

TAMIL NADU ELECTRICITY REGULATORY COMMISSION

Order of the Commission dated this the 08th day of August 2024

PRESENT:-

Thiru M.Chandrasekar Chairman
Thiru K.Venkatesan Member
	and
Thiru B.Mohan Member (Legal)

M.P.No. 19 of 2024

Tamil Nadu Generation and Distribution Corporation Ltd.
(TANGEDCO)
NPKRR Maaligai
144, Anna Salai,
Chennai – 600 002

..... **Petitioner**
(Thiru N.Kumanan &
Thiru.A.P.Venkatachalapathy
Standing Counsels for TANGEDCO)

This Miscellaneous Petition has been preferred by the Petitioner seeking, inter alia directions to hold that the obligation of the State Distribution Licensee in terms of power purchase commitments has been and continues to be stranded and there is an unavoidable obligation and incidence to bear fixed costs consequent to such agreements and to determine the additional surcharge of Rs.0.34 per unit payable by open access consumers on adjusted quantum of power purchase through open access, and to consider the information submitted by TANGEDCO for determining the said surcharge and to pass any other orders as the Commission deems just and proper.

This petition having come up for hearing on 18-07-2024 in the presence of Tvl. N.Kumanan and A.P. Venkatachalapathy, Standing Counsel for the Petitioner TANGEDCO and on consideration of the representation made by the Standing Counsel for the Petitioner and on perusal of the material records, this Commission passes the following

ORDER

1. Facts of the Case:-

2.1. The Tamil Nadu Generation and Distribution Corporation Limited has filed this petition for determination of the Additional Surcharge payable by the consumers for the quantum of power purchase through Open Access during the period from 01.04.2024 to 30.09.2024.

2.2. The petitioner has prayed for the determination of the Additional surcharge on the following grounds –

(i) The liability for payment of Additional Surcharge by a class of consumers to meet the fixed cost of the distribution licensee arising out of its obligation to supply under Section 42(4) of Electricity Act 2003.

(ii) Regulation 24(2) of the TNERC (Grid connectivity and Intra-State Open Access) Regulations, 2014, which makes Additional Surcharge applicable only if the obligation of the licensee in terms of power purchase commitments has been and continues to be stranded or there is an unavoidable obligation and incidence to bear the fixed cost to such a contract.

(iii) The Commission, while deciding the Additional surcharge in M.P.No.41 of 2022 dated 24.02.2023 has directed the TANGEDCO, to file the petition on six monthly

basis with 15 minutes block wise data, for determination of Additional surcharge periodically.

2.3. The petitioner has sought to determine the Additional surcharge for the period from April 2024 to September 2024, based on the details of Capacity available, Scheduled power, Capacity not availed, Allowed Open access quantum and Fixed cost incurred during April 2023 to September 2023. The petitioner has prayed to determine the additional surcharge at Re.0.34 per kWh.

2.4. After admitting the petition, the Commission directed the petitioner in the Daily order dated 21-05-2024 to webhost the petition and to file the comments received from the stakeholders along with replies sent to the stakeholders by way of an affidavit. The petitioner has filed accordingly the comments/objections received from the Stakeholders and the reply given to them to the Commission.

3. Contention of the petitioner:

3.1. The petitioner TANGEDCO has stated that its Contracted capacity as on 31.03.2024 was as follows:

Sl. No.	Generation Category	Installed capacity (in MW)
1	Thermal	4320.00
2	Gas	516.08
3	Central Generating Stations - Share	7170.00
4	Independent Power Project	1105.50
5	Long Term Open Access	2830.00
6	Medium Term Open Access	100.00
7	Captive Power Projects	223.80
	Total	16265.38

	Non Conventional Energy	
I	Hydro	2321.90
II	Wind	1347.51
III	Solar	3463.34
IV	Co-Generation	228.30
V	Bio mass	2.40
	Total	7,363.45
	Grand Total	23,628.83

- 3.2. With regard to demand and supply position, the maximum power demand of the State was 19,409 MW and average daily consumption of the State was 426.439 MU during FY 2023-24. Maximum demand met was 20,830 MW (02.05.2024) and maximum consumption per day was 454.320 MU (30.04.2024) so far in FY 2024-25.
- 3.3. The petitioner has stated that the petition has been filed within the following legal frameworks -
- 3.4. The relevant Provisions of Electricity Act 2003, Policies of Government of India and Regulations on Open Access Notified by Hon'ble TNERC.
- 3.5. The Section 40 of Electricity Act describes the duties of Transmission Licensee related to open access

“to provide non-discriminatory open access to its transmission system for use by-

(i) any licensee or generating company on payment of the transmission charges ; or

(ii) any consumer as and when such open access is provided by the State Commission under sub-section (2) of section 42, on payment of the transmission charges and a surcharge thereon, as may be specified by the State Commission:

Provided that such surcharge shall be utilised for the purpose of meeting the requirement of current level cross-subsidy:

Provided further that such surcharge and cross subsidies shall be progressively reduced in the manner as may be specified by the State Commission:

Provided also that the manner of payment and utilisation of the surcharge shall be specified by the State Commission.

- 3.6. Section 42 (2) of the Electricity Act 2003 provides following provisions wherein the powers have been given to State Commissions for specifying cross subsidy and surcharge.

