and
M/s.....(Name of the Distribution
Licensee/ State Transmission Utility)
..... and having its office at
_____ hereinafter called “the Distribution Licensee /
State Transmission Utility”, which expression shall wherever the context so
permits, mean and include the successors in interest, administrators and
assigns, represented by the
(Designation of the Distribution Licensee’s officer) as party of the Second part;

WHEREAS the REG has sent to the Distribution Licensee / State
Transmission Utility, his proposal to wheel the renewable energy generated from
his Renewable Energy Generator No. ___ with _____ No. of Generators of
_____ make having capacity of _____ KW each installed at
SF.No. _____ of _____ village _____ taluk
in _____ district / commissioned on _____ through the
Distribution Licensee / State Transmission Utility’s transmission and / distribution
network for third party sale / Captive use bearing LT / HT service Numbers ____
(LT/HT Tariff. _____) of _____ Electricity Distribution
Circle and to sell surplus energy available after captive use / third party sale to
the Distribution Licensee under Tamil Nadu Electricity Regulatory Commission

(Renewable Energy Purchase Obligation) Regulations, 2010 and the amendments issued from time to time;

WHEREAS the REG has paid the open access registration fee and agreement fee as notified / ordered by the Commission;

AND WHEREAS the STU / Distribution Licensee has accepted the proposal of the REG for wheeling of energy from their Generators to third party / captive use through Distribution Licensee / State Transmission Utility's transmission / distribution networks as per Lr.No. _____ on the terms and conditions hereinafter mentioned;

NOW THESE PRESENTS WITNESSETH AND THE PARTIES HEREBY AGREE AS FOLLOWS:

1. Definitions. -

In this Agreement, unless the context otherwise requires -

(1) **“Commission”** means the Tamil Nadu Electricity Regulatory Commission'

(2) **“Force Majeure”** means any event which is beyond the control of the parties to this agreement which they could not foresee or with a reasonable amount of diligence could not have foreseen or which could not be prevented and which substantially affect the performance by either party such as but not limited to. –

- (a) natural disasters (earthquakes, hurricane, floods);
- (b) wars, riots or Civil Commotions and other upheavals; and
- (c) grid / distribution system's failure not attributable to parties hereto.

- (3) **“Interface line”** means the electric line between the interconnection point and the nearest point at which the electric line could technically be connected to the existing grid or distribution system.
- (4) **“Inter connection point”** means the interface point of renewable energy generating facility with the transmission system or distribution system, as the case may be:
- (a) in relation to wind energy projects and solar photovoltaic projects, inter connection point shall be line isolator on outgoing feeder on HV side of the pooling sub station;
- (b) in relation to small hydro power, biomass power and non fossil fuel based cogeneration power projects and Solar Thermal Power Projects, the inter connection point shall be line isolator on outgoing feeder on HV side of generator transformer;
- (5) **‘Meter’** means a ‘Meter’ as defined in the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time.

2. Interfacing and evacuation facilities. –

- (1) The REG agrees to interface his Generators with the Distribution Licensee / State Transmission Utility’s grid through -----lines and shall bear the entire cost of switch yard, Pooling Sub-Station, interface line, switch gear, metering, protection and other electrical equipments/lines required from the point of generation up to the nearest point at which the interface line could technically be connected to the existing grid or distribution system;
- (2) The REG and the Distribution Licensee / State Transmission Utility shall comply with the provisions contained in Central Electricity Authority (Technical Standards for Interconnecting to the Grid) Regulations, 2007 which includes the following, namely -
- (a) Connection Agreement;

