

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

Submitted by

***OPTCL***

For

***FY 2013-14***

## **Summary of OPTCL's ARR & Transmission Tariff filing For FY 2013-14**

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 2013-14.

### **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 Inter-State/Intra-State Transmission System for a period of 25 years or more. Based on such premise, four DISCOMs & Captive Generating Plants (CGPs) 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 Inter-State / Intra-State Transmission is one year with condition to reapply after expiry of the term.

### Details of Transmission Charge

5. Currently, OPTCL owns 100 nos. grid sub-stations of different voltage classes and EHT transmission line of 11344.196 ckt. km. as shown in the table below.

**Table-1**

<b>Sub-Station and Line Details</b>		
400/220 kV SS	3	
220/132/33 kV SS	14	
220/132 kV SS	1	
220/33 kV SS	4	
132 kV Sw.S	16	
132/33 kV SS	58	
132/33/25 kV SS	1	
132/33/11 kV SS	1	
132/11 kV SS	2	
<b>Total No. of Sub-Stations</b>	<b>100</b>	
<b>Voltage Level</b>	<b>Lines (ckt. km.)</b>	<b>Bays</b>
400 kV	518.234	32
220 kV	5520.214	229
132 kV	5305.748	663
33 kV		730
25 kV		2
11 kV		18
<b>Total</b>	<b>11344.196</b>	<b>1674</b>

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. In view of the above, OPTCL has proposed its ARR & Transmission Tariff Application for FY 2013-14 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) Regulation, 2009 respectively.

The costs of the deemed transmission licensee OPTCL for the FY 2013-14 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

**Details of Fixed Charges**

7. OPTCL proposes **fixed charges for FY 2013-14 as Rs.847.67 crore** including O & M Expenses of Rs.473.21 crore, Interest on Loan Capital of Rs.121.11 crore, Depreciation of Rs.172.85 crore, Return on Equity of Rs.49.04 crore and Interest of Working Capital of Rs.31.46 crore.

**O&M Expenses**

**Employee Cost including Terminal Benefits**

8. The Employees expenses for FY 2013-14 has been projected by OPTCL at Rs.341.20 crore including terminal benefits of Rs.144.13 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, provision towards 6<sup>th</sup> Pay Commission & wage revision arrear etc.

**Administrative & General Expenses**

10. The A&G expenses for FY 2013-14 has been projected at **Rs.23.09 crore**.

**Repairs & Maintenance Expenses**

11. OPTCL proposes Repairs and Maintenance (R&M) expenses for FY 2013-14 at **Rs.108.91 crore**. The details are given in the table below.

**Table – 2**  
**Repairs and Maintenance Expenses for FY 2013-14 (Rs. crore)**

<b>Particulars</b>	<b>OERC Approval for FY 2011-12</b>	<b>OERC Approval for FY 2012-13</b>	<b>OPTCL Proposal for FY 2013-14</b>
a) O&M			83.08
b) Telecom			14.59
c) Civil Works			6.00
d) Information Technology			5.24
<b>Total R&amp;M Expenses (a+b+c+d+e)</b>	<b>75.00</b>	<b>95.02</b>	<b>108.91</b>

**Interest on Loan Capital**

12. Interest on Loan for FY 2013-14 has been projected at **Rs.121.11 crore** by OPTCL.

**New Projects**

13. OPTCL proposes to **spend Rs.639.79 crore during FY 2013-14** 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 2013-14 are given in the table below.

**Table - 3**  
**Projected Capital Expenditure for FY 2013-14**

<b>Particulars</b>	<b>Amount (Rs. crore)</b>
a) Telecom	48.05
b) O&M	67.96
c) Information Technology (IT)	14.51
d) Transmission Project & Construction (Excluding Deposit Works)	485.11
e) Civil Works	24.16
<b>Total Capital Expenditure (a+b+c+d+e)</b>	<b>639.79</b>

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

In order to have a dependable, 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. The CAPEX requirement for Telecom Project in FY 2013-14 is Rs.48.05 crore, the abstract of which is given in the table below.

