

***Summary of ARR &
Transmission Tariff Filings***

Submitted by

OPTCL

For

FY 2014-15

Summary of OPTCL's ARR & Transmission Tariff filing For FY 2014-15

1. In exercise of powers conferred under Sections 39,131,133 and 134 of the Electricity Act, 2003 read with Sections 23 & 24 of the Orissa Electricity Reform Act, 1995, the State Government published the Orissa Electricity Reform (Transfer of Transmission and Related Activities) Scheme, 2005 ("Transfer Scheme") in the Gazette dated 09.06.2005 which was effective retrospectively from 01.04.2005 wherein the Transmission Undertaking (the Undertaking related to the activities of Transmission, State Transmission Utility and State Load Dispatch Centre and acts incidental and ancillary thereto) of the Grid Corporation of Odisha Limited (Transferor), (now renamed GRIDCO Ltd.- "GRIDCO") has been transferred and vested in Odisha Power Transmission Corporation Limited ("OPTCL").
2. As per Clause 10 of the Transfer Scheme, OPTCL is a deemed Transmission Licensee under Section 14 of the Electricity Act 2003 for undertaking the business to transmit electricity in the State of Odisha. OPTCL has also been notified as the State Transmission Utility and accordingly, shall discharge the State Load dispatch functions from the date of transfer till further orders of the State Government.
3. As provided under Regulation 53 (1) at Chapter VIII of OERC (Conduct of Business) Regulations, 2004 and under Clause 19.3 of License Conditions of OPTCL approved by Hon'ble OERC vide order Dated 27.10.2006 in Case No. 22 of 2006, OPTCL is required to submit its Annual Revenue Requirement Application for the ensuing year before Commission for approval. Accordingly, OPTCL has filed an application before the Commission for approval of its Annual Revenue Requirement & Transmission Tariff for FY 2014-15.

Categorization of Open Access Customers

4. All the customers seeking open access to OPTCL Transmission System are classified under two categories:
 - (a) **Long Term Open Access Customers (LTOA Customers)**

A Long Term Open Access Customer means a person availing or intending to avail access to the Intra-State Transmission System for a period of 25 years or more. Based on such premise, four DISCOMs, NALCO & IMFA happen to be the long term customers of OPTCL.
 - (b) **Short Term Open Access Customers (STOA Customers)**

Open access customers other than Long Term Customer(s) are classified as Short Term Customer(s). The maximum duration that a Short Term Customer can avail open access to the Intra-State Transmission is one year with condition to reapply after expiry of the term.

Details of Transmission Charge

5. Currently, OPTCL owns 106 nos. grid sub-stations of different voltage classes and EHT transmission line of 11527.727 ckt. km. as shown in the table below.

Table-1

Sub-Station and Line Details		
400/220 kV S/S		3
220/132/33 kV S/S		14
220/132 kV S/S		1
220/33 kV S/S		5
132 kV Sw.Stn.		17
132/33 kV S/S		62
132/33/25 kV S/S		1
132/33/11 kV S/S		1
132/11 kV S/S		2
Total No. of Sub-Stations		106
Voltage Level	Lines (ckt. km.)	Bays
400 kV	518.234	32
220 kV	5605.988	250
132 kV	5403.505	699
33 kV		775
25 kV		2
11 kV		18
Total	11527.727	1776

6. In a significant departure from the past, the Tariff Policy, 2006 framed under the Electricity Act 2003, has embodied the National Tariff Framework which provides that the transmission tariff is to be sensitive to distance, direction and related to quantum of power flow in a transmission service network. Para 7(1) (3) of the Tariff Policy provides for transmission charges, to be determined on MW per circuit kilometer basis, zonal Postage Stamp basis, or on the basis of some other pragmatic variant, the ultimate objective being to get the transmission system users to share the total transmission cost in proportion to their respective utilization of the transmission system. The overall tariff framework should be such as not to inhibit planned development/augmentation of the transmission system, but should discourage non-optimal transmission investment. Till date, OPTCL has been following the Postage Stamp Method for determination of its Transmission Charges. Hon'ble OERC has not yet framed any separate regulations for determination of Intra-State Transmission Tariff to be charged by a Transmission Licensee. In such a situation, OPTCL, the deemed Transmission Licensee is guided by the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2009 applicable for Transmission Tariff. FY 2013-14 is the terminal year of the CERC Regulations, 2009 and Hon'ble CERC is in the process of finalizing the CERC Regulations, 2014. In absence of norms for FY 2014-15, OPTCL has proposed its ARR & Transmission Tariff Application for FY 2014-15 as per the related provisions pertaining to the conduct of Business and Tariff determination as provided under OERC Regulations, 2004 dated 09.06.2004 and as per the CERC (Terms and Condition of Tariff) Regulations, 2009 respectively.

