

Energy Wheeling Agreement executed between M/s. _____ and TNEB for wheeling of power from the Group I / Group II Wind Energy Generator which is /was commissioned before 15.05.06 / after 15.05.06.

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 the Tamil Nadu Electricity Board a body corporate constituted under the Electricity (supply) Act 1948 (Central Act 54 of 1948) before commencement of the Electricity Act 2003 (Central Act 36 of 2003) and authorized to function as the state transmission utility and a licensee as notified by the Government of Tamil Nadu under the proviso section 172 of the Electricity Act 2003 and having its office at _____ hereinafter called the Board, (which expression shall wherever the context so permits means and includes the successors in interest, and assigns) represented by the Superintending Engineer/ _____ EDC as party of the Second part.

WHEREAS the Wind Energy Generator has sent to the Board, 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 Board's transmission and / distribution network for captive use / third party sale as below:

a) to his captive users / third party use bearing HT service Numbers ----
_____(HT.Tariff._____) of _____EDC and to
bank the surplus energy available after adjustment as per the orders of
the TNERC in force.

b) to his captive users / third party use bearing HT.SC. No.____
HT.Tr._____ of _____EDC and to sell
surplus energy available after captive use to the Board.

WHEREAS the Wind Energy Generator has paid the open access
registration fee of Rs.5000/= (Rupees five thousand) and open access
agreement fee of Rs.50, 000/- (Rupees fifty thousand);

AND WHEREAS the Board 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 Board'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. Interfacing and evacuation facilities:

- a. The Wind Energy Generator agrees to interface his Generators with
the Board's grid through ----- lines and shall bear the entire cost
of interfacing including the cost of lines, switch gear, metering,
protection and arrangements from the point of generation to the
Board's nearest technically feasible interconnecting point.

- b. It is further agreed that the works of interconnecting the Generators upto the point of interconnection should be executed under DCW (Deposit Contribution Work) by the Board.
- c. The Wind Energy Generator and the STU/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;
 - I. Connection Agreement
 - II. Site responsibility schedule
 - III. Access at Connection site
 - IV. Site Common Drawings
 - V. Safety
 - VI. Protection System and Co-ordination
 - VII. Inspection, Test, Calibration and Maintenance prior to Connection.
- d. 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;
- e. 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;

2. Operation and Maintenance:

- a. 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.
- b. The Wind Energy Generators agrees to minimize drawal of reactive power from the Board'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.

- c. The Wind Energy Generator agrees to provide suitable automatic safety devices so that the Generator shall isolate automatically when the grid supply fails.
- d. 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 Board.
- e. 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 Board.
- f. The interconnecting lines shall be maintained by the Board at Board's cost.
- g. 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 Board to facilitate safe parallel operation of the Generators with grid and to prevent disturbances to the grid.
- h. The Wind Energy Generator agrees that the Board shall not be responsible for any damage to his Generator resulting from parallel operation with the grid and that the Board shall not be liable to pay any compensation for any such damage.
- i. The generators shall be maintained effectively and operated by competent and qualified personnel.
- j. 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;

- (i) 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.
- (ii) With suitable current transformer and relay connections, the load sharing by the Wind Energy Generator and Board shall be limited to their rated capacity.
- (iii) Adequate indication and control metering for proper paralleling of the generators on the HV bus shall be made available.
- (iv) Protection co-ordination shall be done by the Licensee / STU in consultation with Regional Power Committee and relays and the protection system shall be maintained as per site responsibility schedule.
- (v) Grid availability shall be subject to the restriction and control as per the orders of the SLDC and as per Tamil Nadu Electricity Grid Code.

3. Metering Arrangements:

- a. The Wind Energy Generator shall provide special energy meters with facilities to record export and import of energy and as per the standards / procedures stipulated in the **Central Electricity Authority's (Installation and Operation of Meters) Regulations 2006 and regulations/directions issued by the Commission there on**, in respect of type, ownership, location, accuracy class, installation, operation, testing and maintenance, access, sealing, safety, meter reading and recording, meter failure or discrepancies, anti tampering features, quality assurance, calibration and periodical testing of meters, additional meters and adoption of new technologies.
- b. The Wind Energy Generator shall also adopt the standards and procedures as stipulated in the Tamil Nadu Electricity Grid Code and Tamil Nadu Electricity Regulatory Commission –Intra State Open Access Regulations 2005 in respect of metering.

