

**ORISSA ELECTRICITY REGULATORY COMMISSION**  
**BIDYUT NIYAMAK BHAWAN,**  
**UNIT – VIII, BHUBANESWAR – 751 012**

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**Present** : Shri B. K. Das, Chairperson  
Shri K. C. Badu, Member

**Case No.63 of 2008**

**Date of Hearing** : **04.02.2009**  
**Date of Order** : **20.03.2009**

**IN THE MATTER OF** : An application for approval of Annual Revenue Requirement and determination of Transmission Tariff by OPTCL under Section 62, 64 and all other applicable provisions of the Electricity Act, 2003 read with relevant provisions of OERC (Terms and Conditions for Determination of Tariff) Regulations, 2004, and OERC (Conduct of Business) Regulations, 2004, and other Tariff related matters, for the year 2009-10.

**ORDER**

M/s. Orissa Power Transmission Corporation Limited, Bhubaneswar (for short OPTCL), a Govt. Company registered on 29<sup>th</sup> March, 2004 under the Companies Act, 1956, is carrying on the business of transmission of electricity within the State of Orissa. It had commenced the business on 31<sup>st</sup> March, 2004. The necessity for formation of this Govt. Company arose because, with the enactment of the Electricity Act, 2003 (hereinafter referred to as the Act) GRIDCO which was the Bulk Supply and Transmission Licensee under the Orissa Electricity Reforms Act, 1995 could no longer carry on both supply and transmission businesses by virtue of 3<sup>rd</sup> Proviso of Sec.41, of the said Act. By virtue of a Transfer Scheme entitled ‘Orissa Electricity Reforms (Transfer of Transmission and Related Activities) Scheme, 2005, under Sec.131 (4) of the Act, the erstwhile transmission business of GRIDCO with all the assets and liabilities of such business was transferred to and vested with OPTCL with effect from 1.4.2005. By Clause 10 of the Govt. Notification No.6892 dated. 09.06.2005, the OPTCL was notified as the State Transmission Utility (STU) u/s. 39(1) of the Act with effect from 01.04.2005 (i.e, the date on which the same notification came in to force). By virtue of the 2nd Proviso to Sec.14 of the Act, OPTCL has been a deemed Transmission Licensee under the Act. OPTCL is now governed by License Conditions set forth in OERC (Conditions of Business) Regulations, 2004, at Appendix 4.B issued u/S.16 of the Act, as modified by Commission’s Order dated. 27<sup>th</sup> October 2006.

The OPTCL submitted an application in respect of its Annual Revenue Requirement (ARR) and determination of its Transmission Tariff for the FY 2009-10. The said application was duly scrutinised, registered as Case No.63/2008 and admitted for hearing. In the consultative process,

the Commission heard the applicant, objectors, Consumer Counsel, representative of the State Government and orders as follows:

**PROCEDURAL HISTORY (Para 1 to 7)**

1. As per OERC (Conduct of Business) Regulations, 2004 and OERC (Terms and Conditions for determination of Tariff) Regulations, 2004, licensees/deemed licensees are required to file their ARR within 30<sup>th</sup> November in the prescribed formats. OPTCL as a deemed licensee submitted its ARR application for 2009-10 before the Commission on 01.12.2008, since the last date (30<sup>th</sup> November, 2008) was a holiday, and u/s.4 of the Limitation Act, 1963 and Reg.3(4) of the OERC (Conduction of Business) Regulations, 2004 it permits such filing on the day following the holiday. Therefore, the application was within time. After due scrutiny and admission of the matter, the Commission directed OPTCL to publish its ARR application in the approved format in the leading and widely circulated daily newspapers and the matter was also posted in the Commission's website in order to invite objections from the intending objectors. The Commission had also directed the applicant to file its rejoinder to the objections filed by the various objectors and to serve copy to them.
2. In compliance with the Commission's aforesaid order the OPTCL published the said public notice in the leading daily English and Oriya newspapers. The Commission issued notice to the Govt. of Orissa represented by Department of Energy to send their authorised representative to take part in the ensuing tariff proceedings.
3. In response to the aforesaid public notice of the applicant, the Commission received 11 nos. of objections/suggestions from the following persons/ associations/ institutions/ organisations.
4. (1) State Public Interest Protection Council, Cuttack, (2) Sambalpur District Consumers Federation, Balaji Mandir Bhawan, Khetrajpur, Sambalpur, (3) Confederation of Indian Industry(CII), 8, Forest Park, Bhubaneswar, (4) Mr. M.V. Rao, Chairman, M/s. UCCI, N/6, IRC Village, Nayapalli, Bhubaneswar, (5) M/s Indian Metal & Ferro Alloys Ltd., Bomikhal, Rasulgarh, Bhubaneswar, (6) FACOR, Bhubaneswar, (7) Mr. Ramesh Ch. Satpathy, 302(B), Beherasahi, Nayapalli, Bhubaneswar, (8) WESCO, Burla, Sambalpur, (9) Mr. R.P. Mohapatra, 775, Jayadev Vihar, Bhubaneswar, (10) SOUTHCO, Courtpeta, Berhampur, (11) NESCO, Januganj, Balasore.  
  
All the above named objectors were present during tariff hearing except the objector No.1, but its written submission which was filed before the Commission is taken into record and also the same is considered by the Commission.
5. In exercise of the power u/s.94(3) of the Electricity Act, 2003 and to protect the interest of the consumers, the Commission appointed Nabakrushna Choudhury Centre for Development Studies, Chandrasekharpur, Bhubaneswar, the premier Govt. of Orissa's

Institute, as Consumer Counsel for objective analysis of the licensee's Annual Revenue Requirement and tariff proposal. The Consumer Counsel submitted its report to the Commission and its representative put forth its analysis and views on the matter in the presence of all the parties present during the hearing.

6. The date for hearing was fixed and it was duly notified in the leading newspapers mentioning the list of the objectors. The Commission conducted a public hearing in its premises and heard the applicant, objectors, Consumer Counsel and the representative of Govt. of Orissa on 04.02.2009. The Commission had also appointed PRAYAS, Energy Group, Amrita Clinic, Athawale Corner, Crave Road, Pune-411004, India, a consumer organization as Consumer Counsel apart from Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar, but it was neither present during the tariff hearing nor filed its objections/suggestions before the Commission regarding the above matter.
7. The Commission convened the State Advisory Committee (SAC) meeting on 12.02.2009 to discuss about the ARR application and transmission tariff proposal of the licensee. The members of SAC represented their valuable suggestions and views on the matter and the Commission considered the same.

#### **OPTCL's ARR & TARIFF PROPOSAL FOR FY 2009-10 (Para 8 to 45)**

8. OPTCL owns EHT network for transmission of power from various generating stations within the State and for interconnection with the neighboring States/regions. OPTCL transmits bulk power to DISCOMs and wheels CGPs' power to their industries located elsewhere. Conveyance of power incidental to inter-state transmission is also carried through OPTCL's network. Apart from this, it is also expected to transmit power for both long term and short term open access customers as per OERC Open Access Regulations, 2005.
9. 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 Orissa. OPTCL has also been notified as the State Transmission Utility and accordingly, shall discharge the State Load dispatch functions till further Orders of the State Government from the date of the Transfer.
10. As per OERC instruction vide letter No. JD (EA)-315/07/1976 dtd. 06.11.2007 to the CMD, OPTCL, the licensee was to file ARR Application for FY 2009-10 as under:
  - (i) ARR, Transmission Tariff and Transmission Loss for wheeling during transmission for FY 2009-10
  - (ii) ARR covering Annual Fee and Operating Charges of SLDC.

Accordingly, OPTCL has filed an application for approval of:

Annual Revenue Requirement & Transmission Tariff excluding SLDC function for FY 2009-10.

**Categorization of Open Access Customers:**

11. 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. Going by this, GRIDCO happens to be a long term customer of OPTCL as it uses the corridor of OPTCL for bulk power supply to DISCOMs and for transmission of the surplus power of Captive Generating Stations (CGPs) from their generating station(s) to their plant(s) located at distant places.

(b) **Short Term Open Access Customers (STOA Customers)**

Transmission customers other than Long Term Customer(s) are classified as Short Term Customer(s). The maximum duration of Short Term Customer is one year with condition to reapply after expiry of the term(s).

**Revenue Requirement:**

12. OPTCL has projected annual revenue requirement of Rs.1080.11 crore (Excluding SLDC function) in its filing of Annual Revenue Requirement and Transmission Tariff for the FY 2009-10 as against expected revenue at the existing Transmission Tariff @ 21 P/U at Rs.400.06 crore. The gap in the Revenue Requirement has been projected at Rs.680.05 crore. The summary of Transmission cost/annual revenue requirement of OPTCL for 2009-10 as projected is tabulated below:

**Table – 1  
Revenue Requirement for FY 2009-10**

Transmission Cost	Approved for 2008-09	(Rs. crore)	
		OPTCL's Proposal for FY 2009-10 (Including SLDC Function)	OPTCL's Proposal for FY 2009-10 (Excluding SLDC Function)
Employee Cost	132.86	491.38	484.66
R&M Cost	53.88	123.74	122.74
A&G Cost	16.57	39.84	36.94
Interest on loan	79.43	189.51	189.51
Interest on Working Capital	-	26.39	26.39
Depreciation	61.62	66.75	66.69
Advance Against Depreciation	12.59	52.19	52.19

<b>Transmission Cost</b>	<b>Approved for 2008-09</b>	<b>OPTCL's Proposal for FY 2009-10 (Including SLDC Function)</b>	<b>OPTCL's Proposal for FY 2009-10 (Excluding SLDC Function)</b>
Return on Equity		13.30	13.30
GRID Co-ordination Committee Expenses	0.13		
Provision of reinvestment for infrastructure development for EBC	-	2.00	
<b>Sub-total</b>	<b>357.08</b>	<b>1005.10</b>	<b>992.42</b>
Pass through expenses		<b>51.41</b>	<b>51.41</b>
Contingency Reserve	<b>13.10</b>	<b>15.01</b>	<b>15.01</b>
Bad & Doubtful Debt		<b>0.02</b>	<b>0.02</b>
GCC Expense		<b>0.15</b>	<b>0.15</b>
<b>Sub-Total</b>	<b>357.08</b>	<b>1071.69</b>	<b>1059.01</b>
Less Expenses capitalised	7.61		
<b>Total</b>	<b>349.47</b>	<b>1071.69</b>	<b>1059.01</b>
Special Appropriation	15.00		
Grand Total	377.57	<b>1071.69</b>	<b>1059.01</b>
Less Miscellaneous Receipts	1.00	0.5	0.5
Net	<b>376.57</b>	<b>1071.19</b>	<b>1058.51</b>
Rebate @ 2% of the ARR	-	<b>21.86</b>	<b>21.60</b>
<b>Net ARR</b>	<b>376.57</b>	<b>1093.05</b>	<b>1080.11</b>

**Details of Transmission Costs:**

13. The operating costs of OPTCL i.e. the State Transmission Utility (STU) for the FY 2009-10 for the purpose of determining the ARR and Transmission Tariff have been categorized under the following heads:

**(A) Fixed Charges:**

- O & M Expenses
- Interest on Loan Capital
- Depreciation, including Advance Against Depreciation
- Return on Equity
- Interest on Working Capital

**(B) Pass through Expenses:**

Other Expenses (Pass through of previous losses & liabilities)

**(C) Additional Expenses**

- Contingency Reserve.

- Provision for Bad Doubtful Debt
- Grid Co-ordination Committee (GCC) Expenses.

**Details of Fixed Charges:**

OPTCL proposes O & M Expenses of Rs.644.34 crore (Excluding SLDC function) under the following heads:

**Employee Cost including Terminal Benefits.**

14. The Employees Expenses for FY 2009-10 has been projected by OPTCL (excluding SLDC function) at Rs.484.66 crore including Terminal Benefits of Rs.228.81 cr. on the basis of (i) The Audited Accounts of OPTCL for FY 2006-07 (ii) Provisional Accounts of OPTCL for FY 2007-08 (iii) Taking in to account the impact of an expected increase in employee's cost during 2009-10 to the tune of 30 % due to the proposed Revision of Scale of pay as per the 6<sup>th</sup> pay Commission Recommendation. This excludes Rs.6.72 crore towards compensation for personnel of Load Despatch Centre (SLDC).
15. The component-wise details include salaries, dearness allowance, other allowances, reimbursement of medical expenses and house rent, encashment of unutilized earned leave on retirement, honorarium, payment under workmen compensation Act, Ex-gratia and misc. expenses, staff welfare expenses etc.

**Administrative & General Expenses**

16. The A&G expenses for FY 2009-10 has been projected at Rs. 36.94 cr.

**Repairs & Maintenance Expenses**

17. OPTCL proposes Repairs and Maintenance (R&M) Expenses for FY 2009-10 at Rs.122.74 cr. which includes expenses towards Master Maintenance Plan of lines and S/S, IT expenses, R&M towards telecom etc.

**Interest on Loan Capital**

18. Interest on Loan for FY 2009-10 has been projected at Rs.189.51 crore by OPTCL.

**New Projects**

19. OPTCL proposes to spend Rs.555.50 crore during FY 2009-10 for ongoing projects and also on new projects. This includes Rs.30 crore towards development of infrastructure for Telecommunication network, Rs.31.90 crore for IT and Rs.431.94 crore towards increasing overall system capacity and strengthening transmission network. The details of new lines and sub-stations are given in the table below:

**Table - 2****(Rs. in Crore)**

<b>Sl. No.</b>	<b>Name of the Project</b>	<b>Expenditure During FY 2008-09</b>	<b>Expenditure During FY 2009-10</b>
1	400/220kV S/S Mendhasal	2.60	-
2	400/220KV s/s at new Duburi	6.08	-
3	400/220kV S/S at Keonjhar	-	1.00
4	400kV Satelite S/s at Meramundali	-	10.00
5	400/220kV S/S at Bolangir	-	1.00
6	400/220kV S/S at Sundergarh	-	1.00
7	400kV LILO of Baripada-Mendhasal feeder at existing 400 kV S/S ,Duburi	-	1.00
8	Installation of 1 No. 220/132kV 20MVA TRF at 400/220kV Mendhasal S/s	7.00	2.34
9	220/132kV S/S at Burla	0.50	0.30
10	220/132 kV S/S at IB	0.70	-
11	220/33kV 2nd 20MVA trf. With associated 132 & 33 KV bays at Barkote	1.30	-
12	2*100 MVA,220/132 kV S/S at Bhadrak & Associated LILO Line	19.94	
13	Const. of 2Nos. 220 kv feeder bay at Balasore	1.46	
14	220/132 kV S/S at Keonjhar	0.50	15.00
15	220/132kV S/s at Meramundali	-	
16	220/132kV grid S/s at Narendrapur	0.08	0.12
17	Const. of 220/132 kv s/s Paradeep with associated line	6.53	-
18	Extension of 220/132KV Sub station at Narendrapur	0.08	0.08
19	220/132kV S/s at Bidanasi	0.01	0.01
20	220/132kV s/s at Bolangir	1.00	1.00
21	Constn. Of new 20 MVA 220/33 kV Grid S/s at Balimela power house switch yard	3.00	-
22	Installation of 4th Auto at Tarkera-Rourkela	0.50	0.30
23	Construction of 4th Auto at Chandaka	9.14	-
24	Augmentation of Bidanasi S/S ( 40 MVA Transformer to be installed)	1.00	2.00
25	2*20MVA ,220/33kV S/s at Banai with associated line	0.50	14.00
26	Constn. of 220/132/33kV S/s at Karagadia ( Baghamari) and associated line	3.00	37.00

Sl. No.	Name of the Project	Expenditure During FY 2008-09	Expenditure During FY 2009-10
27	2X100 MVA, 220/132 kV Substation at Jharsuguda with LILO associated lines	0.50	15.00
28	2X100 MVA, 220/132/33 kV Substation at Kuanrunda with LILO arrangement from Existing 220kV Budhipadar-Terkera DC Line	0.50	15.00
29	220kV Bolangir -Kesinga D/C line with installation of a new 2*100MVA , 220/132KV S/S at Kesinga alongwith associated bay extension at Bolangir.	0.50	20.00
30	132/33kV 40MVA trf. With associated 132 & 33 KV bays at Chhend s/s	1.80	-
31	132/33kV S/S at Burla	0.02	
32	132/33kV,2x20 MVA s/s at Basta with associated 132KV Transmission lines	11.63	
33	Constn. Of 132/33 kV s/s at Karanjia with associated lines	10.95	
34	132/33kV S/S Badagada	0.40	
35	132kV feeder bay extn at Hind Metals	4.00	
36	132/33kV S/s at Digapahandi	0.14	0.14
37	132/33kV S/s at Chatrapur	0.01	0.01
38	132/33kV S/s at Cuttack	0.20	0.20
39	132/33kV s/s at Phulnakhara	0.49	
40	132/33kV S/S at Anandpur alongwith Transmission Line (New)	7.00	15.00
41	132/33kV S/S at Purusottampur with associated lines	0.50	8.00
42	132/33 Grid S/s at Kendrapara	-	
43	132/33kV s/s at Bhawanipatna with associated lines	-	14.00
44	Installation of a new 2*12.5MVA 132kV s/s at Nuapada with associated line and one number bay extension at Khariar Grid S/s	-	24.50
45	132/33kV s/s at Barapalli with associated lines	12.30	
46	2x12.5MVA,132/33 KV S/S at Dabugaon with associated line	-	18.25
47	2x12.5MVA,132/33 KV S/S at Akhusingh	3.00	3.07
48	132/33KV S/S at Kuchinda & LILO line from Dhutura to Kuchinda	-	18.25