**Table – 4**  
**CAPEX requirement for Telecommunication works in 2013-14**

<b>Particulars</b>	<b>Amount (Rs. crore)</b>
(i) Integration of 35 nos RTU	14.80
(ii) Provision of SCADA inter face at 220KV and above S/S	33.25
<b>Total</b>	<b>48.05</b>

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

An amount of Rs.67.96 crore has been proposed for the FY 2013-14 under capital expenditure to meet the future load growth basically by way of transformer capacity augmentation / substation capacity enhancement by installing third transformers in the existing grid-substations of OPTCL, conductor upgradation 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 2013-14**

<b>Sl. No.</b>	<b>Line/Equipment details</b>	<b>Unit Rate (Rs. Lakh)</b>	<b>Quantity</b>	<b>Total Cost (Rs. Cr)</b>
<b>1</b>	<b>PROCUREMENT OF TRANSFORMERS WITH COST OF ERECTION</b>			
(i)	Procurement of 160 MVA, 220/132kV transformers	715.00	1	7.15
(ii)	Procurement of 20 MVA, 132/33kV transformers	185.90	16	29.74
(iii)	Erection cost of available transformers	LS		2.20
<b>2</b>	<b>CONDUCTOR UP-GRADATION WITH HTLS</b>			
(i)	132kV Chandaka - Mancheswar Ckt. - II (5.88 Rkm)	LS		2.34
(ii)	132kV Chandaka - Mancheswar Ckt. - I (5.5 Rkm)	LS		2.19
(iii)	132kV Chandaka - Ranasinghpur (24.25 Rkm)	LS		9.65
<b>3</b>	<b>CONVERSION OF S/C LINES IN D/C TOWERS TO D/C LINES</b>			
(i)	132kV Akhusingh - Paralakhemundi (76.9 Rkm)	LS		5.39
(ii)	132kV Jajpur Road - Anandpur (30 Rkm)	LS		2.19
(iii)	132kV New Bolangir - Patnagarh (40.2 Rkm)	LS		3.12
(iv)	132kV New Bolangir - Sonapur (53.845 Rkm)	LS		4.00
<b>TOTAL</b>				<b>67.96</b>

(c) **CAPEX FOR INFORMATION TECHNOLOGY RELATED PROJECTS:**

Provision for an amount of Rs.14.51 crore is made for FY 2013-14 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 2013-14**

<b>Sl. No.</b>	<b>CAPEX Item Description</b>	<b>Rs. Crore</b>
<b>1</b>	AC	0.050
<b>2</b>	Furnitures	0.354
<b>3</b>	Data Center	0.000
<b>4</b>	PC	0.924
<b>5</b>	Laptop	0.195
<b>6</b>	Workstations	0.088
<b>7</b>	Tablets	0.010
<b>8</b>	Printers	0.697
<b>9</b>	Scanners	0.049
<b>10</b>	LCD Projectors	0.015
<b>11</b>	GIS	1.000
<b>12</b>	UPS	0.770
<b>13</b>	ERP	1.980
<b>14</b>	DR Center	5.382
<b>15</b>	DLLD	0.300
<b>16</b>	DW & BI	2.100
<b>17</b>	OGS-WAN - III New S/s	0.039
<b>18</b>	PH & CGP	0.433
<b>19</b>	OPTCL HQ LAN	0.125
	<b>TOTAL</b>	<b>14.512</b>

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

It has been planned to spend an amount of **Rs.522.73 crore** on transmission related infrastructure during FY 2013-14 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**  
**2013-14 (Rs. Crore)**

