

**Model Energy Wheeling Agreement for Captive use**  
**(To be executed between STU / Distribution Licensee and CGP**  
**holder for generation from other than NCES)**

This agreement made at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ Two thousand \_\_\_\_\_ between M/s. \_\_\_\_\_ (Name of the Captive Generating Plant and address) hereinafter called "the CGP holder" which expression shall wherever the context so permits means and includes the successors in interest, executors, administrators and assigns represented by Thiru. \_\_\_\_\_ as Party of the First part and M/s \_\_\_\_\_ (Name of the State Transmission Utility / Distribution Licensee) \_\_\_\_\_ having its office at \_\_\_\_\_ hereinafter called "the STU/Distribution Licensee" which expression shall wherever the context so permits means and includes the successors in interest, administrators and assigns represented by the \_\_\_\_\_ (Designation of the STU/Distribution Licensee's officer) as Party of the Second part;

WHEREAS this agreement is for the parallel operation of the CGP holder's Captive Generating Plant and wheeling of energy (Power) from such Captive Generating Plant to the destination of his use through the Transmission / Distribution network of the STU/Distribution Licensee;

WHEREAS the CGP holder has sent to the STU/Distribution Licensee, his proposal to wheel the energy generated from his Captive Generating Plant having capacity of \_\_\_\_\_ MW installed at \_\_\_\_\_ village \_\_\_\_\_ taluk in \_\_\_\_\_ district / commissioned / to be commissioned on or about \_\_\_\_\_ through the STU/Distribution

Licensee's Transmission/Distribution network to his captive use bearing HT service Numbers \_\_\_\_ (HT Tariff.\_\_\_\_\_) of \_\_\_\_\_ in \_\_\_\_\_ Distribution Circle;

WHEREAS the CGP holder has paid the open access registration fee, agreement fee and other fees as notified / ordered by the Tamil Nadu Electricity Regulatory Commission, hereinafter called "the Commission";

AND WHEREAS the STU/Distribution Licensee has accepted the proposal of the CGP holder for wheeling of energy from the Captive Generating Plant to destination of his own use through the STU/Distribution Licensee'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:**

**TERMS AND CONDITIONS.-**

**1. Definitions.-**

In this agreement, -

(a) "**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 of either party such as but not limited to -

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

- (b) **“Inter connection point”** means the Captive Generating Plant's switchyard at which point the interconnection is established between the Captive Generating Plant and the grid / distribution system;
- (c) **“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; and
- (d) **‘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.-**

- (a) The CGP holder agrees to interface his Captive Generating Plant with the STU/Distribution Licensee's Transmission/Distribution network 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 STU/Distribution Licensee's nearest technically feasible interconnection point;
- (b) It is further agreed that the works of interconnecting the Captive Generating Plant up to the interconnection point shall be executed under Deposit Contribution Work (DCW) by the STU/Distribution Licensee;
- (c) The CGP holder and the STU/Distribution Licensee shall comply with the provisions contained in Central Electricity Authority (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; and
- (vii) Inspection, Test, Calibration and Maintenance prior to Connection.

- (d) The CGP holder agrees to comply with the safety measures contained in section 53 of the Electricity Act, 2003 (Act 36 of 2003);
- (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 / Central Electricity Authority and amendments issued thereon, from time to time; and
- (f) Both the parties shall comply with the guidelines issued by the Government of India / Government of Tamil Nadu, from time to time.

### **3. Operation and Maintenance.-**

- (a) The CGP holder agrees that the starting current of the Generators shall not exceed the full load current of the machine and also agrees to provide the necessary current limiting devices like thyristor during the starting.
- (b) The CGP holder agrees to minimize drawal of reactive power from the STU/Distribution Licensee's Transmission/Distribution network at an interconnection point as per the provisions of the Tamil Nadu Electricity Grid Code and the Indian Electricity Grid Code, as the case may be.

- (c) The CGP holder agrees to provide suitable automatic safety devices so that the Generator shall isolate automatically when the grid supply fails.
- (d) The CGP holder agrees to maintain the Generator and the equipments including the transformer, switch gear protection equipments and other allied equipments at his cost to the satisfaction of the authorized officer of the STU/Distribution Licensee.
- (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 STU/Distribution Licensee.
- (f) The interfacing lines shall be maintained by the STU/Distribution Licensee at their cost.
- (g) There shall be no fluctuations or disturbances to the Transmission/Distribution network or other consumers connected to the network due to paralleling of the Generators. The CGP holder shall provide at his cost adequate protection as required by the STU/Distribution Licensee to facilitate safe parallel operation of the Captive Generating Plant with Transmission/Distribution network and to prevent disturbances to the grid.
- (h) The CGP holder agrees that the STU/Distribution Licensee shall not be responsible for any damage to his Captive Generating Plant resulting from parallel operation with the Transmission/Distribution network and that the STU/Distribution Licensee shall not be liable to pay any compensation for any such damage.
- (i) The Captive Generating Plant shall be maintained effectively and operated by competent and qualified personnel.
- (j) In case of unsymmetrical fault on HV bus, the CGP holder shall share the fault current according to impedance of the circuit. To meet such contingency and for safe operation of the Captive Generating Plant, the CGP holder shall provide the following scheme of protection, namely, -

- (i) Separate overload relays on each phase and earth fault relays shall be installed by the CGP holder. Under no circumstances, these relays shall be by-passed;
  - (ii) With suitable Current Transformer and relay connections, the load sharing by the CGP holder and STU/Distribution Licensee shall be limited to their rated capacity;
  - (iii) Adequate indication and control metering for proper paralleling of the Captive Generating Plant on the HV bus shall be made available; and
  - (iv) Protection co-ordination shall be done by the STU/Distribution Licensee in consultation with the Regional Power Committee / State Transmission Utility and relays and the protection system shall be maintained as per site responsibility schedule;
- (k) 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;
- (l) The CGP holder shall supply the committed power to his captive use at the ex-bus periphery of the captive generating plant, inclusive of the transmission loss; and
- (m) The captive user can avail power from the captive generating plant subject to the Restriction and Control measures imposed / approved by the Commission from time to time.