- (b) Site responsibility schedule;
 - (c) Access at Connection site;
 - (d) Site Common Drawings;
 - (e) Safety;
 - (f) Protection System and Co-ordination;
 - (g) Inspection, Test, Calibration and Maintenance prior to Connection.
- (3) The REG agrees to comply with the safety measures contained in Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010;
- (4) Both the parties shall comply with the provisions contained in the Commission's Renewable Energy Purchase Obligation Regulations, 2010, Indian Electricity Grid Code, Tamil Nadu Electricity Grid Code, the Electricity Act, 2003, other Codes and Regulations issued by the Commission / Central Electricity Authority (CEA) / Central Electricity Regulatory Commission (CERC) and amendments issued thereon from time to time;

3. Operation and Maintenance. –

- (1) The REG agrees that the starting current of the Generators shall not exceed the full load current of the machine and to provide the necessary current limiting devices like thyristor during starting.
- (2) The REG agrees to minimize drawal of reactive power from the Distribution Licensee / State Transmission Utility's grid at an interchange point when the voltage at that point is below 95% of rated voltage and shall not inject reactive power supply when the voltage is above 105% rated voltage subject to payment of required charges as per the order in force.
- (3) The REG agrees to provide suitable automatic safety devices so that the Generator shall isolate automatically when the grid supply fails.

- (4)** The REG agrees to maintain the Generator and the equipments including the transformer, switch gear and protection equipments and other allied equipments at his cost to the satisfaction of the authorized officer of the Distribution Licensee / State Transmission Utility.
- (5)** The changing of the rupturing capacity of the switch gear and settings of the relays, if any, shall be subject to the approval of the authorized officer of the Distribution Licensee / State Transmission Utility.
- (6)** There shall be no fluctuations or disturbances to the grid or other consumers supplied by the grid due to paralleling of the Generators. The REG shall provide at his cost adequate protection as required by the Distribution Licensee / State Transmission Utility to facilitate safe parallel operation of the Generators with grid and to prevent disturbances to the grid.
- (7)** The REG agrees that the Distribution Licensee / State Transmission Utility shall not be responsible for any damage to his Generator resulting from parallel operation with the grid and that the Distribution Licensee / State Transmission Utility shall not be liable to pay any compensation for any such damage.
- (8)** The generators shall be maintained effectively and operated by competent and qualified personnel.
- (9)** In case of unsymmetrical fault on HV Bus, the REG shall share the fault current according to impedance of the circuit. To meet such contingency and for safe operation of the Generators, the REG shall provide the following scheme of protection, namely:-

 - (a)** Separate overload relays on each phase and earth fault relays shall be installed by the REG. Under no circumstances, these relays shall be by passed;
 - (b)** With suitable current transformer and relay connections, the load sharing by the REG and Distribution Licensee / State Transmission Utility shall be limited to their rated capacity;

- (c) Adequate indication and control metering for proper paralleling of the generators on the HV bus shall be made available;
 - (d) Protection co-ordination shall be done by the Distribution Licensee / State Transmission Utility in consultation with Regional Power Committee and relays and the protection system shall be maintained as per site responsibility schedule.
- (10) Grid availability shall be subject to the restriction and control as per the orders of the State Load Dispatch Centre and as per Tamil Nadu Electricity Grid Code;
- (11) The Captive / third party user who is not having independent feeder can avail power from the REG subject to the Restriction and Control measures imposed / approved by the Commission from time to time.

4. Metering Arrangements. -

- (1) The metering arrangements with facilities to record export and import of energy shall be provided in accordance with the Central Electricity Authority (Installation and Operation of Meters) Regulations, Commission's Intra State Open Access Regulations, Tamil Nadu Electricity Distribution Code and Tamil Nadu Grid Code which are in force and in consultation with Distribution Licensee / State Transmission Utility. The periodicity of testing, checking, calibration etc., will be governed by the Regulations issued by the Central Electricity Authority / Commission in this regard;
- (2) Main and Check Meters shall have facility to communicate its reading to State Load Dispatch Centre on real time basis or otherwise as may be specified by the Commission. Meter reading shall be taken as per the procedure devised by the Distribution Licensee / State Transmission Utility;
- (3) The State Transmission Utility / Distribution Licensee may provide Check Meters of the same specification as Main Meters;