Sl. No	Loan/ Scheme/ Contract-wise Capital Works	Expenditure During FY 2012-13			Projected Expenditure during FY 2013-14
		Actuals for 1st Six Months	Projection for balance Six Months	Total	
1	2	3	4	5=3+4	6
	<b>(A) ONGOING SCHEMES</b>				
1	400/220kV S/S at <b>New Duburi</b>	0.35	0.50	0.85	-
2	132/33kV S/S at <b>Anandpur</b> with associated line (New)	0.37	0.10	0.47	-
3	2x12.5 MVA, 132/33 kV S/S at <b>Nuapada</b> with associated line	3.23	2.77	6.00	17.16
4	2x12.5 MVA, 132/33 kV S/S at <b>Dabugaon</b> with associated line	2.31	3.69	6.00	11.11
5	2x12.5 MVA, 132/33 kV S/S at <b>Padampur</b> with associated line	2.56	2.44	5.00	14.55
6	2x12.5 MVA, 132/33 kV S/S at <b>Kuchinda</b> with associated line	1.91	3.09	5.00	5.80
7	2x12.5 MVA, 132/33 kV S/S at <b>Bhawanipatna</b> with associated line	1.89	1.50	3.39	-
8	2x12.5 MVA, 132/33 kV S/S at <b>Boudh</b> with associated line	3.10	6.00	9.10	24.43
9	2x12.5 MVA, 132/33 kV S/S at <b>Purushottampur</b> with associated line	1.12	3.27	4.39	-
10	2x12.5 MVA, 132/33 kV S/S at <b>Chandpur</b> with associated line	1.41	2.91	4.32	-
11	2x12.5 MVA, 132/33 kV S/S at <b>Banki</b> with associated line	1.27	3.47	4.74	-
12	2x12.5 MVA, 132/33 kV S/S at <b>Kalunga</b> with associated line	1.49	4.00	5.49	5.50
13	2x40 MVA, 220/33 kV S/S at <b>Gopinathpur</b> (Keonjhar) with associated line	1.14	9.22	10.36	5.21
14	2x100 MVA, 220/132/33 kV S/S at <b>Kuanrunda</b> with LILO arrangement from existing 220 kV Budhipadar-Tarkera D/C line	3.60	15.00	18.60	0.16
15	2x160MVA and 2x20MVA 220/132/33 kV S/S at <b>Lapanga</b> with associated line	5.97	5.17	11.14	15.88
16	2x40 MVA, 220/33 kV S/S at <b>Bonai</b> with associated line	-	5.50	5.50	10.65
17	2x20 MVA, 132/33 kV S/S at <b>Barbil</b> with associated line	-	3.00	3.00	-
18	400kV <b>Ib-Meramundali</b> D/C line	-	0.05	0.05	-
19	400kV <b>Meramundali-Duburi</b> D/C line	-	0.50	0.50	-



Sl. No	Loan/ Scheme/ Contract-wise Capital Works	Expenditure During FY 2012-13			Projected Expenditure during FY 2013-14
		Actuals for 1st Six Months	Projection for balance Six Months	Total	
1	2	3	4	5=3+4	6
20	220 kV <b>Padmanvapur-Balasore</b> line	0.03	-	0.03	-
21	220kV <b>Mendhasal-Bidanasi</b> line	0.65	-	0.65	-
22	220kV <b>Duburi old-Duburi new</b> D/C line	0.35	-	0.35	-
23	220kV <b>Bidanasi-Cuttack</b> D/C line	2.23	2.75	4.98	8.07
24	220kV <b>Bolangir-Kesinga</b> D/C line		6.00	6.00	51.26
25	132kV <b>Jagatsinghpur-Paradeep</b> line	2.02	2.50	4.52	4.47
26	2nd Ckt. from Loc. No. 116 of 132 kV <b>Chandaka- Nimapada</b> S/C line to Nimapada grid with one no 132 kV bay extn.	0.08	0.30	0.38	-
27	Conversion of 132/11 kV Grid S/S to 2*40 MVA, 132/33 kV S/S at <b>Sarasamal</b> (Jharsuguda)	-	2.00	2.00	6.00
28	2x12.5 MVA, 132/33 kV S/S at <b>Udala</b> with LILO arrangement of Balasore - Baripada line	-	4.00	4.00	12.00
29	132 kV <b>Salipur - Kendrapara</b> S/C line	-	7.90	7.90	4.36
30	2x100 MVA, 220/132 kV grid S/S at <b>Cuttack</b> with 2 nos. 220 kV feeder bay extn. at Bidanasi grid with linking arrangement at both ends	1.95	14.57	16.52	12.75
31	2x100MVA, 220/132 kV S/S at <b>Kesinga</b> with 220kV D/C line from Bolangir to Kesinga and one no. 220kV Bay extension at Bolangir	-	13.83	13.83	-
32	2x40MVA, 132/33kV S/S at <b>Khajuriakata</b> near Hindol Road with associated line	1.67	3.00	4.67	13.01
33	132kV LILO arrangement of 132kV S/C line from Meramundali to Arati Steel to 132/33kV S/S Nuapatna along with one no. of feeder bay extension at <b>Nuapatna</b>	-	2.00	2.00	2.00
34	2x20 MVA ,132/33 kV S/S at <b>Konark</b> with associated lines & 132kV feeder bay extension at Nimapara	1.91	13.65	15.56	3.92
35	Renovaion of existing 2x12.5 MVA, 132/33 kV S/S at <b>Ganjam</b>	-	2.90	2.90	-
36	2x160MVA, 220/132kV S/S at existing 400 kV S/S <b>Mendhasal</b>	-	9.47	9.47	3.88

