

**Wind Energy Wheeling Agreement**

This agreement made at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ two thousand \_\_\_\_\_ between M/s. \_\_\_\_\_ (Wind Energy Generator name and address) (hereinafter called the Wind Energy Generator) (which expression shall wherever the context so permits, means and includes 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).....  
..... and having its office at \_\_\_\_\_ (hereinafter called the Distribution Licensee), (which expression shall wherever the context so permits, means and includes the successors in interest, administration and assigns) represented by the ..... (Designation of the Distribution Licensee’s officer) as party of the Second part.

WHEREAS the Wind Energy Generator has sent to the Distribution Licensee / State Transmission Utility, his proposal to wheel the wind energy generated from his Wind 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 captive use / third party sale as below:

- a) to his captive users / third party use bearing LT/HT service Numbers ----  
\_\_\_\_(LT/HT Tariff.\_\_\_\_\_) of \_\_\_\_\_ and to  
bank the surplus energy available after adjustment as per the orders of  
the Commission in force.
- b) to his captive users / third party use bearing LT / HT service Numbers  
\_\_\_\_ (LT/HT Tariff.\_\_\_\_\_) of \_\_\_\_\_and to sell  
surplus energy available after captive use to the Distribution Licensee.

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

AND WHEREAS the Distribution Licensee has accepted the proposal of  
the Wind Energy Generator for wheeling/wheeling and sale/third party sale of  
surplus energy from their Generators and to wheel the power generated from the  
Generators through Distribution Licensee / State Transmission Utility's  
transmission / distribution networks for the purpose mentioned in clause (a) or  
(b) as per Lr.No. \_\_\_\_\_on  
the terms and conditions hereinafter mentioned.

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

**1. Definitions**

(1) "Interface line" is defined as 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.

**(2) “Inter connection point”** is defined as the wind energy generator’s switchyard at which point the interconnection is established between the wind energy generator and the grid / distribution system.

**(3) “Force Majeure”** events means any event which is beyond the control of the agencies involved 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 agency such as but not limited to :-

**(a)** Acts of natural phenomena, including but not limited to floods, droughts, earthquakes and epidemics;

**(b)** Acts of any Government domestic or foreign, including but not limited to war declared or undeclared, hostilities, priorities, quarantines, embargoes;

**(c)** Riot or Civil Commotion

**(d)** Grid / distribution system’s failure not attributable to agencies involved

## **2. Interfacing and evacuation facilities:**

**(1)** Wind Energy Generator agrees to interface his Generators with the Distribution Licensee / State Transmission Utility’s grid through ----- lines and shall bear the entire cost of interfacing including the cost of lines, switch gear, metering, protection and other arrangements from the point of generation to the Distribution Licensee/State Transmission Utility’s nearest technically feasible interconnecting point.

**(2)** It is further agreed that the works of interconnecting the Generators upto the point of interconnection shall be executed under DCW

(Deposit Contribution Work) by the Distribution Licensee / State Transmission Utility.

**(3)** The Wind Energy Generator and the State Transmission Utility / Distribution Licensee shall comply with the provisions contained in Central Electricity Authority (CEA) (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.

**(4)** The Wind Energy Generator agrees to comply with the safety measures contained in Indian Electricity Rules 1956 till such time Central Electricity Authority (Safety and Electric Supply) Regulations come into force;

**(5)** Both the parties shall comply with the provisions contained in the Indian Electricity Grid Code, Tamil Nadu Electricity Grid Code, the Electricity Act, 2003, other Codes and Regulations issued by the Commission / CEA and amendments issued thereon from time to time;

### **3. Operation and Maintenance:**

**(1)** The Wind Energy Generator 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 Wind Energy Generators 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 Wind Energy Generator agrees to provide suitable automatic safety devices so that the Generator shall isolate automatically when the grid supply fails.
- (4)** The Wind Energy Generator 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)** The interfacing lines shall be maintained by the Distribution Licensee / State Transmission Utility at their cost.
- (7)** There shall be no fluctuations or disturbances to the grid or other consumers supplied by the grid due to paralleling of the Generators. The Wind Energy Generator 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.
- (8)** The Wind Energy Generator 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.

- (9) The generators shall be maintained effectively and operated by competent and qualified personnel.
- (10) In case of unsymmetrical fault on HV Bus, the Wind Energy Generator shall share the fault current according to impedance of the circuit. To meet such contingency and for safe operation of the Generators, the Wind Energy Generator shall provide the following scheme of protection, namely;
- (a) Separate overload relays on each phase and earth fault relays shall be installed by the Wind Energy Generator. Under no circumstances, these relays shall be by passed.
  - (b) With suitable current transformer and relay connections, the load sharing by the Wind Energy Generator 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.
  - (e) 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.