Sl. No.	Name of the Project	Expenditure During FY 2008-09	Expenditure During FY 2009-10
49	132/33kV S/s at Kalunga with 2*20 MVA & 5Km 132KV LILO Line Jharsuguda	1.33	9.00
50	Constn. Of 2 Nos 132kV feeder bay for LILO arrangement at 132/33 KV grid s/s Rajgangpur	2.53	
51	Construction of proposed 2X12.5MVA,132/33 kV Grid S/S Udala with associated LILO line from existing 132KV Balasore-Baripada SC Line between Betanati-Nuagaon	0.30	12.20
52	132/33kV S/s at Banki and associated line from Karagadia to Banki	1.03	10.00
53	Constn. Of 132/33kV S/s at Chandpur and associated line	1.01	8.00
54	132/33 kV S/S at Boudh with associated line	0.59	21.00
55	132/33 KV S/S at Barbil alongwith associated LILO Lines	0.50	9.00
56	132/33kV s/s at Padmapur with associated line	0.50	19.00
57	400kV DC line Ib-Meramundali	0.25	-
58	400kV DC Line from Meramundali to Duburi	22.10	6.00
59	400kV DC Line from Meramundali to Mendhasal	0.55	
60	220KV Transmission line at Barkote	-	-
61	220kV 2nd line from IB-Budhipadar	1.50	4.30
62	220kV DC line Budhipadar-Rourkela	-	
63	220 kv sc line from Kuchei to K.C.Pur	0.07	0.03
64	220 kv sc line from K.C.Pur to Padmanavpur	0.20	0.31
65	220 kv line from Padmanavpur to Balasore	0.24	0.18
66	220 kv line from Narendrapur-Chandaka with bay at Chandaka	0.30	0.10
67	220kV LILO Bhanjanagar-Chandaka at Mendhasal S/S	0.20	
68	220kV LILO Narendrapur-Chandaka at Mendhasal S/S	-	0.20
69	220kV line from Mendhasal to Bidanasi	0.70	
70	220kV DC Line Duburi -old -Duburi New	0.10	0.10
71	220kV DC line Budhipadar-Bolangir	20.99	8.00
72	Conversion of existing 220KV Balimela-Jaynagar S/C Line (Circuit-III) into multi Circuit line in the same corridor.	0.50	10.00

Sl. No.	Name of the Project	Expenditure During FY 2008-09	Expenditure During FY 2009-10
73	Construction of 2nd 220kV DC line from Indrabati to Theruvalli	-	-
74	T off arrangement at Burla-RGP line at Sambalpur	0.50	0.10
75	220kV DC Line Bidanasi-Cuttack	1.00	8.00
76	Proposed 132kV Link line between 132/33kV grid S/s Jaleswar & 132/33kV grid s/s, Baripada	-	0.10
77	132 kv LILO line at Rajgangpur	-	-
78	132kV HIRAKUD LILO Burla Sambalpur	0.60	
79	132kV DC line Budhipadar-Sundergarh	-	
80	132kV LILO on Existing of Budhipadar to Terkera at Rajgangpur s/s	0.05	
81	132kV line from Mancheswar to Badagada	1.50	1.72
82	132kV line from Badagada to Uttara	0.83	
83	132kV line from Uttara to Sijua	0.20	
84	132KV LILO at Meramundali on chainpal-choudwar line	0.05	
85	132KV LILO at Meramundali on-Chainpal-Dhenkanal line	0.05	
86	132kV line from ICCL-Choudwar to Salipur	0.40	0.60
87	132 KV Phulnakhara-LILO-Mancheswar	0.27	
88	132kV LILO Line Kendrapara-Jajpur at Chandikhole	0.04	-
89	132KV Line from Jagatsinghpur to Paradeep	1.00	9.00
90	132kV Bolangir old and Bolangir New line	0.05	
91	132kV HIRAKUD LILO Chipilima-Bergarh Line	0.10	-
92	T off arrangement at Sambalpur grid s/s & equipping 1 bay	0.21	-
93	Const. of 132 kv SC line from Tarkera to MSDS-III of RSP Rourkela (Deposit Work)	1.90	-
94	220 kv dc line from Budhipadar to Basundhara MCL (Deposit Work)	2.00	0.55
95	220 kv line from Joda s/s to Tata Sponge Iron Joda (Deposit Work)	-	-
96	132kV SC Line from Chend s/s to TSS Nuagaon (Rly Deposit Work)	0.25	-
97	Construction of LILO Line to Bhalulata RTSS (Railway Deposit Work)	0.50	0.35

Sl. No.	Name of the Project	Expenditure During FY 2008-09	Expenditure During FY 2009-10
98	Construction of LILO Line to Bamara RTSS (Railway Deposit Work)	0.50	0.26
99	Power Supply to Railway Traction at Balasore (Deposit Work)	-	-
100	Construction of 132kV line for RTSS, Jakhapura (Deposit Work)	0.05	0.02
101	Diversion of 132kV Chandaka-Nimapara SC Line from Loc.No.91 to 95 to get adequate clearance of existing Rly Line and stringing of 2nd Circuit of the Line.	0.79	
102	Rly line crossing from Khurda-Bolangir (Deposit Work)	0.30	
103	RTS Line from Khurda to Kaipadar with Bay (Deposit Work)	0.10	
104	Const. of 2 nos 33 kv bay extn. At Mancheswar (Deposit work)	0.13	
105	Shifting of 132kV Chandaka SC Line (CKT 1& 4) crossing through P.No.391,392 &4622 under Gadkon Mouza) (Deposit Work)	0.90	-
106	Const. of 1 no 33 kv bay at IOCL-Paradeep (Deposit work)	-	
107	Rly traction line from Jagatsingpur to Gorakhnath (Deposit work)	1.00	0.50
108	132kV traction line from Choudwar to Kendrapara and bay extension at Choudwar (Deposit Work)	0.15	0.05
109	Diversion of 132kV Lines from Loc.No.30 to Loc. No.39 PPT line (Deposit Work)	0.50	0.70
110	Diversion of 18 nos. of EHT tower of 132 kv sc line from Manabar Jayanagar Rly feeder submerged area of Telengiri Irrigation project (Deposit work)	-	-
111	Diversion of 220kV Jayanagar-Theruvalli SC Line from existing Loc.No 689 to 693 due to construction of Railway Bypass near village Rebatiguda ( Railway deposit work)	-	-
112	Diversion of 220kV Jayanagar-Theruvalli DC Line from existing Loc.No 1068(S) to 1069(S) due to construction of Railway Bypass near village Rebatiguda ( Railway deposit work)	1.16	-
113	Restoration of 400kV DC line Ib-Meramundali by M/S. Sterlite.Energy Ltd	-	55.00
	<b>TOTAL</b>	<b>191.42</b>	<b>431.94</b>

(a) **Depreciation**

20. OPTCL has projected Depreciation for FY 2009-10 considering the rate of depreciation prescribed by CERC on the book value of the Assets and additions thereto. Accordingly, the transmission licensee has projected depreciation at Rs.66.75 crore based on the provisional Accounts of OPTCL for FY 2007-08.

**Advance Against Depreciation (AAD)**

21. Following CERC norms, OPTCL has projected AAD at Rs.52.19 crore. The one-tenth of loan balance of OPTCL is worked out at Rs.118.94 crore. After deduction of Rs.66.75 crore applying the depreciation as per CERC norms, the balance amount of Rs.52.19 crore has been claimed as AAD.

**Return on Equity**

22. When OPTCL got bifurcated from the erstwhile GRIDCO effective 1.4.2005, the equity share capital of OPTCL was stated at Rs.60 crore. The State Govt. has decided to provide equity support to the licensee amounting to Rs.35 crore. Therefore, the licensee has projected ROE @14% on the equity share capital of Rs.95 crore which amounts to Rs.13.30 crore.

**Interest on Working Capital**

23. Based on CERC norms, OPTCL has calculated its working capital needs at Rs.219.90 crore for the FY 2009-10. Taking 12% as the rate of interest, interest on working capital amounts to Rs.26.39 crore for 2009-10. 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 1% of the historical cost escalated @ 6% per annum from the date of commercial operation and receivables equivalent to two months' of transmission charges calculated on target availability.

**Provision of Reinvestment for infrastructural development of ECB**

24. OPTCL proposes to spend Rs.2 crore towards infrastructure development of ECB.

**Pass through Expenses**

25. OPTCL proposes pass through of Rs.51.41 crore in the ARR for FY 2009-10 which is presented as under:

**Table – 3**

<b>(Rs. crore)</b>		
1.	Interest on PFC Loan	18.98
2.	Interest on term loan	23.37
3.	Special Appropriation (loss up to 31.03.2007)	9.06
	<b>Total</b>	<b>51.41</b>

## **ADDITIONAL EXPENSES**

### **Contingency Reserve**

26. A sum of Rs.15.01 crore has been projected for Contingency Reserve for the FY 2009-10.

### **Provision for Bad & Doubtful Debts**

27. OPTCL proposes Rs. 0.02 cr. towards Bad & Doubtful Debts.

### **Grid Co-ordination Committee Expenses**

28. As per provisions in Orissa Grid Code Para 11, OPTCL has formed Grid Coordination Committee (GCC) under it. Expenses of the Committee has been estimated at Rs.0.15 crore for the FY 2009-10.

### **Rebate @ 2% of Annual Revenue Requirement**

29. OPTCL is receiving its billing amount from DISCOM's through GRIDCO on first charge basis for which DISCOMs are getting benefit of 2% rebate. To avoid loss to OPTCL, the licensee has made provision of Rs.21.60 crore over and above the normal revenue requirement to recover the total ARR of Rs.1080.11 crore (Excluding SLDC function).

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

30. OPTCL estimates that it will earn Miscellaneous Receipts of Rs.0.5 crore from Inter-State Wheeling of 30 MU during FY 2009-10. The same has been deducted from the gross revenue of OPTCL to arrive at the Net ARR for FY 2009-10.
31. OPTCL has treated the revenue receipt from short-term Open Access as nil for 2009-10 as this is uncertain.

### **Transmission Loss**

32. OPTCL proposes Transmission Loss at 4.5% for wheeling for FY 2009-10 due to some inconsistency in the available power flow data.

### **Expected Revenue from Transmission Charges**

33. The revenue receipts from various transmission charges at the existing transmission tariff of 21 P/U shall be Rs.400.06 crore. Revenue to be earned by OPTCL from wheeling of power to DISCOMs and other long term open access customers for FY 2009-10 at the existing rate is shown below in tabular form:

**Table – 4**  
**Sources of Revenue**

Sl. No.	Customer	MU to be handled	Rate (P/U)	Transmission Loss (%)	Qty. handled including Transmission Loss If any (MU)	Amount (Rs. crores)
1	CESU	5719.25	21.00	0.00	5719.25	122.54
2	NESCO	4596.19	21.00	0.00	4596.19	96.52
3	WESCO	6238.67	21.00	0.00	6238.67	131.01
4	SOUTHCO	2172.04	21.00	0.00	2172.04	45.61
	<b>Total DISCOMs</b>	<b>18726.15</b>			<b>18726.15</b>	<b>393.25</b>
5	Emergency Sale to CPP	10.00	21.00	0.00	10.00	0.21
6	Wheeling of ICCL power	200.00	21.00	4.50	209.42	4.40
7	Wheeling of NALCO power	100.00	21.00	4.50	104.71	2.20
	<b>Total</b>	<b>19036.15</b>			<b>19050.28</b>	<b>400.06</b>

**Excess or (Deficit) in the ARR:**

34. OPTCL has submitted that with its present Transmission Tariff structure consisting of Transmission Charge @21 P/U & Transmission Losses @ 4.5%, it would not be able to meet its current costs and it may result in a deficit of Rs. 680.05 crore as shown in table 5.

**Table - 5**

<b>(Rs. crore)</b>	
<b>Total Annual Revenue Requirement</b>	1080.11
<b>Less : Revenue estimated from Long Term Open Access Customers at the existing transmission tariff of 21 paise/unit</b>	400.06
<b>Excess or (Deficit) of ARR at the existing Wheeling Rate @ 21 P/U</b>	<b>(680.05)</b>

35. The licensee, therefore, submits this application before the Commission with a request to approve its proposed ARR and the Transmission Tariff and Wheeling Loss for FY 2009-10.

## Proposed Tariff to Meet the Revenue Requirement for FY 2009-10.

### Transmission Tariff:

36. The Transmission Cost less Revenue from inter-state wheeling for FY 2009-10 is given in the following table for computation of Transmission Tariff.

**Table – 6**

Items	Tariff for OPTCL including SLDC function	Tariff for OPTCL excluding SLDC function
(a) Total Annual Revenue Requirement	1093.05 crore	1080.11 crore
Monthly Fixed Transmission Cost for recovery	91.09 crore	90.01 crore
(b) Total Million Units proposed for Wheeling	19036.15 MU	19036.15 MU
<b>Proposed Transmission Tariff (a/b)</b>	<b>57.42 P/U</b>	<b>56.74 P/U</b>

37. The licensee proposes to recover the Annual Fixed Cost of Rs.1080.11 crore (excluding SLDC function) in full from the Long-Term Open Access Customers like DISCOMs & CGPs on the energy drawl during FY2009-10 in two ways i.e. either through recovery of the same on monthly basis @ Rs.90.01 crore per Month or @ 56.74 P/U from 01.04.2009 considering the Transmission Loss for wheeling at 4.5 % on energy drawl.

### Long term Open Access Charges in terms of Rs./MW/Day

38. The estimated energy for transmission in OPTCL's system is expected to be 19036.15 MU or an average of 2173 MW. Considering the net transmission cost of Rs.1080.11 crore (excluding SLDC function). OPTCL proposes the Long Term Open Access Charge on the basis of MW flow by adopting the OERC formula at Rs.13618.06 per MW per day (excluding SLDC function) which is equivalent to 56.74 P/U.

**Table – 7**

### LTOA Charges and STOA Charges in terms of Rs./MW/Day

Items	LTOA and STOA Charges of OPTCL including SLDC function	LTOA and STOA Charges of OPTCL excluding SLDC function
Net Annual Revenue Requirement	<b>1093.05</b>	<b>1080.11</b>
Energy to be transmitted in OPTCL Network (MU)	<b>19036.15</b>	<b>19036.15</b>
Proposed Transmission Tariff in P/U	<b>57.42</b>	<b>56.74</b>
Power Flow (equivalent of 19036.15 MU) in MW	<b>2173</b>	<b>2173</b>
Proposed LT Open Access Charges in Rs. per MW per day	<b>13781.21</b>	<b>13618.06</b>
Proposed ST Open Access Charges in Rs. per MW per day (25% of LTOA)	<b>3445.30</b>	<b>3404.52</b>

**Short term Open Access Charges in terms of Rs./MW/Day**

39. Short Term Open Access Charges should be one fourth of the Long Term Open Access Charges as per the relevant OERC regulation. In contrast to the above STOA charges may be levied at the same rate as that of LTOA charges because of unreasonably high demand for STOA in the already overloaded transmission system of OPTCL.

Surcharge and/ or Additional Surcharge on Short Term Open Access Charges, if any, shall also be leviable.

The transmission licensee shall retain 25% of the charges collected from the short-term customers and the long-term customers shall adjust the balance 75% towards reduction in the transmission charges payable.

Wheeling charges shall be determined on the basis of same principles as laid down for intra-state transmission charges and in addition would include average loss compensation of the relevant voltage level as approved by OERC for the previous year subject to year-end adjustment.

The Open Access customers are also required to pay other charges like Reactive Energy Charges, Charges for Short Term Open Access through bidding, Unscheduled Interchange Charges (UI Charges) and Miscellaneous Charges in accordance with OERC Open Access Regulation.

**Transmission charges payable by very short-term customers:**

40. **Other Open Access Charges:** The licensee has proposed the following other Open Access Charges for the FY 2009-10. OPTCL has submitted that it has not been able to file Reactive Power Pricing for FY 2009-10 along with the ARR application. The same would be filed shortly.

**Table – 8**  
**OA Charges proposed by OPTCL for FY 2008-09**

<b>OA CHARGES</b>	<b>OPTCL PROPOSAL</b>
Charges for Short-Term Access through Bidding	Same as Long Term Access Charges.
UI Charges	As per Intra-State ABT Regulations in Orissa to be framed by OERC
Penal Charges	@ 25% of the Transmission Charge
Meter Charges	@ Rs.2,000/- per month
Service Charges	@ 1.5% on the sum of Transmission Charges and Wheeling Charges



### **Security Mechanism :**

41. OPTCL proposes that in order to secure a firm payment mechanism from DISCOMs in respect of transmission charges, DISCOMs may be directed to open irreversible and revolving LOC in favour of OPTCL to the extent of 110% of monthly transmission charges payable. In addition, OPTCL shall be entitled to recover its charges from the DISCOMs from the existing escrow arrangement with GRIDCO on a first charge basis.

### **Rebate:**

42. 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 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:**

43. 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:**

44. The Electricity Duty levied by the Government of Orissa 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.

### **Summary of Transmission Tariff Proposal (Excluding SLDC Function):**

45. **Annual Revenue Requirement at Rs.1080.11 crore.**
- (i) Recovery of Transmission Cost on Monthly basis @ **Rs.90.01 crore** per Month.
  - (ii) Transmission Charges @ **56.74 P/U**.
  - (iii) Long Term Open Access Charges @ **Rs.13618.06 /MW/Day**.
  - (iv) Short Term Open Access Charges @ **Rs.13618.06 /MW/Day** (same as LT OA Charges) (Although the same is worked out to be @25% of LTOA Charges i.e.**Rs.3404.52/MW/Day**).
  - (v) Transmission Loss for wheeling as 4.5% on energy drawal.
  - (vi) 25% of the Transmission Charge towards Penal Charges
  - (vii) Rs.2,000/- per month **towards Meter Charges**.