Sl. No	Loan/ Scheme/ Contract-wise Capital Works	Expenditure During FY 2012-13			Projected Expenditure during FY 2013-14
		Actuals for 1st Six Months	Projection for balance Six Months	Total	
1	2	3	4	5=3+4	6
37	2nos. 220 kV feeders from 220/132/33 kV S/S of OPTCL at <b>Jayanagar</b> to 400/220 kV S/S of PGCIL at Jayanagar with 2 nos. of 220kV bay extension at each end	-	4.00	4.00	10.29
	<b>TOTAL ( A )</b>	<b>42.61</b>	<b>161.05</b>	<b>203.66</b>	<b>242.46</b>
<b>(B) PROPOSED SCHEMES</b>					
1	2x20 MVA, 132/33 kV S/S at <b>Olaver</b> and 2 nos. 132 kV feeder bay extn. at <b>Pattamundai</b> with 132 kV DC line from Pattamkundai to Olaver	-	-	-	10.00
2	2x40 MVA 132/33 kV S/S at <b>Marshaghai</b> ( Luna) by making LILO arrangement from one ckt. of existing 132 kV Kendrapara -Paradeep D/C line	0.02	-	0.02	3.00
3	2x100 MVA, 220/132/33 kV S/S at <b>Dhamara</b> with connectivity from Bhadrak S/S	-	-	-	15.00
4	2x160MVA ,220/132 kV and 2x20MVA 132/33 kV S/S at <b>Karadagadia</b> with associated line	0.16	-	0.16	20.00
5	2x315MVA, 400kV S/S at <b>Lapanga</b> with LILO of one circuit of 400kV Bisra-Raipur line and both ckts of IB - Meramundali 400kV line at Lapanga	-	6.50	6.50	25.00
6	2x100MVA & 2x40MVA , 220/132/33 kV S/S at <b>Puri</b> with associated line	-	-	-	12.00
7	2x100MVA , 220/132/33 kV S/S at <b>Pratapsasan</b> near Balakati with associated 220 kV D/C LILO of proposed 220 kV Cuttack-Jatani line.132 kV D/C line from Pratap Sasan to Phulnakhara with 2 nos. bay at Phulnakhara	-	-	-	10.00
8	132kV D/C line from <b>Baripada PGCIL (Kuchei ) S/S to Jaleswar S/S</b> with 2 nos. 132kV bay extension each at Baripada PGCIL (Kuchei) & Jaleswar	-	-	-	2.00
9	220/132/33 kV S/S at <b>Lahanda</b> near Joda with 132 kV D/C line from Lahanda to Barbil and two nos. 132kV feeder bay extension at Barbil	-	-	-	0.50