“The State Commission shall introduce open access in such phases and subject to such conditions, (including the cross subsidies, and other

operational constraints) as may be specified within one year of the appointed date by it and in specifying the extent of open access in successive phases and in determining the charges for wheeling, it shall have due regard to all relevant factors including such cross subsidies, and other operational constraints:

Provided that such open access shall be allowed on payment of a surcharge in addition to the charges for wheeling as may be determined by the State Commission:

Provided further that such surcharge shall be utilised to meet the requirements of current level of cross subsidy within the area of supply of the distribution licensee:

Provided also that such surcharge and cross subsidies shall be progressively reduced in the manner as may be specified by the State Commission:

Provided also that such surcharge shall not be leviable in case open access is provided to a person who has established a captive generating plant for carrying the electricity to the destination of his own use.”

- 3.7. Further, Section 42 (4) of the Act provides following provisions related to ‘Additional Surcharge’.

“Where the State Commission permits a consumer or class of consumers to receive supply of electricity from a person other than the distribution licensee of his area of supply, such consumer shall be liable to pay an additional surcharge on the charges of wheeling, as may be specified by the State Commission, to meet the fixed cost of such distribution licensee arising out of his obligation to supply.”

- 3.8. Section 8.5 of the National Tariff Policy provides following provisions that deal with calculation of cross subsidy surcharge and applicability of additional surcharge to be paid by open access consumers.

“National Electricity Policy lays down that the amount of cross-subsidy surcharge and the additional surcharge to be levied from consumers who are permitted open access should not be so onerous that it eliminates competition which is intended to be fostered in generation and supply of power directly to the consumers through open access.”

“8.5.4 The additional surcharge for obligation to supply as per section 42(4) of the Act should become applicable only if it is conclusively demonstrated that the obligation of a licensee, in terms of existing power purchase commitments, has been and continues to be stranded, or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract. The fixed costs related to network assets would be recovered through wheeling charges.”

3.9. The clause 8.5.6 which stipulates that in case of outages of generator supplying to a consumer on open access, standby arrangements should be provided by the licensee on the payment of tariff for temporary connection to that consumer category as specified by the Appropriate Commission. Provided that such charges shall not be more than 125 percent of the normal tariff of that category.

3.10. The Regulation 24 of TNERC (Grid connectivity and Intra-State Open Access) Regulations, 2014, provides following provisions, which deal with ‘Additional Surcharge’

“24. Additional Surcharge. –

(1) An open access customer, receiving supply of electricity from a person other than the distribution licensee of his area of supply, shall pay to the distribution licensee an additional surcharge on the charges of wheeling, in addition to wheeling charges and cross-subsidy surcharge, to meet out the fixed cost of such distribution licensee arising out of his obligation to supply as provided under subsection (4) of section 42 of the Act.

(2) This additional surcharge shall become applicable only if the obligation of the licensee in terms of power purchase commitments has been and continues to be stranded or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract. However, the fixed costs related to network assets would be recovered through wheeling charges.

(3) The distribution licensee shall submit to the Commission on six monthly basis, a detailed calculation statement of fixed cost which the licensee is incurring towards his obligation to supply. The Commission shall scrutinize the statement of calculation of fixed cost submitted by the distribution licensee

and obtain objections, if any, and determine the amount of additional surcharge:

Provided that any additional surcharge so determined by the Commission shall be applicable only to the new open access customers.

(4) Additional surcharge determined on per unit basis shall be payable, on monthly basis, by the open access customers based on the actual energy drawn during the month through open access:

Provided that such additional surcharges shall not be levied in case distribution access is provided to a person who has established a captive generation plant for carrying the electricity from such plant to the destination of his own use.

3.11. The petitioner has filed this petition based on the directions issued in the order dated 29.09.2021 in the petition M.P.No.30 of 2021, in which Commission has directed TANEDCO as follows:

“7.2. Further, the Commission hereby directs the petitioner to file the petition for determination of the Additional Surcharge on six monthly basis in future under 24(3) of the TNERC Grid Connectivity and Intra State Open Access Regulations, well in advance, even though no stranded capacity was identified during a set of six months period. 15 minutes Block wise data in respect of the power scheduled by Open access consumers shall be filed by the petitioner in respect of both Renewable & Non-Renewable energy along with the petition.”

3.12. Also the Commission in its order in M.P.No.9 of 2023 dated 11.05.2023 has stated as follows:

*“.....Hence, the claim of additional surcharge does not arise for the period from 01.04.2023 to 30.09.2023, and the Additional surcharge is determined as **Nil** for this period.*

TANGEDCO is directed to file the petition for determination of Additional surcharge for ensuing six months period (i.e.,01.10.2023 to 31.03.2024) on or before 31.07.2023 for early processing of the same.”

3.13. The additional surcharge for the period from 01.10.2023 to 31.03.2024 based on data for the period from 01.10.2022 to 31.03.2023 was not filed.

3.14. The additional surcharge for the period from 01.04.2024 to 30.09.2024 based on data for the period from 01.04.2023 to 30.09.2023 is now filed before this Commission for determination of Additional Surcharge payable by the open access consumers.