## **VIEWS OF CONSUMER COUNSEL, ON TRANSMISSION TARIFF PROPOSAL OF OPTCL FOR 2009-10 (para 46 to 58)**

46. The Licensee was allowed in the beginning of the hearing to give a power point presentation regarding its ARR and tariff application for the FY 2009-10. The representative of Nabakrushna Choudhury Centre for Development Studies (NCCSs) Bhubaneswar was appointed as consumer counsel and its representative put up certain queries and objections regarding ARR and price filing of OPTCL. The objectors then made a number of comments/observations regarding the submission of the licensee. Director (Tariff) then raised certain queries on the licensee's filing.
47. The Commission has considered all the issues raised by the participants in their written as well as oral submissions during the public hearing. Some of the objections were found to be of general nature whereas others were specific to the proposed Revenue Requirement and Tariff filing for the financial year 2009-10. Based on their nature and type, these objections have been categorized broadly as indicated below:

### **Analysis of the Proposal by Consumer Counsel**

48. In accordance with Section 94(3) of Electricity Act, 2003 which stipulates that the appropriate Commission may authorize any person as it deems fit to represent the interest of consumers in the proceedings before it, the Commission engaged Nabakrushna Choudhury Centre for Development Studies as consumer counsel in order to receive quality inputs/feedback on the tariff matters in the interest of different sections of consumers. The representative of NCCDS had analyzed the application of the licensee in the light of Kanungo Committee Report and some of the important observations are as follows:

### **Revenue Gap**

49. OPTCL has given the proposal for revenue requirement of Rs.1080.11 crore (excluding SLDC function) and expected revenue from long-term open access customer of Rs.400.06 crore, leaving a shortfall of Rs.680.05 crore during the FY 2009-10. This shortfall has been calculated at the existing transmission tariff @ 21 P/U. OPTCL proposes to recover the annual fixed cost of Rs.1080.11 crore in full from the long term open access customers like DISCOMs & CGPs on energy drawl during FY 2009-10 in two ways, i.e. either through recovery of the same on monthly basis @ Rs.90.01 crore per month, or @ 56.74 P/U from 1.4.2009 considering the transmission loss for wheeling as 4.5% on energy drawal.

## Revenue Gap of OPTCL During FY 2009-10

Table – 9

	(Rs. in crore)
Total Annual Revenue Requirement	1080.11
Revenue from long-term open access customer	400.06
Revenue Gap at the existing Wheeling rate @ 21 P/U	680.05

### Annual Revenue Requirement

50. OPTCL has projected its revenue requirement during FY 2009-10 about 190 per cent more than that approved for FY 2008-09. The revenue requirement constitutes not only fixed cost and additional expenses but also pass through cost of Rs.51.41 crore. Earlier these costs were not allowed by the Commission. If the pass through cost were deducted, then the revenue gap would be Rs.628.64 crore. The pass through of previous loss and liabilities would certainly impose burden on the consumers and therefore should not be allowed.
51. The areas of concern, besides the pass through cost, are increase in O&M expenses (234.68%), interest on loan capital (138.59%) and advance against depreciation (314.54%). The increase in employee cost seems to be too high, although it includes terminal benefits. Similarly, A & G cost seems to be too high. Repair and maintenance is required in order to operate the system effectively. However, for a single year, the proportion of spending seems to be too high and hence a part of this may be allowed to pass on. Otherwise, the whole burden would fall on the consumers. Further, it is of concern that machines are imported without any service facilities.
52. OPTCL had proposed an amount of Rs.115.16 crore as interest on loan capital during the FY 2008-09, but the Commission had approved only Rs.79.43 crore. Again during FY 2009-10, OPTCL has proposed Rs.189.51 crore as interest payment. OPTCL should explain such significant increase in interest. Is there any delay in the completion of any ongoing projects, which has added to the interest? However, the entire amount should not be passed on to tariff at a time, as it would impose burden on the consumers.

**Table – 10**  
**Annual Revenue Requirement of OPTCL ( Excluding SLDC)**

	2008-09 (Proposed)	2008-09 (Approved)	2009-10 (Proposed)	% Change
<b>O &amp; M expenses</b>	<b>252.32</b>	<b>195.70</b>	<b>644.34</b>	<b>229.29</b>
Employees Cost	144.27	125.25	484.66	286.95
Repair & Maintenance Cost	82.12	53.88	122.74	127.80
A & G Cost	25.93	16.57	36.94	122.93
Interest on Loan Capital	115.16	79.43	189.51	138.59
	2008-09 (Proposed)	2008-09 (Approved)	2009-10 (Proposed)	% Change
Interest on working capital and short-term loan	16.57	0.00	26.39	
Depreciation	64.53	61.62	66.69	8.22
Advance against Depreciation	65.13	12.59	52.19	314.54
<b>Sub-total</b>	<b>513.71</b>	<b>349.34</b>	<b>992.42</b>	<b>184.08</b>
Pass through Cost	108.32	15.0	51.41	242.73
Return on equity	8.40	0.00	13.30	
Addl. Expenses	13.23	13.23	17.18	
Rebate 2% on ARR	13.12	0.00	21.60	
<b>Total ARR</b>	<b>656.78</b>	<b>377.57</b>	<b>1080.61</b>	
Less Misc. Receipts	1.00	1.00	0.50	
<b>Net ARR</b>	<b>655.78</b>	<b>376.57</b>	<b>1080.11</b>	<b>186.06</b>

53. Regarding the advance against depreciation, the Commission had approved Rs.12.59 crore during FY 2008-09 against a claim of Rs.65.13 crore. It is to be seen that whether the proposed AAD satisfies the CERC norm, which stipulates that advance against depreciation should be permitted only if cumulative loan repayment up to a particular year exceeds the cumulative depreciation up to that year.
54. The significant increase in expenses as mentioned above would impose burden on the general consumers of the state, as this would be passed on to the ultimate users through GRIDCO and DISCOMs. Therefore, there is a need to reduce these expenses for the benefit of the consumers.

#### **Revenue from Tariff**

55. OPTCL has calculated the revenue receipts to be Rs.400.06 crore at the existing rate of tariff, i.e., @ 21 P/U, based on the projection of GRIDCO. OPTCL has expected to deliver 19036.15 MU of energy to GRIDCO, while the actual projection submitted by DISCOMs for the FY 2009-10 is not available. If the demand of the DISCOMs would be

more than the projection of GRIDCO then the revenue receipts of OPTCL would be increased and hence revenue gap would be reduced accordingly.

### **Transmission Loss**

56. OPTCL has proposed a transmission loss of 4.5% for the FY 2009-10. The Commission had approved 4.5% transmission loss during FY 2008-09 though it had approved 4% for 2006-07. Kanungo Committee had recommended for a stepwise reduction of transmission loss so that the same is brought to a level at par with that of Central Power Grid by 2007. However, the trend seems to be in the reverse direction. OPTCL has failed to arrest the high transmission loss due to its inefficiency. In conformity with the power sector reform, therefore, OPTCL needs to reduce the transmission loss gradually and significantly. The transmission loss, therefore, may be fixed at 3% for the FY 2009-10.

### **Tariff proposal**

57. OPTCL claims that with the existing Tariff structure, consisting of Transmission Charge @ 21 P/U and Transmission Loss @4.5%, it is not able to meet its current costs, which results in a deficit of Rs.680.05 crore. OPTCL, therefore, proposes to recover the annual fixed cost in full from DISCOMs and CGPs either through recovery on monthly basis @ Rs.90.01 crore, or @ 56.74 P/U from 1.4.2009 with transmission loss for wheeling as 4.5% on energy drawal.

### **Summing Up**

58. OPTCL has projected its revenue requirement during FY 2009-10, which is 186 per cent more than that the approved figure of FY 2008-09. The areas of concern are the pass through of past loss and high increase in employee cost, A&G cost, repair and maintenance cost, interest on loan capital and advance against depreciation. This higher proportion of increase in cost for FY 2009-10 may not be allowed for the best interest of the consumers. Further, OPTCL has failed to arrest the high transmission loss in conformity with the power sector reform and Kanungo Committee recommendation, and needs to reduce the transmission loss gradually and significantly. Therefore, transmission loss may be fixed at 3% for the FY 2009-10.

## **VIEWS OF OBJECTORS ON TRANSMISSION TARIFF APPLICATION OF OPTCL FOR FY 2009-10 (Para 59 to 132 )**

### **Legal Issues**

59. One objector submitted that IMFA is a deemed LTOA customer as per OERC (Intra-State Open Access) Regulation, 2005 and, therefore, has to pay the Long Term Open Access charges during FY 10. IMFA has suggested that the proposed transmission tariff of @ 56.74 Paise / KWh is not applicable to the power supplied by IMFA to the grid at Choudwar from its CGP meant for wheeling to be utilized at IMFA factory premises at

Theruvalli which means IMFA will not have to pay any transmission charge for wheeling its power from Choudwar to Theruvalli to OPTCL.

60. One objector is of the view that the separation of OPTCL from GRIDCO from 2005 till now is only cosmetic. Hence the Commission may direct OPTCL to function as an independent Engineering Organization with independent Board of Directors than that of Gridco..
61. Another objector stated that OPTCL has submitted their proposal on their ARR for the financial year 2009-10 for which no audited account has been submitted for the year 2007-08. Various figures given in their application for the FY 2007-08 are provisional and that for FY 2008-09 are estimated ones.
62. One objector submitted that there was huge gap between the audited figures and the provisional / estimated figures given in the application, to prove that the provisional figures given by the licensee are not to be trusted with.
63. One objector pointed out that the Commission in its order dated 20.03.2008 at para 357, had specially directed OPTCL not to include OPTCL charges in their ARR with effect from 1.4.2009. The present submission, which includes a number of SLDC related works in OPTCL ARR and thus violates the directives of the Commission and hence should be rejected.
64. One objector held that OPTCL should not be allowed any expenditure beyond the amount approved by the Commission unless they have taken permission from the Commission. Such excess expenditure should be treated as unauthorized and should not be included in their past losses.
65. Another objector submitted that OPTCL has considered the up-valued rate of the assets taken over and depreciated at CERC rate, despite the instruction of the High Court and Orders of State Govt. to consider book value and depreciation at pre-1992 rates.
66. Some objectors said that OPTCL has requested to consider their proposal to increase the transmission tariff, long-term as well as short-term open access charges and other misc. charges to cover the ARR. They requested the Commission to refer the observations made by the Appellate Tribunal for Electricity in their judgment dated 13.12.20006 while determining the transmission tariff for FY 2009-10.

#### **Energy to be handled and Expected Revenue**

67. Some objectors submitted that OPTCL has projected the quantum of energy to be handled at 19036.15 MU but the quantum of energy to be handled by OPTCL shall be at 22297 MU during FY 2009-10 and the expected revenue for OPTCL should be Rs.468.24 @ 21 P/U.

### **Transmission Loss**

68. One objector submitted that OPTCL had projected the transmission loss @ 4.5% for FY 2009-10 but Sovan Kanungo Committee had recommended reduction of transmission loss @ 0.3% per year and the State Govt. has instructed that the transmission loss should be fixed at about 2% during FY 2009-10. Based on the above, the observer suggested to allow transmission loss to OPTCL in FY 2009-10 at less than 4%.
69. Some objectors held that as per the commitment given to the consumers at the time of reform, the OPTCL should have achieved transmission losses of 3% by now. OPTCL's proposal for approval of transmission loss at 4.5% will increase the quantum of power procurement of GRIDCO resulting in increase in Bulk Supply Price for FY 2009-10. The objectors requested the Commission not to allow transmission loss at more than 3% from FY 2009-10 onwards .
70. One Objector is of the view that the reasons stated to retain the transmission losses at 4.5% against the earlier target of 3.70% is unacceptable.

### **Capital Expenditure**

71. One objector held that the capital expenditure projected at Rs.53.03 crore in Table-15 (Page-17) of ARR application should not be related to O&M and should be booked under Capital Expenditure.
72. One objector pointed out that as per OPTCL's submission, 29 substations of OPTCL would be integrated phase-wise with the telecommunication system within a period of 3 years starting from FY 2009-10. The objector held that it was unfortunate that this work would be executed through PGCIL and OPTCL would have to spend 16% extra towards PGCIL overhead charges. The objector urged that any amount paid to PGCIL as overhead charges should be disallowed from the capital expenditure of OPTCL.
73. One objector said that for FY 2009-10, many industries and Captive Generating Plants have been asked as per the Grid Code Regulations, 2006 to provide data and speech communication upto SLDC. OPTCL may indicate the scheduled date of installation of SCADA equipments in 220 KV substations and till that time, Industries / CGPs may be allowed grid connectivity without SCADA.
74. Some Objectors held that OPTCL was outsourcing execution of all 400 KV lines and substations to PGCIL which was unfortunate. They opined that OPTCL might outsource works related to design, preparation of specification etc. to PGCIL, but the execution should be carried out by OPTCL only.
75. One objector pointed out that OPTCL furnished a Capex Plan of Rs.431.94 for FY 2009-10 which included a provision of Rs.55.0 crore under Item 113 of Table-17 namely "Restoration of 400 KV DC line from Ib to Meramundali by M/s. Sterlite Energy Ltd." at

an expenditure of Rs.55 crore. This should not be loaded on the consumers of the state as the failure was due to total negligence of OPTCL.

### **R&M Expenditure**

76. One objector submitted that OPTCL has projected R&M Expenses of Rs.122.74 crore in FY 2009-10 but as per his calculation the reasonable requirement of R&M expenses of OPTCL shall be Rs.53 crore.
77. Some objectors are of the view that the maintenance of lines and sub-stations under OPTCL are not proper for want of required number of skilled manpower and therefore he suggests that OPTCL has to appoint required skilled labourers for such maintenance works. OPTCL has projected R&M Expenses of Rs.122.74 crore for FY 2009-10 but as per their calculation the reasonable requirement of R&M expenses of OPTCL shall be Rs.21.26 crore only in FY 2009-10.
78. The objector has pointed out that OPTCL in its ARR has proposed expenditure of Rs.92.85 crore towards maintenance of lines and sub-stations during FY 2009-10 which includes a lot of capital equipments and these equipments cannot be treated as spare parts under R&M expenses. The capital expenditure on new and original equipments is to be capitalized and the interest and depreciation charges shall only be allowed in the ARR.
79. One objector suggested that OPTCL should prepare a Comprehensive Renovation Scheme (CRS) for sub-stations which are more than 20 years old and arrange funding from Financial Institutions (FIs).
80. Another objector held that a huge amount of Rs.12.00 crore on lump sum basis has been provided for repair of defective Power Transformers. No voltage rating or capacity & numbers of these transformers have been indicated. The proposal for 5 % Emergency Spare is vague & the shunt capacitors do not indicate rated voltage and capacity.
81. Some objectors submitted that most of the R&M expenditure envisaged in the ARR of OPTCL are either the Capital Expenditure to increase the life and capacity of the asset or non R&M expenditures like security personnel charges etc., which should not be treated as R&M expenses.
82. Some objectors pointed out that in the R&M expenses the Commission ought to consider a reasonable increment of 6% per annum over the actual cost for the FY 2005-06 or limit the same with 6% hike over and above the ATE direction of Rs.15.00 crore for 2006-07 which may be the reference figure.
83. Some objectors submitted that OPTCL may be allowed all the expenditure for PLCC, SCADA, purchase of ULDC equipment & IT related expenses to be booked in the CAPEX. They held that the reasonable requirement of OPTCL towards R&M expenses by OPTCL is only Rs.21.26 crore for FY 2009-10.



84. One objector held that provision of more funds in the past has not improved the system for which a sincere and dedicated efforts are needed by OPTCL to achieve the goal.
85. One objector submitted that an amount of only Rs.53 crore might be allowed towards R&M expenditure for the FY 2009-10.
86. Some objectors opined that OPTCL should produce all relevant documents regarding how much of fund was allowed by the Commission and how much was actually been spent under R&M from the year 2000-01 to 2008-09 (upto end of January, 2009) towards R&M and how much it has spent during 2000-01 to 2008-09 and what are the improvements.

#### **Employee and A & G Cost**

87. One objector held that OPTCL has projected in its ARR for FY 2009-10 towards the Employee Cost of Rs.491.38 crore but as per his calculation the employee cost of OPTCL in FY 2009-10 shall be Rs.190 crore.
88. Another objector pointed out that the general observation was that OPTCL, GRIDCO and OPGC etc. were engaged in extending employments, mostly in the superior levels, as a result of which there has been tardy functioning against huge expenditures.
89. Some objectors pointed out that OPTCL has projected in its ARR for FY 2009-10 the Employee Cost of Rs.491.38 crore but as per their calculation the employee cost of OPTCL shall be Rs.177.94 crore.
90. An objector held that OPTCL has projected an A&G expenditure of Rs.39.84 crore in FY 2009-10 but he has calculated the A&G expenses of Rs.17.12 crore based on price escalation @ 6% per annum on OERC approval of Rs.16.57 crore for FY 2008-09.
91. Some objectors pointed out that OPTCL has projected an A&G expenditure of Rs.39.84 crore for FY 2009-10 but they have calculated the A&G expenses of Rs.17.49 crore based on price escalation @ 5.5% per annum on OERC approval of Rs.16.57 crore for FY 2008-09.

#### **Interest on Loan**

92. Some objectors submitted that the present proposal of OPTCL of Rs.189.51 crore towards interest on loan amount seems to be very high.
93. Some objectors have computed the interest liability to be chargeable to the ARR of OPTCL during 2009-10 which comes to Rs.52.53 crore as against a claim of Rs.189.51 crore by OPTCL.

94. One objector pointed out that the Commission in BST Order for FY 2005-06, para 6.21.5 has calculated the interest due to PFC at 8.5%. Accordingly the interest rate for the PFC loan @8.5% may be considered.
95. One objector submitted that OPTCL may swap the high interest loans of 12-13% &15% per annum to lower interest ones.
96. Another objector pointed out that the interest on new project loan may not be allowed as the Capital expenditure is yet to be approved by OERC.
97. One objector submitted that the interest on zero-coupon bonds taken for securitization of outstanding dues of generating companies should not be allowed to be passed over to the consumers.
98. Another objector held that OPTCL may negotiate with the FIs/Banks for the moratorium and repayment period in order to limit the repayments to the extent of the depreciation.
99. One objector held that the interest on loan for an amount of Rs.189.51 crore for FY 2009-10 against OERC approval of Rs.79.43 crore for FY 2008-09 seems to be very high. He therefore, suggested that the interest amount might be allowed at Rs.82 crore for FY 2009-10.