The costs of the deemed transmission licensee OPTCL for the FY 2014-15 for the purpose of determining the ARR and Transmission Tariff have been categorized under the following heads:

(A) Fixed Charges:

- Operation & Maintenance (O & M) Expenses
- Interest on Loan Capital
- Depreciation
- Special appropriation
- Return on Equity
- Interest on Working Capital

(B) Additional Expenses

- Contingency Reserve
- Grid Co-ordination Committee (GCC) Expenses
- Incentive for System Availability
- Rebate

Details of Fixed Charges

7. OPTCL proposes **fixed charges for FY 2014-15 as Rs.948.95 crore** including O & M Expenses of Rs.533.61 crore, Interest on Loan Capital of Rs.130.06 crore, Depreciation of Rs.176.02 crore, Return on Equity of Rs.68.42 crore and Interest of Working Capital of Rs.40.85 crore.

O&M Expenses

Employee Cost including Terminal Benefits

8. The Employees expenses for FY 2014-15 has been projected by OPTCL at **Rs.361.38 crore** including terminal benefits of Rs.171.39 crore on the basis of (i) employee cost, (ii) terminal benefit liability of employees and existing pensioners and (iii) payment of differential pension and pensionary benefit liability.
9. The employee cost details include salaries, dearness allowance, other allowances, reimbursement of medical expenses and house rent, leave travel concession, honorarium, payment under workmen compensation Act, Ex-gratia and misc. expenses, staff welfare expenses, CSR & wage revision arrear etc.

Administrative & General Expenses

10. The A&G expenses for FY 2014-15 has been projected at **Rs.25.46 crore**.

Repairs & Maintenance Expenses

11. OPTCL proposes Repairs and Maintenance (R&M) expenses for FY 2014-15 at **Rs.146.77 crore**. The details are given in the table below.

Table – 2
Repairs and Maintenance Expenses for FY 2014-15 (Rs. crore)

Particulars	OERC Approval for FY 2012-13	OERC Approval for FY 2013-14	OPTCL Proposal for FY 2014-15
a) O&M			111.14
b) Telecom			15.03
c) Civil Works			15.34
d) Information Technology			5.25
Total R&M Expenses (a+b+c+d+e)	95.02	60.00	146.77

Interest on Loan Capital

12. Interest on Loan for FY 2014-15 has been projected at **Rs.130.06 crore** by OPTCL.

New Projects

13. OPTCL proposes to spend **Rs.779.66 crore during FY 2014-15** as capital expenditure on new projects towards O&M, telecom, information technology (IT), transmission project & construction (TP & Con.) and civil works. The details of Capital Expenditure for FY 2014-15 are given in the table below.

Table - 3
Projected Capital Expenditure for FY 2014-15

Particulars	Amount (Rs. crore)
a) Telecom	77.85
b) O&M	121.76
c) Information Technology (IT)	13.77
d) Civil Works	34.18
e) TP & Con. (Excluding Deposit Works)	532.10
Total Capital Expenditure (a+b+c+d+e)	779.66

(a) **CAPEX FOR TELECOM RELATED PROJECTS:**

In order to have a reliable, safe and effective communication system, OPTCL has implemented its own Telecommunication Network through PLCC between each Grid Sub-station and generating stations and Microwave & Optic Fibre communication between Sub-LDC to SLDC, Bhubaneswar. The PLCC systems adopted in OPTCL are generally considered to be very much economic, reliable and dependable for voice, data and carrier back-up protection facility. Due to limitation of frequency band for PLCC equipment and because of gradual complex grid system, action is also under progress to provide SCADA interface points at all the 220kV Grid S/S of OPTCL through OPGW connectivity as per the provisions made under amended OGC Regulations, 2006 dated 29th August 2008. Keeping in view all such aspects, constant endeavour is being made to renovate and upgrade the existing telecommunication

system under ULDC expansion scheme by way of integration of 30 nos. existing grid sub-stations with the present ULDC system as well as software and hardware up-gradation of main control centre at SLDC and establishment of back-up control centre at Meramundali. The CAPEX requirement for Telecom Project in FY 2014-15 is Rs.77.85 crore, the abstract of which is given in the table below.

Table – 4
CAPEX requirement for Telecommunication works in 2014-15

Particulars	Amount (Rs. crore)
(i) Integration of 36 nos RTU	28.83
(ii) Provision of SCADA inter face at 220KV and above S/S	49.02
Total	77.85

(b) **CAPEX FOR O & M RELATED PROJECTS:**

An amount of Rs.121.76 crore has been proposed for the FY 2014-15 under capital expenditure to meet the future load growth basically by way of transformer capacity augmentation / substation capacity enhancement by installing additional / third transformers in the existing grid-substations of OPTCL, conductor up-gradation with HTLS, conversion of S/C lines in D/C towers to D/C lines. The details of item wise capital expenditure for O&M related project are shown in the table below.