#### **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, 2006, Commission's Intra State Open Access Regulations 2005, Tamil Nadu Electricity Distribution Code, 2004 and Tamil Nadu Grid Code, 2004 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 term 'Meter' shall mean a 'Meter' as defined in regulation 2 (p) of the Central Electricity Authority (Installation and operation of meters) Regulations 2006.
- (4)** The State Transmission Utility / Distribution Licensee may provide Check Meters of the same specification as Main Meters;
- (5)** The Wind Energy Generator can have a standby meter of the same specification tested and sealed by the State Transmission Utility / Distribution Licensee.
- (6)** 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.
- (7)** 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.
- (8)** 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.

- (9) 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.
- (10) The Wind Energy Generator 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.
- (11) The interface meters may be Time of Day (TOD) meters with appropriate communication facilities to be connected with SLDC / Control Centre.

## **5. Adjustment of Energy Generated and Wheeled:**

- (1) The minimum limit of load for sale to third parties by the Wind Energy Generator shall be governed by the clause 11 of the Intra State Open Access Regulations 2005. When the Wind Energy Generator 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 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 WEG.

**6. Banking:**

- (1) The banking charges of 5% shall be realized every month for the quantum of units generated during the billing month less the consumption of the captive users / third party sale.
- (2) Slot-wise banking is permitted to enable unit to unit adjustment for the respective slots towards rebate / extra charges. No carry over is allowed beyond the banking period. Unutilised energy at the end of the financial year may be encashed at the rate of 75% of the relevant purchase tariff.
- (3) As and when the Distribution Licensee enforces restriction control measures for restricting the consumption of wind energy generators, the unutilized energy at the end of the financial year shall be encashed at full value of the relevant tariff for sale to the Distribution Licensee.
- (4) The banking period commences on 1st April and ends on 31st March of the following year.

**7. Billing:**

- (1) The Distribution Licensee shall raise the bill at the end of the month for the net energy supplied and shall record the generation and consumption simultaneously. Excess consumption will be charged at the tariff applicable to the consumer. Transmission and wheeling

charges, scheduling and system operation charges and cross subsidy surcharge, wherever applicable, shall be recovered from the bill. The net amount recoverable from the consumer shall be raised in the bill.

- (2) Wherever the wind energy generation is in excess of the consumption the balance energy shall be banked / paid at the rate of Rs.....

## 8. Charges:

- (1) Transmission and Wheeling Charges: Transmission and Wheeling charges including line losses shall be 5% of the energy wheeled uniformly for captive use and third party sale of wind energy in the case of HT / EHT consumption. Transmission and Wheeling charges in regard to captive use and third party sale in LT services shall be at 7.5%, which include line loss also.

- (2) Banking Charges: Banking charges shall be 5% of the energy banked.

- (3) Grid availability Charges:

(a) Startup Power

The drawal of energy by the Wind Energy Generator during the start up from the Distribution Licensee shall be adjusted against the generated energy.

(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 Wind Energy Generator 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:**

Demand charges shall be paid at 80.39% as per the deemed demand supplied by the Wind Energy Generator plus 100% of the applicable demand charges for that category of user as prescribed in the tariff order in force for the balance demand supplied.

- (4) Scheduling and System Operation charges:** As per the Commission's regulation / order in force.
- (5) Power Factor incentive / disincentive:** Captive consumers of wind energy shall be eligible for incentive or liable for disincentive based on the gross energy consumption and the applicable demand as per the Tariff Order in force.
- (6) Reactive energy charges:** (i) for drawing reactive power up to 10% of the net energy generated – 25 paise per kvarh. (ii) for drawing reactive power more than 10% of the net energy generated – 50 paise per kvarh for the entire reactive power drawl.
- (7) Peak hour extra charges and off-peak hour rebate:** Wind Energy Generator is permitted Slot-wise banking to enable unit to unit adjustment for the respective slots towards rebate / extra charges.

**9. Payment of Security Deposit:**

- (1)** The Wind Energy user shall pay security deposit equivalent to two times the maximum net energy supplied by the Distribution Licensee in any month in the preceding financial year

**10. Applicability of the Acts and Regulations:**

- (1)** 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.

**11. Terms and conditions agreement period:**

- (1) The agreement shall be valid for a minimum period of 5 years.
- (2) 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.
- (3) The parties to the agreement are at liberty at any time to renegotiate the existing agreement mutually in accordance with the Commission's order in force.

**12. Settlement of Disputes - Arbitration:**

- (1) 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.

**13. Force Majeure:**

- (1) 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 \_\_\_\_\_ (Wind Energy Generator name) \_\_\_\_\_ 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  
Wind 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.**