#### **Interest on Working Capital**

100. An objector pointed out that OPTCL has claimed interest on Working Capital at Rs.26.39 crore for FY 2009-10 but the Commission had earlier disallowed the same. He has suggested that no amount should be allowed under this head for FY 2009-10.
101. Some objectors held that OPTCL had been receiving its receivables from DISCOMs within 48 hours of dispatch of the bill. The claim of interest on Working Capital by OPTCL is, therefore, not justified. They held that huge delay in work causing increase in interest during construction and that cost escalation due to such delay has to be borne by the OPTCL and the expenditure beyond target date should not be allowed by the Commission.

#### **Fixed Assets & Depreciation**

102. An objector has held that against an amount of Rs.66.75 crore projected by OPTCL for FY 2009-10 Rs.62.00 crore should be allowed towards depreciation.
103. An objector pointed out that OPTCL has calculated depreciation at the post-94 rate whereas the Commission vide Order dated 22.03.2005 has adopted a principle to allow the depreciation at pre- 92 rate i.e. 3.13% on Gross Fixed Assets.
104. Some objectors have stated that they have calculated the depreciation amount for FY 2009-10 at Rs.66.69 crore.

105. An objector submitted that as per Electricity (Supply) Act, 1948, the Original Cost of Fixed Assets shall be only the book value of the assets as on 01.04.1996 and the tariff is to be determined accordingly but not based on uprated value of the assets.
106. Another objector pointed out that OPTCL has considered the value of assets at the up-valued rate, which under the instruction of the High Court and orders of the State Govt. was reduced to the book value as at the time of taking over of the assets by Gridco from OSEB & depreciation was to be charged at pre-1992 rate of the assets & depreciation at CERC rates. .

#### **Contingency Reserve**

107. An objector held that OPTCL has projected the investment towards Contingency Reserve for Rs.15.01 crore in FY 2009-10 but the objector is of the opinion that the National Tariff Policy does not support inclusion of Contingency Reserve in Transmission Tariff calculation and hence this should be disallowed.
108. Some objectors have held that OPTCL has projected the investment towards Contingency Reserve for Rs.15.01 crore in FY 2009-10 but they have calculated at Rs.4.25 crore towards Contingency Reserve for FY 2009-10

#### **Return on Equity**

109. An objector pointed out that OPTCL has projected a reasonable return of Rs.13.30 crore based on 14% return on a capital base of Rs.95.07 crore. As the sector has not yet turned around he has suggested that no reasonable return shall be allowed to OPTCL for FY 2009-10.

#### **Past Losses/Pass through Expenses**

110. An objector held that the claim made by OPTCL in its ARR for FY 2009-10 towards past losses of Rs.51.41 crore had no merit as the same items are already dealt in the ARR 2008-09 and hence this might not be allowed.

#### **Miscellaneous Receipts**

111. An objector pointed out that OPTCL has projected an amount of Re 0.50 crore towards miscellaneous receipts whereas he has estimated that miscellaneous revenue under this head may go upto Rs.14.70 crore.
112. Some objectors have calculated the misc. receipts at Rs.16.79 crore based on the actual miscellaneous receipts for the previous year and requested the Commission to accept their calculation.

113. One objector held that the actual miscellaneous receipts under this head for last three years may be assessed and compared with the OERC approved amount and a decision may be taken accordingly.
114. An objector held that the actual receipt under short term O.A. charges may be assessed for last two years and the benefits received may be passed on to the consumers.
115. Another objector held that the supervision charges collected by the Licensee are in the nature of misc. revenue for utilizing the services of skilled manpower. The Commission may, therefore, reduce the ARR of OPTCL to the extent of full or part value of the supervision charges.

#### **Revenue Receipt/Gap**

116. Some objectors pointed out that OPTCL proposed a Revenue Gap of Rs.680.05 crore in FY 2009-10 computed at the existing transmission tariff @ 21 Paise / KWh but as per their calculation, there shall be revenue surplus of Rs.144.07 crore

#### **Transmission Tariff**

117. An objector held that OPTCL had projected an annual revenue requirement of Rs.1080.11 crore for FY 2009-10 whereas he has computed the net annual revenue requirement for FY 2009-10 for OPTCL at Rs.381.57 crore. Considering the quantum of energy to be handled at 19036 MU the transmission charge for FY 2009-10 has been computed by him at 20 Paise / KWh therefore he requested to approve transmission charge @ 20 P/KWh for FY 2009-10.

#### **Advance against Depreciation (AAD)**

118. An objector has suggested that AAD is not payable to OPTCL as it will be against the interest of the consumers of the State.
119. Another objector held that the National Tariff Policy dated 6.1.2006 prescribes not to permit any 'Advance against Depreciation' in Transmission Tariff calculation.
120. One objector pointed out that the Appellate Tribunal had also categorically stated in its order dated 13.12.2006 not to allow any Advance against Depreciation in Tariff calculation.
121. Some objectors pointed out that in spite of the guidelines and stipulations, the Commission had allowed AAD in its tariff order dated 20.3.2008 for 2008-09, which goes against the consumers. Hence, advance against depreciation may not be allowed in the tariff order for FY 2009-10.
122. Some objectors submitted to exclude the additional depreciation in computation of the OPTCL ARR for FY 2009-10.

123. Another objector held that OPTCL may negotiate with the Banks/FIs for a longer tenure or moratorium in repayment of principal or swapping of loan by raising funds from other banks.

#### **Income from Wheeling**

124. An objector has requested the Commission to follow the recommendations of CERC in determining the Open Access Charges / Surcharge for FY 2009-10.
125. Some objectors stated that OPTCL has projected income from Inter-State wheeling to the tune of Re 0.50 crore during FY 2009-10 @ 7.5 paise/KWh but they have calculated such income from inter-state wheeling @ 17.50 Paise/KWh at Rs.17.50 crore for FY 2009-10.

#### **Miscellaneous Expenditure**

126. An objector wants the OPTCL to furnish the money spent for advertisements in different News Papers and for charitable purposes during last 3 years vis-à-vis the benefits accrued to OPTCL on account of such expenses.

#### **Completion of Work**

127. Some of the objectors are of the view that OPTCL has failed in commissioning some of the major new transmission lines within the targeted time resulting in abnormal delay exceeding 10 years at times. Hence, the objector requested the Commission to approve the original capital cost along with IDC for the scheduled period of completion only. The interest, depreciation and O&M charges on such value only should be considered while approving ARR.
128. The Objector has pointed out that many industries in the State availing power at 132 KV since long, will terminate their speech and data communication links at the 220 KV Sub-station. OPTCL should indicate the date of commissioning of SCADA interface equipments in each of the 220 KV Sub-stations (Total time is 3 years for all sub-stations) so that the industries can plan their work accordingly. The objector stated that no useful purpose would be served by installation of equipment by the industries / generators unless the OPTCL SCADA interface is in place.
129. An Objector suggests that OPTCL should state the reasons as to why speech and data communication equipments were not provided for 29 Nos. of 132 KV sub-stations under OPTCL when OGC Regulation provides for installation of such equipments. He further states that when OPTCL has not installed PLCC and SCADA, it has no moral right to ask the industries having CGPs to install such equipments. This unnecessarily hinders injection of power to the grid.

### **Special Issues**

130. An objector held that OERC may direct OPTCL to give an undertaking through Affidavit that it would supply quality power at proper voltage to all the consumers of the State. as many areas of the State are under brown-out due to want of proper voltage in FY08-09.
131. Another objector has stated that about 19,000 villages of the State are to be electrified under RGGVY and BGJY programme under grid connected route by 2009 and wants OPTCL to state the action taken for improvement of intra-state transmission system and the required transmission connectivity to meet such additional demand.
132. An objector is of the view that the reasons stated by OPTCL to retain the transmission losses to 4.5% for FY 2009-10 against the earlier target of 3.70% is unacceptable.

### **REJOINDER BY OPTCL TO THE QUERY OF OBJECTORS (para 133 to 181)**

133. In response to the views of objectors on the ARR and Tariff Application of OPTCL for 2009-10, OPTCL had filed rejoinders for the same. The response of OPTCL has been broadly classified into the following issues.

### **Legal Issues**

134. The contention that the application filed by the licensee is not bonafide and tenable is not based on correct appreciation as the licensee has filed application in accordance with the OERC (Terms and Conditions for Determination of Tariff) Regulations, 2004 and OERC Order dated 27.10.2006.
135. The present ARR and transmission tariff application has been filed and submitted based on the audited accounts for FY 2006-07 and provisional accounts for FY 2007-08. Hence, the question of misguiding by the Licensee does not arise.
136. The present application cannot be rejected by making a swift statement that it is based on incorrect and manipulated statements of facts, as OPTCL has furnished all information as per prescribed formats prescribed by OERC with full justification.
137. Sufficient information have been given for inviting objection from the Consumers & the Public and this cannot be treated as a frustrated exercise and contrary to the law and principle of natural justice.

### **Annual Audited Account & Revenue Gap**

138. With regard to the audit of accounts OPTCL humbly submits that the present ARR and transmission tariff application has been prepared and submitted based on OPTCL's Audited Accounts for FY 2006-07, provisional Accounts for FY 2007-08 and other facts and materials. The proposal for approval of expenses of A&G, Employees Cost, R&M costs are based on audited accounts and are need based that cannot be assumed as unjustified and imaginary.

139. For the year 2007-08, compilation of annual accounts has been completed. Statutory audit is expected to be completed by February 2009. Hence, a copy of Provisional Balance Sheet and Profit & Loss Account for FY 2007-08 as approved by the Board for income tax purpose has been filed by OPTCL before the Commission in reply to OERC query (Annexure-IX). The copy of the same has been sent to the objector vide OPTCL letter No.246 dt.12.01.2009.
140. OPTCL does not agree to the remark that there was huge gap between the audited figures and the provisional figures. Therefore, the figures proposed for expenses under different heads are reliable and trust worthy for fixing the Annual Revenue Requirement for 2009-10.

### **Quality of Supply**

141. The transmission activities have been entrusted to OPTCL by Government vide Transfer Scheme, 2005. OPTCL has made all out efforts to improve its efficiency, standard of service / performance. In fact after commissioning of a number of new EHT lines and Grid sub-stations during last few years, the voltage profile in most part of the State has improved considerably. The interruption in supply has also been drastically reduced.
142. OPTCL is always ready to coordinate with GRIDCO & DISCOMs and endeavours towards successful implementation of the Central and State sponsored schemes. OPTCL has conducted the Transmission Planning study for its system in coordination and consultation with GRIDCO and distribution companies. Accordingly OPTCL is taking all efforts to renovate / modernize and strengthen its infrastructure to cater to the future load.

### **Transmission Loss**

143. OPTCL has submitted in its application that it has no control over the transmission loss due to several factors, which is evident from the fluctuation of transmission loss derived for different years as per the Gross Method devised by OERC. OPTCL has undertaken construction of new lines and sub-stations for strengthening the transmission infrastructure considering the future load growth and for improvement of quality of power supply. In some of the new lines, the loading is very less which is a factor for adding loss. There has been increase in Transmission Loss on account of sudden growth of industrial loads in some parts of the State. The transmission loss for each month also depends on the export and import over the same line.
144. The Commission had approved 5% loss for 2007-08 & 4.5% loss for 2008-09. The actual transmission loss for 2006-07, 2007-08 and 2008-09 (April '08 to December'08) is computed at 5.04%, 4.82% and 4.47% respectively. Based on the present trend, OPTCL has proposed the Transmission Loss @ 4.5 % for 2009-10. OPTCL would like to further add that the transmission loss in OPTCL system is one of the lowest in the country compared to other states.

### **Separation of SLDC Account**

145. As per direction of the Commission, OPTCL has filed two separate applications before the Commission as under for kind approval:
- i) An application for approval of ARR and determination of Transmission Tariff for OPTCL for FY 2009-10.
  - ii) An application for approval of ARR and Levy of Annual Fees and Operating Charges for SLDC function for FY 2009-10.

In the ARR and Transmission Tariff application for OPTCL, proposals for charges to be levied (including SLDC function / excluding SLDC function) have been made keeping two options open for the Commission to take appropriate decision in this regard while finalizing both the above applications

### **TRANSMISSION COST**

#### **a) Employee Cost:**

146. OPTCL's projection of Employee Cost for 2009-10 is based on audited accounts of 2006-07, provisional accounts of 2007-08, facts and evidential documents. The assumptions made while projecting different expenditures under Employee Cost have been indicated in the TRF-13 enclosed to the application at Page 97. With regard to the objection, OPTCL states that the salary, DA, HRA etc. was proposed for the FY 2009-10 based on the projections when the Sixth Pay Commission Report was not available. In the meantime, Govt. of Orissa have revised the pay scales of its employees based on the Sixth Pay Commission Report. The pay scales of the Executives of OPTCL which will be revised w.e.f 01.01.2006 based on the State Govt. revised Scale of Pay are being worked out and the same will be implemented after it is approved by the competent authority. In respect of Non-Executives, the pay revision is due from 01.04.2005 and these are being worked out though a settlement with the Trade Unions. The existing financial implications on the pay revision for both Executives and Non-Executives will be intimated to the Commission after it is finally implemented by OPTCL. The details of the calculation with regard to provisions towards pay and wage arrears amounting to Rs.147.16 crore have been given in our booklet "Compliance to commission's queries on ARR & Transmission Tariff Application for FY 2009-10" (Annexure-VIII), Page-76 which has been sent to all the objectors. The actuarial valuation details for funding the pension, gratuity and leave encashment has been given in our ARR application supported by the Report of the queries projected up to 31<sup>st</sup> March 2010. The actuarial valuation details given will however undergo change after implementation of the pay revision of the employees of the Corporation.



**b) R & M Cost:**

147. In this regard, it is to mention that the expenditure incurred by the undivided GRIDCO towards repair of its transmission lines and sub-stations up to 2005-06 was very less in view of non-availability of funds. Inadequate expenditure towards Repair and Maintenance is not a good sign and not in the long-term interest of OPTCL-the STU, DISCOMs, consumers of the State and the State as a whole. OPTCL has undertaken preventive and proper maintenance of its lines and Grid Sub-stations in the ensuing years for which Rs.123.74 crore has been proposed towards R&M expenses during the FY 2009-10.
148. The provisional expenditure incurred towards R&M head for 2007-08 is Rs.25.62 crore & spill over of some R&M outflow of FY 2007-08 amounting to Rs.4.01 crore is to be paid during the current fiscal year. An amount of Rs.14.87 crore has already been spent during April'08 to November'08 towards R&M expenditure for FY 2008-09 out of total approval of Rs.53.88 crore. Action plan has been initiated for procurement of equipments such as breakers, CTs, PTs and LAs of different voltage class and batteries, transformer oil, hardware fittings, SF-6 gas, nuts & bolts, surplus towers and tower members, power transformers, ground wire etc. The details of above R&M expenditure has been submitted to the Commission by OPTCL in reply to OERC query. Copy of the same has also been sent to the objector vide OPTCL letter No.246 dt.12.01.2009.
149. Apart from the above, as on 27.12.2008, the committed expenditure for FY 2008-09 on R&M head for which orders have been placed is Rs.28.59 crore and materials for an estimated amount of Rs.25.98 crore for FY 2008-09 is in the process of tendering for which purchase orders are expected to be issued within March 2009. Utilization of the materials have already started against various works pertaining to R&M of EHT sub-stations and transmission lines after receipt of materials for which the expenditure incurred up to November, 2008 has already reached Rs.14.87 crore.
150. With regard to the ATE Order dated 13.12.2006 relating to the ARR & Transmission Tariff for 2006-07 in which R&M expense forms a component of the ARR, it may be noted that the said order has been challenged by OPTCL before the Supreme Court of India (SCI) vide Civil Appeal No. 417 of 2007. The Appeal is subjudice as of now. The Supreme Court of India in an Interim Order dated 20.04.2007 in the aforesaid Civil Appeal has directed that until further orders, the Regulatory Commission (OERC) shall not take any further steps pursuant to the impugned order i.e, ATE order dated 13.12.2006.
151. In view of the above, it is misconceived on the part of the objector to refer to an impugned order (ATE order dated 13.12.2006), which is still subjudice before the Apex Court. Therefore, the views expressed by the objector in this context may not be

considered. To meet the performance standards set down by the Commission, it is absolutely necessary to undertake replacement of the old, defective / obsolete equipments like CB, CT, PT, LA, Station Battery, D.G. Set etc. that have outlived their useful economic life and to renovate and upgrade the equipments and the lines in the existing system to handle the increased load in the system. Besides, the expenditure on account of repair of defective auto and power transformers, renovation of earthing system of EHT lines and grid sub-stations & maintenance of 5% spare equipments to meet the emergency have also been considered under R&M head. Keeping this in view, OPTCL has submitted its ARR application maintaining different heads for both CAPEX and R&M expenditures separately for its different areas of operations namely O&M, Telecom, IT, Civil Works. Accordingly, the old / defective equipments which need to be replaced by new ones are kept under the R&M heads and any augmentation works of substations which envisage capacity addition is treated as CAPEX in nature. Hence, the objections raised by the objector may not be considered.

152. As pointed out there is no typographical error in R&M of ULDC Equipment in Table- 7 of the application. The addition of individual expenditure projected in the said table comes to Rs.6.05 crore (not Rs.5.65 crore).
153. Irrespective of the nature of the expenditure, revenue or Capital, the total requirement for maintenance purpose is required to be funded under the head R&M. As it has not been feasible so far to avail loan to finance the O&M equipments, the cost of such procurement should be allowed in the ARR under Repair & Maintenance head. In view of the above, OPTCL has been very much pragmatic in proposing its R&M requirement & hence does not agree to the projections made by the objector.

**c) A&G Expenses:**

154. The A&G expenses have shown an increasing trend due to price rise and inflation. During FY 2007-08, the A&G expenses are Rs.20.36 crore (as per cash flow statement) against OERC approval of Rs.15.71 crore. Based on the actual expenses of Rs.11.89 crore up to November'08, the A&G Expenses for FY 2008-09 is estimated to be around Rs.34.87 crore against OERC approval of Rs.16.57 crore.
155. Therefore, the A&G Expenses for FY 2009-10 of Rs.39.84 crore has been hiked by around 15% over the projected estimate for FY 2008-09 and OPTCL's projection towards A&G expenses is very much realistic which needs full consideration.

