

**BEFORE THE ORISSA ELECTRICITY REGULATORY COMMISSION
B H U B A N E S W A R**

**Filing No.
Case No.**

IN THE MATTER OF: An application for wheeling charges, surcharges and additional surcharges for the Financial Year 2011-12 under the Electricity Act – 2003 and in conformity with Section 4-(1)(XIV), (2)(VII) & (3)(VI) of OERC (Determination of Open Access charges) Regulations – 2006 & OERC (Terms and conditions of Open Access) Regulations - 2005.

AND

IN THE MATTER OF: Chairman-cum-CEO, Central Electricity Supply utility of Orissa (CESU), 2nd Floor, IDCO Towers, Janpath, Bhubaneswar – 751 022.

.....Applicant

THE HUMBLE APPLICANT ABOVE NAMED MOST REPSPECTFULLY SHEWETH:

1. That, the Central Electricity Supply Utility of Orissa is required to file the application for approval of Open Access charges for the FY 2011-12 as per Clause – 4 of OERC (Determination of Open Access Charges) Regulation 2006.
2. That, for the FY 2011-12, CESU submitted the ARR application to the Hon'ble Commission which is admitted for consideration vide Case No.146/2010.
3. That, for calculation of Open Access charges for the ensuing year (FY 2011-12) the projected sales of energy for FY 2011-12 and estimated cost of distribution are considered.
4. That, the surcharge for Open Access HT/EHT consumers are computed considering the proposed tariff for the FY 2011-12.

P R A Y E R

In view of the above, it is respectfully prayed that the Hon'ble Commission may kindly be pleased to:

1. Accept the Open Access charges application of the Utility.
2. Approve the Open Access charges of the Utility for the FY 2011-12.
3. Grant any other relief as deems fit and proper in the eyes of law.

And for this act of kindness the applicant as in duty bound shall ever pray.

Bhubaneswar

By the applicant through

Date:

**(Batakrushna Lenka)
CHIEF OPERATING OFFICER**

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IN THE MATTER OF: Chairman-cum-CEO, Central Electricity Supply utility of Orissa (CESU), 2nd Floor, IDCO Towers, Janpath, Bhubaneswar – 751 022.

.....Applicant

Affidavit verifying the application for Open Access charges

I, Sri Batakrushna Lena, S/o Jadumani Lenka, aged about 58 years residing at Bhubaneswar do hereby solemnly affirm and say as follows:

1. I am the Chief Operating Officer of Central Electricity Supply Utility of Orissa, the applicant in the above matter and duly authorized to make this affidavit on its behalf.
2. The statements made at Point No. 1 to 4 and other information herein shown to me are based on information and I believe them to be true.

Bhubaneswar

By the applicant through

Date:

**(Batakrushna Lenka)
CHIEF OPERATING OFFICER**

CESU being a distribution licensee holder for central zone Electricity Distribution network of Orissa is required to submit proposal for approval of Open Access charges before the Hon'ble Commission for the FY 2011-12 as per the provisions of OERC (Terms & Conditions for Determination of Tariff) Regulations – 2004, OERC (Terms and conditions for Open Access) Regulation, 2005 and OERC (Determination of Open Access Charges) Regulation, 2006. Any customer of CESU intending to avail one MW or more power from any party through non-discriminatory open access to the distribution network of CESU may do so by paying the approved Open Access Charges applicable from time to time. For the Financial Year 2011-12 CESU has already applied for approval of ARR and Retail Tariff proposal before the Hon'ble Commission which is accepted vide Case No.146/2010. Pending approval of such ARR and retail tariff for the ensuing year, CESU computed the Open Access Charges based on -

- (a) Proposed distribution cost for the Financial Year 2011-12.
- (b) Estimated energy purchase and sales to different category of consumers availing supply in LT/HT/EHT network for FY 2011-12.
- (c) Proposed retail tariff for all category of consumers for FY 2011-12.

Further the computations of Open Access Charges are based on following assumptions which are justified and incumbent to the supply system.

1. Proposed Open Access charges are applicable to both long-term and short-term customers.
2. Open Access applicants requiring load less than 1MVA are not envisaged in this application since phasing of such customers is yet to be allowed by the Hon'ble Commission.
3. Wheeling charge is payable to avail Open Access of HT network only. (33KV or 11KV)

4. Distribution cost for CESU for FY 11-12 is as projected in the ARR application and admitted vide case No-146/2010.
5. For surcharge calculation **Avoided Cost method** is adopted.
6. Revenue realization per unit from different category of consumers is as per proposed RST rates for FY 2010-11.
7. Bulk tariff, transmission & SLDC charges are as approved for FY 2010-2011.
8. Approved loss level of 4% in EHT and 8% in HT for FY 10-11.
9. Power factor at normative level of 90%.

