

**Tamil Nadu Electricity Regulatory Commission,  
Chennai – 600 032.**

**NOTICE**

**Dt. 09.03.2022**

In the Miscellaneous Petitions No.39 of 2020, No.16 of 2021, and No.3 of 2021 filed by TANGEDCO, M/s. Ambiga Textiles, Commission in the hearing held on 31.8.2021 directed the Registry of the Commission to webhost the procedure for grid connectivity and open access in the website for seeking comments from the stakeholders.

Accordingly, the 'Detailed procedure for Grid Connectivity to the Distribution system and filing of consent with open access application' is hosted in the Commission's website for comments from stakeholders. The comments in both hard and soft forms may be sent to 'The Secretary, Tamil Nadu Electricity Regulatory Commission, 4<sup>th</sup> Floor, SIDCO Corporate Office Building, Thiru Vi Ka Industrial Estate, Guindy, Chennai-600 032. ([email : tnerc@nic.in](mailto:tnerc@nic.in)) on or before 08.04.2022.

Secretary  
Tamil Nadu Electricity Regulatory Commission

### **Explanatory statement.**

Miscellaneous petitions in M.PNo.39 of 2020, M.P No.3 of 2021 and M.P No.16 of 2021 are before this Commission to settle the issues in the Procedure for grant of connectivity and open access. Interim orders were issued in the aforesaid Miscellaneous petitions to host the draft procedure for grid connectivity and open access in the Commission's website for comments from stakeholders. Commission has already hosted the draft 'Procedure for grid connectivity and open access' submitted by the STU. The draft detailed 'Procedure for Grid Connectivity to the Distribution system and the procedure to receive the consent' that had been hosted in TANGEDCO's website, and submitted to the Commission with comments and reply to the comments from stakeholders by TANGEDCO, after scrutiny and consideration of views offered by stakeholders is hosted by the Commission to provide sufficient opportunity to the stakeholders to offer views/suggestions.

Secretary  
Tamil Nadu Electricity Regulatory Commission

**DETAILED PROCEDURE**

**FOR**

**GRANT OF CONNECTIVITY**

**TO THE**

**DISTRIBUTION SYSTEM**

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# **DETAILED PROCEDURE FOR GRANT OF GRID CONNECTIVITY TO DISTRIBUTION SYSTEM**

## **1.0 OUTLINE**

1.1 This Procedure is evolved in accordance to regulation 43 of the Tamil Nadu Electricity Regulatory Commission (Grid Connectivity and Intra State Open Access) Regulations, 2014 (herein after referred to as Regulations) and its various other provisions. All applicants shall abide by the provisions of the Regulations, as amended from time to time, and the procedures laid down hereunder.

1.2 This Procedure shall apply to the Applications made for Grant of Grid Connectivity to the Distribution system at 33 kV level and below on or after the date notified by the Commission. This procedure shall be read with provisions, Electricity Act, 2003 and prevailing TNERC Regulations/orders.

### **1.3 Connectivity:**

1.3.1 Any consumer having contracted demand of less than 10 MW or a consumer availing supply at 33 kV and below or a Generating station having installed capacity less than 15 MW or a Generating station requiring connectivity at 33 KV and below shall be eligible to obtain connectivity to Distribution system and shall apply for connectivity as per this procedure, unless already connected.

1.3.2 The nodal agency for grant of connectivity, long term, medium term and short term open access shall be the agency notified in the Regulations.

1.3.3 Open Access customers already connected to the grid shall not be allowed to apply for additional connectivity for the same capacity. In case of enhancement of capacity, they shall be required to make application of connectivity as per the provisions of the Regulations. In case of reduction in capacity, approval shall be obtained from the nodal agency as notified in Regulations.

1.3.4 Applications for grant of connectivity shall normally be submitted to the Chief Engineer/Grid Operation, SLDC Block, 144, Anna Salai, Chennai – 600 002. At present the State Load Dispatch Centre (SLDC) is not equipped to handle applications from all categories of generators. Till such time, the SLDC is equipped to handle all applications, applications shall be submitted to the officers as below or as may be notified by the Distribution licensee:

Sl.No.	Description	Authority
1.	For grid connectivity at 33 kV and below:  (a) Fossil fuel based generating plants/Co-gen plants/Consumer (Non-RE)  (b) Renewable Energy generators	Chief Engineer/PPP, VI Floor, Eastern wing, NPKRR Maaligai, 144,Anna Salai, Chennai – 600 002.  Chief Engineer/Non Conventional Energy Sources, II Floor, Eastern wing, NPKRR Maaligai, 144,Anna Salai, Chennai – 600 002.