3.15. Additional Surcharge for the period from 01.04.2024 to 30.09.2024

(1) The Additional Surcharge for the period from April 2024 to September 2024 is to be determined based on the details from April 2023 to September 2023. The additional surcharge worked out by the petitioner based on the calculations approved earlier in M.P.No.30 of 2021 is as follows:

Calculation of Additional Surcharge for the period from April 2024 to September 2024				
S.No.	Description	Nomenclature	Value	Unit
1	Contracted Capacity	A	23628.83	MW
2	Maximum Availability	B	21942.37	MW
3	Minimum Availability	C	11384.51	MW
4	Average Availability	D	15568.83	MW
5	Maximum Scheduled	E	19249.14	MW
6	Minimum Scheduled	F	8869.14	MW
7	Average Scheduled	G	14591.15	MW
8	Capacity not availed (Max)	H	4917.87	MW
9	Capacity not availed (Min)	I	0.00	MW
10	Capacity not availed (Avg.)	J	977.68	MW
11	OA Allowed (Max)	K	1209.00	MW
12	OA Allowed (Min)	L	38.92	MW
13	OA Allowed (Avg.)	M	437.82	MW
14	Capacity stranded due to OA	N	348.04	MW
15	Total Fixed Charge (PPA)	O	9095.88	Rs in Crore
16	Fixed charges per MW available	$P=O/D$	0.58	Rs in Crore
17	Fixed charges of stranded capacity	$Q=P*N$	203.34	Rs in Crore
18	Transmission Charges paid	R	3472.48	Rs in Crore
19	Energy Scheduled	S	68625.00	MU
20	Transmission Charges per kWh	$T=R/S*10$	0.51	Rs./kWh
21	Distribution Charges (As approved in Tariff Order)	U	0.97	Rs./kWh
22	Total T & D Charges per kWh	$V=T+U$	1.48	Rs./kWh
23	Energy Consumed by OA Consumer from Discoms	W	3803.67	MU

24	T & D charges payable to Discoms by OA consumers	$X = W*V/10$	562.60	Rs in Crore
25	Demand Charges Recovered by Discoms from OA	Y	704.50	Rs in Crore
26	Demand Charges to be adjusted	$Z = Y - X$	141.90	Rs in Crore
27	Net stranded charges recoverable	$AA = Q - Z$	61.44	Rs in Crore
28	OA adjusted energy	AB	1811.24	MU
29	Additional surcharge AC	$AC = AA/AB*10$	0.34	Rs./kWh

The details of Power purchase fixed cost, availability and energy adjusted details have been submitted as Annexure I to V in the typed set.

4. Prayer of the Petitioner -

- (i) To determine additional surcharge payable by all open access consumers who purchase power through 3rd party sale and power exchanges (viz.IEX, PXI, etc.) for the period from 01.04.24 to 30.09.24.
- (ii) Hold that the obligation of the state distribution licensee in terms of power purchase agreements has been and continues to be stranded and there is an unavoidable obligation and incidence to bear fixed costs consequent to such agreements.
- (iii) To fix the additional surcharge as **Re.0.34** per unit payable by open access consumers on Adjusted quantum of power purchase through open access.
- (iv) Consider the information submitted by TANGEDCO for determining the amount of additional surcharge.
- (v) Pass such other further orders as this Commission may deem just and proper in the circumstances of the case.

5. Findings of the Commission :

5.1. The petitioner has filed the present M.P.19 of 2024 for determination of Additional Surcharge payable by Open Access consumers under TNERC (Grid connectivity and Intra-State Open Access) Regulations 2014 based on the recent six months data (from 01-04-2023 to 30-09-2023) applicable for the period from 01-04-2024 to 30-09-2024.

5.2. The petitioner, TANGEDCO in its additional affidavit filed on 18.07.2024 furnished the replies on the comments received from the stakeholders with reference to the legal provisions and the procedure adopted by them.

5.3. The Commission has gone through the comments of the stakeholders and the replies given by the TANGEDCO with reference to the standardised procedure formulated by the Commission based on the Orders passed in M.P.18 of 2020 dated 15.04.2021, M.P.41 of 2022 and M.P.No.32 of 2021 dated 08.02.2022.

5.4. The Commission has also carefully gone through the comments furnished by the stakeholders and the replies furnished by the TANGEDCO. Most of the comments given on this M.P.19 of 2024 are similar to those comments received against the earlier petitions filed by the TANGEDCO for determination of Additional surcharge viz., M.P.18 of 2020, M.P.30 of 2021 and M.P.41 of 2022.

5.5. All those comments have been taken into consideration by the Commission, in the present process of determination of additional surcharge.

5.6. While considering the similar contentions in the appeal filed against the Order in M.P.18 of 2021 of the Commission, Hon'ble APTEL observed in Appeal No.177 of 2021 dated 15.11.2021 as follows and upheld the methodology adopted by the TNERC dismissing all the objections.

“203. We also note that if the contentions of the Appellants were to be accepted, it would tantamount to requiring all other consumers of TANGEDCO to bear the burden of choice exercised by open access customers. We also agree with the State Commission that it is unfair to saddle other consumers with such unrecovered cost.