**d) Interest Charges:**

156. The projection towards Interest on loan Capital is very much realistic as it is based on facts and evidential documents that need full consideration. OPTCL does not agree to the objector's suggestion for allocation of Rs.52.53 crore against OPTCL's proposal for Rs.189.51 crore.

157. Out of the total projected CAPEX of Rs.555.50 crore towards new projects, the Commission has already approved a good number of projects. Term loan for most of the projects have been sanctioned by REC & PFC. The details of Commission's approval have been submitted by OPTCL in reply to the queries raised by the Commission. The copy of the same has been sent to the objectors vide OPTCL letter No.246 dt.12.01.2009. In respect of other new projects, OPTCL has initiated action for filing the investment proposal and Commission's approval will be obtained for such projects within March, 2009.
158. Regarding the financial charges of Rs.16.80 crore, which includes details of Payment of Guarantee Commission, Rebate to consumer for timely payment, Bank Commission, Stamp duty and Bank Charges etc., OPTCL's projection is very much realistic.
159. OPTCL avails long term loan from PFC and REC to finance its transmission projects at the interest rate notified by PFC and REC from time to time. The rate of interest of PFC was 50 basis points higher than REC. OPTCL took up the matter with PFC who have agreed to match with the interest rate of REC, which is a competitive rate compared to the rate of interest of Banks. Therefore, there is no scope of swapping the loan availed from PFC and REC.

**e) Depreciation:**

160. OPTCL has projected depreciation of Rs.66.75 crore for FY 2009-10 considering the depreciation rate as prescribed by CERC on up-valued Assets and additions thereto. OPTCL has already submitted Asset Register to the Commission up to 2005-06. The Asset Register for FY 2006-07 which has been finalised is being filed. The Asset Register for FY 2007-08 is under preparation and will be submitted to OERC shortly. Hence, OPTCL is entitled to depreciation on the book value and at CERC rate. OPTCL, therefore, does not agree to the suggestion of the objector.

**f) Advance Against Depreciation (AAD) :**

161. OERC vide ARR & Transmission Tariff Order dated 20.03.2008 for FY 2008-09 has allowed AAD in contrast to the views enunciated by the ATE in its Order dated 13.12.2006 in respect of ARR & Transmission Tariff for FY 2006-07. This is due to the fact that the above impugned Order of ATE has been contested in the Supreme Court of India in Civil Appeal No. 417 of 2007 and thus the ATE Order is now sub-judice. The Supreme Court of India in an Interim Order dated 20.04.2007 in the Civil Appeal No.417/2007 has directed that until further orders, the Regulatory Commission (OERC) shall not take any further steps pursuant to the Impugned Order i.e. ATE Order dated 13.12.2006.

162. In view of the above it is misconceived on the part of the objector to request OERC to carry out the instructions / actions envisaged under an Impugned Order dated 13.12.2006 of ATE which has been stayed by the Supreme Court of India.

163. Thus OPTCL submits that the allowance of AAD of Rs.52.19 crore by OERC arrived at as per the provisions of CERC (Terms and Condition of Tariff) Regulation, 2004 is just and proper and hence be allowed as requested. OPTCL will not be in a position to service the loan repayment it has availed if AAD is not considered by the Commission.

**g) Return on Equity:**

164. Return on Equity is projected basing on CERC Regulations, 2004. OPTCL does not agree to the suggestions given by objector, as this is contrary to the provisions of CERC Regulation.

**h) Interest on Working Capital:**

165. Interest on Working Capital is projected basing on CERC Regulations, 2004. OPTCL will have no objection for detail scrutiny of the same and to the estimation of the Commission towards fixation of Interest on Working Capital as this proposal is based on CERC tariff regulations.

**i) Contingency Reserve:**

166. The projection towards Contingency Reserve is very much realistic which needs full consideration. The fund is required to meet the expenses towards unforeseen calamities to which our transmission system is exposed to. Pursuant to the rules made under sub-section (1) of section 69 framed under the Electricity (Supply) Act, 1948 and which have been saved under Section 185 (d) of the Electricity Act, 2003, OPTCL has calculated the contingency reserve @ 0.5% on Gross Block according to the Rules.

**j) Pass through Expenses:**

167. The proposal for pass through is based on the audited accounts up to year 2006-07 and provisional accounts for 2007-08. Under the provisions of the Act any reasonable expenditure incurred by the licensee would be allowed as a pass through and recovered through tariff. The users of the electricity has to pay the charges incurred reasonably by the assesses.

**k) Miscellaneous Receipts:**

168. Income towards transmission charges on trading of electricity by GRIDCO has not been considered as there is no excess power for trading by GRIDCO during FY 2009-10.

169. The actual miscellaneous receipts for the last three years are Rs.20.29 crore for FY 2005-06, Rs.16.86 crore for FY 2006-07 and Rs.27.20 crore for FY 2007-08 including supervision charges received by OPTCL on the deposit works which is not comparable

with OERC approved figures as the latter includes only the income from inter-state wheeling charges.

170. Regarding the STOA charges, OPTCL has no objection to the assessment to be made by the Commission for 2009-10 based on the actuals for the last two years.
171. OPTCL does not agree to the assumption made by the objector in different items of Transmission cost. The calculation of ARR suggested by the Objector is based on his own assumption and are, therefore, different from what has been projected by OPTCL. Hence, the views of CII on ARR and the transmission charge should not be taken into consideration.

**Open Access Charges / Surcharge:**

172. OPTCL has submitted the LTOA charges as per the existing OERC (Determination of Open Access Charges) Regulations, 2006 and regarding the STOA Charges OPTCL proposes it to be at par with LTOA Charges with full justification. Regarding the Open Access surcharge, it is to be determined by the Commission for 2009-10 as had been done for 2008-09 following due regulatory procedure.

**Security Mechanism on Payment from DISCOMs:**

173. The contention of the objector has no merit as OPTCL has been billing to the Discoms and therefore the Discoms should open LC as a security for timely payment of monthly transmission charges.

**Expenditure towards R&M, A&G, O&M**

174. As desired by the objectors, Year-Wise Comparison of proposed, approved and actual expenditure under R&M, A&G, and O&M heads for the period from 2000-01 to 2008-09 (upto Nov 08) are given below.

**TABLE-11 (In Rs. Crore)**

Year	R&M			A&G			O&M		
	proposal	Apprv.	Actual	proposal	Apprv.	Actual	proposal	Apprv.	Actual
2000-01	23.74	14.67	9.9	19.85	12.25	14.33	124.76	103.23	126.38
2001-02	27.16	15.99	8.81	21.74	12.86	14.67	148.55	111.19	165.18
2002-03	28.73	17.43	9.35	27.65	13.51	15.13	171.46	117.11	171.37
2003-04	13.35	13.35	7.03	21.03	14.19	22.88	152.66	127.6	225.47
2004-05	17.59	14.07	4.59	18.91	14.96	49.66	218.96	213.14	238.48
2005-06	20.73	14.8	6.94	18.54	15.73	35.54	226.5	142.75	199.67
2006-07	116.65	36	25.57	15.85	14.89	17.3	291.39	166.05	142.32
2007-08 (provisional)	54	47	25.62	14.79	15.71	20.36	250.91	201.49	178.5
2008-09 (upto Nov 08)	82.12	53.88	14.87	25.93	16.57	11.89	252.32	195.7	89.67

### **Completion of Project**

175. Considering the load growth in future years, OPTCL has proposed for construction of new lines and sub-stations for which CAPEX of Rs.555.50 crore is planned for FY 2009-10. OPTCL has made Transmission Planning Study in this regard for the 11<sup>th</sup> Plan Period which has taken into account the upcoming huge demand due to RGGVY & BGJY schemes. Coordinated efforts by OPTCL, GRIDCO, DISCOMs and OERC are being made to comply with the future load growth due to RGGVY & BGJY.

### **Income from interstate wheeling**

176. The interstate wheeling in MU for the past years are shown in the following Table:

**TABLE-12**

<b>Year</b>	<b>MU billed for Inter-State Wheeling</b>
2001-02	2284.72
2002-03	2009.96
2003-04	1356.79
2004-05	671.47
2005-06	411.44
2006-07	265.78
2007-08	150.13
2008-09 (April'08 to Nov'08)	20.84

177. As may be observed from the above Table, the quantum of Inter-State Wheeling by OPTCL is decreasing year after year leading to drastic fall in the corresponding revenue and as such contraction in Miscellaneous Receipts. Besides the rate of 17.50 P/U as the Inter-State Wheeling Charge has been disputed by a number of beneficiary Utilities and are not paying @ 17.50 P/U. Besides, this rate has been contested by MPSEB (now MPPTCL) in several Fora and the appeal is now pending before the ATE and the Orissa High Court. Presently, MPPTCL is not paying Inter-State Wheeling Charge at all, although it uses the service of the OPTCL transmission network. In view of the uncertainties in realization of the billing amount as mentioned above on the face of the order of CERC / ATE, OPTCL has been making provision @ 7.5 Paise / KWh in its accounts.
178. In view of the above, the receipt from Inter-State Wheeling is going to be negligible and be limited to only Rs.0.50 crore as proposed by OPTCL during FY 2009-10. The contention of the objector that it should be scaled up to Rs.17.50 crore as per the

Impugned ATE Order dated 13.12.2006 which is pending before the Supreme Court of India for disposal, is totally misconceived and hence, may be rejected.

### **Energy to be handled during 2009-10**

179. OPTCL gets transmission charge from four distribution companies, IMFA and NALCO. As per projection of GRIDCO Ltd. keeping in view the energy availability in Orissa from different sources during 2009-10, 18,726.15 MU would be sold to DISCOMs to meet the state consumers' demand. The same figure has been taken into consideration by OPTCL. The wheeling of IMFA / NALCO energy and emergency sale to CGPs are projected at 300 MU and 10 MU respectively. Thus the total energy to be transmitted during 2009-10 has been estimated as 19036.15 MU by summation of the above and factoring the transmission loss @ 4.5%. OPTCL does not agree to the objector's projection of 22297 MU of energy to be handled during FY 2009-10.

### **Outsourcing of Works**

180. OPTCL humbly states that the claim of the objector is baseless as outsourcing is now-a-days a globally accepted practice in this changed techno-economic scenario which not only results in better efficiency of the system but also optimally reduces the execution time as the work is done by a more experienced agency. PGCIL is more experienced than the applicant in the matter of construction activities relating to 400KV and higher voltage systems and execution of telecom works like ULDC projects.
181. OPTCL submits that out of 53 nos. of existing 132KV sub-stations, 24 nos. sub-stations have been integrated in the SCADA provision in the ULDC system. OPTCL is determined to provide Speech and Data Communication facilities in the remaining 29 nos. of 132KV sub-stations for which action plan has already been initiated. In addition to the above, all the new upcoming sub-stations of OPTCL including 6 nos. of sub-stations being executed by PGCIL shall be integrated with the existing ULDC network. The sub-stations covered under the state sector scheme and executed by PGCIL during the 11th Five Year Plan period are Boudh, Bhawanipatna, Badugaon, Padampur and Nuapada. As per the recent amendment of OGC Regulations, 2006 dated 29.08.08, OPTCL has also initiated action plan for providing OPGW connectivity between all 220KV sub-stations and above including generating stations in the 1st phase and then all 132KV sub-stations in the 2nd phase. The work shall be implemented through PGCIL.

### **OPTCL'S RESPONSE TO QUERIES RAISED BY THE DIRECTOR (TARIFF) IN THE PUBLIC HEARING ON 04.02.2009 (para 182 to 202)**

#### **Transmission Loss**

182. On a query relating to high transmission loss in the OPTCL's system, the licensee replied that transmission Loss occurring in OPTCL's transmission network could not be compared with that of PGCIL since power transmitted by PGCIL was at higher voltage

level (mostly 400 kV) in comparison to OPTCL which mainly deals with 220KV & 132 KV voltage level. Apart from the above some of OPTCL lines are overloaded due to sudden in-rush of power in some pockets, which result in higher Transmission Loss. The Transmission Loss figures submitted in the ARR application from April'08 to Nov'08 have been computed on the basis of actual energy input & energy output to/from OPTCL system. OPTCL has filed a comparison of Transmission Loss of other states for different years as approved by the concerned SERCs for better appreciation of facts.

**System Availability**

183. Regarding System Availability, SLDC as per OGC Regulation certified that transmission system availability for FY 2008-09 (April to October, 2008) was 99.22% which is more than 98% as prescribed by CERC.

**Equalization of STOA & LTOA Charges**

184. On this issue OPTCL replied that as per the Regulation 19 (Powers to Remove Difficulties) of OERC (Terms and Conditions for Open Access) Regulations, 2005 & Regulation 11 of OERC (Determination of Open Access Charges) Regulations, 2006, OPTCL prays the Commission for equalization of STOA and LTOA charges in consideration of the reasons mentioned in the ARR application (page no. 39)

**Reactive Energy Charges:**

185. Regarding reactive energy charges, the licensee stated that it has filed its submission on the Reactive Energy Charges on 12.02.2009 before the Commission.

**Receipt of STOA Charges**

186. On this OPTCL replied that the receipt of open access charges from GRIDCO for FY 2007-08 towards bi-lateral trading of 691 MU was Rs.3.80 crore.
187. OPTCL submitted the receipt of STOA charges as under: -

**TABLE-13**

<b>Year</b>	<b>MU</b>	<b>Amount Received Rs. in Cr.</b>
2008-09 (upto November'08)	211	3.48
2008-09 (upto January'09)	286	4.99

**Employee Cost**

188. On employee cost, OPTCL stated that OPTCL Board in its 29th meeting held on 09.02.2009 has approved the pay scale of its employees (both Executives& Non-



Executives) based on 6<sup>th</sup> Pay Commission recommendation and the same is being submitted to Govt. for according approval.

### **Terminal Benefits**

189. Regarding actuarial valuation, OPTCL stated that OERC had appointed Bhudev Chatterjee, Actuary, to assess the Terminal Benefit liabilities of OPTCL as on 31.03.2006 and projected as on 31.03.2007 & 31.03.2008 as per AS-15. The data provided for the above were on the basis of salary and pension as on 31.03.2006. During the intervening period after 01.04.2006, the Dearness Pay (DP) of 50% has been considered for the purpose of other allowances. Also the DA & TI have been increased from 21% (over basic pay & DP) as on 01.04.2006 to 47% as on 31.03.2008 apart from the increase on annual increment over a period of 2 years. Besides, the valuation has been done as per the requirements of AS-15 (Revised) for the FY 2007-08. Factors like discount rate, inflation rate and return on assets have also changed during the period.

### **R&M Expenses**

190. On expenditure under R&M head, OPTCL stated that these expenses proposed for different wings of OPTCL were needed to keep its line & sub-stations in proper working condition so as to maintain uninterrupted & quality power supply in the State. With this objective in view, it is intended to replace the old & obsolete equipments which have outlived their life span with new equipments featuring latest technology.
191. The procurement action for purchase of equipments like CB ,CT, PT, LA, Isolator , Relays, Station Battery sets with chargers , DG sets , Station Transformers, AC machines, shunt capacitors, testing equipment & the required stock of spares and the consumable items like transformer oil, control cable, gas cylinders , conductors, angles, GI flat & lighting consumables shall be taken up through tendering process after the R&M expenses for 2009-10 is approved by the commission. Further action has already been initiated for repair of defective power transformers which are to be utilized in equipping the 3<sup>rd</sup> bays proposed to be constructed in different grid S/S in FY 2009-10. Besides the above, working estimates for overhauling of CBs, renovation of earthing system, upgradation of line capacity in the proposed lines, AMC of existing energy metering system & other miscellaneous works are under preparation for execution during the proposed year.
192. Action has already been initiated for taking procurement action of new digital PLCC sets, CVTs with accessories, wave traps, battery chargers, digital carrier backup equipments & procurement of consumables like cables, spare cards, spare for chargers etc. through tendering process. Most of these items are likely to be received in 1<sup>st</sup> half of 2009-10. It has been projected to take up the AMC of different packages under ULDC project which includes some of the fixed expenditures like rent of leased line, royalty charges/ licensee fees payable to DOT for Wide-Band Communication system and insurance charges of the

ULDC equipment. Further, upgradation of capacity of CFE and MUX equipment installed under ULDC project shall also be taken up.

193. The Repair & maintenance expenditure for IT wing has been primarily projected for maintenance of existing LAN network, Power System & AMC for PC system in Head Qrs., Zonal IT centers and in field units. Besides the usage charges for VSAT installations proposed under ERP implementation in field units are to be borne which are of high value during 2009-10.
194. The expenses proposed are primarily for civil maintenance and repair of Head Qrs. Office & colony buildings, Grid S/S control room buildings and colony quarters in field units of OPTCL. The required working estimates to take up such civil works are to be processed in the beginning of the fiscal year basing on the need of maintenance requirement.

#### **Interest during Construction (IDC)**

195. On IDC, OPTCL replied that IDC of Rs.97.29 crore is calculated on Loan to be availed for new projects of Rs.498.07 crore (Total WIP of Rs.555.50 crore less deposit works of Rs.57.43 crore) for 2009-10. Further the contract wise/work wise calculation of IDC has not been depicted in TRF-2 as the interest will be added to Work-in-Progress (WIP) at the time of finalization of Accounts.

#### **Depreciation**

196. On depreciation, OPTCL stated that it was provided on straight-line method at the rates specified in schedule XIV to the Companies Act, 1956 in the Annual Accounts of OPTCL for FY 2006-07 and FY 2007-08. In TRF-23, Depreciation is calculated for the FY 2009-10 as per the CERC rates of depreciation on the Asset base as on 01.04.2009.
197. Depreciation as per the Companies Act, 1956 and as per CERC is different. Since the depreciation for FY 2008-09 & FY 2009-10 are projected on CERC norms, the depreciation figure is less although the same is higher as per the Companies Act, 1956. So there is no reduction of depreciation figure. It differs only due to CERC norms.

