

**BEFORE THE ODISHA ELECTRICITY REGULATORY COMMISSION,  
BIDYUT NIYAMAK BHAWAN.  
PLOT No-4, CHUNOKOLI, SHAILASHREE VIHAR, BHUBANESWAR-751021**

Case No: \_\_\_\_\_/2025

**IN THE MATTER OF:** Determination of Wheeling Charges , Wheeling Losses , Cross Subsidy Surcharge for FY 2026-27 for LT Consumers taking power on Open Access permitted under OERC (Promotion of Renewable Energy through Green Energy Open Access) Regulations 2023 and other related matters

**And**

**IN THE MATTER OF:** TP Central Odisha Distribution Ltd., Corporate Office, Power House, Unit 8, Bhubaneswar- 751012 represented by its Chief-Regulatory & Legal .

.... *Petitioner*

**IN THE MATTER OF:** M/s GRIDCO, OPTCL, SLDC, Department of Energy, Govt. of Odisha and All Concerned Stakeholders.

.... *Respondents*

**Affidavit**

**28 NOV 2025**

I, Bharat Kumar Bhadawat, aged about 54 son of late Shri Shankar Lal Bhadawat residing at Bhubaneswar do hereby solemnly affirm and say as follows:

I am the Chief –Regulatory & Legal of TP Central Odisha Distribution Ltd., the Petitioner in the above matter and I am duly authorized to swear this affidavit on its behalf.

The statements made in the submission herein shown to me are based on information provided to me and I believe them to be true.

Bhubaneswar

Dated: 28.11.2025

*Bharat Kumar Bhadawat*

**Bharat Kumar Bhadawat**

Chief – Regulatory & Legal

**Identified by**

*[Signature]*  
Advocate

**The Deponent above named being duly identified by Sri..... *A.K. Mohanty*..... Advocate at appears before me on dt. *28/11/25* at about..... *9:25* A.M./ P.M. and sworn on oath that the contents of this affidavit are true to the best of his/her knowledge.**

*[Signature]*  
**ANIL KUMAR MOHANTY**  
NOTARY BBSR  
REGD. No. OD-116/2009

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.... *Respondents*

**MOST RESPECTFULLY SHEWETH:**

1. That, the petitioner DISCOM has commenced its operation w.e.f. 01.06.2020 as per terms of Vesting Order dated 26.05.2020. TP Central Odisha Distribution Limited (TPCODL) is a joint venture between The Tata Power Company Ltd. and the Government of Odisha with equity participation of 51% by the Tata Power Company Ltd. and 49% by GRIDCO Ltd. On behalf of the Govt. of Odisha.
2. That, the petitioner is the Distribution Licensee, as per License Condition dated 24.08.2020 of the Hon'ble Commission, in central part of Odisha having five Distribution Circle namely Bhubaneswar-I, Bhubaneswar-II, Cuttack, Dhenkanal and Paradeep with area of operation of 29354 Sq.Km.
3. That, the petitioner DISCOM is required to "supply electricity" in accordance with the provisions as laid down under section 42 of the Electricity Act, 2003 which provides for duties of the Distribution Licensee.



*[Handwritten Signature]*

#### **A. Background for Submission of the Petition**

4. The Hon'ble Commission vide gazette notification dated 11<sup>th</sup> January 2024 has notified the OERC (Promotion of Renewable Energy through Green Open Access) Regulations 2023 ("Green Open Access Regulations, 2023") for promotion of Green Energy.
5. The Green Open Access Regulations, 2023 allows consumers to procure power beyond a threshold of 100 KW capacity. The relevant extract from the regulations are provided below.
  - h) **"Entity" means any consumer who has contracted demand or sanctioned load of one hundred (100) kW or more either through single connection or through multiple connections aggregating to Hundred (100) kW or more located in the same operating area of distribution licensee, except for captive consumer;**
6. In accordance to the requirement of the Green Open Access Regulations, 2023 and in compliance to the directive of the Hon'ble Commission given in Tariff Order dated 24.03.2025 we are submitting this petition for determination of Wheeling Charges, Wheeling Losses and Cross Subsidy Surcharge (CSS) for LT Consumers taking power on Open Access.
7. In addition, keeping in mind the aggregation of applicants at LT level, a settlement procedure has been proposed in this petition. The Hon'ble Commission is requested to issue a Practice Direction in this regard.