204. In view of the above we are of the considered opinion that the Impugned Order dated 15.04.2021 passed by the Respondent No.1/ TNERC in the M.P.No. 18 of 2020 does not call for any interference by this Tribunal and accordingly the Appeal No. 177 of 2021 is dismissed as devoid of merit.”

5.7. The Section 42 (4) of the Electricity Act 2003 which deals with Additional Surcharge reads as follows.

“42. Duties of distribution licensee and open access –

xxxx xxxx

(4) Where the State Commission permits a consumer or class of consumers to receive supply of electricity from a person other than the distribution licensee of his area of supply, such consumer shall be liable to pay an additional surcharge on the charges of wheeling, as may be specified by the State Commission, to meet the fixed cost of such distribution licensee arising out of his obligation to supply.”

5.8. The Commission has set out the applicability and requirement for levying “Additional Surcharge” under TNERC (Grid Connectivity and Intra-State Open Access) Regulations 2014 and one such requirement under Regulation 24(3) is that the distribution licensee shall submit to the Commission on six month basis, a detailed calculation on fixed cost which the licensee is incurring towards its obligation to supply.

5.9. Accordingly the petitioner has filed the Maximum availability, Average availability, Maximum scheduled quantum, Average scheduled quantum, Capacity not availed for scheduling (Maximum, Minimum, Average), Scheduled Open Access

quantum (Maximum, Minimum, Average), Stranded capacity due to Open Access and Net stranded charges to be recovered.

5.10. In this petition, TANGEDCO has stated that its "total Contracted capacity" is 23628.83 MW. During the period of April 2023 to September 2023, it had maximum availability of 21,942.37 MW including RE power. Maximum scheduling was 19,249.14 MW with an average of 15,568.83 MW. Hence, the average capacity stranded during the period was 978 MW. However, the petitioner restricted the claim for stranded capacity prevailed in corresponding blocks and limiting to the quantum of OA scheduled. The fixed cost incurred by the petitioner was Rs.9095.88 Crores during the period from 4/2023 to 9/2023. Considering the above data, the petitioner has claimed the Additional Surcharge to be determined at Re.0.34 per Unit.

5.11. It has been pointed out by some of the stakeholders that the Additional surcharge can be claimed by the Discom only when it is able to demonstrate on 15 minutes time block basis that the power had been continuously stranded throughout the period of six months. In this connection, the Commission has obtained the 15 minutes block wise data for the TANGEDCO's Power availability, Scheduled quantum and stranded quantum. The details so furnished were taken into consideration for determination of Additional surcharge.

5.12. As per National Tariff Policy 2016, the additional surcharge is applicable only when the licensee is able to demonstrate its unavoidable obligation of fixed costs towards the surplus power available in the said period.

"National Tariff Policy 2016

8.5.4 The additional surcharge for obligation to supply as per section 42(4) of the Act should become applicable only if it is conclusively

demonstrated that the obligation of a licensee, in terms of existing power purchase commitments, has been and continues to be stranded, or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract. The fixed costs related to network assets would be recovered through wheeling charges.

In this petition, TANGEDCO has furnished details of block-wise capacity of power available and its available capacity backed down during the block of OA power availed. These details were taken into consideration in this exercise along with the Renewable energy details furnished by the TANGEDCO.

5.13. Determinants of Additional Surcharge:

5.13.1. Under Section 42(4) of the Electricity Act 2003, the Additional surcharge shall be levied to meet the fixed cost incurred by the distribution licensee arising out of his obligation to supply. Under Regulation 24(2) of Grid connectivity and Intra state open access Regulations, the Additional surcharge shall become applicable only if the obligation of the licensee in terms of power purchase commitments has been and continues to be stranded or there is an unavoidable obligation and incidence to bear the fixed costs consequent to such contract. However, the fixed costs related to network assets would be recovered through wheeling charges.

5.13.2. In order to justify the claim of Additional Surcharge, the petitioner has to provide the Fixed capacity charges incurred by the petitioner towards the available capacity in terms of power purchase commitment which has been continuously stranded. Accordingly, the petitioner (TANGEDCO) has provided the details of Fixed

charges and Block-wise availability & power scheduled details. These are taken into scrutiny by the Commission with reference to regulation 24(3) which requires submission of details with reference to fixed cost by the licensee.

5.14. Determination of Fixed capacity charges incurred by the Petitioner during April 2023 to September 2023:

5.14.1. Under Regulation 24 (3) of the TNERC (Grid Connectivity and Intra-State Open Access) Regulations, 2014, the distribution licensee shall have to submit a detailed calculation statement of fixed cost incurred towards its obligation to supply. The Commission shall scrutinise the calculation statement for the determination of Additional Surcharge. Accordingly, the petitioner has submitted the details of Fixed capacity charges incurred / paid for its (i) Own generating station and (ii) Other sources from which power purchased. TANGEDCO has worked out its Fixed capacity charges as Rs.7,890.81 Crores for the period of six months. The petitioner has submitted the details duly certified by the Chartered Accountants.