- (4)** The REG can have a standby meter of the same specification tested and sealed by the State Transmission Utility / Distribution Licensee;
- (5)** The Main and Check Meters shall be tested for accuracy as per the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006. The meters may be tested using NABL accredited mobile laboratory or at any accredited laboratory in the presence of parties involved. Both parties shall seal Main and Check meters. Defective meter shall be replaced immediately;
- (6)** Reading of Main and Check meters shall be taken periodically at appointed day and hour by authorized officer of Distribution Licensee / State Transmission Utility and generator or his representative;
- (7)** Check meter readings shall be considered when Main Meters are found to be defective or stopped. Provided that, if difference between the readings of main and check meter vis-à-vis main meter reading exceeds twice the percentage error applicable to relevant class, both meters shall be tested and the one found defective shall be immediately replaced and reading of other will be considered;
- (8)** If during test or calibration, both the main meter and the check meter are found to have errors beyond permissible limits, the bill shall be revised for the previous 3 (Three) months or for the exact period if known and agreed upon by both the parties, by applying correction as determined by the meter testing Wing of the State Transmission Utility / Distribution Licensee to the consumption registered by the meter with lesser error;
- (9)** The REG shall check the healthiness of meters (due to blowing of the P.T. fuses or due to any other causes) by superficially checking indicator lamps or by taking readings as frequently as possible. If both the main meter and the check meter fail to record energy either due to the blowing of the P.T. fuses or due to any other causes, the energy imported /exported may be arrived at based on the standby meter, if available, or by mutual agreement of the parties involved;

- (10) The interface meters may be Time of Day (TOD) meters with appropriate communication facilities to be connected with SLDC / Control Centre;
- (11) The REG shall comply with the scheduling provisions as specified in the Commission's regulations, orders and codes in force.

5. Adjustment of Energy Generated and Wheeled. –

(1) The minimum limit of load for sale to third parties / Captive use by the REG shall be governed by the Commission's Intra-State Open Access Regulations in force. When the REG is synchronized with the grid, the Captive / third party consumer shall be liable to pay to the Distribution Licensee for the net energy consumed during the billing month at the applicable rate. The net energy consumption in a month shall be slot wise as detailed below:

- (a) That is, peak generation shall be adjusted against peak consumption;
- (b) Normal generation shall be adjusted against normal consumption;
- (c) Off peak generation shall be adjusted against off peak consumption;
- (d) Peak and normal generation may be adjusted against lower slot consumption at the request of REG.

(2) As and when the Commission implements the Intra-State ABT, the adjustment of energy is subject to the Intra-State ABT regulation in force

6. Billing. -

(1) The Distribution Licensee shall raise bills at the end of the month for the net energy consumed by the Captive / third party user after adjusting the wheeled energy at the rate applicable to that category of consumer, where the consumption by the Captive / third party user is

more than the generation of the REG;

- (2) The Distribution Licensee shall raise bills on the REG or the Captive/Third party consumer, as the case may be, for the charges payable towards startup power and power drawn for other purpose, wheeling charges, excess demand & excess energy charges, cross subsidy surcharge wherever applicable etc, as per the order / regulations of the Commission for the time being in force;
- (3) The STU shall raise bills on the REG holder for the charges payable towards transmission charges, scheduling and system operation charges, etc. as per the order / regulations of the Commission for the time being in force;
- (4) Wherever the Renewable energy generation in a billing month is in excess of the consumption in that month, the balance energy shall be sold to the Distribution Licensee at a price not exceeding the pooled cost of power purchase as defined in Tamil Nadu Electricity Regulatory Commission (Renewable Energy Purchase Obligation) Regulations, 2010 and amendments issued from time to time.