#### **B. Determination of Applicable Open Access Charges for LT Consumers for FY 2026-27**

##### **i. Wheeling Losses for LT Consumers**

8. The Wheeling losses for LT Consumers has been determined on the basis of Distribution losses, Sales and Input proposed in our ARR petition for FY 2026-27.
9. The key parameters that has been submitted in our ARR FY 2026-27 petition is provided in table below.



**Table 1 : Ket Parameters of ARR FY 2026-27 Petition**

Sr No	Particulars	UoM	FY 2026-27
1	LT Sales	MU	6168
2	HT Sales	MU	2772
3	EHT Sales	MU	2301
4	<b>Total Sales</b>	MU	<b>11241</b>
5	Input	MU	13248
6	Distribution Loss	%	15.15%

10. Further, the HT loss has been considered at 8% for determination of open access charges for HT and EHT consumers in the Tariff Order dated 24.03.2025 (para 2 of Annexure- C of the Tariff Order dated 24.03.2025) and the same has been considered for computation in this instant petition.

11. Further, it is assumed that when a LT consumer either through single or multiple connections (total aggregated CD > 100 kW) will source power from a single generator, the power will be injected either at EHT or HT level. The computation of the applicable Wheeling loss for LT Consumers is as given in the table below:

**Table 2 : Wheeling Losses for LT Consumers for TPCODL**

Sr No	Particulars	Units	TPCODL
1	Total Power Purchase (Input)*	Mus	13248
2	Allowed Distribution Losses (Tariff Trajectory)*	%	15.15%
3	Total Sales*	MUs	11241
4= 2 x 1	Total Losses	MUs	2007
5	EHT Sales*	MUs	2301
6=1-5	HT and LT Input	Mus	10948
7	HT Losses (As Considered at Para 2 of Annexure-C of Tariff Order dated 24.03.2025)	%	8%
8=7x6	Loss on HT Network	Mus	876
9	HT Sales*	MUs	2772
10= 6-8-9	LT Input	MUs	7300
11	LT Sales*	MUs	6168
12=1-(11/10)	Loss on LT Network	%	15.50%
13= 12+7	Wheeling Loss Applicable for LT Open Access Consumers	%	23.50%

\* Based on the parameters submitted in ARR FY 2026-27 petition

## ii. Wheeling Charges

12. In the petition for determination of ARR for FY 2026-27 , TPCODL had submitted the following for wheeling business for FY 2026-27.

13. For the purpose of working out the Wheeling Charges, we have segregated the expenditure on the basis of the ratios used by the Hon'ble Commission in the various tariff orders. Based on the same, the Wheeling and Retail Supply ARR would be as follows:



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**Table 3 : Wheeling Business ARR**

Sr No	Particulars	Total (Rs Cr)	Wheeling Business Share	Retail Supply Business Share	Wheeling Business ARR (Rs Cr)	Retail Supply ARR (Rs Cr)
1	Cost of Normative power Purchase (including Transmission Charge and SLDC Charges)	4513.2	0%	100%	0.00	4513.16
	O&M Charges					
2	Employee Costs (Net of capitalization)	964.80	60%	40%	578.88	385.92
3	Repairs and Maintenance	398.61	90%	10%	358.75	39.86
4	Admin and General	248.71	50%	50%	124.36	124.36
5	Bad and Doubtful Debt including Rebate	66.62	0%	100%	0.00	66.62
6	Depreciation	182.98	90%	10%	164.68	18.30
7	Interest for Capital Loan (incl. Finance Cost)	116.63	90%	10%	104.97	11.66
8	Interest for Working Capital	40.47	10%	90%	4.05	36.42
9	Return on Equity	171.14	90%	10%	154.03	17.11
10	Tax on RoE	57.57	90%	10%	51.81	5.76
11	Non Tariff Income-Wheeling	-31.35			-6.35	
12	Non Tariff Retail Income					-25.00
	<b>Total</b>	<b>6729.33</b>			<b>1535.16</b>	<b>5194.17</b>

\* As Interest on Security Deposit is not considered under expenditure, interest income of bank deposits (on CSD amount) has also not been considered in Non Tariff Income.

14. Further, the Wheeling Charges have been worked out in the Tariff Order dated 24.03.2025 by considering the "Wheeling ARR "and dividing the same by the input to both HT and LT. Also power that will be availed by LT consumers on open access will be either injected at EHT or HT and hence will travel through the HT & LT network before consumption at LT. Further, the Hon'ble Commission has approved wheeling charges on the basis that wheeling charges is independent of voltage level, the relevant extract from the Tariff Order dated 24.03.2025 is provided below for the ease of reference.