5.14.2. Though in this petition TANGEDCO submitted its Fixed charges details on actual bases as certified by the Auditors in respect of certain parameters, Commission hereby views that it would be appropriate to consider the Fixed capacity charges as approved in the Tariff Order No.7 of 2022 dated 09.09.2022 for TANGEDCO's own plants for the period 2023-24 and in line with the normatives specified in TNERC (Terms and Conditions for Determination of Tariff) Regulations, 2005 and calculated accordingly as below.-

Table-1 : Calculation of Fixed cost i.r.o. TANGEDCO's own generating stations for the period from April 2023 to September 2023

Fixed cost components	Claimed Amount (Rs.in Crores)	FC disallowed	Net Fixed cost approved (w.r.to T.O.7 of 2022)
Depreciation	807.21		807.21
Interest on Loan capital	2130		2130.00
Interest on Working capital	283.15		283.15
Return on Equity	335.02	335.02	0.00
O&M expenses	688.47	58.66	629.81
Other Interests / other debts	0.1	0.1	0.00
Prior period charges	4.02	4.02	0.00
Subtotal	4247.96	397.80	3850.16
Other income	92.29		92.29
Net fixed cost - Own generating stations	4155.67	397.80	3757.87

5.14.3. The components of fixed cost viz., Depreciation, Interest on Loan capital, Interest on Working capital, O&M expenses net off other income arrived as above by disallowing the Return on Equity, other Debts in line with the earlier Orders since normative exercise is pending.

(i) Depreciation, Interest on Loan capital, Interest on Working capital:

The petitioner has claimed Fixed cost towards Depreciation, Interest on Loan Capital and Interest on Working capital in line with the approval of Fixed cost components in Tariff Order No.7 of 2022 Dated 09-09-2022.

(ii) Return on Equity :

The Return on Equity has been claimed by the petitioner of Rs.263.74 Crores for the period of 10/2020 to 03/2021. In this connection, it would be appropriate to mention the earlier observation of the Commission on the claim of RoE by the TANGEDCO.

In the T.O. dated 11-08-2017, the Commission has stated that, the Commission is of the view that TANGEDCO is mixing the revenue account with capital account and the equity approved may be again diverted to Revenue account; the actual borrowings are significantly higher than capital expenditure. Hence, the Commission, in line with the decision taken in Suo motu order dated 11th December 2014, adopted the same approach while approving the RoE. The Commission finally observed under para 3.10.8 of the T.O. dt.11-08-2017 that, "Funding of Capital expenditure has been considered entirely through loans and hence, no RoE was approved for the FY 2015-16. Here, in this case too, the petitioner has not demonstrated the portion of equity deployed in the operation of its business. In the recent Tariff Order no.7 of 2022 also, the Commission had the similar view in respect of the RoE claimed by the petitioner. Hence, the Commission hereby decides to disallow the cost claimed under the RoE fully.

(iii) Operation and Maintenance expenses:

The petitioner is stated to have claimed the O&M expenses based on the actual cost incurred during the period from 4/2023 to 9/2023. Though the petitioner has claimed on actual basis, the Commission while going through its performance has found that O&M expenses is not in line with the approved value for 2023-24; hence the Commission decides to approve the O&M cost in line with norms under Tariff Regulations, 2005, which is in line with the True up order for the year 2021-22. Therefore it would be just and appropriate to approve the O&M at the rate of 5.72% Year-on-Year basis upto the FY 2023-24.

(iv) Other Debts and Prior period credits / charges :

TNERC's (Terms and Conditions for determination of Tariff) Regulations 2005 has not defined the components "Other Debts" and "Prior period credits / charges".

Hence, in the absence of direct norms for such tariff components, we are not inclined to allow such expenses without carrying out the detailed true up exercise. Hence, the Commission disallows the fixed cost components viz., 'Other Debts' and 'prior period charges' of Rs.0.1 Crores and Rs.4.02 Crores for calculation of Fixed capacity charges for the period of 4/2023 to 9/2023.

(v) The Total Net Fixed capacity charges for own generating stations, approved by the Commission, under Table-1, is Rs.3757.87 Crores for determination of fixed cost of the stranded capacity.

5.14.4. Calculation of Fixed Capacity charges incurred by the Petitioner towards Power purchase from Other Sources :

5.14.4.1. The petitioner has sought approval of fixed capacity charges incurred by it for the period from April 2023 to September 2023 towards Central Generating Stations (CGS), Independent Power Producers, Renewable energy purchase and other Long term Power purchase agreements.

5.14.4.2. The Fixed capacity charges claimed in respect of CGS have already been approved by the Central Electricity Regulatory Commission and the FCC claimed in respect of IPP, Renewables and Long Term power purchase/Medium Term Open Access have also been approved by this Commission except STOA. Hence, the Commission hereby approves the claim for calculation of the cost of stranded capacity as prayed for.

5.14.5. The consolidated Fixed capacity charges in respect of the petitioner is calculated as below for the period of six months.