1.3.5 Applicant granted 'connectivity' will be required to sign connection agreement ie Grid connectivity agreement with the territorial SE/EDC to be

indicated by the Authority tabled above prior to the physical inter-connection. In case the connectivity is granted to the distribution system of a distribution licensee other than TANGEDCO, a tripartite agreement shall be signed between the applicant, TANGEDCO and such distribution licensee, in line with the provisions of the regulations. The nodal agency shall always have a copy of the agreement.

**2.0 Procedure to submit application form, documents and Payment of fee:**

2.1 The application for grant of connectivity shall be made in the prescribed format **(FORMAT – 1)** along with documents mentioned in the format of application. The application shall contain details such as geographical location of the generation project, quantum of power to be interchanged, that is, the quantum of power to be injected in the case of a generating station including a captive generating plant and quantum of power to be drawn in the case of a consumer, unit wise commissioning schedule etc.

2.2 Connectivity shall be granted at appropriate system voltages based on technical guidelines on loading of lines for generators and as stipulated in Regulations/Codes for consumers. The generators shall be connected to the substation by a separate feeder and no distribution loads will be permitted to be connected in such feeders.

2.3 In order to assess preparedness of the applicant for receiving connectivity, an applicant is required to submit along with the application, documents, as

detailed below and as applicable, in support of having initiated specific action with respect to project preparatory activities:

1.	Site identification and land acquisition	Land required; present stage of acquisition; expected date of completion of acquisition.
2.	Environment clearance	The details of submission of application to the concerned authority and its status(first level submission)
3.	Forest clearance (if applicable)	The details of submission of application to the concerned authority (First level submission).
4.	Fuel arrangement	Quantity of fuel required for the installed capacity; source of fuel; agreement executed for fuel supply; stock of fuel.
5.	Water linkage	Quantity of water requirement; application made; status of approval by appropriate authority.

2.4 The applicant shall indicate the location of consumers where power is proposed to be transmitted / wheeled. If it is not possible to indicate the location of consumers, the Circle/Region to which power is to be transmitted /wheeled has to be indicated. In case applicant is a consumer, the applicant shall indicate the location of generator from where the power is proposed to be received. This is required to ascertain the power flow while examining grid connectivity.

2.5 The applicants who are applying as CGP shall maintain CGP status as per Rule 3 of Electricity Rules. The applicant shall furnish prescribed documents as per Commission's orders read with provisions of the Act/Rules/Regulations while applying for grid connectivity.



## **2.6 Application fee for Connectivity:**

2.6.1 The application for connectivity shall be accompanied by a non-refundable fee of Rs.1 Lakh in case of conventional fuel based generators & in case of co-generation and generation of electricity from renewable energy sources, the application fee shall be 50% of the normal fee.

2.6.2 The application fee (excluding service tax/GST) is inclusive of charges for any load flow or system studies to be conducted by Distribution Licensee.

2.6.3 The application fee shall be paid through DD drawn in favour of Chief Financial Controller/General/TANGEDCO/ Chennai – 2 payable at Chennai/online payment mode in the TANGEDCO account.

2.6.4. The date of receipt of application in complete shape by the Distribution licensee will be reckoned as the date of registration and an acknowledgement is to be furnished for the same to the applicant.

2.6.5. Applications incomplete or not in conformity with the procedure/regulations shall be rejected and the same informed to the applicant and application fee already paid will be forfeited.

2.6.6. In cases where once an application has been filed and thereafter there is any material change in the location of the applicant or change by more than 10 per cent in the quantum of power to be inter changed with the Distribution system, the applicant shall make a fresh application along with applicable fees and the already filed application shall be considered disposed and application fee forfeited.

2.6.7 An application by collective generators shall be considered by the Distribution licensee only if all the generators, whose aggregate capacity is connected at the single connection point, formalize a written agreement among themselves that the lead generator shall act on behalf of all generators to undertake all operational and commercial responsibilities for all collective generators as provided in the Regulations.