#### **List of S/Ss where SCADA is fully operational**

198. OPTCL states that out of 60 RTU stations, 55 nos. have been integrated and made operational. The balance sub-stations such as Paradip, Bolangir (old) and NALCO shall be integrated shortly after availability of work-front. The detailed list of operational and non-operational RTUs is filed with the Commission. Badjamda RTU has been deleted from the scope as the sub-station has been handed over to the Railways.

#### **Investment proposal**

199. In view of the in-ordinate delay being experienced by OPTCL in respect of identification/acquisition of suitable patch of land required for the proposed sub-stations,

it is not being possible to submit a comprehensive investment proposal with all the projects in one shape.

200. Although, all out efforts are being made by OPTCL for more than one year to have possession of the land in respect of all the up-coming sub-stations, it has so far been possible to have advance possession of the same for only one project i.e., Dabugaon.
201. Under the above circumstances, OPTCL is not in a position to submit the Investment Proposal in a comprehensive manner.

**Quantum of Inter-State, Intra-State Wheeling and sale to CGP**

202. On the actual quantum of inter-state, intra-state wheeling and sale to CGPs during FY 2007-08 & FY 2008-09 (April' 08 – November' 08) OPTCL submitted as shown in the table below:

**TABLE-14**

<b>Actual quantum of Inter-state, Intra-state wheeling and sale to CGPs</b>		
<b>Particulars</b>	<b>MU handled during FY 2007-08</b>	<b>MU handled during FY 2008-09 (up to November' 08)</b>
Intra-State Wheeling	495.27	261.93
Inter-State Wheeling	152.15	20.84
Sale to CGPs	87.45	140.53
<b>Total</b>	<b>734.87</b>	<b>423.30</b>

**VIEWS OF THE GOVT. OF ORISSA (Para 203 to 206)**

203. The representative of the State Govt. who participated during the public hearing on 04.02.2009 submitted that the Govt. in principle has decided to support the views of OPTCL in the matter of Annual Revenue Requirement and determination of the transmission tariff for FY 2009 –10. To the specific query of the Commission, whether Govt. supports the Transmission Charge of 56.74 paise/ KWh proposed by OPTCL for FY 2009-10, the Govt. representative submitted that the views of the Govt. would be filed before the Commission very soon on the matter.
204. The Govt. of Orissa, Department of Energy vide letter No.1793, dated 18.02.2009 as well as vide letter No.2329 dated 28.02.20090 informed the Commission that the State Govt. was considering the aspect of providing subsidy to the Power Sector for FY 2009-10 and the matter was being placed before the Cabinet for their consideration. The decision of the Govt. on the matter would be intimated shortly. Although the Govt. has not taken any

specific view on the hike of transmission tariff proposed by OPTCL for FY 2009-10, the Govt. has expressed its views in general that there should be no tariff hike in FY 2009-10.

205. In reply to the Commission's letter No.DIR (T)-216 / 07 Vol.II / 2807 dated 31.12.2008 whether the State Govt. would like to make capital investment for grid sub-stations and replacement of old transmission lines and transformers, the Govt. of Orissa, Department of Energy vide letter No.1793, dated 18.02.2009 informed that the matter was still under consideration of the Govt. The State Govt. has already taken in-principle decision to provide capital investment of Rs.100 crore to OPTCL in the form of share capital over a period of 3 years from 2008-09 for strengthening of 220/33 KV transmission lines and replacement in Grid Sub-stations in the inaccessible and un-remunerative areas. To start with the financial year 2009-10, a provision of Rs.5.00 crore has been proposed in the budget.
206. The Commission has taken the views of the Govt. of Orissa mentioned in Para 204 and 205 above in record and has decided to consider the issue of investment of Rs.5 crore in FY 2009-10 through Govt. budgetary support at appropriate time after the said amount is received in cash.

#### **OBSERVATION OF THE STATE ADVISORY COMMITTEE (SAC)**

##### **(Para 207 to 212)**

207. The State Advisory Committee (SAC) constituted under Section 87 of Electricity Act, 2003 met on 12, Feb 2009 to deliberate on the Annual revenue requirement and tariff application for the FY 2009-10 of utilities, namely OHPC, OPTCL, GRIDCO, SLDC, CESU, NESCO, SOUTHCO and WESCO.
208. The Director (Tariff) made a brief presentation on the ARR and tariff applications for FY 2009-10 of the above mentioned utilities. Members in general expressed their concern about the poor performance of the licensees particularly on distribution loss, poor consumer services and lack of investment etc.
209. Members opined that in spite of considerable capital investment and R&M expenditure, transmission loss had gone up from 3.6 % in reform days to 5% then coming down to 4.5% recently. They expressed surprise over the huge employee cost which is more than the revenue from existing transmission tariff. Interruption at EHT level has been rising. They ridiculed the proposal of OPTCL to purchase spare power transformers without putting them in charged condition. OERC was requested to complete the ring fencing of SLDC at one go. The SAC members further stated that increase in bulk supply tariff and huge increase in transmission tariff would make electricity so costly in Orissa that instead of increasing access to electricity it would have the effect of de-electrifying the State. They requested OERC to fix transmission loss at 3% and transmission tariff at 20 P/U

including SLDC charges. OPTCL claimed that due to increased line loading their transmission loss has increased.

210. The Railways stated that there have been frequent interruptions in the Railway traction and also there has been dislocation in movement of trains. The cause of interruption is not being addressed by OPTCL despite repeated reminders and personal approach. To this, OPTCL replied that there had been sudden upsurge in the number of trains in the tracks of certain sections resulting in substantial increase in drawal by the Railways. OPTCL assured the house that the problem of interruption would be sorted out by a joint meeting between OPTCL and Railway authorities.
211. Railways pressed their demand for availing open access for sourcing of their requirement of power from independent power producers if OPTCL does not provide un-interrupted power and if technically it is also convenient to them.
212. On the whole the SAC members stressed on reduction of loss and cost of supply to ultimate consumers and improvement in performance standard. They suggested for dual tariff for rural and urban areas and reduction of open access surcharge.

#### **COMMISSION'S OBSERVATIONS (Para 213 to 317)**

213. The Commission, for approval of ARR and determination of transmission tariff for OPTCL for the FY 2009-10 continues to follow the same principles as laid down in CERC Tariff Regulations, and guided by the provisions of the National Tariff Policy as well as other statutory notifications and directives, while giving due considerations to the complexities of the Orissa Power Sector.
214. Computation of transmission loss has been done based on the concept of "As the System Operates". Like all other components of ARR determination, transmission losses are also projected as part of the ARR approval process, and would need to be reassessed (truing up) after the availability of the audited accounts of the licensee for the past years. Accordingly, variations from the approved figures for the past years have to be trued up on the basis of data available from actual audited annual accounts of the licensee and after taking into account the target of performance parameters fixed by the Commission.
215. OPTCL has inherited from GRIDCO a considerable ageing transmission network. Continuous up-gradation and regular repairs and maintenance are required to keep the network in a safe and operational condition and to meet the growing requirements of DISCOMs' demand as well as to fulfil the Commission's and consumers' expectations on quality of supply, performance standards and availability of transmission network. As a result of this, the Commission has, over the past several years, been allowing a significantly higher amount for R&M expenses for encouraging the licensee to undertake regular and adequate maintenance. The same principle has been followed by the Commission for this ARR determination as well for FY 2009-10.

216. These principles forming the basis of this ARR determination exercise are dealt in greater details in the main text of this order under the relevant components of the ARR.

### **Computation of Transmission Loss**

217. The transmission system of OPTCL operates as an integral part of the Eastern Regional Grid to serve the internal demand of the State as well as to carry out import and export of power depending upon the system demand under the overall supervision of the Eastern Regional Load Dispatch Centre in accordance with the GRID CODE. Transmission loss, therefore, has been determined on the basis of 'As the System Operates'. During FY 2008-09 from April '08 to December '08, the total units lost in transmission were 672.28 MU.
218. Some of the objectors have pointed out that addition and upgradation of transmission assets during the last few years should have resulted in reduced level of transmission loss than what is being reported now. The Commission also takes into consideration the submission of OPTCL with regard to the existing level of transmission loss as indicated in this order. In fact, OPTCL had reported that the transmission loss in FY 2008-09 upto July '08 was 3.8 % and by end of December '08, it was 4.47%. This kind of loss variation is on account of the nature and quantum of power flow in the system.
219. The National Tariff Policy envisages that the loss compensation should be reasonable and should be linked to an applicable technical loss benchmark. It also states that the transactions should be charged on the basis of average losses arrived at after appropriately considering the distance and direction sensitivity, as applicable to relevant voltage level, on the transmission system. System strengthening as contemplated in the Transmission Planning of OPTCL system can be a factor in reducing the transmission loss.
220. During the public hearing, a query was made by the Director (Tariff) on the proposed Transmission Loss of 4.5% by OPTCL for 2009-10. OPTCL in its reply presented a loss figure of 4.5 % for first six months of 2008-09. OPTCL in its filing on load forecast for 2007-08 had taken 5% transmission loss for the initial year 2006-07 and had proposed a reduction of 0.2% in step every year. As per the said filing of OPTCL, the transmission loss for FY 2009-10 shall be about 4.2%. More over the transmission loss during 1<sup>st</sup> four months i.e. April to July, 2008 was found to be only 3.8 %. In view of the above, the transmission loss for FY 2009-10 should be in between 3.8% to 4.2%.
221. The allocation of loss to all the users of OPTCL's transmission system based on the total import and total export of first nine months i.e. from April to December, 2008 of 2008-09 as calculated by OPTCL is furnished in the Table-15 below:

**TABLE – 15**

<b>CALCULATION OF TRANSMISSION LOSS IN EHT SYSTEM FROM APRIL'08 TO DECEMBER'08</b>											
<b>SL NO.</b>	<b>Source of power Input:- (A)</b>	<b>APRIL'08</b>	<b>MAY'08</b>	<b>JUNE'08</b>	<b>JULY'08</b>	<b>AUG'08</b>	<b>SEP'08</b>	<b>OCT'08</b>	<b>NOV'08</b>	<b>DEC'08</b>	<b>TOTAL</b>
1	TOTAL HYDRO	435.35	331.43	426.87	666.30	703.34	658.96	588.52	475.32	339.69	4625.78
2	Total Thermal	547.64	514.42	519.44	463.30	386.58	465.58	557.11	492.32	594.89	4541.28
3	TOTAL CPP.	172.47	130.70	112.09	119.54	130.25	120.85	138.25	174.48	188.7	1287.33
4	Total From State	1155.46	976.55	1058.39	1249.15	1220.17	1245.39	1283.88	1142.12	1123.28	10454.40
5	TOTAL EREB	513.98	663.34	524.61	464.81	503.10	452.37	471.81	448.62	528.87	4571.52
6	<b>Total Import</b>	<b>1669.44</b>	<b>1639.90</b>	<b>1583.00</b>	<b>1713.96</b>	<b>1723.27</b>	<b>1697.76</b>	<b>1755.69</b>	<b>1590.74</b>	<b>1652.16</b>	<b>15025.92</b>
7	DISCOM (TOTAL)	1,541.76	1,531.66	1,477.79	1,599.35	1,575.29	1,534.18	1,618.74	1,493.42	1561.64	13933.83
8	ICCL	29.590	28.57	25.610	24.16	25.67	14.39	21.95	10.911	11.19	192.04
9	NALCO	18.950	20.58	28.380	27.34	23.15	47.61	28.77	15.05	17.95	227.77
10	<b>Total Export</b>	<b>1,590.30</b>	<b>1,580.81</b>	<b>1,531.78</b>	<b>1,650.85</b>	<b>1,624.11</b>	<b>1,596.18</b>	<b>1,669.45</b>	<b>1,519.38</b>	<b>1590.78</b>	<b>14353.64</b>
11	Tr. LOSS (MU)	79.14	59.09	51.22	63.11	99.16	101.58	86.24	71.36	61.38	672.28
12	Tr. LOSS (%)	4.74%	3.60%	3.24%	3.68%	5.75%	5.98%	4.91%	4.49%	3.71%	4.47%

222. The Commission observed that the transmission loss is dependent on system configuration and power flow requirements at different load centers. The Commission vide orders dated 14.03.2008 and 28.02.2009 formulated an innovative / dynamic Pricing Policy for Captive Generating Plants / Co-generation Plants to harness the bottled up power to the tune of 450 to 600 MW during FY 2009-10 from these distributed generating plants throughout the State which will cater to the power demand at various load centers and will reduce the system loss. It is hoped that with installation of high accuracy CTs & PTs in various grid s/s, an accurate level of loss can also be determined. Considering all these aspects the Commission accepts a figure of 4% for the FY 2009-10 as transmission loss for wheeling.

223. The Commission directs that OPTCL shall continuously monitor the operation of the transmission system, prevent over -loading wherever possible by load diversion and take up innovative measure for improving system loading of the existing network as no. of new lines are likely to be commissioned during FY 2009-10. Effective utilization of new lines and their impact on transmission loss need to be intimated to the Commission periodically and kept in the website of OPTCL for information of all stakeholders.

### **REVENUE REQUIREMENT OF OPTCL**

#### **Operation & Maintenance (O&M) Expenses**

224. The O&M expenses for OPTCL are considered under the following heads:

- Employees Cost
- A&G expenses
- Repair and Maintenance (R&M) Expenses.
- Less expenses capitalized.

#### **Employees Cost:**

225. OPTCL has estimated an amount of Rs.491.38 crore towards employees cost for the year 2009-10 which includes the share of SLDC. Major components of the expenses are given below:

**TABLE - 16**

**(Rs. in crore)**

Basic Pay	-	70.78
DA	-	28.09
HRA	-	14.10
Provision towards Arrear due to pay revision	-	147.86
Others	-	9.65
Terminal benefit	-	228.81
<b>Total</b>		<b>498.99</b>
Less Capitalisation	-	7.61
Net charged to ARR	-	491.38

226. Out of the above amount of Rs.491.38 crore, Rs.484.66 crore is allocated to OPTCL and balance Rs.6.72 crore is allocated to SLDC.
227. The Commission in its order on transmission tariff for the FY 2008-09 had approved the following expenses towards employees cost:



**TABLE – 17****(Rs. in crore)**

	<b>Proposed for 2008-09</b>	<b>Approved for 2008-09</b>	<b>Proposed for 2009-10</b>	<b>% rise over approved figure for FY 2008-09</b>
Gross amount	151.88	132.86	498.99	--
Less Capitalisation	7.61	7.61	7.61	--
Net Employees cost	144.27	125.25	491.38	292.32%

228. On scrutiny, it is observed that the abnormal rise in employees cost is on account of the following:
- Impact of expected increase in salary to the tune of 30% due to proposed revision in scale of pay as per 6<sup>th</sup> Pay Commission recommendations amounting to Rs.147.61 crore including arrear.
  - Provision of terminal liability to the tune of Rs.228.81 crore.
229. Regarding proposed implementation of award of 6<sup>th</sup> Pay Commission for OPTCL, the Commission feels that it would not be prudent to provide the arrear amount in FY 2009-10 at one go, as it would lead to a sizeable increase in ARR resulting in a cascading effect in the tariff. While Commission is of the opinion that employee should not be deprived of their genuine and legitimate claims at the same time direct OPTCL to submit a detailed calculation of enhanced salary to the Commission employee-wise for scrutiny. The Commission may decide thereafter to allow the arrear payment to the employees in a staggered manner over a period of few years.
230. For the present, Commission provisionally allows revision at the average rate of 30% on the pre-revised basic pay, DA, HRA for the FY 2009-10 without considering the payment towards arrear. The differential amount, if any, will be taken care of on the truing up exercise after the audited accounts are available to the Commission. With the above observations, the Commission examines the proposal of the licensee to determine the pre-revised employees cost for the FY 2009-10.
231. The expenditures for the FY 2007-08 filed by the licensee on the basis of the provisional accounts are given below:

**TABLE –18****(Rs. in crore)**

	As per Provisional Accounts for FY 2007-08
Basic Pay	47.90
DA	18.65
HRA	5.62
Others	5.95
Terminal benefit	104.03
<b>Total</b>	<b>182.15</b>
Less Capitalisation	1.19
<b>Net</b>	<b>180.96</b>

232. On the basis of provisional accounts for the FY 2007-08 submitted by OPTCL, the Commission allows escalation @ 3% of the basic pay towards normal annual increment on year to year basis. The determination of basic pay also depends on induction and reduction in number of employees every year. As submitted by OPTCL, the status on number of employees is given below:

**TABLE – 19**

	2007-08	2008-09	2009-10
Opening Strength	4312	4048	4035
Less reduction due to retirement	274	212	239
Add induction	10	199	384
Closing	4048	4035	4180
Average no. of employees	4180	4042	4107

233. The basic pay after factoring in average number of employee and taking into consideration the normal annual increment, the base figure is determined. As regards D.A., the rate of DA before the 6<sup>th</sup> Pay revision was 47%. The Commission calculates D.A. @47% over the basic pay + DP for the year 2009-10. In respect of expenditure such as medical reimbursement, house rent allowance, the principle adopted in the last year has been followed mutatis mutandis. Medical reimbursement has been allowed @ 5% of the basic pay. House rent has been allowed proportionately based on provisional figure for 2007-08.

**Terminal Benefits**

234. For the year 2009-10, OPTCL has estimated an amount of Rs.228.81 crore towards terminal benefit. OPTCL in its submission has stated that in FY 2008-09, the Commission had allowed deficit funding of a corpus fund of Rs.131.63 crore based on provisional actuarial valuation of Rs.702.65 crore upto 31.03.2008. Subsequently, the same actuary did the final actuarial valuation upto 31.03.2008 as per which the terminal liability worked out to Rs.843.02 crore. After adding nearly Rs.40 crore for 2008-09, the terminal liability as on 31.03.2009 comes to Rs.883.80 crore. Thus, differential amount of Rs.181.15 crore (Rs.883.80 crore – Rs.702.65 crore) is proposed to be recovered during 2009-10. Besides the above, the installment amount of the deficit funding of the corpus along with the carrying charge aggregating to Rs.47.61 crore allowed by the Commission for 2008-09 is added to the above amount of Rs.181.15 crore to arrive at the proposed figure of Rs.228.81 crore.
235. The Commission analyzed the proposal of OPTCL and observed that there was no uniformity of the data provided by OPTCL to the actuary to determine terminal liability as on 31.03.2008. The same actuary quoted different figures at different times to confuse the Commission. Although the actuarial valuation done as per the direction of the

Commission is a provisional one, the variation between actual and provisional figures should not be so large.

