

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

Submitted by

OPTCL

For

FY 2015-16

Summary of OPTCL's ARR & Transmission Tariff filing For FY 2015-16

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 2015-16.

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 109 nos. grid sub-stations of different voltage classes and EHT transmission line of 11704.479 ckt. km. as shown in the table below.

Table-1

Sub-Station and Line Details		
400/220 kV S/S		2
400/220/132/33 kV S/S		1
220/132/33 kV S/S		14
220/33 kV S/S		5
220/132 kV S/S		2
132 kV Sw.Stn.		17
132/33 kV S/S		64
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		109
Voltage Level	Lines (ckt. km.)	Bays
400 kV	518.234	32
220 kV	5730.334	253
132 kV	5455.911	714
33 kV		818
25 kV		2
11 kV		18
Total	11704.479	1837

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. Every year, 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, 2014 applicable for Transmission Tariff. Following the norms for FY 2015-16, OPTCL has proposed its ARR & Transmission Tariff Application for FY 2015-16 as per the related provisions pertaining to the conduct of Business and Tariff determination as provided under OERC Regulations, 2004 norms adopted in previous tariff order and as per the CERC (Terms and Condition of Tariff) Regulations, 2014.

The costs of the deemed transmission licensee OPTCL for the FY 2015-16 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
- 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 2015-16 as Rs.968.19 crore** including O & M Expenses of Rs.496.49 crore, Interest on Loan Capital of Rs.131.83 crore, Depreciation of Rs.197.72 crore, Return on Equity of Rs.113.74 crore and Interest of Working Capital of Rs.28.41 crore.

O&M Expenses

Employee Cost including Terminal Benefits

8. The Employees expenses for FY 2015-16 has been projected by OPTCL at **Rs.310.02 crore** including terminal benefits of Rs.138.65 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, stipend, reimbursement of medical expenses and house rent, leave travel concession, honorarium, Ex-gratia and misc. expenses, staff welfare expenses, wage revision arrear etc.

Administrative & General Expenses

10. The A&G expenses for FY 2015-16 has been projected at **Rs.32.36 crore**.

Repairs & Maintenance Expenses

11. OPTCL proposes Repairs and Maintenance (R&M) expenses for FY 2015-16 at **Rs.154.11 crore**. The details are given in the table below.

Table – 2
Repairs and Maintenance Expenses for FY 2015-16 (Rs. crore)

Particulars	OERC Approval for FY 2013-14	OERC Approval for FY 2014-15	OPTCL Proposal for FY 2015-16
a) O&M			119.23

b) Telecom			15.66
c) Civil Works			11.00
d) Information Technology			8.22
Total R&M Expenses (a+b+c+d+e)	60.00	93.00	154.11

Interest on Loan Capital

12. Interest on Loan for FY 2015-16 has been projected at **Rs.131.83 crore** by OPTCL.

New Projects

13. OPTCL proposes to **spend Rs.862.42 crore during FY 2015-16** as capital expenditure on new projects towards O&M, telecom, information technology (IT), construction and civil works. The details of Capital Expenditure for FY 2015-16 are given in the table below.

**Table - 3
Projected Capital Expenditure for FY 2015-16**

Particulars	Amount (Rs. crore)
a) Telecom	36.53
b) O&M	81.70
c) Information Technology (IT)	19.49
d) Civil Works	41.00
e) Construction	683.70
Total Capital Expenditure (a+b+c+d+e)	862.42

(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 and Optic Fibre between each Grid Sub-station and generating stations as well as 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 2015-16 is Rs.36.53 crore, the abstract of which is given in the table below.

Table – 4
CAPEX requirement for Telecommunication works in 2015-16

Particulars	Amount (Rs. crore)
Integration of 35 nos. RTU	1.15
Provision of SCADA interface point at 220 kV Grid S/S through OPGW	3.28
SCADA Interface Points at vital 132 kV Sub-Stations of OPTCL by laying OPGW Cable	30.00
Provision of Digital Protection in all 220kV lines through SDH Equipment	2.10
Total	36.53

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

An amount of Rs.81.70 crore has been proposed for the FY 2015-16 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 2015-16