Sl. No	Loan/ Scheme/ Contract-wise Capital Works	Expenditure During FY 2012-13			Projected Expenditure during FY 2013-14
		Actuals for 1st Six Months	Projection for balance Six Months	Total	
1	2	3	4	5=3+4	6
10	2x40MVA ,132/33 kV S/S at <b>Baliguda</b> with 132 kV S/C line from Phulbani to Baliguda and one no. 132kV feeder bay extension at Phulbani	-	-	-	8.00
11	2x20 MVA, 220/33 kV S/S at <b>Narsinghpur</b> with LILO arrangement of 1 ckt. of existing 220 kV Bhanjanagar-Meramundali D/C line	-	-	-	8.00
12	one no. 220kV feeder from proposed 220/132kV S/S of OPTCL at <b>Cuttack</b> to proposed 400/220 kV S/S at <b>Uttara ( Jatni)</b> with two nos. 220kV feeder bay extension at each end	-	-	-	-
13	132kV S/C line to 132kV D/C line from PGCIL S/S <b>Kuchei</b> to 132/33 kV S/S <b>Baripada</b>	-	-	-	1.50
14	2X315MVA, 400/220/33 kV , 2x40MVA , 220/33 kV S/S at <b>Khuntini</b> with associated line	-	0.35	0.35	0.15
15	1x315MVA , 400/220kV , 1X20MVA , 220/33 kV S/S at <b>Nisa</b> near Angul with 400kV D/C line by LILO of 400kV IB-Meramundali line	-	0.35	0.35	0.20
16	400 kV S/S at <b>Paradeep</b>	-	0.35	0.35	0.20
17	400 kV S/S at <b>Kuarnmunda</b>	-	0.35	0.35	0.20
18	400 kV S/S at <b>Joda</b>	-	0.35	0.35	0.20
19	400 kV D/C line from <b>Paradeep</b> to <b>Utara</b>	-	0.35	0.35	0.20
20	2x40MVA, 220/33 kV S/S at <b>Chhendipada</b> with 220 kV D/C line on Multi Circuit tower from proposed NISA S/S to Chhendipada	-	-	-	-
21	2x12.5 MVA, 132/33 kV S/S at <b>Bangiriposi</b> with LILO of 1 ckt of Kuchei-Rairangpur line	0.25	0.50	0.75	6.00
22	2x12.5 MVA, 132/33 kV S/S at <b>Potangi</b> with S/C line on D/C tower for Sunabeda	-	0.40	0.40	6.00
23	2x12.5 MVA, 132/33 kV S/S at <b>Podagada</b> with LILO of Rayagada-Jeypore line	-	0.20	0.20	10.00

Sl. No	Loan/ Scheme/ Contract-wise Capital Works	Expenditure During FY 2012-13			Projected Expenditure during FY 2013-14
		Actuals for 1st Six Months	Projection for balance Six Months	Total	
1	2	3	4	5=3+4	6
24	2x20 MVA, 220/33 kV S/S at <b>Malkanagiri</b> with LILO of Balimela-Jayanagar line	-	0.50	0.50	10.00
25	2x12.5 MVA, 132/33 kV S/S at <b>Umarkote</b> with S/C line on D/C tower from Dabugaon to Umarkote	-	0.60	0.60	5.00
26	2x12.5 MVA, 220/33 kV S/S at <b>Kasipur</b> with LILO of one ckt. of Indravati-Therubali 220 kV D/C line	-	-	-	3.50
27	2x20 MVA, 220/33 kV S/S at <b>Jaypatna</b> with associated line	-	0.05	0.05	4.00
28	132 kV D/C line from <b>Junagarh to Umerkote</b>	-	0.15	0.15	-
29	2x12.5 MVA, 132/33 kV S/S at <b>Kantabanji</b> with S/C line on D/C tower from Khariar to Kantabanji	-	2.50	2.50	10.00
30	2x20 MVA, 132/33 kV S/S at <b>Champua</b> with LILO arrangement of existing Palaspanga- Rairangpur to Champua	-	0.20	0.20	5.00
31	2x20 MVA, 132/33 kV S/S at <b>Ghatagaon</b> in Keonjhar distret with associated 132 kV S/C line on D/C tower from 132/33 kV S/S Anandpur to proposed S/S at Ghatagaon and one no. 132 kV bay extention at Anandapur S/S	-	0.40	0.40	8.50
32	132 kV D/C line from proposed 220/132/33 kV S/S at <b>Dhamara</b> to proposed 132/33 kV S/S at <b>Olavar</b> & rearrangement with proposed 132 kV D/C line from Pattamundai to Olavar to make 132 kV S/C line from Dhamara to Pattamundai & 132 kV S/C line from Olavar to Pattamundai	0.11	-	0.11	5.00
33	2X40 MVA, 132/33 kV S/S at <b>CDA Cuttack</b> with associated LILO line	-	0.15	0.15	4.00
34	2X20 MVA, 132/33 kV S/S at <b>R.Udayagiri</b> with 132 kV line from Mohana with 132kV bay extension at Mohana	-	0.15	0.15	5.00
35	2X20 MVA, 132/33 kV S/S at <b>Muniguda</b> with 132kV line from Vedanta Lanjigarh an 132 kV bay extension at Lanjigarh	-	2.00	2.00	10.00