Table – 5
CAPEX for O&M Projects in FY 2014-15

Sl. No.	Descriptions	Unit Rate (Rs. Lakh)	Quantity	Total Cost (Rs. Lakh)
1	PROCUREMENT OF TRANSFORMERS WITH COST OF ERECTION			
(i)	Procurement of 160 MVA, 220/132kV	650.00	5	3250.00
(ii)	Procurement of 40 MVA, 132/33kV	260.00	13	3380.00
(iii)	Procurement of 40 MVA, 220/33kV	290.00	2	580.00
(iv)	Procurement of 20 MVA, 132/33kV	129.75	12	1557.00
(iii)	Cost of Erection with Bays	LS		876.70
2	CONDUCTOR UPGRADATION WITH HTLS			
(i)	132kV Joda-Barbil S/C (12 Rkm)	LS		444.00
(ii)	132kV Mendhasala-Khurda S/C (17 Rkm)	LS		629.00
3	CONVERSION OF S/C LINES IN D/C TOWERS TO D/C LINES			
(i)	132kV Akhusingh - Paralakhemundi (76.9 Rkm)	LS		198.78
(ii)	132kV Jajpur Road - Anandpur (30 Rkm)	LS		169.49
(iii)	132kV New Bolangir - Patnagarh (40.2 Rkm)	LS		463.61
(iv)	132kV New Bolangir - Sonapur (53.845 Rkm)	LS		627.03

TOTAL			Rs. 12175.61Lakh ~ Rs. 121.76 crore
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(c) CAPEX FOR INFORMATION TECHNOLOGY RELATED PROJECTS:

Provision for an amount of Rs.13.77 crore is made for FY 2014-15 towards capital expenditure for infrastructure development of IT and automation related fields etc. as given in the table below.

**Table-6
Capex for IT Projects during FY 2014-15**

Sl. No.	Description	Amount (Rs crore)
1	AC	0.0500
2	Power System	0.4263
3	Furnitures	0.3541
4	PC	0.9485
5	Laptop	0.0700
6	Tablets	0.0100
7	Printers	0.9945
8	Scanners	0.2285
9	LCD Projectors	0.0150
10	Software	0.1591
11	Security	0.2000
12	DW and BI	0.1000
13	IT Audit	0.1000
14	ePMS	0.0500
15	Energy Auditing Software	0.0500
16	Biometric Integration(Eshakti)	0.0200
17	GIS	1.0000
18	ERP-Licenses	0.6100
19	ERP- Implementation	2.1300
20	DR Center	5.3820
21	Portal Service	0.1000
22	Networking (OGS-WAN - III for New S/S)	0.7030
23	Networking (PH & CGP)	0.0722
	TOTAL	13.77

(d) **CAPEX FOR CIVIL WORKS:**

OPTCL proposes capital expenditure of **Rs.34.18 crore** relating to civil works during FY 2014-15 for on-going and new projects in its two Divisions i.e. Bhubaneswar and Burla.

(e) **CAPEX FOR TRANSMISSION PROJECT & CONSTRUCTION WING:**

It has been planned to spend an amount of **Rs.532.10 crore** on transmission related infrastructure during FY 2014-15 to increase the overall system capacity and to strengthen the transmission system network of the state, the details of which are shown in the table below.

Table- 7
CAPEX FOR TRANSMISSION PROJECTS & CONSTRUCTION in FY
2014-15 (Rs. Crore)

Sl. No.	Loan / Scheme / Contract wise Capital Works	Expenditure during FY2013-14			Projected Expenditure (FY 2014-15)
		Actual for 1 st six months	Projection for balance six months	Total	
A - ONGOING SCHEMES		3	4	5=3+4	6
1	2X 20 MVA, 132/33 kV S/S at Barbil with associated LILO	1.98	1.50	3.48	2.00
2	220/33kV S/S along with associated lines at Gopinathpur (Keonjhar)	0.00	2.00	2.00	0.00
3	400/220/132kV S/S at Chendipada (Nisha)	0.00	0.00	0.00	10.00
4	400 kv dc line from Meramundali to Duburi	0.54	0.30	0.84	5.00
5	132/33kV S/S at Khajuriakata (Hindol Road) and its associated lines	3.02	8.00	11.02	10.00
6	132kV SC line from Sonepur to Boudh	0.00	0.00	0.00	24.60
7	400kV DC line from IB to Meramundali	0.00	24.00	24.00	0.00
8	Arrangement of 2x20 MVA proposed constn. Of 132/33 kV Grid S/S at Bangiriposi along with associated LILO line	0.00	2.00	2.00	6.00
9	2 Nos. 220 kV feeder bay of 220/132 kV Grid S/S at Balasore for 220 kV DC line from 400 kV POWERGRID Grid S/S/ Kuchei low gantry work at Balasore S/S (220 kV Bay extension & Birla Tyre	3.54	0.00	3.54	0.00
10	220/132kV S/S Dhamra along with associated LILO line tapping from existing 220kV new Duburi-Bhadrak line	0.00	5.00	5.00	15.00
11	132/33kV S/S at Karanjia alongwith associated LILO line	0.15	0.00	0.15	0.00
12	Conversion of 132kV Switching S/S at Somnathpur to 2x20 MVA, 132/33kV S/S Balasore	0.46	3.00	3.46	5.00
13	2x12.5 MVA,132/33kV S/S at Udala along with associated LILO line tapping from existing 132kV Balasore-Baripada 132kV	0.31	3.00	3.31	12.00