Sl. No.	Description	Unit Rate (Rs. Lakh)	Quantity	Amount (Rs. Lakh)
1	PROCUREMENT OF TRANSFORMERS WITH COST OF ERECTION			
(i)	Procurement of 160 MVA, 220/132kV	650.00	2	1,300.00
(ii)	Procurement of 63 MVA, 132/33kV	330.00	3	990.00
(iii)	Procurement of 40 MVA, 132/33kV	273.00	4	1,092.00
(iv)	Procurement of 40 MVA, 220/33kV	305.00	1	305.00
(v)	Procurement of 20 MVA, 132/33kV	150.00	10	1,500.00
(vi)	Cost of construction of Bays	LS		547.62
2	PROCUREMENT OF NEW 400kV ERS TOWERS	150.00	8	1,200.00

Sl. No.	Description	Unit Rate (Rs. Lakh)	Quantity	Amount (Rs. Lakh)
3	CONVERSION OF S/C LINES IN D/C TOWERS TO D/C LINES			
(i)	132kV Cuttack - Jagatsinghpur (35.112 RKM)	LS		230.00
4	ON GOING PROJECTS			
(i)	Conversion of 132kV Jajpur Road - Anandpur S/C line to D/C line with const. of 132kV bays at both Grid S/Ss.	LS		130.00
(ii)	Conversion of 132kV Sonapur - Bolangir S/C line to 132kV Sonapur - New Bolangir D/C line with const. of 132kV bays at both Grid S/Ss.	LS		255.00
(iii)	Conversion of 132kV Patnagarh - New Bolangir S/C line to D/C line with const. of 132kV bays at both Grid S/Ss.	LS		170.00
(iv)	Up-gradation of panther conductor by HTLS higher current carrying conductor in 132 kV Joda - Badbil Line	LS		200.00
(v)	Up-gradation of panther conductor by HTLS higher current carrying conductor in 132 kV Mendhasal - Khurda Line	LS		250.00
	TOTAL O&M CAPEX			Rs. 8169.62 lakh = Rs.81.70 Cr.

(c) CAPEX FOR INFORMATION TECHNOLOGY RELATED PROJECTS:

Provision for an amount of Rs.19.49 crore is made for FY 2015-16 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 2015-16**

Sl. No.	Item Description	Amount (Rs. Cr.)
1	AC	0.15
2	Power System	0.20
3	PC	0.42
4	Laptop	0.07
5	Tablets	0.16
6	Printers	0.40

Sl. No.	Item Description	Amount (Rs. Cr.)
7	Scanners	0.61
8	LCD Projectors	0.02
9	Software	0.05
10	Security	0.20
11	DW & BI	2.50
12	ERP including New Requirement	2.00
13	ERP New Requirement	0.71
14	CCTV- Video	2.80
15	Data Center	6.70
16	LAN-New Office	2.50
TOTAL		Rs.19.49 Cr.

(d) CAPEX FOR CIVIL WORKS:

OPTCL proposes capital expenditure of **Rs.41 crore** relating to civil works during FY 2015-16 for new upcoming projects.

(e) CAPEX FOR CONSTRUCTION WING:

It has been planned to spend an amount of **Rs.683.70 crore** on transmission related infrastructure during FY 2015-16 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 CONSTRUCTION WING in FY 2015-16 (Rs. Crore)**

		Expenditure during FY 2014-15			Projected Expenditure (FY 2015-16)
		Actual For First Six Months	Projection For Balance Six Months	Total	
1	2	3	4	5=3+4	6
A	ONGOING SCHEME				
1	2x20MVA,132/33kV Barbil S/S & associated LILO		5.00	5.00	
2	220/33kV S/S Gopinathpur (Keonjhar) & associated lines		2.00	2.00	
3	400kV Meramundali - Duburi D/C line		7.00	7.00	5.00