Calculation of Consolidated Fixed capacity charges for the period from April 2023 to September 2023 (All the sources of Power purchases) :

Table – 2

Sl. No	Sources	Quantum (MU)	Fixed Cost claimed by the TANGEDCO	Fixed cost approved by the TNERC
1	Own Generating Stations			
	Kundha	1032.714	257.00	227.76
	Kadamparai	240.410	122.09	104.36
	Erode	527.430	331.17	303.18
	Tirunelveli	162.169	176.33	163.03
	NCPTS Stage-I	1634.303	583.50	578.80
	NCTPS Stage .II	2486.660	562.29	493.03
	M.T.P.S Stage-I	2587.903	385.51	389.58
	M.T.P.S Stage.II	1391.890	478.43	349.62
	T.T.P.S.	2897.925	696.29	635.84
	Kovil Kalpal	34.729	114.25	106.75
	Valuther Phase -I & II	590.980	163.33	148.79
	Kuttalam	311.372	102.71	92.18
	Basin Bridge	0.000	182.79	164.98
	Total	13898.485	4155.67	3757.87
2	C.G.S.			
	Neyveli Lignite Corpn Ltd. TS-II	919.868	90.61	90.61
	Neyveli Lignite Corpn Ltd. Expn.TS-I	624.985	65.85	65.85
	Neyveli Lignite Corpn Ltd. Expn.TS-II	489.270	99.76	99.76
	NLC/NNTPP	2051.531	382.00	382.00
	NTPC/SR	1489.715	152.62	152.62
	NTPC/SR STAGE -III	452.414	38.35	38.35
	NTPC/KUDIGI	889.842	203.00	203.00
	NTPC/TALCHER	1617.629	205.25	205.25
	NTPC/ER	106.409	14.27	14.27
	NTPC/SIMHADRI ST-2	521.667	125.15	125.15
	NTPC/Barh-1	266.699	75.29	75.29
	NTPC/Barh-2	361.391	77.34	77.34
	NTPC/Bongaigaon	156.543	44.15	44.15
	NTPC/KBUN	113.500	26.83	26.83
	NTECL/VALLUR	3126.287	625.64	625.64
	NTPL	999.040	183.61	183.61
	Kudankulam Nuclear Power Corpn.	3194.075	6.70	6.70
	NPC/MAPS	339.091	0.69	0.69
	NPC/KAIGA	881.468	1.38	1.38
	Sub Total	18601.422	2418.49	2418.49

3	IPP's			
	SEPC Power Private Limited	1319.687	310.19	310.19
	TAQA/ST-CMS	707.250	133.83	133.83
	Sub Total	2026.937	444.02	444.02
4	Renewable			
	Windmill	1840.182	0.00	0.00
	Co-Generation	163.975	32.63	32.63
	Biomass	1.150	0.15	0.15
	Captive Power	0.628	0.00	0.00
	Solar	2942.494	0.00	0.00
	UI	-137.428	0.00	0.00
	Sub Total	4811.000	32.79	32.79
5	Traders (MTOA)			
	PTC India Ltd. (Pilot-II DB Power)	338.106	47.96	47.96
	PTC India Ltd. (Pilot-II Jai Prakash Power)	250.016	38.10	38.10
	PTC India Ltd. (GMRKEL)	391.444	80.30	80.30
	Sub Total	979.566	166.37	166.37
6	Traders (LTOA)			
	Jindal Case1 Bidding	1491.421	325.66	325.66
	Opg Pvt Ltd	145.570	30.67	30.67
	Coastal Energen Pvt. Ltd.	1312.763	226.71	226.71
	PTC India Ltd.	355.383	113.52	113.52
	Dhariwal Infrastructure Ltd.	402.713	48.34	48.34
	DB Power Ltd.	772.503	161.21	161.21
	IL&FS Tamil Nadu Power	1607.432	359.92	359.92
	Bharath Aluminium	719.618	83.82	83.82
	KSK Mahanadi Power	1914.686	374.19	374.19
	GMR Energy Trading Ltd.	547.863	133.53	133.53
	Nvvn Solar	15.610	0.01	0.01
	Sub Total	9285.561	1857.58	1857.58
7	Traders (STOA)			
	PTC India Ltd.	438.627	14.64	0.00
	Manikaran Energy	334.605	0.00	0.00
	Refex Industries Ltd.	301.880	6.34	0.00
	Shree Cement	264.072	0.00	0.00
	Sub Total	1339.185	20.98	0.00
8	STOA Charges			
	Power Exchange	3991.108	0.00	0.00
	Sub Total	3991.108	0.00	0.00
	Total Power Purchase Cost	54933.263	9095.880	8677.101

5.15. The Commission has calculated above Fixed capacity charges for the determination of Additional surcharge taking into account of Fixed charges approved for TANGEDCO's own stations and the Fixed costs related to other Power purchase transactions.

5.16. Determination of Stranded capacity (for the period April'2023 to September 2023) :

5.16.1. The petitioner is obligated to demonstrate that its power purchase commitments was continued to be stranded during the period under question and the petitioner had unavoidable obligation to bear fixed cost for such contracts as stipulated under Regulation 24(2) of the TNERC (Grid Connectivity and Intra State Open Access) Regulations, 2014.

5.16.2. The petitioner has submitted the 15 minutes block-wise data obtained from the State Load Despatch Centre in respect of the capacity available and scheduled details of the Distribution licensee & Open Access Consumers.