	SC line				
14	132/33kV S/S at Olavar with 132 KV Line from Pattamundai to Olavar & bay extention at Pattamundai	3.43	8.00	11.43	15.00
15	132kV DC line from proposed Dhamara S/S to Olavar S/S	0.00	0.00	0.00	10.00
16	132/33kV S/S at Agarpada along with associated LILO line of one ckt. Of proposed Bhadrak-Anandpur line	0.00	1.00	1.00	0.00
17	2x20MVA S/S Bhograi with associated 132kV DC line from Kuchei to Jaleswar	0.00	5.00	5.00	8.00
18	132kV SC line from 400/220kV S/S at Kuchei to 132/33kV S/S at Takatpur (Baripada)	0.00	0.00	0.00	1.00
19	220/132kV S/S Puri (Samangara)	0.00	5.00	5.00	30.00
20	132/33kV S/S Chandpur (Tangi) with line	1.37	3.00	4.37	0.00
21	220/132kV S/S Narasinghpur with line	0.00	0.00	0.00	8.00
22	220/132kV S/S Karadagadia with line	4.83	5.00	9.83	15.00
23	132/33kV S/S Banki with line	1.01	5.00	6.01	3.00
24	132/33kV S/S Purushottampur with line	1.22	4.00	5.22	0.00
25	1 No. 132kV bay extension at S/S Nimapara	0.10	0.00	0.10	0.00
26	2nd hot line stringing from Chandaka to Nimapara	0.18	0.00	0.18	0.00
27	2nd Circuit stringing from Badagada-Ranasinghpur	0.00	1.00	1.00	0.00
28	132kV DC line from S/S Pratapsasan to Phulnakhara	0.00	0.00	0.00	0.00
29	400/220kV S/S Mendhasal (Third ICT)	1.81	1.00	2.81	5.00
30	220kV line from Bidanasi-Mendhasal	0.40	2.00	2.40	2.00
31	132/33kV S/S Nuapada with associated line	0.00	0.00	0.00	0.00
32	132/33kV S/S Bhawanipatna with associated line	2.60	2.00	4.60	0.00
33	132/33kV S/S Padampur with associated line	0.00	4.00	4.00	0.00
34	220/132kV S/S Kesinga	2.53	5.00	7.53	10.00
35	220kV DC line from Bolangir to Kesinga	0.00	0.00	0.00	15.00
36	400kV S/S at New Duburi	0.17	0.50	0.67	0.00
37	220kV DC line from 220/33kV S/S at Bidanasi to 132/33kV S/S Cuttack	1.37	4.00	5.37	2.00
38	132/33kV S/S at Marshaghai	0.00	4.00	4.00	8.00
39	132/33kV Anandpur S/S	0.05		0.05	0.00
40	132kV bay extension at 132/33kV S/S at Salipur, Kendrapara and Nuaptana with associated lines	3.28	4.00	7.28	10.00
41	132/33kV S/S at Nuapada (Cuttack) or 2x100MVA, 220kV S/S at Nuapara (Cuttack) with bay extension at Bidanasi S/S	1.84	3.00	4.84	25.00
42	220kV bay extn. work at Bidanasi-Cuttack DC line	0.00	1.00	1.00	0.00
43	132kV DC line from Jagatsinghpur to	2.59	3.00	5.59	0.00