		Expenditure during FY 2014-15			Projected Expenditure (FY 2015-16)
		Actual For First Six Months	Projection For Balance Six Months	Total	
1	2	3	4	5=3+4	6
4	132/33kV Khajuriakata (Hindol Road) S/S & associated line	2.33	4.50	6.83	10.00
5	132kV Sonepur- Boudh S/C Line		3.00	3.00	3.00
6	400kV IB- Meramundali D/C line	1.10	1.20	2.30	
7	220/132kV Dhamara (Balimunda) S/S & associated LILO			-	10.00
8	132/33 kV Somanathpur Sw-Stn to S/S	0.40	1.60	2.00	1.80
9	2x12.5MVA ,132/33kV Udala S/S & associated LILO	0.30	2.00	2.30	10.00
10	132kV Bhadrak-Anandpur S/C line on DC tower	2.24	3.00	5.24	10.00
11	132/33kV Olaver S/S & 132kV Pattamundai-Olavar line with Bay Extention at Pattamundai	9.25	1.53	10.78	15.00
12	132kV Dhamara (proposed)- Olavar (proposed) D/C line		-	-	5.00
13	132/33kV Agarpada S/S with LILO		3.00	3.00	10.00
14	2x20MVA Bhograi S/S & associated LILO of 132kV Kuchei-Jaleswar D/C line	0.91	4.48	5.39	15.00
15	132kV Kuchei-Jaleswar D/C line	2.96	3.98	6.94	15.00
16	220/132kV Puri (Samangara) S/S	6.22	28.00	34.22	20.00
17	132/33kV S/S at Chandpur with line		2.00	2.00	
18	220/132kV Karadagadia (Atri) S/S with line	10.01	6.93	16.94	20.00
19	132/33kV Banki S/S with line	3.65	3.38	7.03	

		Expenditure during FY 2014-15			Projected Expenditure (FY 2015-16)
		Actual For First Six Months	Projection For Balance Six Months	Total	
1	2	3	4	5=3+4	6
20	2x160MVA Transformers at 220/132kV Mendhasal S/S with 132kV line	1.62	4.78	6.40	10.00
21	220/132/33kV Pratapsasan S/S & 132kV Pratapsasan-Phulnakhara D/C line	4.33	3.00	7.33	10.00
22	3rd ICT at 400/220kV Mendhasal S/S	1.20	6.00	7.20	15.00
23	132/33kV Padampur S/S with line		2.00	2.00	
24	220/132kV Kesinga S/S	0.69	5.00	5.69	10.00
25	132/33kV Kantabanji S/S & 132kV Khariar-Kantabanji line	0.66	2.34	3.00	10.00
26	3x315MVA ICT at Bolangir		2.50	2.50	
27	220/132/33kV Baragarh (New) S/S		5.00	5.00	10.00
28	400kV Meramundali-New Duburi line		5.00	5.00	
29	220kV Bidanasi-Cuttack D/C line	1.53	3.00	4.53	
30	Const. Of 220/132 kV Grid S/s at Cuttack(Nuapada)	2.02	5.50	7.52	4.40
31	132/33kV Marshaghai S/S	1.00	4.00	5.00	8.00
32	132kV Bay Extension at Salipur , Kendrapara & Nuaptana S/S with lines	2.29	3.69	5.98	1.00
33	220kV Duburi-Paradeep D/C line	2.45	-	2.45	
34	132kV Pottangi S/S	3.42	7.37	10.79	14.00
35	132kV Umerkote S/S	9.79	7.91	17.70	10.00
36	2x12.5MVA ,132/33kV Dabugaon S/S & 132kV Tentulikhunti-Dabugaon S/C line on D/C tower		5.00	5.00	
37	2nd 220kV Indravati-Therubali D/C line		2.00	2.00	10.00

		Expenditure during FY 2014-15			Projected Expenditure (FY 2015-16)
		Actual For First Six Months	Projection For Balance Six Months	Total	
1	2	3	4	5=3+4	6
38	132kV Junagarh-Dabugaon S/C line			-	5.00
39	132kV Rayagada-RTSS S/C line		1.00	1.00	5.00
40	132/33kV Podagada S/S with line	5.84	2.61	8.45	10.00
41	220kV Jayanagar-PGCIL D/C line & 2 nos. 220kV feeder bays at both ends	1.31	4.38	5.69	9.00
42	Conversion of existing Jaynagar- Sunabeda S/C line to D/C line	1.08	3.78	4.86	3.00
43	132kV Parlakhamundi-R.Udaygiri S/C line on D/C Tower		-	-	15.00
44	220/33kV Malkanagiri S/S with line	0.01	2.99	3.00	10.00
45	132kV Umarkote-Junagarh S/C line on D/C tower with one no. feeder Bay Extension at each end			-	10.00
46	2x20MVA ,132/33kV Muniguda S/S with LILO	0.13	2.00	2.13	10.00
47	132/33kV Kuchinda S/S		1.00	1.00	
48	2x20MVA,220/33kV Kalunga S/S with LILO	0.15	5.00	5.15	
49	2x40MVA,220/33kV Bonai S/S with LILO	0.10	2.00	2.10	5.00
50	220/132kV Lapanga S/S	0.13	10.00	10.13	
51	2x100MVA, 220/132kV Kuanarmunda S/S with LILO	0.55	1.84	2.39	10.00
52	2x40MVA Trf. at Jharsuguda and diversion of extn. of 132kV line inside the S/S at Sarasmal	0.31	4.78	5.09	
53	132kV Nuapatna-Banki S/C line	1.83	4.00	5.83	12.00
54	Trf. bay at Laxmipur S/S	0.42	2.00	2.42	3.00