2.6.8 If any applicant has already been granted connectivity but the process of construction by the Distribution licensee or by the generating company has not yet started and the applicant subsequently applies afresh with material changes or change by more than 10% in the quantum of power to be interchanged, then the already granted connectivity shall stand cancelled.

2.6.9 The load flow studies are carried out corresponding to the commissioning schedule proposed by the generator at the time of Grid connectivity application. Hence, the generator shall adhere to the commissioning schedule proposed at the time of application.

2.6.10 Application for any minor changes i.e material change in location or change within 10% of installed capacity shall have to be re-submitted in the same application format marked as 'revised'.

### **3.0 Grant of connectivity**

3.1 On registering the application received in complete shape, the distribution licensee shall carry out interconnection study as provided in the Regulation 8 of Grid Connectivity and Intra State Open Access Regulations 2014 to ascertain the

feasibility of connecting the generator with its network and convey its decision on grant of connectivity or otherwise within 30 days from the date of receipt of application in complete shape, furnishing details as in sub clause 3.3 of this clause.

3.2 Every applicant shall construct a dedicated line to the point of connection to enable connectivity to the Distribution licensee's system in accordance to Regulation 8(8) of the Commission's Grid connectivity and Intra State Open Access regulations, 2014.

3.3 While conveying the decision for grant of connectivity as in Para 3.1 to the applicant, the following will be informed:

- i. Based on the results of the study, the applicant will be informed of the proposed interconnection line / dedicated Distribution line for connectivity with broad design features, the substation / pooling station/ switchyard/ point of connection to which the line is to be connected.
- ii. The applicant shall arrange to provide pooling station/switchyard facilities (that includes transformers, structures, breakers, CTs, protection arrangements, data communication system which includes online data transfer to SCADA server and AMR data transfer etc.) at their end.
- iii. The details of augmentation to be carried out to accord connectivity will be specified. In case of augmentation, the applicant shall bear the cost of bay extension and initial testing and commissioning.

- iv. In the case of Distribution Licensee carrying out the works of constructing dedicated line, the estimated amount shall be deposited to the Distribution Licensee.
- v. The timeframe for completion of the dedicated line shall be informed by the Distribution Licensee or the applicant as the case may be.

3.4 The applicant shall convey concurrence or otherwise of the proposal of Distribution licensee to grant connectivity **within 30 days** of receipt of proposal informing the time period for construction of dedicated line failing which the Distribution licensee may cancel the application. Thereafter, a fresh application with necessary fee shall be furnished by the generator.

3.5 On receipt of concurrence from the generating company, approval for grid connectivity to the Distribution system will be accorded within 15 days.

3.6 The applicant shall sign a Grid connectivity Agreement (**FORMAT - 2**) with the distribution licensee (territorial SE/EDC to be indicating by the concerned nodal agency) prior to the physical inter connection where connectivity is being granted, **within 15 days** of issue of approval for connectivity, failing which Distribution Licensee reserves the right to cancel the application without any further notice.

3.7 The consumers who wish to avail open access as per the provision of ISOA Regulations 9(3) & 9(6) are required to seek grid connectivity through independent feeder.

Provided that the consumers who are not on independent feeders, shall be allowed open access subject to the load restrictions in the feeders serving them in line with the Commission's Regulations / Codes / Orders.

3.8 The entire cost of extension from sub-station to the consumer including the bay provision at SS end, take off arrangement, applicable O&M charges etc., is to be borne by the consumer subject to the availability of bay and way leave provisions.

3.9 In the event, the consumer do not avail open access for a period exceeding 6 months, the independent feeder status will be withdrawn and they will be treated on par with other consumers.

#### **4.0 Connectivity agreement with existing generators:**

4.1 The existing generators connected at various voltage levels shall continue the same as per the provisions of the executed agreements. However, the provisions of this Regulations and procedure for connectivity shall also be applicable. In case of enhancement of capacity or additional capacity etc., they shall be required to make fresh application for connectivity as per the provisions of the Regulations. Connectivity will be granted either through the same feeder or separate feeder subject to technical feasibility.