Sl. No	Loan/ Scheme/ Contract-wise Capital Works	Expenditure During FY 2012-13			Projected Expenditure during FY 2013-14
		Actuals for 1st Six Months	Projection for balance Six Months	Total	
1	2	3	4	5=3+4	6
36	2X20 MVA,132/33kV S/S at <b>Nandapur</b> with 132kV line from Patangi with 132 kV bay extension at Patangi	-	-	-	-
37	2x20 MVA, 132/33 kV S/S at <b>Satasankha</b> in Puri district with associated 132 kV D/C line from proposed 220/132 kV Puri S/S to proposed 132/33 kV S/S at Satasankha	-	0.15	0.15	3.00
38	2x20 MVA, 132/33 kV S/S at <b>Bhograin</b> in Balasore district with associated 132 kV LILO line from one ckt. of proposed 132 kV Kuchei (PGCIL) - Jaleswar D/C line	-	0.10	0.10	10.00
39	220/33 kV, 2x20 MVA S/S at <b>Deogarh</b> with associated LILO line from LOC No. 330 of 220 kV Rengali-Tarekera D/C line	-	0.05	0.05	7.00
40	132/33 kV, 2x20 MVA S/S at <b>Maneswar</b> with associated LILO line from 132 kV Sambalpur - Rairakhol S/C line	-	0.10	0.10	5.00
41	Conversion of 132 kV switching station at <b>Somathpur</b> (Balasore) to 2x20 MVA, 132/33 kV S/S	-	0.50	0.50	3.40
42	Conversion of existing 132 kV S/C line from <b>Balasore to Somathpur</b> D/C line by stringing 2nd ckt. with one no. 132 kV bay extension at both ends	-	0.45	0.45	3.50
43	Renovation of existing 132/33 kV S/S at <b>Ganjam</b> (construction of 2x12.5 MVA, 132/33 kV S/S)	-	0.30	0.30	2.60
<b>TOTAL: ( B )=</b>		<b>0.54</b>	<b>18.05</b>	<b>18.59</b>	<b>242.65</b>
<b>TOTAL: ( A+B )=</b>		<b>43.15</b>	<b>179.10</b>	<b>222.25</b>	<b>485.11</b>
<b>( C ) DEPOSIT WORKS</b>					
1	220 kV D/C line from <b>Budhipadar</b> to <b>Basundhara MCL</b>	0.82	0.10	0.92	-
2	Rly. traction line from <b>Jagatsingpur</b> to <b>Gorakhnath</b>	0.14	-	0.14	-
3	<b>Chandaka-Nimapara</b> cabling (IDCO)	1.26	6.5	7.76	5.95
4	<b>Tomka Railway line</b> from B.C. Mohanty & Sons Ltd.	0.51	-	0.51	-