		Expenditure during FY 2014-15			Projected Expenditure (FY 2015-16)
		Actual For First Six Months	Projection For Balance Six Months	Total	
1	2	3	4	5=3+4	6
55	2x12.5MVA, 220/33kV Kasipur S/S with LILO of one circuit of 220kV Indravati-Therubali D/C line	0.03	5.00	5.03	10.00
56	2X20MVA, 132/33kV R.Udayagiri S/S with 132kV line from Mohana with 132kV Bay Extension at Mohana	0.09	4.91	5.00	10.00
57	Conversion of existing 132kV Balasore- Somathpur S/C line to D/C line & 132kV Bay Extension at both ends	1.52	2.00	3.52	-
58	220/33kV Narasinghpur S/S with LILO		4.00	4.00	10.00
59	132/33 kV Bangiriposhi S/S with line	0.00	3.00	3.00	9.50
	TOTAL - A	83.94	222.91	306.85	408.70
B	NEW PROJECTS				
1	220/132/33kV Goda Chhak S/S & associated line		-	-	8.00
2	132kV Junagarh-Kesinga D/C line				8.00
3	132/33kV Dhenikote S/S with line		5.00	5.00	12.00
4	2x20MVA,132/33kV Brajabiharipur, Cuttack (old site CDA) S/S		-	-	5.00
5	132/33kV Boriguma S/S with LILO of existing 132kV Jayanagar- Tentulikhunti S/C line (in-principle approval by the BoD)		3.00	3.00	8.00
6	220/33kV Baliguda S/S	0.01	8.00	8.01	10.00
7	2x20MVA, 220/33kV Jaypatna S/S with line	0.03	4.97	5.00	7.00
8	2x20MVA, 132/33kV Satasankha (puri) S/S with line		5.00	5.00	8.00

		Expenditure during FY 2014-15			Projected Expenditure (FY 2015-16)
		Actual For First Six Months	Projection For Balance Six Months	Total	
1	2	3	4	5=3+4	6
9	2x20 MVA, 132/33kV Maneswar S/S with LILO		-	-	5.00
10	132/33kV Kalimela S/S with line		3.00	3.00	7.00
11	132/33kV Tirtol S/S with LILO		4.00	4.00	6.00
12	132/33kV Chikiti S/S with line		3.00	3.00	6.00
13	132kV Jayanagar - Tentulikhunti line		3.00	3.00	8.00
14	132/33kV Birmaharajpur S/S with line		4.00	4.00	7.00
15	132/33kV Betonati S/S with line		4.00	4.00	5.00
16	132/33kV Tusura S/S with line				7.00
17	132kV Nuapada-Padampur line		3.00	3.00	5.00
18	220/132/33kV Aska S/S with line		5.00	5.00	12.00
19	220/132/33kV Chandaka-B (Bhubaneswar) GIS S/S		-	-	25.00
20	400/220kV Lapanga S/S with line		-	-	15.00
21	220kV Atri-Pandiabil D/C line		12.00	12.00	5.00
22	132/33kV Unit-8 (Bhubaneswar) GIS S/S with line		-	-	25.00
23	132/33kV Rasulgarh (Bhubaneswar) GIS S/S with line		-	-	25.00
24	132kV Phulbani-Boudh S/C line		-	-	7.00
25	132/33kV Ghens S/S with line			-	15.00
	TOTAL - B	0.04	66.97	67.01	251.00
	TOTAL-(A+B)	83.98	289.88	373.86	659.70
C	DEPOSIT WORK				

