

Consultative Paper on Collection of O&M Charges from the private generators for the Maintenance of Bays and Associated Equipments at the Transmission Utilities Sub-Stations

(Comments invited from the stakeholders on or before 15-12-2021)

Preamble:

1. The Tamil Nadu Transmission Corporation Ltd. (TANTRANSCO) is a Transmission Licensee under the provisions of the Electricity Act, 2003 engaged in the business of transmitting electricity from the various generating stations to the load centers. The operations and maintenance of transmission lines and substations by it is an integral part of such functions and therefore it should be permissible for it to collect operation and maintenance (O & M) charges from the private generators for the Maintenance of Bays and Associated Equipments at the Transmission Utilities Sub-Stations.
2. The Commission approved the transmission tariff to be paid to the TANTRANSCO by the users after determining its Annual Revenue Requirement. But, the operation and maintenance charges to be collected from the private generators for the Maintenance of Bays and Associated Equipments at the Transmission Utilities (TANTRANSCO) Sub-Stations, for the benefit of the private generators have not been separately determined by the

Commission, so far. However, the TANTRANSCO, had prescribed payment of O & M charges at 1.00% of the capital cost of the infrastructure with 5.72% escalation every year, by the IPPs, HT and EHT consumers, towards maintenance of the dedicated transmission lines and terminal bays in accordance with the Sub-Regulation (8) of Regulation 25 of TNERC (Terms and Conditions for Determination of Tariff Regulations, 2005 which is extracted below:

"In respect of the Transmission System declared under commercial operation on or after notification of these regulations, the base operation and maintenance expenses shall be fixed at 1% of the capital cost (as admitted by the Commission), in the year of commissioning and shall be subject to an annual escalation of 4% per annum for the subsequent years".

3. Subsequently, the annual escalation of 4% has been amended to 5.72% vide Commission's notification No. TNERC/TR/5/2-11, dated 13.03.2014, which has come into force from the date of notification in the Tamil Nadu Gazette i.e. 9th April 2014.
4. Accordingly, the TANTRANSCO has approved vide (Per) CH TANTRANSCO Proceedings No.305 (technical Branch) dated 23.12.2017 to collect the annual operation and maintenance charges for the bays provided to the intra state private generators for interfacing their generating units with TANTRANSCO Grid at the rate of 1% of the capital cost of the bay in the year of commissioning with an escalation of 4% per annum in the subsequent years upto 08.04.2014 and with an annual escalation of

5.72% per annum from 09.04.2014.

5. Whereas, during March 2021, the TANTRANSCO has filed a Petition before the Commission as directed by the Commission in its Order in DRP No.12/2019 dated 15-12-2020 with the following prayers:

i) To allow recovery of the O&M expenses from the fossil fuel based private generators for the Maintenance of Bays and Associated Equipments at the Transmission Utilities (TANTRANSCO) Sub-Stations, for the benefit of the private generators, @ 1.0% of the capital cost of the infrastructure maintained by it.

ii) For the erection of bay in the sub-stations, the requirement of spaces (approx.) are as given below:

For 11 KV Bay – 40 Sq.m (443.56 Sq.ft)

For 33 KV Bay – 56 Sq.m (620.984 Sq.ft)

For 110 KV Bay – 100 Sq.m (1108.9 Sq.ft)

For 230 KV Bay – 225 Sq.m (2495.025 Sq.ft)

Due to the allotment of spaces for the provision of Bay for the private generators in the premises of SS of TANTRANSCO, there is a constraint in the available space for the TANTRANSCO's future expansion. Under the circumstances, TANTRANSCO has to invest more for its expansion work.

Hence, in addition to the fixing of O&M charges for the bay

maintenance, TANTRANSCO has also requested the Commission to fix necessary rental charges (charges per sq. ft) towards the spaces provided for the bays erected exclusively for the private generators for the evacuation of their power generation too.

6. TANTRANSCO also stated that it is also paying annual O & M charges @ 1.5% of the capital cost, as mutually agreed, for the bays provided and maintained by PGCIL, the CTU for interfacing 230 KV/400 KV/765 KV sub stations of TANTRANSCO at PGCIL Sub stations by mutual Agreement. PGCIL, in vice versa, is also paying annual O&M charges for their bays provided and maintained by TANTRANSCO @ 1.5 % of the capital cost.
7. TANTRANSCO is maintaining the entire Transmission System consisting of Sub Stations and Transmission lines constructed by it, as well as, those dedicated bays of various voltage levels.
8. The O&M charges includes the Employees cost, Repairs and Maintenance charges and Administrative and General Expenses (A&G expenses).
9. TANTRANSCO is incurring the said components of the O&M expenses for the entire transmission system and maintained as a whole system and further the said O & M charges are not being segregated, based on the bays/lines/SS.
10. The operations and maintenance of transmission lines and

substations are an integral part of such functions and therefore TANTRANSCO is entitled for collection of operation and maintenance (O & M) expenses from those using its transmission system and they should be permitted to collect the same as earlier.