7. Charges. –

(1) Transmission and Wheeling Charges including losses. -

The REG is permitted to pay provisionally the transmission and wheeling charges at% vide Commission's Order.....dated
As and when the Commission indicates the normative transmission and wheeling charges, the REG agrees to pay the difference to the STU / Distribution Licensee and continue to pay the transmission and wheeling charges as per the Commission's regulations, codes or orders in force;

(2) Grid availability Charges. -

(a) Startup Power - The drawal of energy by the REG during the start up from the Distribution Licensee shall be claimed as per the Commission's Orders / Regulations in force.

(b) Standby Power - If adequate generation does not materialize or if drawal by the Captive / third party consumer exceeds generation, energy charges and demand charges shall be regulated as follows:

(i) Energy Charges - When the REG is synchronized with the grid, the Captive / third party consumer shall be liable to pay to the distribution licensee for the net energy consumed during the billing month at the applicable rate. The net energy consumption shall be slot wise.

(ii) Demand Charges - 100% of applicable demand charges for that category of user for the demand supplied by the Distribution Licensee and the applicable percentage of “deemed demand charges” as per Commission’s Order applicable from time to time for the demand supplied by the REG.

(3) Scheduling and System Operation charges. - As per the Commission’s regulation / order in force.

(4) Power Factor disincentive. – Captive / third party consumers of renewable energy shall be liable for disincentive based on the gross energy consumption and the applicable demand as per the Tariff Order in force.

(5) Reactive energy charges. - Reactive power charges will be charged as per the Tamil Nadu Electricity Regulatory Commission’s Renewable Tariff order No. dated

(6) Peak hour extra charges and off-peak hour rebate. - Peak hour extra charges and off-peak hour rebate shall be on net energy consumption after deducting generation in the REG during the respective peak hour block and off-peak hour block; and

(7) Any additional charges that may be approved by the Commission at a later date shall also be levied as approved by the Commission.

8. Payment of Security Deposit. -

The Captive / third party consumer drawing power from the REG shall pay to the distribution licensee a security deposit for the net energy supplied by the distribution licensee as specified by the Commission in its orders / regulations for the time being in force.

9. Applicability of the Acts and Regulations. -

Both the parties shall be bound by the provisions contained in the Electricity Act, 2003, Regulations, notifications, orders and subsequent amendments, if any, made from time to time by the Commission.

10. Terms and conditions agreement period. -

- (1) The tenure of this agreement shall be _____ (years/months/days/hours) calculated from the date of this agreement and thereafter the tenure may be extended for further periods based on the mutual agreement between the STU/Distribution Licensee and the REG consistent with the Commission's Intra-State Open Access regulations. The classification of the terms (Long term, Short term, etc.) is as per the Commission's Intra State Open Access Regulations;
- (2) The parties to the agreement may at any time renegotiate the existing agreement mutually within the framework of the relevant regulations, codes and orders of the Commission in force;
- (3) The parties to the agreement shall be given the option to exit for violation of the agreement after serving a notice of three months on the other party.

11. Settlement of Disputes. -

If any dispute or difference of any kind whatsoever arises between the parties relating to this agreement, it shall, in the first instance, be settled amicably, by the parties, failing which either party may approach the

Commission for the adjudication of such disputes under section 86 (1) (f) of the Electricity Act, 2003.

12. Force Majeure. -

Both the parties shall ensure compliance of the terms of this agreement. However, no party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of this agreement to the extent that such failure is due to force majeure events as defined in this agreement. But any party claiming the benefit of this clause shall satisfy the other party of the existence of such an event(s).

In witness whereof Thiru. _____ acting for and on behalf of _____ (REG name) and _____ Authorized Officer acting for and on behalf of the Distribution Licensee have hereunto set their hands on the day, month and year herein above first mentioned.

In the presence of witnesses:

1)

Signature
Renewable Energy Generator
Common seal

2)

In the presence of witnesses:

1)

Signature
Authorized Officer of the Distribution Licensee.

2)

(By the order of the Commission)

**Secretary,
Tamil Nadu Electricity Regulatory Commission.**