		Expenditure during FY 2014-15			Projected Expenditure (FY 2015-16)
		Actual For First Six Months	Projection For Balance Six Months	Total	
1	2	3	4	5=3+4	6
1	RTSS at Bimalagarh & Belpahar	4.71	4.83	9.54	
2	132kV LILO of Khurda-Puri line for power supply to Samuka (Puri) S/S	1.41	4.60	6.01	
3	132/33kV Konark S/S with line	3.66	5.00	8.66	
4	3x40 MVA, 132/33kV Arugul S/S for power supply to IIT & associated at Karadagadia	3.38	0.46	3.84	
5	Infocity-II (IDCO)	3.56	10.00	13.56	20.00
6	Underground cabling at Chandaka	3.14	2.55	5.69	
7	132/33kV Mania (Tangi) S/S	1.35	12.00	13.35	
8	RTSS at Boinda		1.00	1.00	2.00
9	RTSS at Rairakhol		1.00	1.00	2.00
	TOTAL - C	21.21	41.44	62.65	24.00
	TOTAL - D = A+B+C	105.19	331.32	436.51	683.70

Depreciation

14. OPTCL has projected depreciation for FY 2015-16 considering the rate of depreciation prescribed by CERC on the book value of the assets and additions thereto as per Regulation 27 (Chapter-6) of CERC Regulations, 2014. Accordingly, the transmission licensee has projected depreciation at **Rs.197.72 crore** based on the estimated book value of assets for FY 2015-16 (gross block as on 01-04-2014 plus projected addition during FY 2014-15).

Return on Equity

15. 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.303.07 Cr. (Rs.23.05 Cr. in FY 2008-09 + Rs.5 Cr. in FY 2009-10 + Rs.71.95 Cr. in FY 2010-11 + Rs.43 Cr. in FY 2011-12 + Rs.50 Cr. in FY 2012-13 + Rs.50 Cr. in FY 2013-14) from the State Govt. as equity contribution for setting up transmission projects in remote areas. Further another Rs.337 Cr. is likely to be received by the end of FY 2014-15 and Rs.480 Cr. in FY 2015-16. Therefore, the licensee has projected ROE @19.61% on the equity share capital of Rs.580 crore which amounts to **Rs.113.74 crore** for FY 2015-16.

Interest on Working Capital

16. Based on CERC norms, OPTCL has calculated its working capital needs at Rs.277.21 crore for the FY 2015-16. Taking 10.25% as the rate of interest, interest on working capital amounts to **Rs.28.41 crore for FY 2015-16**. 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

17. A sum of **Rs.19.12 crore** has been projected for Contingency Reserve for the FY 2015-16.

Grid Co-ordination Committee Expenses

18. 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.0.71 crore** for the FY 2015-16.

Incentive for System Availability

19. The Regulation 38 of CERC Regulations, 2014 specify the “Norms of Operation” applicable for transmission system for recovery of transmission charge and incentive. OPTCL has proposed incentive for being able to make available the Transmission System more than 98.5% for the year 2013-14. The system availability of transmission network of OPTCL for FY 2013-14 has been worked out as **99.96%**. OPTCL has proposed the incentive of **Rs.7.15 crore** for FY 2013-14 to be allowed in the ARR of FY 2015-16.

Rebate

20. 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.13.19 crore**.

Other Income and Cost/ Miscellaneous Receipts:

21. OPTCL estimates that it will earn Miscellaneous Receipts of **Rs.26 crore** during FY 2015-16 in line with the trend of revenue earning during FY 2014-15. The same has been deducted from the gross revenue of OPTCL to arrive at the ARR for FY 2015-16, to be recovered from LTOA customers.

Transmission Loss

22. OPTCL proposes Transmission Loss at 3.75% for FY 2015-16. The actual transmission loss in April 2014 – September 2014 period was 3.76% against Hon’ble Commission’s approval of 3.75% for FY 2014-15.

23. The summary of the proposed Annual Revenue Requirement against different heads for FY 2015-16 is tabulated below.

Table - 8
Summary of Annual Revenue Requirement of OPTCL for FY 2015-16
(Rs. crore)

ITEMS	Proposal for OPTCL for FY 2015-16	
A. FIXED COST		
1) O&M Expenses		496.49
(i) Employees Cost including Terminal Benefits	310.02	
(ii) R&M Cost	154.11	
(iii) A&G Cost	32.36	
2) Interest on Loan Capital		131.83
3) Depreciation		197.72
4) Return on Equity		113.74
5) Interest on Working Capital		28.41
Sub-Total (A)		968.19
B. Others		40.17
1) Contingency Reserve	19.12	
2) Rebate	13.19	
3) GCC Expense	0.71	
4) Incentive for system availability	7.15	
Total Trans. Cost (A+B)		1008.36
C. Less Misc. Receipts		26.00
D. ARR to be recovered from LTOA Customers i.e. OPTCL's Annual Revenue Requirement		982.36

Expected Revenue from Transmission Charges

24. OPTCL proposes to earn revenue from the LTOA Customers in the following manner:
- (i) By charging the rate applicable on DISCOMs for wheeling of 26006 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.
25. The revenue receipts from various transmission charges at the existing transmission tariff of 25 P/U shall be **Rs.662 crore**. Revenue to be earned by OPTCL from

wheeling of 26006 MU to DISCOMs and other long term open access customers for FY 2015-16 at the existing rate is shown in the table below.