- c. The Wind Energy Generator may request STU/distribution Licensee to provide Main Meters. In that case he shall provide security to distribution Licensee and shall pay for its rent and Main Meter shall be maintained by STU/Distribution Licensee.
- d. The STU/Distribution Licensee may provide Check Meters of the same specification as Main Meters;
- e. The Wind Energy Generator can have a stand by meter of the same specification tested and sealed by the STU/Licensee.
- f. The Main and Check Meters shall be test checked for accuracy **once in six months, and shall also be calibrated once in a year**. 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.
- g. Reading of Main and Check meters shall be taken periodically at appointed day and hour by authorized officer of distribution Licensee /STU and generator or his representative, if present.
- h. 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.
- i. If during the half yearly test check or annual 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 STU / Licensee to the consumption registered by the meter with lesser error.

- j. 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.
- k. 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. Adjustment of Energy Generated and Wheeled:

- a. The Wind Energy Generator shall adjust the energy in the above mentioned HT services on unit-to-unit basis.
- b. The energy generated in the wind mills shall be adjusted for captive use in the above services of the Wind Energy Generator as below:
 - i. peak hour generation with peak hour consumption
 - ii. off-peak hour generation with off-peak hour consumption and
 - iii. the normal hour generation with normal hour consumption.
- c. This adjustment shall be done within the banking period (wherever the Wind Energy Generator has opted for banking).

5. Banking:

- a. The Wind Energy Generator shall bank the energy generated in the wind mill and the banking period shall be one year from April to March.
- b. The unutilized portion of banked energy if any shall be purchased by the licensee at the rate of 75% of the normal purchase rate.
- c. The banking shall be done slot wise to enable unit-to-unit adjustment.

6. Billing:

- a. The Board shall raise bills for the net energy consumed in the HT service after adjusting the wheeled energy where the consumption in the HT service is more than the wind mill generation.
- b. Wherever the wind energy generation is in excess of the consumption the balance energy shall be banked / paid at the rate of Rs.2.75 / 2.90 per Kwh. (strikeout whichever is not applicable)

7. Charges:

- a. Transmission and Wheeling Charges: Transmission and Wheeling charges shall be 5% of the energy wheeled. This includes line loss also.
- b. Banking Charges: Banking charges shall be 5% of the energy banked.
- c. Energy Charges: The energy charges shall be payable by the Wind Energy Generator, for the energy supplied by the Board at the rate as applicable for that category as per the tariff order in force.
- d. Grid availability Charges: The power drawn by wind energy generator for wind mill will be adjusted against the generation on unit-to-unit basis.

The Wind Energy Generator agrees that if the consumption of the wind mill is more than the generation during a particular month, such excess consumption shall not be allowed to be carried forward to next month and the billing shall be done on the same month at the per unit realization rate of HT Industrial service as per tariff order in force.

- e. Demand Charges: Demand charges shall be paid at 80.73% as per the deemed demand supplied by the Wind Energy Generator plus 100% of the applicable demand charges for that category of user for the balance demand supplied.
- f. System Operation charges: As per order No.2-2 dated 10.12.2007
- g. Power Factor incentive / disincentive: Power factor incentive / disincentive shall be as per the Tariff Order in force and based on the gross energy and applicable demand charges.

- h. 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.
- i. 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 captive generation during the respective peak hour block and off-peak hour block.
- j. Third party sale through the grid will be as specified by the Tamil Nadu Electricity Regulatory Commission Intra-State Open Access Regulations 2005 and Order No.2, dated 15.05.2006 issued by the Commission in respect of Transmission and wheeling charges etc.

8. Payment of Security Deposit:

The Wind Energy user shall pay security deposit equivalent to two times of maximum net energy supplied by the board in a month in the previous banking period.

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.

10. Agreement Period:

- a. This agreement shall come into force from the date of execution and shall remain in full force for a period of twenty (20) years.
- b. In case of any breach or violation of any of the clauses in this agreement, by any party, the other party shall be at liberty to terminate this agreement after giving three months notice.
- c. It is agreed that the change of utilization of wind energy, from captive consumption to sale may be done after giving three months notice by the Wind energy generator to the Board and after executing energy purchase agreement on the terms applicable as per order Nos.2 and 3, dated 15.5.06.

11. Settlement of Disputes - Arbitration:

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.

In witness where of Thiru. _____ acting for and on behalf of _____ (Wind Energy Generator name) _____ authorized officer acting for and on behalf of the Board have here unto set their hands on the day, month and year herein above first mentioned.

In the presence of witnesses:

1)

2)

Signature

Wind Energy Generator

Common seal

In the presence of witnesses:

1)

2)

Signature

Authorized officer of the Board.