	Paradeep				
44	220kV DC line from Duburi to Paradeep	0.17	0.00	0.17	0.00
45	132/33kV S/S at Pottangi	2.30	5.00	7.30	10.00
46	132/33kV S/S at Umerkote	3.64	5.00	8.64	15.00
47	2x12.5MVA, 132/33kV S/S at Dabugaon along with associated 132kV SC line on DC tower from Tentulikhunti to Dabugaon	0.00	0.00	0.00	14.00
48	2x 20MVA ,132/33kV S/S at Podagada with associated 132kV LILO line from 132 kV Jayanagar to Rayagada SC line in principle approved by BoD	0.00	5.00	5.00	15.00
49	2x20 MVA, 220/33kV S/S near Govindapalli with associated 220kV LILO Line from 220 kV Balimela-Jayanagar SC line in principle approved by BoD	0.00	2.00	2.00	15.00
50	220kV DC line from 220/132/33kV S/S Jayanagar to 400/220kV POWERGRID along with 2 nos. 220kV feeder bays at both ends	0.55	2.00	2.55	2.00
51	Conversion of existing Jaynagar-Sunabeda SC line to DC line	2.18	5.00	7.18	3.00
52	220kV DC Line diversion at Loc. No.64 (DB-0) of Indravati-Therubali Ckt -III & IV near village Rebatiguda	0.00	1.00	1.00	0.00
53	2x20MVA, 132/33kV S/S at Muniguda along with LILO line in principle approved by BoD	0.00	1.00	1.00	10.00
54	132/33kV S/S at Kuchinda	0.00	3.00	3.00	0.00
55	2x20MVA, 220/33kV S/S Transformer and LILO line at Kalunga	1.49	5.00	6.49	5.00
56	2x40MVA , 220/33kV S/S at Bonai along with 5 km LILO line	1.43	5.00	6.43	5.00
57	400kV S/S at Lapanga	9.17	5.00	14.17	20.00
58	220/132kV S/S Lapanga	3.68	25.00	28.68	5.00
59	2x100MVA, 220/132kV S/S at Kuanarmunda with LILO line	1.86	5.00	6.86	15.00
60	Installation of 2x40 MVA Transformer at Jharsuguda and diversion of extn. of 132kV line inside the S/S at Sarasmal	0.33	2.00	2.33	2.00
61	220kV DC line from existing 220 kV Budhipadar-Tarkera line to Kuanramunda	0.00	4.00	4.00	5.00
TOTAL - A		65.58	199.30	264.88	397.60
B - PROPOSED SCHEMES					
1	2*100MVA, 220/132/33kV S/S at Pratapsasan near Balakati with associated 220kV DC LILO line of proposed 220kV Cuttack-Jatani line.132kV DC line from Pratapsasan to Phulnakhara with 2 Nos. of Bay at Phulnakhara	0.00	5.00	5.00	30.00
2	132kV DC line from Baripada POWERGRID (Kuchei) S/S to Jaleswar S/S with 2 nos. 132kV bay extension each at Kuchei & Jaleswar	0.00	0.00	0.00	10.00

3	220/132/33kV S/S at Lahanda near Joda with 132kV DC line from Lahanda to Barbil and two nos 132kV feeder bay extension at Barbil	0.00	0.00	0.00	2.00
4	2x40MVA,132/33kV S/S at Baliguda with 132kV SC line from Phulbani to Baliguda and one no. 132kV feeder bay extension at Phulbani	0.00	0.00	0.00	10.00
5	2x20 MVA, 220/33kV S/S at Narsinghpur with LILO arrangement of 1 circuit of existing 220kV Bhanjanagar-Meramundali DC Line	0.00	0.00	0.00	10.00
6	One no. 220kV feeder from proposed 220/132kV S/S at Cuttack to proposed 400/220kV S/S at Uttara (Jatni) with two nos. 220kV feeder bay extension at each end	0.00	0.00	0.00	2.00
7	Conversion of 132kV SC line to 132kV DC line from POWERGRID S/S Kuchei to 132/33kV S/S Baripada	0.00	0.00	0.00	2.00
8	2X315MVA, 400/220/33kV, 2x40MVA, 220/33kV S/S at Khuntini with associated transmission lines	0.00	0.00	0.00	2.00
9	1x315MVA, 400/220kV, 1X20MVA, 220/33kV S/S at Nisha near Angul with 400kV DC line by LILO of 400kV IB-Meramundali Line	0.00	0.00	0.00	2.00
10	400kV S/S at Paradeep	0.00	0.00	0.00	2.00
11	400kV S/S at Kuanrunda	0.00	0.00	0.00	2.00
12	400kV S/S at Joda	0.00	0.00	0.00	2.00
13	400kV DC line from Paradeep to Uttara	0.00	0.00	0.00	2.00
14	2x12.5MVA, 220/33kV S/S at Kasipur with LILO of one circuit of Indravati-Therubali 220kV D/C line (2.0 km)	0.00	0.00	0.00	4.00
15	2X20MVA, 132/33kV S/S at R.Udayagiri with 132kV line from Mohana with 132kV Bay extension at Mohana (40km)	0.00	0.00	0.00	5.00
16	2X20MVA, 132/33kV S/S at Muniguda with 132kV line from Vedanta Lanjigarh and 132kV Bay extension at Lanjigarh (25km)	0.00	0.00	0.00	10.00
17	2X20MVA, 132/33kV S/S at Nandapur with 132kV line from Potangi and 132kV Bay extension at Potangi (35km)	0.00	0.00	0.00	3.00
18	2*20MVA, 132/33kV S/S at Satasankha (Puri district) with associated 132kV DC line from proposed 220/132kV Puri S/S to proposed 132/33kV S/S at Satasankha	0.00	0.00	0.00	3.00
19	2*20MVA, 132/33kV S/S at Bhograi (Balasore district) with associated 132 kV LILO line from one circuit of proposed 132 kV Kuchei (POWERGRID)- Jaleswar DC line	0.00	0.00	0.00	10.00