Table – 9
Revenue at existing transmission tariff

Sl. No.	Customer	Commission's approval for FY 2014-15	Energy demand (MU) as per DISCOMs estimation (FY 15-16)	Tr. Loss (%)	Energy handled including Loss	Expected part of energy to be handled in DISCOMs network for which no Trans. Charge to be claimed	MU to be handled by OPTCL including Loss	Amount (Rs. Cr.)
1	CESU	9040	9401	0	9401	150	26006 (26156-150)	650.15
2	NESCO	5330	5625	0	5625			
3	WESCO	6820	7500	0	7500			
4	SOUTHCO	3340	3630	0	3630			
	Total DISCOMs	24530	26156		26156			
5	Emergency Sale to CGPs	10	10	0	10			0.25
6	Wheeling to industries from CGPs	450	450	3.75	468			11.69
	Total	24990	26616		26634			662.00

Excess or (Deficit) in the ARR:

26. 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.320.36 crore** as shown in table below.

Table - 10

Excess / Deficit of Revenue Requirement for FY 2015-16 (Rs. crore)

Total Annual Revenue Requirement	982.36
Less : Revenue earned from Long Term Open Access Customers	662.00
Deficit of Revenue Requirement at the existing Wheeling Rate @ 25 P/U	-320.36

27. 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 2015-16.

Proposed Tariff to Meet the Revenue Requirement for FY 2015-16

28. OPTCL has proposed Transmission tariff recovery in Rs./unit Approach.
29. 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 2015-16 Transmission Tariff is computed as **37.12 P/U** as worked out in the table below.

**Table – 11
Computation of Transmission Tariff**

(a) Total Annual Revenue Requirement in Rs. Crore	982.36
(b) Total Million Units proposed for Wheeling in MU	26466
Proposed Transmission Tariff (P/U) = (a/b)	37.12
Existing transmission tariff (P/U)	25.00
Rise over existing transmission tariff	48.48%

Open Access Charges

30. 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.
31. The revenue from Short Term Open Access Charges earned from Short Term Open Access Customers is uncertain. It is submitted that the Short Term Open Access Charges will be adjusted in the revenue as year-end-adjustments at the end of the year on actual basis.
32. 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)	982.36
Proposed Energy to be transmitted in OPTCL Network (MU)	26466
Proposed Transmission Tariff (P/U)	37.12
Power flow (equivalent of 26466 MU) in MW	3021
Long term Open Access Charges in terms of Rs./MW/Day	8908
Short term Open Access Charges in terms of Rs./MW/Day	2227

33. Intra-state STOA transactions have started to gather momentum in Odisha. As per existing OERC Regulations, STOA customers are liable to pay 25% of the long term transmission charge. OPTCL has proposed to consider equating long term and short term rates to enable OPTCL to earn more revenue which would be accounted for

under Miscellaneous Receipt so as to relieve the long term open access customers resulting downward effect on Retail Supply Tariff.

Reactive Energy Charges:

34. Regulation 1.7 of OGC Regulations, 2006 (Charge / Payment for Reactive Energy Exchanges) stipulates that the rate for charge / payment of reactive energy exchanges shall be 5.0 Paise / kVARh with effect from the date to be notified by the Commission separately and shall be escalated at 0.25 Paise / kVARh per year thereafter, unless otherwise revised by the OERC. Since a provisional rate (i.e. 6.50 Paise/kVARh) has already been fixed by the Commission for FY 2014-15, OPTCL proposes that in accordance with Regulation 1.7 of said OGC Regulations, the Reactive Energy Charges may be considered at 6.75 Paise / kVARh for the FY 2015-16, i.e. an escalation of 0.25 Paise / kVARh over the approved rate for FY 2014-15.

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 2015-16 are:

- (i) Annual Revenue Requirement at Rs.982.36 crore.
- (ii) Recovery of Transmission Charge @ 37.12 P/U.
- (iii) Transmission Loss for wheeling as 3.75% on energy drawal.