Sl. No	Loan/ Scheme/ Contract-wise Capital Works	Expenditure During FY 2012-13			Projected Expenditure during FY 2013-14
		Actuals for 1st Six Months	Projection for balance Six Months	Total	
1	2	3	4	5=3+4	6
5	132 kV LILO from <b>Khurda-Puri</b> for power supply to Samuka Beach near Puri S/S	0.64	5.01	5.65	6.84
6	132kV S/S at <b>IIT, Argul</b>	1.76	5.23	6.99	1.83
7	One no.220 kV bay at <b>Paradeep</b> S/S for IOCL along with 220 kV transmission line from Paradeep to IOCL	2.23	10.10	12.33	-
8	Diversion of <b>Paradeep-Haridaspur</b> line	0.05	-	0.05	-
9	132/33 kV S/S at <b>Mania</b> (Tangi) for IDCO and associated 132 kV LILO line from 132 kV ICCL-Salipur LILO at OCL to proposed 132/33 kV S/S at Mania (Tangi)	-	0.02	0.02	8.00
10	2x40 MVA, 220/33 kV Gas Insulated S/S at <b>infocity-II</b> and associated 220 kV LILO line from one ckt. of 220 kV Narendrapur -Mendhasal D/C line	-	0.05	0.05	15.00
<b>TOTAL: (C)=</b>		<b>7.41</b>	<b>27.01</b>	<b>34.42</b>	<b>37.62</b>
<b>GRAND TOTAL: (A+B)+C=</b>		<b>50.56</b>	<b>206.11</b>	<b>256.67</b>	<b>522.73</b>

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

OPTCL proposes capital expenditure of **Rs.24.16 crore** relating to civil works during FY 2013-14 for on-going and new projects in its two Divisions i.e. Bhubaneswar and Burla.

**Depreciation**

14. OPTCL has projected depreciation for FY 2013-14 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.172.85 crore** based on the estimated book value of assets for FY 2013-14 (gross block as on 01-04-2012 plus projected addition during FY 2012-13).

**Special Appropriation**

15. The Commission had allowed Special Appropriation of Rs.52.04 crore to meet Debt Service Obligation for FY 2012-13 as the depreciation was allowed based on the pre-92 rate. For FY 2013-14, OPTCL has projected **Rs. 172.85 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 143 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) 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.253.07 crore which amounts to **Rs.49.04 crore** for FY 2013-14.

### **Interest on Working Capital**

17. Based on CERC norms, OPTCL has calculated its working capital needs at Rs.251.69 crore for the FY 2013-14. Taking 12.5% as the rate of interest, interest on working capital amounts to **Rs.31.46 crore for 2013-14**. 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.16.73 crore** has been projected for Contingency Reserve for the FY 2013-14.

#### **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.0.30 crore** for the FY 2013-14.

#### **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 2011-12. The system availability of transmission network of OPTCL for FY 2011-12 has been worked out as **99.84%**. OPTCL has proposed the incentive of **Rs.10.05 crore** for FY 2011-12 to be allowed in the ARR of FY 2013-14.

#### **Other Income and Cost/ Miscellaneous Receipts:**

21. OPTCL estimates that it will earn Miscellaneous Receipts of **Rs.12 crore** during FY 2013-14 in line with the trend of revenue earning during FY 2012-13. The same has been deducted from the gross revenue of OPTCL to arrive at the ARR for FY 2013-14, to be recovered from LTOA customers.

### Transmission Loss

22. OPTCL proposes Transmission Loss at 3.80% for FY 2013-14. The actual transmission loss in April 2012 – September 2012 period was 3.93% against Hon'ble Commission's approval of 3.8% for FY 2012-13.
23. The summary of the proposed Annual Revenue Requirement against different heads for FY 2013-14 is tabulated below.

**Table - 8**  
**Summary of Annual Revenue Requirement of OPTCL for FY 2013-14**  
**(Rs. crore)**

ITEMS	Proposal for OPTCL for FY 2013-14	
<b>A. FIXED COST</b>		
1) O&M Expenses		<b>473.21</b>
(i) Employees Cost including Terminal Benefits	341.20	
(ii) R&M Cost	108.91	
(iii) A&G Cost	23.09	
2) Interest on Loan Capital		121.11
3) Depreciation		172.85
4) Special Appropriation		0
5) Return on Equity		49.04
6) Interest on Working Capital		31.46
<b>Sub-Total (A)</b>		<b>847.67</b>
<b>B. Additional Expenses</b>		<b>27.08</b>
1) Contingency Reserve	16.73	
2) GCC Expense	0.30	
3) Incentive for system availability	10.05	
<b>Total Trans. Cost (A+B)</b>		<b>874.75</b>
<b>C. Less Misc. Receipts</b>		12.00
<b>D. ARR to be recovered from LTOA Customers i.e. OPTCL's Annual Revenue Requirement</b>		<b>862.75</b>