20	220/33 kV 2x20 MVA Grid S/S at Deogarh with associated LILO line from LOC No. 330 of 220 kV Rengali-Tarekera DC line.	0.00	0.00	0.00	7.00
21	132/33 kV 2*20 MVA Grid S/S at Maneswar with associated LILO line from 132 kV Sambalpur - Rairakhol SC line.	0.00	0.00	0.00	5.00
22	Conversion of 132kV switching station at Somathpur (Balasore) to 2x20 MVA 132/33 kV S/S	0.00	0.00	0.00	3.40
23	Conversion of 132kV SC line from Balasore to Somathpur to DC line by stringing 2nd circuit with one no. 132kV Bay extension at both ends	0.00	0.00	0.00	3.50
24	Renovation of existing 132/33kV S/S at Ganjam (construction of 2x12.5 MVA, 132/33kV S/S)	0.00	0.00	0.00	2.60
TOTAL – B		0.00	5.00	5.00	134.50
TOTAL: (A+B)		65.58	204.30	269.88	532.10
C- DEPOSIT WORK					
1	EHT line diversion work for Haridaspur-Paradeep Rly line	0.00	2.00	2.00	2.00
2	Power Supply to MCL at Kaniha	0.00	1.00	1.00	0.00
3	220/33 kV S/S. Basundhara (MCL, DW)& 220 kV SC line from Budhipadar to Basundhara &	0.54	3.00	3.54	0.00
4	132 kV line for Polasponga to proposed grid S/S Keonjhar	0.00	1.00	1.00	0.00
5	132kV power supply to Banspani (Railway Deposit)	0.16	1.00	1.16	0.00
6	33kV Bay extension at Sambalpur Grid S/S for supply to IOCL Naxpalli , Sambalpur	0.00	1.00	1.00	0.00
7	132kV LILO line from Khurda-Puri for P/S to Samuka Beach near S/S Puri	0.00	5.00	5.00	0.00
8	1 no. 33kV Bay Extn., Ranasinghpur for P/S to IOCL Jatni	0.00	1.00	1.00	0.00
9	132/33kV S/S Konark with line	2.12	5.00	7.12	10.00
10	220kV DC line for Laxmipur S/S to Aditya Alumina, Kansariguda	0.00	0.50	0.50	0.00
11	220kV SC line on DC tower from Laxmipur S/S to M/s Utkal Alumina at Doraguda	0.00	0.50	0.50	0.00
12	3x40 MVA, 132/33kV S/S Arugul for P/S to IIT & associated at Karadagadia	2.64	5.00	7.64	0.00
13	220kV DC Line from Paradeep to IOCL	2.44	5.00	7.44	0.00
14	P/S to Railway traction Badabandh to Kandarpur	0.00	0.50	0.50	0.00
15	33kV Bay at Paradeep S/S	0.00	0.50	0.50	0.00
16	Diversion of DC line from Budhipadar to Jorabaga	0.00	0.50	0.50	0.00
17	Survey for 132kV Chandaka- Nimapara line for diversion from premises of IMS & Sum Hospital	0.00	0.50	0.50	0.00

18	Diversion of 220kV Kaniha-Meramundali DC line deposited by NTPC	0.21	1.00	1.21	0.50
19	Tomka railway line from M/s B.C. Mohanty switchyard to Tomka RTSS. (D.W.)	0.42	1.00	1.42	0.00
20	Other Deposit work	0.95	0.00	0.95	0.00
TOTAL - C		9.48	35.00	44.48	12.50
GRAND TOTAL : D = A+B+C		75.06	239.30	314.36	544.60

Depreciation

14. OPTCL has projected depreciation for FY 2014-15 considering the rate of depreciation prescribed by CERC on the book value of the assets and additions thereto as per Regulation 17 (Chapter-III) of CERC Regulations, 2009. Accordingly, the transmission licensee has projected depreciation at **Rs.176.02 crore** based on the estimated book value of assets for FY 2014-15 (gross block as on 01-04-2013 plus projected addition during FY 2013-14).

Special Appropriation

15. The Commission had allowed Special Appropriation of Rs.53.40 crore to meet Debt Service Obligation for FY 2013-14 as the depreciation was allowed based on the pre-92 rate. For FY 2014-15, OPTCL has projected **Rs. 176.02 crore towards depreciation** considering CERC Regulations, 2009 which will take care of principal repayment obligation.

Return on Equity

16. At the time of de-merger of GRIDCO effective from 1.4.2005, the equity share capital of OPTCL was stated at Rs.60.07 crore. Further, OPTCL has received Rs 243 crore (Rs.23.05 crore during FY 2008-09 + Rs. 5.00 crore during FY 2009-10 + Rs. 71.95 crore during FY 2010-11 + Rs 43 crore during FY 2011-12 + Rs.50 crore during FY 2013-14) from State Govt. as equity contribution for setting up transmission projects in remote areas. Therefore, the licensee has projected ROE @19.38% post-tax basis on the equity share capital of Rs.353.07 crore which amounts to **Rs.68.42 crore** for FY 2014-15.