5.16.3. The Commission has carefully gone through the details furnished by the Petitioner. Whatever the block-wise quantum was scheduled by the SLDC, it has been compared against the 'available capacity' in the corresponding block; the unscheduled quantum under each block is considered as 'Capacity not availed' under respective block. The average unscheduled capacity (stranded capacity) of the petitioner's conventional plants is 977.68 MW; however, the stranded capacity due to such Open access purchase (viz., 3rd party purchase, IEX, Power Exchange, etc.) alone is to be quantified.

5.16.4. The petitioner has provided the quantum of power purchased by the Open Access consumer in each 15 minutes block during the period from April 2023 to September 2023. The petitioner / SLDC has provided such data. The block wise stranded capacity i.e., 'Capacity not availed' has been compared with the energy scheduled by the Open Access consumers; the comparison is made to justify that since the claim can be only with reference to third party purchase, IEX, Power exchange etc., In every block, the least of the 'OA scheduled energy' or 'Capacity not availed' is considered to arrive at the 'Average stranded capacity' for the entire period of six months i.e., April 2023 to September 2023. The data furnished in this petition is scrutinised with reference to the petitioner / SLDC's data and corrected wherever required. From this comparison, there is an average stranded capacity of 348.04 MW due to Open access consumers during the six months period.

5.16.5. The Commission has arrived the stranded capacity based on those power quantum which are being scheduled by the SLDC.

5.17. Calculation of Additional surcharge payable by the Open Access consumers:

Table-3 : Determination of Additional Surcharge payable by Open Access consumers:

S. No.	Description	Nomenclature	Unit	Submitted by TANGEDCO	Approved by TNERC
1	Contracted Capacity	A	MW	23628.83	23628.83
2	Maximum Availability	B	MW	21942.37	21942.37
3	Minimum Availability	C	MW	11384.51	11384.51
4	Average Availability	D	MW	15568.83	15568.83
5	Maximum Scheduled	E	MW	19249.14	19249.14
6	Minimum Scheduled	F	MW	8869.14	8869.14
7	Average Scheduled	G	MW	14591.15	14591.15

8	Capacity not availed (Max)	H	MW	4917.87	4917.87
9	Capacity not availed (Min)	I	MW	0.00	0.00
10	Capacity not availed (Avg.)	J	MW	977.68	977.68
11	OA Allowed (Max)	K	MW	1209.00	1209.00
12	OA Allowed (Min)	L	MW	38.92	38.92
13	OA Allowed (Avg.)	M	MW	437.82	437.82
14	Capacity stranded due to OA	N	MW	348.04	348.04
15	Total Fixed Charge (PPA)	O	Rs in Crore	9095.88	8677.10
16	Fixed charges per MW available	$P=O/D$	Rs in Crore	0.58	0.56
17	Fixed charges of stranded capacity	$Q=P*N$	Rs in Crore	203.34	193.97
18	Transmission Charges paid	R	Rs in Crore	3472.48	3472.48
19	Energy Scheduled	S	MU	68625.00	68625.00
20	Transmission Charges per kWh	$T=R/S*10$	Rs./kWh	0.51	0.51
21	Distribution Charges (As approved in Tariff Order)	U **	Rs./kWh	0.97	0.97
22	Total T & D Charges per kWh	$V=T+U$	Rs./kWh	1.48	1.48
23	Energy Consumed by OA Consumer from Discoms	W	MU	3803.67	3803.67
24	T & D charges payable to Discoms by OA consumers	$X= W*V/10$	Rs in Crore	562.60	562.60
25	Demand Charges Recovered by Discoms from OA	Y	Rs in Crore	704.50	704.50
26	Demand Charges to be adjusted	$Z=Y-X$	Rs in Crore	141.90	141.90
27	Net stranded charges recoverable	$AA=Q-Z$	Rs in Crore	61.44	52.07
28	OA Adjusted energy	AB	MU	1811.24	1811.24
29	Additional surcharge AC	$AC=AA/AB*10$	Rs./kWh	0.34	0.29

5.17.1. Capacity stranded due to OA consumer:

The Commission has prudently verified the data submitted by the petitioner and taken the availability of such source which only have been scheduled by SLDC into account, under the items of Sl.no.2 to 10 of the above table. Though there is an average unavailed capacity of 977.68 MW during the said period of six month, the block wise comparison is made only with the OA quantum to arrive at an exact

stranded capacity due to Open access consumers. In this exercise, it is found that the average stranded capacity of licensee's power is 348.04 MW during the period of October 2021 to March 2022.

5.17.2. Total fixed capacity charges:

Based on the actual fixed capacity charges incurred during the period from April 2023 to September 2023, the petitioner has claimed the fixed cost for Rs.9095.88 Crores for determination of Additional surcharge in respect of its own generating stations as well as other sources of power purchase. The Commission has allowed the fixed cost payable to external sources of power purchase as claimed; but the fixed cost claim towards its own generating stations is allowed with reference to the T.O.No.7 of 2022 as explained in the Table – 1 and paras thereunder above. The Commission hereby approves to consider the total Fixed cost of Rs.8677.10 Crores towards Additional surcharge. Thus the Fixed cost incurred per MW is calculated as Re.0.29 Crore per MW.