1. Wheeling charge:

CESU proposed to purchase 7968.37 MU during FY 20011-12 out of which sales at different voltage level will be -

EHT – 1525.79 MU

HT – 1077.10 MU

LT – 2609.22 MU

Projected over all distribution loss is 34.59%.

Total units that be wheeled in the distribution network of CESU is 6442.58 MU i.e. total power purchase minus the EHT sales.

Proposed distribution cost for the Financial Year 2011-12 is -

Sl.No.	Particulars	(Rs.in crores)
1	Employee cost	329.42
2	Repair & Maintenance cost	62.55
3	Administrative & General Expenses	61.28
4	Interest & Finance cost	97.43
5	Bad debt provision	17.86
6	Return on equity	11.64
7	Depreciation	88.74
	Total:	668.92

Hence wheeling charge per unit = **Rs.668.92Crs/6442.58 MU = 103.83** paise per unit.

So, CESU proposes wheeling charge of 103.83 paise per unit for Open Access HT customers for the FY 2011-12.

2. **Cross subsidy surcharge:**

For HT Open Access consumers:

The basic principle of surcharge to be levied on open access customers is to compensate the incumbent utility for the revenue loss due to migration of the existing customer to another utility/CGP/IPP or any other party.

From a HT consumer revenue earning per unit to CESU is equivalent to differential of rate of sale per unit and sum of BST price, transmission & SLDC charge appropriated with distribution loss in HT.

Distribution loss in HT network is proposed to be 8% for the FY 2011-12 and transmission loss at 4%.

Such revenue earning also dependent on the percentage of load factor at which the consumer avails energy in tow-part tariff with the graded slab rate. So in order to allow level playing field to all consumers revenue earning is computed at different load factors beginning from 20%. A consumer availing power at <20% LF will pay surcharge applicabe at 20%. The revenue earning at incremental load factor of 5% upto 100% is calculated and shown in the following table.

LOAD FACTOR BASED REVENUE FROM HT CONSUMERS						
	Demand Charge (Rs./ KVA)	Normal Energy charges. <=60% (P/KWH)	Normal Energy charges. >60% <=70% (P/KWH)	Normal Energy charges. >70% (P/KWH)	Power factor	
Tariff Rate	300	425	375	350	0.9	
CD (KVA)	Incremental L.F (%)	Max units per month	L.F Limit for graded slab	Avg. energy charge rate (P/KWH)	Demand charge component (P/KWH)	Total rate (P/KWH)
1	100	657	60%	397.50	45.66	443.16
1	95	624	60%	400.00	48.06	448.06
1	90	591	60%	402.78	50.73	453.51
1	85	558	60%	405.88	53.72	459.60
1	80	526	60%	409.38	57.08	466.46
1	75	493	60%	413.33	60.89	474.22
1	70	460	60%	417.86	65.24	483.10
1	65	427	60%	421.15	70.25	491.40
1	60	394	60%	425.00	76.11	501.11
1	55	361	60%	425.00	83.03	508.03
1	50	329	60%	425.00	91.32	516.32
1	45	296	60%	425.00	101.48	526.48
1	40	263	60%	425.00	114.15	539.15
1	35	230	60%	425.00	130.47	555.47
1	30	197	60%	425.00	152.21	577.21
1	25	164	60%	425.00	182.66	607.66
1	20	131	60%	425.00	228.32	653.32

Surcharge (S) applicable for HT category of consumers is calculated as:

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

Where T – Sale rate/unit to the consumer

C – Bulk Supply Purchase rate/unit(157p)

L – Approved HT Distribution loss in percentage(8%)

D – Transmission charge/unit(23.50p)

E- SLDC Charges/ unit(1.77 p)

Applying the above formula rate of surcharge at different incremental L.F. is calculated as –

HT	
L.F %	Surcharge (Paise/ Unit)
100	248.33
95	253.23
90	258.68
85	264.77
80	271.63
75	279.39
70	288.27
65	296.57
60	306.28
55	313.20
50	321.49
45	331.65
40	344.32
35	360.64
30	382.38
25	412.83
20	458.49

The above rate is applicable to following category of consumers.