11. The maintenance of terminal line bays at the TANTRANSCO substations has to be carried out by the TANTRANSCO alone and not by the private generators concerned. Accordingly, the TANTRANSCO maintains the terminal line bays.
12. TANTRANSCO is collecting O&M expenses at 1.0% of the capital cost with an annual escalation of 5.72 % as per the Commission's notification No. TNERC/TR/5/2-11, dated 13.03.2014, which has come into force from the date of notification in the Tamil Nadu Gazette i.e. 9th April 2014. Further the Comprehensive Tariff Order for Bio mass based power Plants issued by the Commission, the O & M expenses has been considered as below:
 - a. *Tariff Order dt 28.03.2018 - at 5% with an annual escalation of 5.72% p.a. from the second year onwards.*
 - b. *Tariff Order dt 05.11.2020 - at 5% with an annual escalation of 5.72% p.a. from the second year onwards.*
13. In order to collect the O&M Charges from the private generators, it is sought to approve O&M expenses at 1.0 % of the Capital Cost incurred on Bays/Transmission lines as per the TNERC (Terms and Conditions for Determination of Tariff Regulations, 2005, with annual

escalation of 5.72% p.a. or as determined by the TNERC time to time.

14. The Commission, in its Order dated 15.12.2020 in D.R.P. No.11 of 2020 and D.R.P. No.12 of 2019 has also accepted that the collection of O & M expenses @ 1% for the maintenance is as per Regulation of the Commission. The relevant para in the aforesaid Order is extracted below:

"9.15O&M Charges collected from the generator as per the said regulation 25(8) is deducted from the Annual Revenue Requirement (ARR) of the Transmission Licensee under the head "Less: OTHER INCOME" as shown in the Table in para 9.15 below, so that the Transmission Charges get reduced uniformly to all generators. In other words, the Transmission Charges payable by each generator is calculated by dividing the Annual Revenue Requirement by the Transmission Capacity available. The O&M Charges collected from the individual generators using transmission lines is subtracted from the ARR and Transmission Charges is so arrived. Therefore, the Petitioner cannot contend that O&M Charges are levied twice.

9.16. *The format prescribed in Tariff Order in T.P. No.2 of 2017 dated 11-08-2017, for the calculation of ARR is provided as below:-*

"Table 4.14-1 Approved ARR for FY 2016-17 to FY 2018-19 (Rs. Crore)

Sr. No.	Particulars	Petition			Approved by the Commission		
		FY 2016-17	FY 2017-18	FY 2018-19	FY 2016-17	FY 2017-18	FY 2018-19
1.	O&M Expenses						
1.1	Employee Expenses						
1.2	R&M Expenses						

1.3	A&G Expenses						
1.4	Less: O&M Expenses capitalised	-	-	-	-	-	-
2.	Depreciation						
3.	Interest & Finance Charges						
4.	Interest Expenses capitalised	-	-	-	-	-	-
5.	Interest on Working Capital						
6.	Return on Equity						
7.	Less : Other Income						
8.	Aggregate Revenue Requirement						

9.17. It may be stated that the collection of O&M Expenses for bay maintenance is a revenue (miscellaneous income) received by the TANTRANSCO and deducted from its Annual Revenue Requirement in Sl.No.7 in the above Table, whereas the O&M Expenses claimed by TANTRANSCO and approved by the Commission in the Tariff Order is a component of Fixed Charges and it is related to the Employee Cost, Administration and General Expenses and Repairs and Maintenance Expenses.

9.18. Further, the Commission would also like to refer to regulation 59 of TNERC (Terms and Conditions for Determination of Tariff) Regulations, 2005, which provides as follows:

"59. Transmission Tariff Charges

The tariff for transmission of electricity by a transmission system shall comprise recovery of annual transmission charges consisting of the following computed as per the principles outlined in Chapter III of these Regulations.

- (i) Interest on Loan Capital;
- (ii) Depreciation
- (iii) Operation and Maintenance Expenses;
- (iv) Interest on Working Capital at normative availability; and:
- (v) Return on equity:

The annual transmission charges computed as per this regulation shall be total aggregate revenue requirement of the STU / Transmission licensee. The following shall be deducted from the total revenue requirement.

Transmission charges collected from the short term intra state open access consumers, captive power plant and generating stations using Non Conventional Energy Sources.

Income from other business to the extent of portion to be passed on to the beneficiaries.