5.17.3. The rate of Additional Surcharge :

The Commission scrutinized the details furnished by the petitioner; based on thorough checking of the data, arrived the actual Stranded capacity of licensee due to OA consumers as 348.04 MW. And the Fixed cost obligation on such stranded capacity is calculated as 193.97 Crores. The Net Demand charges arrived after deducting the Transmission and Distribution Charges (T&D charges) charges absorbed for the consumption of Discom power is taken for adjustment against 'Fixed capacity charges recoverable for stranded capacity'. Such net stranded fixed capacity charges divided by the actually drawn OA energy is the rate of Additional surcharge to be recovered from the OA consumers of April'2024 to September 2024.

Thus, based on the above method of approach, the rate of Additional surcharge is calculated as Rs.0.29 / Unit (**Table – 3**).

5.18. Moreover, the Commission has clarified on the chargeability of Additional surcharge in M.P.No.32 of 2021 dated 08.02.2022, as below –

“8.10. Taking into account of all the above circumstances and facts, we are of the well considered view that the Additional surcharge shall be levied on the quantum of OA power actually drawn only as stipulated in Regulation 24(4) of the TNERC Intra-State Open Access Regulations 2014.”

Thus, the Commission decides to permit levy of Additional surcharge on the OA power actually drawn by the OA consumer during the period concerned.

6. The Applicability of Additional Surcharge:

- 6.1. In view of the above findings, the Commission hereby directs the petitioner –
- (i) to collect the Additional Surcharge at the rate of Re.0.29 per Unit from the Open Access consumers on the quantum of the electricity actually drawn by the OA consumer.
 - (ii) The additional surcharge of Rs.0.29 per kWh is collectable by the petitioner (TANGEDCO) from the date of this Order and the said rate is applicable in respect of the OA power drawn by the consumer upto 30-09-2024 from the date of this Order.
 - (iii) The Additional Surcharge as determined under the Table-3 above is applicable to the Open Access consumers who purchase the power through 3rd party Sale and power exchanges (viz., IEX, PXI, etc.,)

6.2. As the methodology and formulae of determination of Additional Surcharge has already been approved by the Commission in earlier Orders taking into account of the comments obtained from the stakeholders and such methodology has also been upheld by Hon'ble APTEL in the judgment of A.No.177 of 2021 dated 15.11.2021, the matter can be said to have reached finality. Therefore in this regard, the rate of Additional surcharge, for subsequent period shall be determined based on the block-wise six monthly data furnished by the licensee.

6.3. Directives:

1) Further, the Commission hereby directs the petitioner to file the petition for determination of the Additional Surcharge on six monthly basis in future under 24(3) of the TNERC Grid Connectivity and Intra State Open Access Regulations, well in advance, even if no stranded capacity was identified during a set of six months period. 15 minutes Block wise data in respect of the power scheduled by Open access consumers shall be filed by the petitioner in respect of both Renewable & Non-Renewable energy along with the petition.

2) The petitioner shall file a monthly report on total energy wheeled by OA consumers, Energy consumed by captive consumers, Energy consumed by OA consumers through 3rd Party purchase and Energy consumed by OA consumers through exchange.

(Sd.....)
Member (Legal)

(Sd.....)
Member

(Sd.....)
Chairman

/True Copy /

**Secretary
Tamil Nadu Electricity
Regulatory Commission**

Annexure

Summary of Fixed Capacity charges of Own Generating Stations (from 04/23 to 09/23) (Rs. in Crores)

S. No.	Name of the Plant	Depreciation	Interest on loan capital	Interest on Working Capital	Return on Equity	Operation and Maintenance Expenses	Other Interest/ other debts	Prior period credits/ charges	Extra Ordinary Charges	Other Income	Non-Tariff Income	Total Fixed Cost
1	TTPS	85.82	330.16	54.88	0.00	165.42	0	0	0	0.44	0	635.83
2	MTPS	49.31	197.03	36.07	0.00	146.42	0	0	0	39.24	0	389.58
3	NCTPS-I	82.35	342.51	39.94	0.00	125.74	0	0	0	11.73	0	578.80
4	MTPS-II	203.50	182.51	65.47	0.00	1.68	0	0	0	22.42	0	349.61
5	NCTPS-II	144.81	202.26	43.04	0.00	38.56	0	0	0	16.74	0.02	493.02
6	ThirumalkottaiGTPS	17.50	78.08	3.38	0.00	7.82	0	0	0	0.01	0	106.76
7	Kuttalam-GTPS	17.44	65.90	6.08	0.00	2.79	0	0	0	0.02	0	92.18
8	Basin Bridge-GTPS	17.26	136.88	4.70	0.00	6.15	0	0	0	0	0	164.98
9	Valuthur-GTPS	21.47	109.83	6.72	0.00	11.18	0	0	0	0.41	0	148.79
10	Erode-HPS	94.90	161.31	9.22	0.00	38.00	0	0	0	0.24	0	303.18
11	Kadamparai-HPS	14.59	66.88	2.91	0.00	20.12	0	0	0	0.13	0	104.36
12	Kundah-HPS	33.43	154.74	6.19	0.00	34.09	0	0	0	0.68	0	227.76
13	Tirunelveli-HPS	24.86	101.95	4.58	0.00	31.85	0	0	0	0.21	0	163.03
	TOTAL	807.205	2130.00	283.1450	0.00	629.81	0.00	0.00	0.00	92.27	0.02	3757.87