236. In view of the above, the Commission is not convinced with the report of valuation and directs for an independent valuation upto 31.03.2010 again for proper assessment, taking into consideration the impact of 6<sup>th</sup> Pay revision. After receiving the actuarial valuation report, the Commission would take necessary steps to fund the same.
237. The Commission in its last year's tariff order for FY 2008-09 determined the corpus valuation for each licensee as per the actuary. After adjusting the expected corpus availability as on 31.03.2008, the Commission approved the deficit funding to be amortized within a span of 3 years. In this connection, Table-26 of the transmission tariff order for FY 2008-09 is reproduced hereunder for better appreciation of facts.

**TABLE - 20**

**(Rs. in crore)**

<b>Name of the Company</b>	<b>Valuation as per Actuary</b>	<b>Expected corpus availability</b>	<b>Difference</b>
OPTCL	702.65	571.02	(-)131.63
WESCO	332.13	160.50	(-)171.63
NESCO	261.22	144.58	(-)116.64
SOUTHCO	259.91	146.38	(-)113.53
CESU	419.03	196.05	(-)222.98

In line with the tariff order of the Commission for FY 2008-09, the Commission allows the deficit funding to be amortized within 3 years beginning from FY 2008-09 with carrying charge @ 8.5%. For the year 2008-09 (upto December, 2008), the licensee paid Rs.22 crore to corpus. This amount is prorated for the whole year and the Commission allows Rs.29.30 crore as provisional terminal liability.

238. The calculation of terminal benefit approved for the FY 2009-10 is depicted in Table-21 below:

**TABLE – 21**

**(Rs. in crore)**

1.	Installment amount of deficit funding in corpus	43.88
2.	Carrying charges	3.73
3.	Cash outgo for 2008-09 (actuals upto December, 2008) prorated for the whole year	29.33
<b>4.</b>	<b>Total</b>	<b>76.94</b>

239. The statement of employees cost for FY 2009-10 proposed by OPTCL and approved by the Commission is depicted in Table-22 below:

**TABLE – 22**  
**Employees' Cost** **(Rs. Crore)**

Sl No.	Particulars	FY 08-09 (Appr.)	FY 09-10 (Prop.)	FY 09-10 (Appr.)	Assumption
1.	Salaries(Basic Pay+DP)	45.59	70.48	49.93	3% increase as per provisional account of 2006-07 with 50% merger of DA with basic pay as DP.
2.	Overtime		0.01	0.01	
3	Dearness Allowance	22.80	28.19	23.47	
4	Other Allowance	0.64	0.64	0.64	
5	Bonus and Overtime	0.51	0.50	0.50	
6	Sub Total (1 to 4)	69.54	99.82	74.04	
	<b>OTHER STAFF COST</b>				
7	Reimbursement of Medical Expenses	2.28	4.02	2.50	5% of the basic pay + DP
8	Leave Travel Concession	1.00	1.00	1.00	
9	Reimbursement of House Rent	7.29	14.10	6.20	Pro-rated
10	Interim Relief to Staff/ Premium under GIS	-	0.25	0.25	
11	Encashment of Earned Leave	-	-	-	
12	Honorarium	0.01	0.01	0.01	
13	Payment under Workmen compensation Act	0.10	0.05	0.05	
14	Ex-gratia	1.20	1.20	-	
15	Miscellaneous	-	0.79	0.30	
16	Sub Total (7 to 14)	14.64	21.50	10.31	
17	Staff Welfare Expenses	1.00	1.00	1.00	
18	Terminal Benefits	51.34	228.81	76.94	
19	Total (6+16+17+18)	132.86	351.13	162.29	
	Less :Capitalisation	7.61	7.61	7.61	
	Net Total	125.25	343.52	154.68	
	30% hike due to 6 <sup>th</sup> Pay Commission recommendation	-	147.86	23.88	
	<b>Total</b>	<b>125.25</b>	<b>491.38</b>	<b>178.56</b>	

Out of this, an amount of Rs.5.45 crore is allocated to SLDC specifically for SLDC operations and balance of Rs.173.11 crore is allocated to OPTCL under Transmission Cost for FY 2009-10.

### R&M Expenses

240. OPTCL has proposed an amount of Rs.123.74 crore towards repair and maintenance expenditure. The details of R&M expenditure are given below:

**TABLE - 23**

Details of R&M Expenses	Rs. in crore
R&M Expenses of O&M Wing	92.85
Telecom R&M including ULDC	19.15
Information Technology	9.74
Civil Works	2.00
<b>Total</b>	<b>123.74</b>

241. The proposed R&M expenses of Rs.123.74 crore includes an amount of Rs.1.00 crore of R&M cost proposed in ARR of SLDC.
242. OPTCL has proposed a sum of Rs.92.85 crore for the FY 2009-10 under Master Maintenance Plan (MMP) to augment the R&M works of transmission lines and substations in order to keep them in a proper working condition to maintain uninterrupted and quality power supply in the State, the details of which is shown in Table below:

**TABLE- 24**  
**R&M Expenses under MMP (O&M Wing)**

R & M EXPENDITURE PLAN			FOR FY 2009-10		
Sl. No.	Line/Equipment details	Unit Rate (Rs. Lakhs)	Item Category	Quantity	Total Cost (Rs. Crore)
1	Circuit Breaker (Nos.)				
	(a) 220kV	18.08		15	2.712
	(b) 132kV	7.98		69	5.506
	(c) 33kV	2.52		75	1.890
2	Station Battery (Sets)	16.73		8	1.338
3	Battery Charger (Nos.)	3.46		6	0.208
4	C.T. (Nos.)				
	(a) 220kV	4.3		40	1.720
	(b) 132kV	1.35		187	2.525
	(c) 33kV	0.31		211	0.654
5	P.T./C.V.T. (Nos.)				
	(a) 220kV	3.33		22	0.733
	(b) 132kV	1.37		56	0.767
	(c) 33kV	0.23		55	0.127

Sl. No.	Line/Equipment details	Unit Rate (Rs. Lakhs)	Item Category	Quantity	Total Cost (Rs. Crore)
6	L.A. (Nos.)				
	(a) 400kV	1.12		6	0.067
	(b) 220kV	0.57		46	0.262
	(c) 132kV	0.4		179	0.716
	(d) 33kV	0.01		230	0.023
7	Isolator Sets (Assorted)	LS			0.500
8	Relays (Assorted Variety in Nos.)	LS			1.000
9	Testing equipment (Different types in Nos.)	LS			0.200
10	Transformer Oil (kL)	0.52		400	2.080
11	Control cable.(Assorted in km.)	1		23.8	0.238
12	SF-6 Gas Cylinders (50 kg.) in Nos.	0.56		4	0.022
13	Overhauling of CB	LS			1.000
14	Illumination of Grid Substation.	LS			0.800
15	Spare for ERS system.	LS			0.000
16	AMC on Energy Metering System.	LS			0.550
17	Engagement of Security personnel	LS			3.500
18	Repair of defective Power Transformers(Assorted)	LS			12.000
19	Renovation of Earthing system of EHT lines & Grid S/s.	LS			0.100
20	Misc. expenses for O&M field divisions such as; painting of towers & transformers, Switch yard cleaning, transportation of Trmfs., Welding of tower members, AMC on A/c. machines, Gardening & Sanitary works etc.	LS			7.500
21	Minor Civil repair works related to Grid S/S & Associated colonies	LS			0.600

Sl. No.	Line/Equipment details	Unit Rate (Rs. Lakhs)	Item Category	Quantity	Total Cost (Rs. crore)
22	Energy meters & accessories/year.				
	a) Modules in nos.	0.91		150	1.365
	b) Racks in nos.	1.93		75	1.448
	c) Panels in nos.	0.99		38	0.376
	d) Modem in nos.	0.11		38	0.042
23	Augmentation of Lines (in km.)				
	a) 132kV Chandaka-Mancheswar DC line	12.92		110	14.212
	b) 132kV Chandaka-Nimapara SC line	12.921		37.22	4.809
	c)132kV Chandaka-Khurda SC line.	12.921		36.5	4.716
24	Reactive Power Compensation (Shunt Capacitor)(MVAR)	5		75	3.750
25	Insulator(In Nos)				
	a)90 KN LR	0.06		400	0.240
	b)90 KN Disc	0.005		5800	0.290
	c)120KN Disc	0.007		3300	0.231
	d)160KN Disc	0.007		350	0.025
	e) 90KN SRPC	0.005		30	0.002
	f)120 KN SRPC	0.007		40	0.003
	g)120KN LR	0.835		15	0.125
26	Conductor(In KM)				
	a)AAAC Panther	1.25		2.5	0.031
	b)ACSR Zebra	2.08		2	0.042
27	GI Earth Wire(7/3.15)(KM)	0.22		111	0.244
28	Vibration damper(In Nos)	0.006		16	0.001
29	GI Angle(In MT)				
	45x45x5mm	0.55		20	0.110
	50x50x6mm	0.55		20	0.110
	65x65x6mm	0.55		5	0.028
	75x75x6mm	0.55		10	0.055
30	AC Machine (In Nos)	0.190		10	0.019
31	Suspension H/W Fitting(In Nos)	0.035		0	0.000
32	Tension H/W Fitting(In Nos)	0.0300		60	0.018
33	GI flat(In MT)				
	50x6mm	0.60		3	0.018

Sl. No.	Line/Equipment details	Unit Rate (Rs. Lakhs)	Item Category	Quantity	Total Cost (Rs. crore)
34	D G Sets (5/10kVA)	0.30		5	0.015
35	Station Tfr (250/500KVA) in Nos.	3.73		2	0.075
36	5% Emergency Spare(Assorted)	LS			11.118
	<b>TOTAL</b>				<b>92.856</b>

243. The Commission observed that neither GRIDCO nor the transmission licensee, OPTCL, has taken any effective step to take up the required R&M works of Transmission lines and sub-stations by spending the money approved by the Commission. An analysis of the figures approved by Commission and actuals as per audited accounts is given in Table below.

**TABLE – 25**

(Rs. in crore)

Year	Approved R&M Expenses	Actual R&M Expenses
1999-00	19.84	9.51
2000-01	14.67	9.90
2001-02	15.99	8.81
2002-03	17.43	9.35
2003-04	13.35	7.03
2004-05	14.07	4.59
2005-06	14.80	6.94
2006-07	36.00	11.31
2007-08	47.00	16.30
2008-09	53.88`	14.87 (upto November, 2008)
2009-10		122.74 (proposed)

244. The Commission observed from the table that actual expenditure for each financial year is always less than the approved figure. OPTCL had stated that the low level of expenditure on R&M was due to fund constraints. After OPTCL became operational since 1.4.2005 there have been no fund constraint as it is getting paid its revenue fully by GRIDCO on demand on first charge basis. OPTCL has not taken any measure to spend higher amount on R&M approved by the Commission.
245. The transmission system of OPTCL is the life-line of the power system of Orissa. The Commission holds the view that the lines and sub-stations of OPTCL should be kept in proper conditions to ensure uninterrupted and quality power supply in the State. Unless

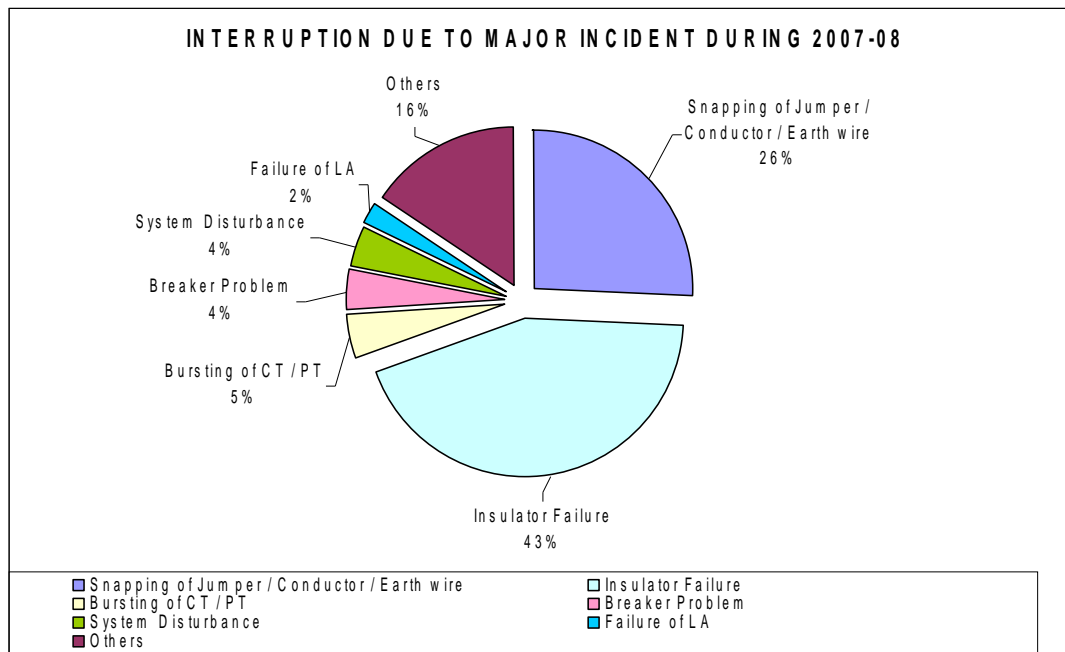


the transmission system is maintained properly, the DISCOMs who are the real beneficiaries would be put in trouble and the entire power system would be in complete jeopardy.

246. The Commission also desires that the operation and maintenance standards of OPTCL should be suitably brought at par with the lines and sub-stations being maintained by leading entities like the Power Grid Corporation of India.
247. The Commission while analyzing/reviewing the “Annual Statement of System Performance” for the year 2007-08 submitted by OPTCL observed that the extent/magnitude of low voltage, duration of interruptions on account of technical problems mostly due to snapping of jumper/conductor/earth-wire and insulator failure need serious introspection. A Table and pie chart with reference to the interruptions during 2007-08 is depicted as under:

**Table – 26**

Incident	Duration of Interruption During FY 2007-08	No. of Interruptions During FY 2007-08
Snapping of Jumper / Conductor / Earth wire	121:10:00	44
Insulator Failure	205:16:00	39
Bursting of CT / PT	21:25:00	15
Breaker Problem	19:29:00	13
System Disturbance	19:23:00	13
Failure of LA	10:38:00	7
Others	73:24:00	21



248. OPTCL gave a detailed presentation before the Commission on 07.07.2008 on the following items:
- Interruption in transmission system due to jumper snapping of overloaded lines.
  - Interruption in transmission system due to insulator failure in saline affected areas.
  - Low voltage profile and remedial measures.
  - O&M initiatives.
  - Routine maintenance of transmission lines and S/S. equipments.
  - Status of on-going projects,
  - Telecom initiatives.
  - IT intervention.
249. During presentation on 07.07.2008, OPTCL stated that some remedial measures such as conversion of conventional insulators to long rod & anti-fog zinc sleeve insulators have been taken up on priority basis to overcome the insulator failure. Also OPTCL has taken up some proposals such as up-gradation of lines and construction of new 220 kV S/Ss, double jumpering at tension points of overloaded lines to minimize interruption/breakdown and improve the voltage profile. As a part of O&M initiative in Master up-gradation Plan, OPTCL has already initiated action for phasing out old, outlived & obsolete equipments from the transmission system and to provide modern communication facility to its Grid S/Ss for a reliable/efficient mode of communication.
250. The Commission had directed OPTCL to prepare a definite implementation schedule for the proposed Master Up-gradation Plan and follow it scrupulously. Preventive maintenance should be carried out in a regular manner other than the breakdown maintenance. OPTCL should record and analyze each interruption in its system and initiate appropriate timely action to avoid its reoccurrences in future.
251. The Commission is concerned about the dismal performance of the licensee. There is a huge gap between estimation and execution. For last two years of operation of OPTCL i.e. 2007-08 & 2008-09, licensee could only spend Rs.31.17 crore (16.30 + 14.87) as against approved figure of Rs.100.88 crore (47.00 + 53.88), the unspent gap being Rs.69.71 crore.
252. In view of the above, the Commission allows Rs.47 crore towards R&M expenses for the year 2009-10. Further, the Commission allows Rs.1.00 crore towards R&M expenses separately relating to SLDC in the ARR of SLDC.
253. The Commission will continue to take up periodical reviews of Repair and Maintenance works of the licensee and engage an independent team of experts to monitor and report the progress of R&M works being undertaken. If OPTCL fails to build up the system as desired by the Commission, the expenditure now allowed shall be revised & the

transmission tariff may be suitably modified after the mid-year review apart from any other action that may be considered appropriate.

### Administration and General Expenses

254. Administration and General Expenses include property related expenses, communication, professional charges, conveyance and traveling, license fee and material related expenses. OPTCL has proposed Rs.39.84 crore for the FY 2009-10 out of which Rs.36.94 crore is allocated to OPTCL and Rs.2.90 crore to SLDC. The details of the A&G expenses as filed by the licensee are presented in the table below:

Table – 27

Sl. No.	Particulars	FY 07-08 (As per Provisional Accounts)	FY 08-09 (OERC Apprvl.)	FY 08-09 (Revised Estt.)	Projection for FY 09-10
1	Property related expenses	0.25		0.30	0.36
2	Communication	0.53		0.63	0.76
3	Professional Charges	1.22		1.70	2.23
4	Conveyance & Travelling	2.15		2.58	3.10
5	Other Expenses	22.54		24.70	28.54
6	Material related expenses	0.10		4.51	4.40
7	OERC License Fee	0.50		0.50	0.50
8	<b>Sub-Total (1 to 7)</b>	<b>27.29</b>	<b>16.57</b>	<b>34.92</b>	<b>39.89</b>
9	Less: Expenses capitalized	0.05		0.05	0.05
10	<b>Total A&amp;G Expenses</b>	<b>27.24</b>	<b>16.57</b>	<b>34.87</b>	<b>39.84</b>

255. The Commission during 2008-09 had approved an amount of Rs.16.57 crore towards A&G expenses. In line with the earlier orders, the Commission allows escalation of 5.5% over the approved figure for 2008-09. For the year 2009-10, Commission approves an amount of Rs.17.50 crore, out of which Rs.3.15 crore is allocated to SLDC. and balance Rs.14.35 crore is allocated to OPTCL. The amount allocated to SLDC shall be enough for meeting the A&G expenses and the investment for EASSC.