Reactive Energy Charges and Transmission charges received from CTU for use of facilities of the licensee / STU.

Till such time a common transmission tariff is evolved to maintain consistency in transmission pricing framework in inter state and in the state transmission system the monthly transmission charges payable by the Distribution licensees and other long term intra state open access consumers shall be based on the capacity allocated to each beneficiaries as detailed below:

$$\frac{\{TC - (a + b + c) \times CL\}}{12 \times SCL}$$

Where TC = Annual Transmission Charges

A = Total transmission charges by the short term open access consumers

b = Income from other business to the extent of portion to be passed on to

the beneficiaries.

c= Reactive Energy Charges and Transmission charges received from

CTU for use of facilities of the licensee / STU

CL = Allotted capacity to the long term transmission customers

SCL = Sum of allotted Transmission capacity to all the long term open access

customers of the intra-state transmission system.

The transmission charges shall be determined after following the procedure outlined in chapter II.

9.19. Had there been no O&M Expenses collected from the bay users for bay maintenance, then the ARR for TANTRANSCO will be more and the Open Access Charges will be more. The non-bay users like the Open Access consumers have to pay more.

9.20. In view of the above findings, the collection of O&M Expenses @ 1% for the bay maintenance is as per the Regulation of the Commission. TANTRANSCO is directed to file necessary petition separately for clarification of the Commission regarding the levy of O&M charges for Bay maintenance and supervision charges etc. in order to avoid any ambiguity in future”.

15. The area required for the provision of Bays at various voltage level in the TANTRANSCO's SS are so arrived based on practice in vogue according to the field conditions.
16. Based on the facts and circumstances mentioned above, TANTRANSCO prayed to approve the levy of O & M charges for the bays provided to the intra-state private generators for interfacing their generating units with TANTRANSCO Grid @ 1% of the capital

cost of the bay in the year of commissioning with an annual escalation of 4.00% per annum in the subsequent years upto 08-04-2014 and with an annual escalation of 5.72 % per annum from 09-04-2014 as in (Per) CH TANTRANSCO Proceedings No.305 (technical Branch) dated 23-12-2017 or as determined by the commission from time to time.

17. The annual O&M charges are being collected for the maintenance of bays provided for connecting their generator units to the TANTRANSCO's transmission system.
18. The annual O&M charges for the bays provided to the private generators being collected from the date of commissioning of the respective generating units and as the O&M expenses is recurring in nature, the same is collected till the generating units are connected with the Grid.
19. The O&M charges for the maintenance of the bay is the charges for rendering the service i.e. maintenance of the bay related to the Generator alone and hence the additional service rendered by the TANTRANSCO to the generators specially attracts additional charges for that exclusive service.
20. If there had been no O&M expenses collected from the exclusive bay users for the exclusive service rendered by the TANTRANSCO, the Aggregate Revenue Requirement of TANTRANSCO will be more and hence, the Transmission Charges for all the open access

consumers will be more. Due to the increased Transmission charges, the non-bay users have to pay more to that extent.

21. The O&M charges ordered for bay maintenance by other Commissions / Entities are as under:

Sl. No.	Name of the Commission / Entity	O&M charges collected for Bay Maintenance
1.	Karnataka ERC	1.50 % of Capital Cost with an annual escalation of 5.72% for the base year.
2.	PGCIL to TANTRANSCO	1.50 % of Capital Cost with an annual escalation of 5.72%.
3.	TANTRANSCO to PGCIL	1.50 % of Capital Cost with annual escalation of 5.72%.
4.	CERC	Order dated 27-06-2007 in Petition No.146/2006 allowed collection of O&M charges.
5.	Sub-Regulation (8) of Regulation 25 of TNERC (Terms and Conditions for Determination of Tariff Regulations, 2005	1.00 % of Capital Cost with an annual escalation of 5.72%.

6.	Proposed by TANTRANSCO	1.00 % of Capital Cost with annual escalation of 5.72 %.
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22. The Commission proposes to authorize TANTRANSCO to collect O & M charges at 1.00% of the capital cost of the infrastructure (including the rental charges) with an escalation 5.72% every year, from the IPPs, HT and EHT consumers, towards maintenance of the dedicated transmission lines and terminal bays in accordance with the Sub-Regulation (8) of Regulation 25 of TNERC (Terms and Conditions for Determination of Tariff Regulations, 2005).

23. In this connection, the Commission invites Suggestions / Comments / Views from the stakeholders / interested persons shall be submitted to the Secretary, the TNERC, in writing or by email (tnerc@nic.in) on or before 15-12-2021.

(By Order of the Commission)

**Sd/-
Secretary
Tamil Nadu Electricity Regulatory Commission**