**155. The determination of Wheeling Charges is independent of distribution voltage level i.e. 11 kV & 33 kV. The term 'wheeling' as per the OERC Wheeling and Retail Supply Tariff Regulations, 2022, is defined as the operation whereby the distribution system and associated facilities of a Distribution Licensee, are used by another person for the conveyance of electricity on payment of charges, to be determined under these Regulations. Therefore, Regulation does not differentiate distribution system in terms of voltage level and includes both 33 kV and 11 kV network. Therefore, the Commission determines a single wheeling charge for 11 kV and 33 kV. (Emphasis Supplied)**

15. Following the same methodology as explained in above paragraph , the Wheeling Charges for TPCODL works out to following as provided in table below.



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**Table 4 : Wheeling Charges Computation**

Sr No	Particulars	Unit	Value
1	Wheeling ARR	Rs Cr	1535
2	Energy Input to TPCODL	Mus	13248
3	Less EHT Sales	MUs	-2301
4	Energy input for wheeling computation	MUs	10948
5	Average Load served by the Distribution Licensee	MW	1249.74
6	<b>Wheeling Charges for Medium Term and Long Term</b>	<b>Rs/MW/Day</b>	<b>33654</b>
7	<b>Wheeling Charges for Short Term</b>	<b>Rs/Kwh</b>	<b>1.40</b>
8	<b>Wheeling Charges for Short Term</b>	<b>Paise /Kwh</b>	<b>140.23</b>

**iii. Cross Subsidy Surcharge (CSS)**

16. The Hon'ble Commission had determined the CSS for EHT and HT Consumers in the Tariff Order. The relevant extracts from the Tariff Order with regards to determination of CSS for EHT and HT consumers is as follows:

**Open Access Charges (Cross Subsidy Surcharge and Wheeling Charges)**

153. The OERC (Terms and Conditions of Intra State Open Access) Regulations, 2020 was notified on 2nd November, 2020. The Commission has defined the methodology for determination of Open Access Charges in Chapter 5 of these Regulations. For determination of the Cross Subsidy Surcharge, the tariff for HT and EHT Consumers has been assumed at 100% load factor since Open Access drawal is made to utilise the full quantum of the power so availed. The formula prescribed in Regulation 23(2) of OERC (Terms and Conditions of Intra State Open Access) Regulations, 2020, which is as per the Tariff Policy, for determination of Cross Subsidy Surcharge is as follows:

**Surcharge formula:**

$$S = T - [C / (1 - L / 100) + D + R]$$

Where:

S is the surcharge

T is the tariff payable by the relevant category of Consumers, including reflecting the Renewable Purchase Obligation

C is the per unit weighted average cost of power purchase by the Licensee, including power purchase to meet the Renewable Purchase Obligation

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level

L is the aggregate of transmission, distribution and commercial losses (expressed as a percentage applicable to the relevant voltage level)

R is the per unit cost of carrying regulatory assets

154. As prevalent in the previous year, the Commission accepts 'C' equal to BSP of respective DISCOMs as explained above. Similarly, 'T' is the tariff at 100% load factor including demand charges for the respective voltage level. The wheeling charges 'D' is as determined from the distribution cost approved for the FY 2025-26 and 'L' is assumed 8% at HT and nil for EHT since EHT loss is accommodated in transmission charges



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17. CSS is applicable to subsidising consumers. However not all category of consumers under LT category are subsidized consumers as their average tariff is more than Average cost of Supply. Hence, we have computed tariff category wise CSS as provided in tables below.