- General Purpose \geq 110KVA
- Public Water Works sewerage pumping
- Large Industry
- Power Intensive Industry
- Mini Steel Plant
- Railway Traction

For irrigation, Allied agriculture activities and Allied Agro Industrial activities category open access surcharges are not envisaged since, the RST rates are highly subsidized and Open Access may not be commercially beneficial.

Open Access for Emergency Power to CPP is not envisaged as emergency requirements to this category of consumers will be for very short period and can be met by way of temporary supply as per OERC Distribution (Conditions of Supply) Code 2004.

For EHT Open Access Consumers:

Surcharge is applicable to the following category of consumers;

- General Purpose.
- Large Industry.
- Railway traction.
- Heavy Industry.
- Power Intensive Industry.
- Mini Steel Plant.

Sales rate per unit is computed at different incremental load factor of 5% starting from 20% and computed below:

LOD FACTOR BASED REVENUE FROM EHT CONSUMERS						
	Demand Charge (Rs./ KVA)	Normal Energy charges. <=60% (P/KWH)	Normal Energy charges. >60% <=70% (P/KWH)	Normal Energy charges. >70% (P/KWH)	Power factor	
Tariff rate	300	415	365	340	0.9	
CD (KVA)	Incremental L.F (%)	Max units per month	L.F Limit for graded slab	Avg. energy charge rate (P/KWH)	Demand charge component (P/KWH)	Total rate (P/KWH)
1	100	657	60%	387.50	45.66	433.16
1	95	624	60%	390.00	48.06	438.06
1	90	591	60%	392.78	50.73	443.51
1	85	558	60%	395.88	53.72	449.60
1	80	526	60%	399.38	57.08	456.46
1	75	493	60%	403.33	60.89	464.22
1	70	460	60%	407.86	65.24	473.10
1	65	427	60%	408.08	70.25	478.33
1	60	394	60%	415.00	76.11	491.11
1	55	361	60%	415.00	83.03	498.03
1	50	329	60%	415.00	91.32	506.32
1	45	296	60%	415.00	101.48	516.48
1	40	263	60%	415.00	114.15	529.15
1	35	230	60%	415.00	130.47	545.47
1	30	197	60%	415.00	152.21	567.21
1	25	164	60%	415.00	182.66	597.66
1	20	131	60%	415.00	228.32	643.32

$$\text{Surcharge(S)} = T - (C + D + E)$$

Where T- sales rate per unit
 C-BST rate for CESU
 D-Transmission Charge
 E- SLDC Charges.

Hence surcharge applicable to EHT category of open access consumers is calculated as per above formula for incremental load factors starting from 20% and shown below:

EHT	
Actual L.F (%)	Surcharge (Paise/ Unit)
100	250.89
95	255.79
90	261.24
85	267.33
80	274.19
75	281.95
70	290.83
65	296.06
60	308.84
55	315.76
50	324.05
45	334.21
40	346.88
35	363.20
30	384.94
25	415.39
20	461.05

3. Additional Surcharge:

At present no consumer is availing supply paying open access charges from CESU's network. After receipt of open access application from an intending consumer, CESU will assess the additional fixed cost likely to be incurred to provide open access and submit to the Hon'ble Commission within 30 (thirty) days of receipt of application for approval of additional surcharge as per Clause -3 of OERC (Determination of open access charges) Regulation-2006.

4. Scheduling & System operation charges:

Intra state ABT regulations are applicable to all HT & EHT consumers availing supply with load of 5 MVA and above. Such consumers when apply for

long term open access are liable to pay scheduling and operation charges for effecting each change in scheduling on bona fide grounds.

The short term open access customers are also liable to pay scheduling and system operation charges.

CESU proposes that a sum of Rs.2000/ day or part thereof may be paid by all open access customers.

5. Reactive Energy charges:

Reactive energy charges as will be approved by the Hon'ble Commission for the FY 2011-12 also be applicable to all Open Access consumers.

6. Any other charges as the Hon'ble Commission may consider fit may also be levied from the Open Access consumers.

P R A Y E R

It is prayed that all assumptions in this application and Open Access Charges be approved. However the Hon'ble Commission may consider modifications in the rates in commensurate with the approved BST, RST, Transmission & SLDC charge rates for FY 2011-12.

CHIEF OPERATING OFFICER