### 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 25125 MU from Generating Stations to the supply points of DISCOMs.
  - (ii) By charging the rate applicable on CGPs like IMFA & NALCO for supply of 100 MU Emergency Power & Back-up Power to their CGPs and load centres located elsewhere in Odisha.
  - (iii) By charging the rate applicable on CGPs like IMFA & NALCO for wheeling of their surplus power of 300 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.638.43 crore**. Revenue to be earned by OPTCL from wheeling of 25525 MU to DISCOMs and other long term open access customers for FY 2013-14 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 2012-13	MU to be handled in FY 13-14	Rate (P/U)	Transmission Loss (%)	Energy handled including Loss	Amount (in Rs. crore)
1	CESU	8236	8854	25	0	8854	221.35
2	NESCO	5306	6100	25	0	6100	152.50
3	WESCO	6496	6821	25	0	6821	170.53
4	SOUTHCO	3047	3350	25	0	3350	83.75
	<b>Total DISCOMs</b>	<b>23085</b>	<b>25125</b>			<b>25125</b>	<b>628.13</b>
5	Emergency Sale to CGPs	100	100	25	0	100	2.50
6	Wheeling to industries from CGPs	300	300	25	3.8	312	7.80
	<b>Total</b>	<b>23485</b>	<b>25525</b>			<b>25537</b>	<b>638.43</b>

**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.224.32 crore** as shown in table below.

**Table - 10**  
**Excess / Deficit of Revenue Requirement for FY 2013-14 (Rs. crore)**

<b>Total Annual Revenue Requirement</b>	862.75
<b>Less : Revenue earned from Long Term Open Access Customers</b>	638.43
<b>Deficit of Revenue Requirement for FY 2013-14 at the existing Wheeling Rate @ 25 P/U</b>	<b>-224.32</b>

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 2013-14.

**Proposed Tariff to Meet the Revenue Requirement for FY 2013-14**

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 2013-14 Transmission Tariff is computed as **33.80 P/U** as worked out in the table below.

**Table – 11**  
**Computation of Transmission Tariff**

(a) Total Annual Revenue Requirement in Rs. Crore	862.75
(b) Total Million Units proposed for Wheeling in MU	25525
Proposed Transmission Tariff (P/U) = (a/b)	<b>33.80</b>
Existing transmission tariff (P/U)	25.00
Rise over existing transmission tariff	<b>35.2%</b>

**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 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.
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 2013-14**

DETAILS	In Rs./unit approach
Net Annual Revenue Requirement (Rs. crore)	862.75
Proposed Energy to be transmitted in OPTCL Network (MU)	25525
Proposed Transmission Tariff (P/U)	33.80
Power flow (equivalent of 25525 MU) in MW	2914
Long term Open Access Charges in terms of Rs./MW/Day	8112
Short term Open Access Charges in terms of Rs./MW/Day	2028

**Reactive Energy Charges:**

33. 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.

### **Grid Support Charges**

34. OPTCL has filed an application (Case No. 46/2012) before Hon'ble Commission seeking Commission's approval for levy of Grid Support Charges (GSC) for FY 2012-13 from the CGPs running in parallel with OPTCL network. The application is pending for disposal. Based on the outcome of this case, OPTCL may be allowed to file application for levy of GSC from the CGPs for FY 2013-14.

### **Rebate:**

35. On payment of monthly bill, the Open Access Customer shall be entitled to a rebate of Two percent (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 one percent (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% (two percent) 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 2013-14 are:

- (i) Annual Revenue Requirement at Rs.862.75 crore.
- (ii) Recovery of Transmission Charge @ 33.80 P/U.
- (iii) Transmission Loss for wheeling as 3.80% on energy drawal.