**Table 5 : Computation of Cross Subsidy Surcharge (CSS) for LT Consumers**

SL NO	CATEGORY OF CONSUMER	VOLTAGE OF SUPPLY	Average Tariff as Proposed in ARR FY 2026-27	Existing Gridco BSP + Transmission Charges	Loss	Grossed up Rate	LT Wheeling Charges	CSS as per Formula	Applicable CSS	Applicable CSS
			Rs./kwh	Rs./kwh	%	Rs./kwh C/(1-L)	Rs./kwh D	Rs./kwh $S' = T - C / (1 - L) - D$	Rs./kwh $S = \max(S', 0)$	Paise /kwh $S = \max(S', 0)$
	<b>LT Category</b>		<b>T</b>	<b>C</b>	<b>L</b>		<b>D</b>			
1	Domestic Others	LT	4.74	3.405	23.5%	4.45	1.40	-1.12	0.00	0.00
1 a	(Consumption <=50 units/month)	LT	3.18	3.405	23.5%	4.45	1.40	-2.68	0.00	0.00
1 b	(Consumption >50, <=200 units/month)	LT	5.01	3.405	23.5%	4.45	1.40	-0.84	0.00	0.00
1 c	(Consumption >200, <=400 units/month)	LT	5.90	3.405	23.5%	4.45	1.40	0.05	0.05	4.97
1 d	(Consumption >400 units/month)		6.26	3.405	23.5%	4.45	1.40	0.40	0.40	40.20
2	General Purpose <100 KVA )	LT								
2 a	0-100 KWH	LT	7.48	3.405	23.5%	4.45	1.40	1.63	1.63	162.62
2 b	>100<=300	LT	6.24	3.405	23.5%	4.45	1.40	0.38	0.38	38.23
2 c	More than 300 KWH(SLAB)	LT	7.29	3.405	23.5%	4.45	1.40	1.43	1.43	143.24
3	Irrigation, Pumping & Agriculture	LT	2.11	3.405	23.5%	4.45	1.40	-3.74	0.00	0.00
4	Allied Agricultural Activities	LT	1.71	3.405	23.5%	4.45	1.40	-4.15	0.00	0.00
5	Allied Agro-industrial Activities		3.45	3.405	23.5%	4.45	1.40	-2.41	0.00	0.00
6	Public Lighting	LT	6.24	3.405	23.5%	4.45	1.40	0.39	0.39	39.06
7	LT Industrial (S) Supply < 22KVA	LT	7.17	3.405	23.5%	4.45	1.40	1.32	1.32	131.90
8	LT Industrial (M) Supply >= 22KVA	LT	7.12	3.405	23.5%	4.45	1.40	1.27	1.27	127.07
9	Specified Public Purpose	LT	6.75	3.405	23.5%	4.45	1.40	0.90	0.90	89.98
10	Public Water Works & Sewerage Pumping < 100 kVA	LT	6.51	3.405	23.5%	4.45	1.40	0.65	0.65	65.44
11	Public Water Works & Sewerage Pumpings >=100 kVA	LT	7.47	3.405	23.5%	4.45	1.40	1.62	1.62	162.02
12	General Purpose ( => 110 KVA )	LT	7.72	3.405	23.5%	4.45	1.40	1.87	1.87	186.89
13	Large Industry	LT	6.93	3.405	23.5%	4.45	1.40	1.07	1.07	107.49

**iv. Summary of applicable charges for LT Open Access consumers**

18. Based on the computations provided in the earlier tables, the summary of the various charges proposed to be made applicable to LT Consumers who take power under LT Green Open Access is as summarized in the table below:

**Table 6 : Summary of Charges for LT Open Access Consumers**

Sr No	Particulars	UoM	LT
1	Wheeling Loss	%	23.50%
2	Wheeling Charges	Paise/kWh	140.23
3	CSS	Paise/kWh	As Computed at Table-5



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### C. Other Charges

19. Other Charges, other than what is provided at Table-6 above, that needs to be applied by Discoms on the LT Consumers taking Open Access are 'Standby Charges' and 'Banking Charges'.
20. It is submitted that necessary mechanisms has already been stipulated in the Green Open Access Regulations, 2023 and same shall be applied by TPCODL on Consumer availing Open Access at LT level.

### D. Settlement of Energy for consumers taking power under Green Open Access Consumers

21. At present, all the Open Access consumers are connected at EHT. Such consumers are equipped with ABT meters which are capable of recording energy on 15 minutes time slot basis. Accordingly, the settlement of energy is also carried out on 15 minutes for these EHT consumers who source power on open access. Further, energy is settled on "Scheduled "basis. The Discom Energy to the consumer is worked out as equal to the difference between Energy metered and Scheduled energy on Open Access. If the Schedule Energy on Open Access is more than Energy Metered for any time slot, the excess lapses. The settlement is explained through an example as follows:

**Table 7: Settlement of Energy under Conventional Open Access**

Slot	Scheduled Energy on Open Access	Metered Drawl from Discom	Difference	Energy taken from Discom	Energy Lapsed
	kWh	kWh	kWh	kWh	kWh
a	b	c	d=c-b	e=d if d is positive else Nil	f =Nil if d is positive else d x-1
1	100	120	20	20	0
2	100	100	0	0	0
3	100	90	-10	0	10

22. It is further submitted that under Green Open Access, there may be a scenario where multiple connections of a consumer would come together (as a single LT consumer having 100 kW of CD is very unlikely) for availing green open access. These separate connections may be situated at different physical location within a Discom and will be having separate consumer numbers. Hence the conventional mechanism of scheduling for individual consumers may be a challenge and also cumbersome particularly when the consumers are LT Consumers and large in number. Hence there may be a need for scheduling on "pre-agreed" allocation basis. The "Pre-agreed" allocation will have to be approved by the Discom and has to be applied to the Nodal Agency / Generation Source for the Energy Scheduled on Open Access. Such kind of allocation is also envisaged under Virtual Net Metering Arrangement.