Interest on Working Capital

17. Based on CERC norms, OPTCL has calculated its working capital needs at Rs.282.67 crore for the FY 2014-15. Taking 14.45% as the rate of interest, interest on working capital amounts to **Rs.40.85 crore for FY 2014-15**. For the purpose of determination of working capital, OPTCL has taken into consideration the O&M expenses for one month, maintenance of spares at the rate of 15% of O & M expenses and receivables equivalent to two months of fixed cost.

Additional Expenses

Contingency Reserve

18. A sum of **Rs.17.03 crore** has been projected for Contingency Reserve for the FY 2014-15.

Grid Co-ordination Committee Expenses

19. As per provisions in Orissa Grid Code (Chapter- 11), OPTCL formed Grid Coordination Committee (GCC) under it. Annual GCC expenses have been estimated at **Rs.0.52 crore** for the FY 2014-15.

Incentive for System Availability

20. The Regulation 25 to 29 under Chapter- 4 of CERC Regulations, 2009 specify the “Norms of Operation” applicable for generating stations (thermal and hydro) and transmission system for recovery of capacity charge, energy charge, transmission charge and incentive. OPTCL has proposed incentive for being able to make available the Transmission System more than 98% for the year 2012-13. The system availability of transmission network of OPTCL for FY 2012-13 has been worked out as **99.89%**. OPTCL has proposed the incentive of **Rs.10.47 crore** for FY 2012-13 to be allowed in the ARR of FY 2014-15.

Rebate

21. OPTCL proposes that for payment of monthly bill, the Open Access Customer shall be entitled to a rebate of 2% of the amount of the monthly bill (excluding arrears), if full payment is made within two working days (excluding holidays under N.I. Act) of the presentation of the bill and 1% of the amount if paid within 30 days of the presentation of the bill. OPTCL has projected the rebate amounting to **Rs.11.83 crore**.

Other Income and Cost/ Miscellaneous Receipts:

22. OPTCL estimates that it will earn Miscellaneous Receipts of **Rs.12 crore** during FY 2014-15 in line with the trend of revenue earning during FY 2013-14. The same has been deducted from the gross revenue of OPTCL to arrive at the ARR for FY 2014-15, to be recovered from LTOA customers.

Transmission Loss

23. OPTCL proposes Transmission Loss at 3.75% for FY 2014-15. The actual transmission loss in April 2013 – September 2013 period was 3.75% against Hon’ble Commission’s approval of 3.8% for FY 2013-14.
24. The summary of the proposed Annual Revenue Requirement against different heads for FY 2014-15 is tabulated below.

Table - 8
Summary of Annual Revenue Requirement of OPTCL for FY 2014-15
(Rs. crore)

ITEMS	Proposal for OPTCL for FY 2014-15	
A. FIXED COST		
1) O&M Expenses		533.61
(i) Employees Cost including Terminal Benefits	361.38	
(ii) R&M Cost	146.77	
(iii) A&G Cost	25.46	

2) Interest on Loan Capital		130.06
3) Depreciation		176.02
4) Special Appropriation		0
5) Return on Equity		68.42
6) Interest on Working Capital		40.85
Sub-Total (A)		948.95
B. Additional Expenses		39.85
1) Contingency Reserve	17.03	
2) GCC Expense	0.52	
3) Incentive for system availability	10.47	
4) Rebate	11.83	
Total Trans. Cost (A+B)		988.80
C. Less Misc. Receipts		12.00
D. ARR to be recovered from LTOA Customers i.e. OPTCL's Annual Revenue Requirement		976.80

Expected Revenue from Transmission Charges

25. OPTCL proposes to earn revenue from the LTOA Customers in the following manner:
- (i) By charging the rate applicable on DISCOMs for wheeling of 26995 MU from Generating Stations to the supply points of DISCOMs.
 - (ii) By charging the rate applicable on CGPs like IMFA & NALCO for supply of 10 MU Emergency Power & Back-up Power to their CGPs and load centres located elsewhere in Odisha.
 - (iii) By charging the rate applicable on other LTOA customer like IMFA & NALCO for wheeling of their surplus power of 450 MU (excluding Transmission Loss) from their CGPs to load centres located elsewhere in Odisha.
26. The revenue receipts from various transmission charges at the existing transmission tariff of 25 P/U shall be **Rs.686.61 crore**. Revenue to be earned by OPTCL from wheeling of 26995 MU to DISCOMs and other long term open access customers for FY 2014-15 at the existing rate is shown in the table below.