#### **4. Metering Arrangements. -**

- (a) 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, Tamil Nadu Electricity Regulatory Commission's Intra State Open Access Regulations, Tamil Nadu Electricity Distribution Code and Indian Electricity Grid Code / Tamil Nadu Electricity Grid Code in

consultation with Distribution Licensee. The periodicity of testing, checking, calibration etc., will be governed by the Regulations issued by the Central Electricity Authority / Commission in this regard;

- (b) Main and Check Meters shall have facility to communicate its reading to State Load Dispatch Centre / Distribution Control 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 STU/Distribution Licensee;
- (c) The STU/Distribution Licensee may provide Check Meters of the same specifications as that of Main Meters;
- (d) The CGP holder can have a standby meter of the same specification, tested and sealed by the STU/Distribution Licensee;
- (e) 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;
- (f) Reading of Main and Check meters shall be taken periodically at appointed day and hour by authorized officer of STU/Distribution Licensee in the presence of the CGP holder or his representative;
- (g) 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;
- (h) 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 STU/Distribution Licensee to the consumption registered by the meter with lesser error;

- (i) The CGP holder 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; and
- (j) The interface meters may be Special Energy meters (ABT compliant energy meters) with appropriate communication facilities to be connected with SLDC / Distribution Control Centre.

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

(a) The minimum limit of load for sale through open access by the CGP holder shall be governed by the Intra State Open Access Regulations. When the Captive Generating Plant is synchronized with the Transmission/Distribution network, the CGP holder 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 adjusted on unit-to-unit basis as detailed below: -

- (i) Peak generation shall be adjusted against peak consumption;
- (ii) Normal generation shall be adjusted against normal consumption;
- (iii) Off peak generation shall be adjusted against off peak consumption; and
- (iv) Peak and normal generation may be adjusted against lower slot consumption at the request of CGP holder.



(b) 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. Charges. -**

(a) Transmission and Wheeling charges. - Transmission and Wheeling charges shall be payable by the CGP holder as per the order of the Commission for the time being in force;

(b) Losses to be paid in kind. - The CGP holder agrees to compensate the average loss from the point of injection to the point of drawal as per the order of the Commission for the time being in force;

(c) Scheduling and System operation Charges. - These charges shall be payable as per the order of the Commission for the time being in force;

(d) Grid availability /Grid Support Charges. -

(i) In case of outage of generator, the power drawn by the Captive Generating Plant for start up and other purpose shall be charged at the rate fixed in the Commission's order for the time being in force;

(ii) When the scheduled generation is not maintained by the CGP holder and when the drawal by the captive user from the Transmission/Distribution network is more than the generation in the Captive generation plant, the charges shall be levied as per the order of the Commission for the time being in force;

(e) Power Factor disincentive. - Power factor disincentive shall be as per the Tariff Order for the time being in force based on the gross energy and applicable demand charges. The average power factor recorded will be the reference for calculation of power factor disincentive;

(f) Reactive energy charges. - Reactive Power Charges is recoverable as per the regulation / Code /order in force;

- (g) 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 CGP plant during the respective peak hour block and off-peak hour block; and
- (h) Any additional charges that may be approved by the Commission at a later date shall also be levied, with retrospective effect or from the date as approved by the Commission.

**7. Billing. -**

- (a) The distribution licensee shall raise bills for the net energy consumed by the captive user after adjusting the wheeled energy, where the consumption by the captive user is more than the generation of the CGP holder at the rate applicable to that category of consumer;
- (b) The distribution licensee shall raise bills on the CGP holder for the charges payable towards startup power and power drawn for other purpose, wheeling charges, excess demand & excess energy charges, etc, as per the order / regulations of the Commission for the time being in force; and
- (c) The STU shall raise bills on the CGP 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.

**8. Payment of Security Deposit. -**

The captive user drawing the power from CGP holder 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, Regulations and Guidelines. -**

The parties shall be bound by the provisions contained in the Electricity Act, 2003, Regulations, notifications, orders and subsequent amendments, if any, made thereunder from time to time by the Commission and the guidelines issued by the Government of India / Government of Tamil Nadu, as the case may be.

**10. Agreement Period. -**

- (a) 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 CGP Holder 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; and
- (b) 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.

**11. Settlement of Disputes. -**

If any dispute or difference of any kind whatsoever arises between the parties 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 and conditions 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. 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 \_\_\_\_\_ (CGP holder) and \_\_\_\_\_ Authorized Officer of the STU/Distribution Licensee acting for and on behalf of the STU/Distribution Licensee have hereunto set their hands on the day, month and year hereinabove first mentioned.

In the presence of witnesses:

1)

Signature

CGP holder

Common seal

2)

In the presence of witnesses:

1)

Authorized Officer of the STU/Distribution Licensee

2)

Signature

**(By the order of the Commission)**

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