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23. The illustration of a case where generation is at EHT level and consumption is by 5 consumers /connections from one source is as given below

**Table 8 : Settlement under Green Open Access Regulations**

Sr No	Particulars	Units	Value
1	Energy Scheduled at Injection at EHT in a time slot (Assumption)	kWh	2100
2	EHT Losses applicable	%	3%
3	Losses Applicable at LT ( HT: 8%+ LT:15.50%)	%	23.5%
4= 1 x(100%-2)X(100%-3)	Energy at Consumer end	kWh	1558

Sr No	LT Consumer	Pre-Agreed Allocation	Energy Allocated	Meter Drawl from Discom	Energy from Discom	Energy Banked (if Banking Aailed ,Scheduled & Approved )
		%	kWh	kWh	kWh	kWh
a	b	c	d=4 (above)*c	e	f=(e-d) if e>d else Nil	g= (d-e) if d>e else Nil
1	Consumer/Connection :	10%	156	100	0.0	56
2	Consumer/Connection :	20%	312	300	0.0	12
3	Consumer/Connection :	5%	78	150	72	0
4	Consumer/Connection :	5%	78	200	122	0
5	Consumer/Connection :	60%	935	900	0	35
	<b>Total</b>	<b>100%</b>	<b>1558</b>	<b>1650</b>	<b>194</b>	<b>102</b>

24. As the energy settlement including the Energy banked is on 15 minutes time slot basis, it is imperative that such consumers are required to install Smart Meters which are capable of measuring energy on 15 minutes time interval. The Hon'ble Commission has also stipulated the same at section -5 of the Green Open Access Regulations, 2023, relevant extract of which is provided below.

**(5) Banking Facility and Charges**

....

*e) The RE Generators shall provide Special Energy Meters (SEM) and the monthly settlement of energy sales shall be done based on Power injected to the system as per the meter readings. **The Green Energy Open Access consumers shall install Special Energy Meter (SEM) as any other suitable meter approved by the Commission .The banking as well as withdrawal of banked energy shall be subject to day ahead scheduling .The energy accounting shall be on a real time basis in 15 minute block. (Emphasis Supplied)***

25. In view of above, the LT consumers opting for open access under Green Open Access Regulations, 2023 must have Smart Meters installed at his premise.



*Res. Secy. (Genl. Mgr.)*

**E. Other related matters for the consideration of the Hon'ble Commission**

26. The OERC (Conditions of Supply), Code, 2019 at para 134 stipulates that the LT supply can be provided up to 70 kVA. However, in the Retail Supply Tariff Order there are certain Tariff categories which have load > 70 kVA ( e.g. L.T. Industrial (M) Supply  $\geq 22$  KVA & <110 KVA, Public Water Works and Sewerage Pumping  $\geq 110$  KVA, General Purpose  $\geq 110$  KVA, Large Industry  $\geq 110$  KVA). The Green Open Access Regulations, 2023 stipulates open access for contract demand or sanctioned load of 100 kW or above (either through single or multiple connection). In view of this inconsistency, a suitable clarification from the Hon'ble Commission will make the things clear.
27. Further, there may be certain connection given to LT consumers at HT level depending on the system feasibility. Given, the fact that there will not be any CSS applicable to certain LT consumers taking Green Power on open access, it may happen that some existing connections currently given power at HT may approach for conversion to LT. It is our submission that such conversion may not be allowed at present.




### Prayers

TPCODL prays that the Hon'ble Commission may kindly be pleased to:

1. Approve the Applicable Charges for LT Consumers taking power on open access as proposed in Table-6.
2. Approve the most cost reflective Open Access Charges .
3. Approve appropriate settlement procedure as the Hon'ble Commission deem fit and proper against our submission made in Section D of this petition.
4. Issue necessary clarification and direction with regards to the matter discussed in Section E of this petition.
5. Grant any other relief as deemed fit and proper in the facts and circumstances of the case.
6. Any other direction as the Hon'ble Commission may think appropriate
7. That, the petitioner craves leave for submission of further/additional reply as and when required by the Hon'ble Commission.

Bhubaneswar  
28.11.2025

  
(Bharat Kumar Bhadawat)  
Chief –Regulatory & Legal