Table – 9
Revenue at existing transmission tariff

Sl.No.	Customer	OERC's approval for FY 13-14	Energy demand as per estimation by DISCOMs for FY 14-15 (MU)	Rate (P/U)	Tr. Loss (%)	Expected part of energy to be handled in DISCOMs' network for which no Trans.	MU to be handled by OPTCL including Loss	Amount (Rs. Cr)

						Charge to be claimed		
	CESU	7937	9100	25				
2	NESCO	5269	7080	25	0	150	26995 (27145-150)	674.88
3	WESCO	6655	7165	25				
4	SOUTHCO	3187	3800	25				
	Total DISCOMs	23048	27145					
5	Emergency Sale to CGPs	100	10	25			10	0.25
6	Wheeling to industries from CGPs	300	450	25	3.75		468	11.69
	Total	23448	27605				27463	686.81

Excess or (Deficit) in the ARR:

27. OPTCL has submitted that with its present Transmission Tariff structure consisting of Transmission Charge @25 P/U, it would not be able to meet its current costs and it may result in a deficit of **Rs.289.99 crore** as shown in table below.

Table - 10

Excess / Deficit of Revenue Requirement for FY 2014-15 (Rs. crore)

Total Annual Revenue Requirement	976.80
Less : Revenue earned from Long Term Open Access Customers	686.81
Deficit of Revenue Requirement at the existing Wheeling Rate @ 25 P/U	-289.99

28. The licensee, therefore, submits this application before the Commission with a request to approve its proposed ARR and the Transmission Tariff and Transmission Loss for FY 2014-15.

Proposed Tariff to Meet the Revenue Requirement for FY 2014-15

29. OPTCL has proposed Transmission tariff recovery in Rs./unit Approach.
30. In Rs. per unit approach the Transmission Tariff is determined by dividing the total ARR with the total energy handled / wheeled in the system in MU. For FY 2014-15 Transmission Tariff is computed as **35.58 P/U** as worked out in the table below.

Table – 11
Computation of Transmission Tariff

(a) Total Annual Revenue Requirement in Rs. Crore	976.80
(b) Total Million Units proposed for Wheeling in MU	27455
Proposed Transmission Tariff (P/U) = (a/b)	35.58

Existing transmission tariff (P/U)	25.00
Rise over existing transmission tariff	42.32%

Open Access Charges

31. The Hon'ble Commission has notified the Open Access Regulation under section 42 (2) of the Electricity Act, 2003. Consumers availing open access shall be required to pay the transmission charges for use of the transmission lines and substations of OPTCL. The Long Term Transmission Charge on the basis of MW flow is calculated by the formula as provided in the OERC (Determination of Open Access Charges) Regulations 2006 dated 06.06.2006.
32. The revenue from Short Term Open Access Charges earned from Short Term Open Access Customers is uncertain and therefore, OPTCL has not factored the same in to the Miscellaneous Receipts proposed in this application. It is submitted that the Short Term Open Access Charges is proposed and that the same will be adjusted in the revenue as year-end-adjustments at the end of the year on actual basis. Therefore, OPTCL considers Short Term Access Charges as Nil in this Application.
33. Based on the above, OPTCL proposes the LTOA charges and STOA charges as given in the table below. Besides these Charges, the Open Access customers are also required to pay any other charges as determined by the Commission as per provisions under Chapter-II (CHARGES FOR OPEN ACCESS) of the Regulations 2006.

Table - 12
Abstract of OA Charges proposed by OPTCL for FY 2014-15

DETAILS	In Rs./unit approach
Net Annual Revenue Requirement (Rs. crore)	976.80
Proposed Energy to be transmitted in OPTCL Network (MU)	27455
Proposed Transmission Tariff (P/U)	35.58
Power flow (equivalent of 27455 MU) in MW	3134
Long term Open Access Charges in terms of Rs./MW/Day	8539
Short term Open Access Charges in terms of Rs./MW/Day	2135

Reactive Energy Charges:

34. As per Regulation 4 (5) (i) under Chapter-II (CHARGES FOR OPEN ACCESS) of the Regulations 2006, the Hon'ble Commission shall separately determine charges for KVARh consumption from the grid in terms of paise/unit and the Open Access Customers shall pay the same.

Rebate:

35. On payment of monthly bill, the Open Access Customer shall be entitled to a rebate of 2% of the amount of the monthly bill (excluding arrears), if full payment is made within two working days (excluding holidays under N.I. Act) of the presentation of the bill and 1% of the amount if paid within 30 days of the presentation of the bill.

Delayed Payment Surcharge:

36. The monthly charges as calculated above together with other charges and surcharge on account of delayed payments, if any, shall be payable within 30 days from the date of bill. If payment is not made within the said period of 30 days, delayed payment surcharge at the rate of 2% per month shall be levied pro-rata for the period of delay from the due date, i.e. from the 31st day of the bill, on the amount remaining unpaid (excluding arrears on account of delayed payment surcharge).

Duties and Taxes:

37. The Electricity Duty levied by the Government of Odisha and any other statutory levy/ duty/ tax/ cess/ toll imposed under any law from time to time shall be charged over and above the tariff.

38. **Summary of Transmission Tariff Proposal:**

OPTCL's proposal for FY 2014-15 are:

- (i) Annual Revenue Requirement at Rs.976.80 crore.
- (ii) Recovery of Transmission Charge @ 35.58 P/U.
- (iii) Transmission Loss for wheeling as 3.75% on energy drawal.