#### **5.0 Estimation of cost, construction of dedicated distribution line, payment of charges.**

5.1 The Distribution Licensee will be furnishing estimate for cost of bay/ switching station, as the case may be, including switchgear and protection

arrangement and supervision charges after the execution of Grid Connectivity Agreement. The generator/ consumer shall pay the cost within 30 days of receipt of estimate failing which the Distribution Licensee reserves the right to cancel the application without any further notice. Thereafter, fresh application with application fee is to be furnished by the applicant if connectivity is required.

5.2 Distribution Licensee shall carry out bay works, augmentation etc after payment by the generating company/ consumer within time limits as per the Distribution Standards of performance.

5.3 The applicant has to erect the dedicated Distribution line by themselves as per the provisions of section 9, 10(1) of the E-Act, 2003 and Open Access regulations, as per the design features communicated and under the supervision of Distribution Licensee's officials. The applicant shall pay Establishment & supervision charges to TANGEDCO on intimation of the same. The cost of augmentation of licensee's substation includes cost of bay provision / provision of switching stations including that of land required, as the case may be, switchgear, other equipments, protection arrangements, data communication system including online data transfer to SCADA server and AMR data transfer, testing and commissioning etc, which shall be borne by the applicant. The ownership of the interface line (dedicated line from their plant to the point of connection) if erected by the generating company under section 9, 10(1) of the E-Act, 2003 will rest with the generating company and the company shall operate & maintain the line by themselves subject to getting clearance from the appropriate

agency/officials before taking up any preventive/break down maintenance works. The entire responsibility of safety of company's personnel rest with the company and the licensee will not be responsible for any untoward incidents and not liable to pay any compensation in this regard. However, the maintenance of bay equipments at the substation/ switching stations as the case may be where the interfacing line gets terminated will be operated and maintained only by the licensee subject to the condition that the cost of maintenance and spares as may be notified by the licensee from time to time with the approval of the Commission shall be borne by the company .

5.4 The bills shall be raised by the licensee towards bay / switching station maintenance as the case may be on annual basis and the generator shall pay the amount within 5 working days of receipt of bill.

5.5 In case of delay in execution of works either by the generating company or Distribution Licensee, in both the cases the parties can mutually agree for revised schedule of completion of works.

## **6.0 Interchange of power with the grid**

6.1 The grant of connectivity shall not entitle an applicant to interchange any power with the grid unless the applicant obtains long term open access, medium term open access or short term open access as the case maybe in accordance with the provisions of the Commissions Open Access regulations in force and subsequent amendments.

6.2 Any interchange of power with grid without any type of valid open access shall not warrant any payment to be made by any licensee. Besides, such quantum of power will not be adjusted against any consumption. Such interchange of power shall be in violation to the Grid connectivity and Intra State Open Access Regulations,2014 and shall be dealt with in accordance with the provisions of the Electricity Act,2003. The provisions of this sub-clause shall not be applicable to the energy exchange specified sub clause 3 of this clause.

6.3 Before availing any open access, the generator including captive generating plant / co-gen plant/Non conventional plant which has been granted connectivity to the grid shall be allowed to pump infirm power into the grid during testing including full load testing before its COD for a period not exceeding **six months** from the date of first synchronization after obtaining prior permission of the concerned SLDC/ Distribution Licensee. For any extension of period for testing, full load testing and consequent injection of infirm power by the unit beyond six months the generator shall approach the Commission at least two months in advance of the completion of the six month period.

6.4 The onus of proving that the injection of infirm power from the units of the generating station is for the purpose of testing and commissioning shall lie with the generating company and the SLDC shall seek such information on each occasion of injection of power before COD. For this, the generator shall provide SLDC sufficient details of the specific testing and commissioning activity, its duration and intended injection etc. Such details shall be shared with the



distribution licensee also. The company has to get specific approval of TANGEDCO/Nodal agency for injecting infirm power, who has to pay for the infirm power, before effecting connectivity. Commercial treatment including the tariff for such infirm power from a generating station or a unit thereof will be governed by the concerned Regulations/Orders in force issued by the Commission from time to time.

6.5 On completion of all erection works (generator/lines, etc) by the generating company as well as by the Distribution licensee, provision of ABT meter with DLMS facility and establishment of online data connectivity with AMR server at SLDC, the company shall inform Distribution licensee/Nodal agency for concurrence of synchronization of generator with the distribution system and Distribution licensee shall issue concurrence for the same, taking into account the field condition.

6.6 Synchronizations of the generating unit with the distribution system/transmission system shall be permitted only after ensuring proper protection arrangement by officials of Distribution licensee/SLDC and after obtaining statutory clearances like consent to operate from MOEF, TNPCB, clearance from various authorities such as CEIG etc. The synchronization (for the first time) shall be in presence of the officials of Distribution licensee and shall be with consent of SLDC.

6.7 It is the sole responsibility of the generator to declare COD of the generator. The date of declaration of COD and the capacity of the individual unit

shall be final. In case of combined cycle plant, the date of COD will be reckoned with the declaration of commercial operation of combined cycle. Further, the capacity declared on COD shall not exceed the manufacturers rated capacity (Maximum Continuous Rating as per design). There can be only one COD.

6.8 At the time of synchronization as well as at the time of COD, meter readings at Interface point shall be taken.

6.9 The generator shall be synchronized in presence of TANGEDCO's officials. Payment for the energy pumped if any for testing and commissioning purpose from the date of synchronization till declaration of COD will be paid as per the formula notified in TNERC's Amendment to the terms and condition for determination of Tariff Regulations 2005, dt.09.04.2014. On attaining COD the company shall furnish the details of energy pumped till COD to this office for fixing of tariff as per the formula notified by TNERC. Necessary clearance shall be obtained from SLDC before pumping energy for testing and commissioning.

6.10 The company shall inform the date of synchronization and COD to Nodal agency concerned and the SE/EDC concerned and the bills for such supplies shall be submitted to the SE/EDC concerned for payment.

## **7.0 Provision of interface meters**

7.1 ABT meters with DLMS facility: ABT compliant interface meters with DLMS facility shall be installed as specified in the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time, and in accordance to the Commissions Grid connectivity and intra State

Open Access Regulations, 2014. The meters shall have facility for communication of data on real time basis to SCADA server and AMR data transfer suitable to the protocol specified by STU / licensee. Energy accounting and settlement shall be done in 15 minutes block. From the energy / demand recorded in the Consumer meter, scheduled OA entitlement shall first be adjusted to arrive at energy / demand consumption from TANGEDCO.

7.2 The check meters (ABT meter) shall be provided by the STU or if the licensee, requests the generator to provide the same, the cost of the meter will be reimbursed / adjusted with the bills on submission of proper invoice.

7.3 Generators shall install energy accounting meter(s) which are ABT compliance with DLMS facility and communication facilities (Modem or DCU) in order to record generation in each units and auxiliary consumption, as per CEA Regulations 2006 and subsequent amendments thereof. Generator shall establish day survey, load survey and instantaneous data transfer facility to the servers at SLDC.

7.4 At the time of submitting application for grid connectivity the applicant shall incorporate the location of all ABT meter(s) (interface & Energy accounting) proposed to be provided as mentioned above in the single line diagram.

7.5 After approval of location of meters, the generating company shall not shift the meters without specific approval of Transmission/distribution licensee.

## **8.0 Startup power**

8.1 The generators shall approach the Distribution licensee (the concerned Superintending Engineer of the Electricity Distribution Circle in whose jurisdiction the generating plant exists) for obtaining start up power from the grid. The generating company at the time of submitting the application for grid connectivity shall indicate the requirement of startup power if required and the demand required for such start up power.

8.2 The startup power will be permitted only within the percentage approved by the Commission. This power is to be used only for startup operation after declaration of COD. The period of startup power will be as specified in the Regulations.

8.3 However, during construction period the generators shall avail power for construction purpose on temporary basis by filing a separate application to the distribution licensee. Supply obtained for the construction period shall be paid at appropriate tariffs as fixed by the Commission in its tariff order from time to time.

8.4 In case of industrial service connections where the captive Generating Plant is also connected, in order to ascertain startup power consumption, ABT compliance meter (as per CEA Regulation 2006) shall be provided at the incoming breaker ie at the secondary side of the transformer which feeds exclusively to the auxiliary loads of the generator(s) fed from TANGEDCO supply. The industrial loads should be segregated in such a manner that the ABT meter provided for recording startup power records exclusively auxiliary consumption used for startup power only. The recorded energy in the above