### Interest on Loan

256. OPTCL has proposed Rs.189.51 crore for the FY 2009-10 under this head. Loan-wise interest payment schedule is given in the table below:

**TABLE-28**

(Rs. in crore)

Sl. No	Particulars	Rate of Interest	Principal (C.B.) as on 31.03.09	Loan to be received during 09-10	Principal Repayment for 09-10	Interest Payment For 09-10	Total Payment For 09-10
1	State Govt.(Cash)	13.00%	2.00		0.12	0.26	0.38
2	St.Govt Loan( C R F )	-	15.00		-	-	0
3	Zero Coupon Bonds	13.00%	400		-	26.0	26
4	Central Govt	8.75%	11.26		-	1.01	1.01
5	IBRD Loan (Thr. GOO)	13.00%			20.00	-	20
	<b>Sub Total</b>		<b>428.26</b>		<b>20.12</b>	<b>27.27</b>	<b>47.39</b>
6	REC (Term Loan)	10.61%	0.00		0.00	-	0
	REC Loan (New)	10.90%	41.12		0.00	4.57	4.57
7	PFC ( F L )	11.25%	13.58		12.03	1.20	13.23
	<b>Sub Total</b>		<b>54.70</b>		<b>12.03</b>	<b>5.77</b>	<b>17.8</b>
8	OSEB Loan	11.50%	13.31		13.20	0.83	14.03
9	Bond PF/99 (P.Trust)	9.00%	60.00		0.00	4.66	4.66
	<b>Sub Total</b>		<b>73.31</b>		<b>13.20</b>	<b>5.49</b>	<b>18.69</b>
10	Union Bank of India- II	8.25%	41.55		14.29	2.89	17.18
11	HUDCO	13.75%	137.14		28.87	17.04	45.91
12	UCO Bank	11.25%	80.45		33.36	7.33	40.69
13	OBC	10.75%	145.23		28.57	14.20	42.77
	<b>Sub Total</b>		<b>404.37</b>		<b>105.09</b>	<b>41.46</b>	<b>146.55</b>
14	HDFC Ltd.- (Emp. Housing Loan)	12.00%	0.56		0.00	-	0
15	Loan for new Infrastructure from PFC/ REC	13.50%	163.07	448.26	0.00	82.53	82.53
16	Short Term Loans for New Projects from Banks	15.00%	18.12	49.81		10.19	10.19
17	Deposit From EHT Consumers		47.10		0.00	-	0
18	Finance Charge		0.00		0.00	16.80	16.80
	<b>TOTAL</b>		<b>1189.49</b>	<b>498.07</b>	<b>150.44</b>	<b>189.51</b>	<b>339.95</b>

257. It is observed from the above table that OPTCL proposes to avail new loan from PFC/REC amounting to Rs.611.33 crore (163.07+448.26) for new infrastructure projects. Besides above, Rs.49.81 crore of short-term loan is proposed to be availed for the new projects. On the above loan amount, OPTCL claimed Rs.92.72 crore towards interest to be passed on to the revenue requirement.
258. The Commission in its query asked OPTCL to submit the cash flow statement for the FY 2008-09 (upto December, 2008). As revealed from the cash flow statement, OPTCL has only availed Rs.41.12 crore from REC. Balance loan is yet to be received. Hence, the Commission does not allow the interest amount of Rs.92.72 crore on the new loans for the year 2009-10.
259. Except the loan amount stated in the above para, all the other loans are old loans inherited from the disaggregated balance-sheet of GRIDCO. The interest impact on Govt. loan is projected at Rs.27.27 crore. For existing project-related loan, OPTCL claimed interest of Rs.41.46 crore. Besides the above, OPTCL has assumed Rs.16.80 crore towards finance charges. Loan-wise analysis is done in subsequent para to determine the prudence of the loans availed by the Licensee.

#### **State Govt. Loan**

260. OPTCL reports that loan from State Govt. (Cash loan) stands at Rs.2.00 crore as on 31.03.2009. Since debt servicing of State Govt. loan has been kept in abeyance vide notification dtd.29.01.2003 of GoO, the Commission does not consider the interest impact on the above loan to be passed on to tariff.

#### **Central Govt. Loan**

261. As far as the remaining loan amount of Rs.11.26 crore of Central Govt. as on 31.03.2007 availed by the erstwhile OSEB for construction of transmission lines at an average rate of interest of 9.25% is concerned, OPTCL has not proposed any repayment for 2009-10. The Commission, therefore, allows interest of Rs.1.01 crore on a loan balance of Rs.11.26 crore to be passed on to tariff for the year 2009-10.

#### **GoO Bonds**

262. The amount of Rs.400.00 crore in the form of zero coupon bond issued to State Govt. by GRIDCO is now transferred to OPTCL. The Commission in its earlier tariff orders had decided not to take into account the effect of up-valuation of assets for the purpose of determination of tariff as it was not a real outgo of cash to the Govt. of Orissa. As such, no interest shall be allowed on the zero coupon bond for FY 2009-10.

#### **REC Loan (New)**

263. OPTCL availed new project related loan of Rs.30.53 crore and Rs.10.59 crore during the FY 2007-08 and 2008-09 respectively from REC at an average rate of 10.9%. As filed by

the licensee, Commission has given approval to the following projects at an approximate cost of Rs.431.94 crore as detailed in Table below:

**TABLE – 29**  
**Approval of Projects under TP & Construction wing of Rs. 431.94 crore.**

<b>SL NO</b>	<b>NAME OF THE PROJECT</b>	<b>APPROVAL FROM O.E.R.C.</b>
1	400 KV Meramundali – Duburi D.C. line	Case No. 01/2007
2	220/132 KV S/S at Bhadrak alongwith associated transmission line	Case No. 01/2007
3	132/33 KV S/S at Basta alongwith associated transmission line	Case No. 01/2007
4	132/33 KV S/S at Karanjia alongwith associated transmission line	Case No. 01/2007
5	132/33 KV S/S at Barapalli alongwith associated transmission line	Case No. 01/2007
6	132/33 KV S/S at Anandpur alongwith associated transmission line	Case No. 58/2007
7	132/33 KV S/S at Purushottampur alongwith associated transmission line	Case No. 04/2008
8	132 KV Paradeep - Jagatsinghpur S.C. line with feeder bay extension at both ends	Case No. 04/2008
9	132 KV Bidanasi - Cuttack D.C. line	Case No. 04/2008
10	132/33 KV S/S at Nuapada alongwith associated transmission line	Case No. 15/2008
11	132/33 KV S/S at Dabugaon alongwith associated transmission line	Case No. 15/2008
12	132/33 KV S/S at Chandpur alongwith associated transmission line	Case No. 15/2008
13	132/33 KV S/S at Padampur alongwith associated transmission line	Case No. 19/2008
14	132/33 KV S/S at Kuchinda alongwith associated transmission line	Case No. 19/2008
15	132/33 KV S/S at Bhawanipatna alongwith associated transmission line	Case No. 20/2008
16	132/33 KV S/S at Boudh alongwith associated transmission line	Case No. 20/2008
17	132/33 KV S/S at Banki alongwith associated transmission line	Case No. 24/2008
18	220/132 KV S/S & 132/33 KV S/S at Karadagadia alongwith associated transmission line	Case No. 31/2008
19	132/33 KV S/S at Kalunga alongwith associated transmission line	Case No. 74/2008 [Hearing held on 30.12.2008]
20	132/33 KV S/S at Barbil alongwith associated transmission line	Case No. 74/2008 [Hearing held on 30.12.2008]
21	220/33 KV S/S at Bonai alongwith associated transmission line	Case No. 74/2008 [Hearing held on 30.12.2008]
22	220 KV Bidanasi - Cuttack D.C. line	Case No. 74/2008 [Hearing held on 30.12.2008]
23	Restoration of 220 KV Budhipadar – Burla – Bolangir D.C line	Case No. 74/2008 [Hearing held on 30.12.2008]

To undertake the above projects, the loan availed by OPTCL to the tune of Rs.41.12 crore is accepted by the Commission. The interest of Rs.4.57 crore on the above loan is allowed by the Commission as a pass through in the revenue requirement.

#### **Power Finance Corporation (PFC)**

264. This is an old project related loan allocated to OPTCL at the time of segregation of assets and liability of GRIDCO. The Commission approves the same and allows interest @ 8.5% as per Govt. of Orissa notification dt.29.01.2003.

#### **Loan from Union Bank of India**

265. GRIDCO during 2004-05 availed a loan of Rs.100 crore to swap a portion of Bond IC/99 of NALCO, Bond 1/2002 of NALCO at an average rate of 8.25%. GRIDCO, after making repayment of Rs.1.20 crore during 2004-05, transferred the loan balance of Rs.98.80 crore to OPTCL. The loan balance as on 31.03.2009 stands at Rs.41.55 crore. OPTCL proposes to repay Rs.14.29 crore which shall leave a balance of Rs.27.26 crore by 31.03.2010.

In line with the principle followed in last year tariff order, the Commission allows interest impact of Rs.2.89 crore to be passed on to tariff for FY 2009-10.

#### **Loan from HUDCO**

266. GRIDCO had availed a loan of Rs.300 crore from HUDCO @ 7.75% (floating rate) to discharge the old loan from LIC, ICICI and a portion of Power Bond during 2003-04. At the time of transfer of liability, GRIDCO transferred an amount of Rs.252.53 crore. The loan balance after repayment stands at Rs.137.14 crore as on 31.03.2009. During 2009-10, OPTCL projected repayment of Rs.28.87 crore which shall leave a balance of Rs.108.27 crore as on 31.03.2010.

The Commission approves the interest amount of Rs.17.04 crore to be passed on tariff for FY 2009-10.

#### **Loan from UCo Bank**

267. GRIDCO had availed Rs.200 crore from UCo Bank at an average rate of 8.25% to swap IBRD loan at an average rate of 8.25%. This loan was subsequently transferred to OPTCL. The loan balance as on 31.03.2009 is projected at Rs.80.45 crore after taking cognizance of repayment. During 2009-10, OPTCL estimated an amount of Rs.33.36 crore towards repayment leaving a balance of Rs.47.09 crore as on 31.03.2009.

The Commission approves the same and allows an interest amount of Rs.7.33 crore as a pass through in the revenue requirement of FY 2009-10.

### **Loan from Oriental Bank of Commerce**

268. During 2005-06, GRIDCO had availed an amount of Rs.200.00 crore as loan from the Oriental Bank of Commerce to swap principal of IBRD loan along with interest. This loan was assigned to OPTCL at the time of transfer of liability. The loan balance as on 31.03.2009 stands at Rs.145.23 crore, after considering repayment. During 2009-10, OPTCL estimated an amount of Rs.28.57 crore towards repayment which shall leave a balance of Rs.116.66 crore as on 31.03.2010.

The Commission approves the same and allows the interest of Rs.14.20 crore as a pass through in the revenue requirement for FY 2009-10.

### **Open market loan**

269. GRIDCO had inherited a loan of Rs.24.03 crore from OSEB period at an average rate of interest of 11.5%. The same had been transferred to OPTCL. As on 31.03.2009, the loan balance stands at Rs.13.31 crore. OPTCL has projected repayment of Rs.13.20 crore during 2009-10 which shall leave a balance of Rs.0.11 crore by 31.03.2010.

The Commission in line with the last year's tariff order allows the interest of Rs.0.83 crore as a pass through in the revenue requirement for FY 2009-10.

### **Pension Trust Bond**

270. This has been extensively dealt in para 305 of last year's Transmission Tariff Order. In line with the order, the Commission allows the interest impact of Rs.4.66 crore for the year 2009-10 as a pass through in the revenue requirement.

### **Finance Charges**

271. For the FY 2009-10, OPTCL claimed an amount of Rs.16.80 crore towards finance charges. Finance charges include Guarantee charges, Stamp Duty, Service fee, Commitment charges, Audit(AG), Bank commission from collection from consumers, rebate to consumers, bank charges for demand draft etc.

The Commission in the last tariff order had allowed an amount of Rs.20.80 crore towards finance charges. In line with the earlier order, Commission allows Rs.16.80 crore towards finance charges to be passed on to revenue requirement for the FY 2009-10.

272. Based on the above factors, the total interest liability has been worked out at Rs.70.53 crore as summarized in the table below:



**TABLE - 30**

(Rs. in crore)

Sl. No.	Particulars	Rate of Interest	Principal (C.B.) as on 31.03.09	Loan to be received during 09-10	Principal Repayment for 09-10	Approved Interest Payment For 09-10
1	State Govt. (Cash)	13.00%	2.00		0.12	0.00
2	State Govt Loan (CRF)	-	15.00		-	0.00
3	Zero Coupon Bonds	13.00%	400		-	0.00
4	Central Govt	8.75%	11.26		-	1.01
5	IBRD Loan (Thr. GOO)	13.00%			20.00	0.00
	<b>Sub Total</b>		<b>428.26</b>		<b>20.12</b>	<b>1.01</b>
6	REC (Term Loan)	10.61%	0.00		0.00	0.00
	REC Loan (New)	10.90%	41.12		0.00	4.57
7	PFC ( F L )	11.25%	13.58		12.03	1.20
	<b>Sub Total</b>		<b>54.70</b>		<b>12.03</b>	<b>5.77</b>
8	OSEB Loan	11.50%	13.31		13.20	0.83
9	Bond PF/99 (P.Trust)	9.00%	60.00		0.00	4.66
	<b>Sub Total</b>		<b>73.31</b>		<b>13.20</b>	<b>5.49</b>
10	Union Bank of India- II	8.25%	41.55		14.29	2.89
11	HUDCO	13.75%	137.14		28.87	17.04
12	UCO Bank	11.25%	80.45		33.36	7.33
13	OBC	10.75%	145.23		28.57	14.20
	<b>Sub Total</b>		<b>404.37</b>		<b>105.09</b>	<b>41.46</b>
14	HDFC Ltd.- (Emp. Housing Loan)	12.00%	0.56		0.00	0.00
15	Loan for new Infrastructure from PFC/ REC	13.50%	163.07	448.26	0.00	0.00
16	Short Term Loans for New Projects from Banks	15.00%	18.12	49.81		0.00
17	Deposit From EHT Consumers		47.10		0.00	0.00
18	Finance Charges		0.00		0.00	16.80
	<b>TOTAL</b>		<b>1189.49</b>	<b>498.07</b>	<b>150.44</b>	<b>70.53</b>

**Depreciation**

273. OPTCL has claimed an amount of Rs.66.75 crore towards depreciation for the year 2009-10 following CERC norm. A detailed statement of fixed assets and block-wise computation of depreciation is given below:

**TABLE – 31**

<b>(Rs. in crore)</b>				
<b>Particulars</b>	<b>Depreciation Rate prescribed by CERC</b>	<b>Gross Block (01-04-08) (Provisional)</b>	<b>Gross Block (01-04-09) (Projected)</b>	<b>Depreciation for FY 2009-10</b>
Land and Rights	0	33.67	33.67	-
Buildings	1.80%	74.10	74.10	1.33
Plant and Machinery (Other Civil works)	1.80%	4.15	4.15	0.07
Plant and Machinery	2.57%	965.15	1168.62	30.03
Plant and Machinery (Lines, Cables & Network Assets)	2.57%	1,097.29	1353.04	34.77
Vehicles	18.00%	1.27	1.27	-
Furniture, Fixture	6.00%	1.88	1.88	0.11
Office Equipment	6.00%	5.94	7.02	0.42
<b>TOTAL</b>		<b>2183.45</b>	<b>2643.75</b>	<b>66.75</b>

274. It is revealed from the above table that Gross Fixed Asset as on 31.3.2009 would be at Rs.2643.75 crore as against the actual figure of Rs.2183.45 crore as on 31.3.2008. Thus, as per OPTCL projection there is an addition of asset of Rs.460.30 crore during 2008-09. In the balance sheet of OPTCL for the year 2007-08, work-in-progress of old projects was Rs.801.98 crore. Therefore, the addition of fixed assets of Rs.460.30 crore for the year 2008-09 appears to be reasonable and Commission approves the same.

**Upvaluation of Asset:**

275. The Deptt. of Energy Notification No.1068/E dated 29.01.03 envisages that “The effect of up-valuation of assets of OHPC and GRIDCO indicated in notification No.52010 dated 01.04.96 and No.5207 dt.01.04.1996 would be kept in abeyance from the financial year 2001-02 prospectively till 2005-2006 or the sector turns around, whichever is earlier to avoid re-determination of tariff for past years and also re-determination of asset of various DISCOMs. For this purpose, depreciation would be calculated at pre-92 norms notified by the GOI”. As such, depreciation shall be calculated for the assets at pre-1992 norms.

276. The Commission in its letter No.460 dtd.22.03.2005 had advised the State Govt. in terms of Section 86 of the Electricity Act, 2003 to keep in abeyance the up-valuation of assets

as well as moratorium on debt servicing to the state government for a period of another five years beyond FY 2005-06 i.e. till FY 2010-11 as the sector has not so far turned around. The Govt. was reminded on the matter vide Commission's letter No.1968 dt.16.12.2005 to accept its recommendations in order to avoid a tariff shock to the consumers. The projected additional liability on this account could have an adverse impact on the consumer tariff. In reply to Commission's letter No.DIR (T)-216/07 vol-II/2807 dated 31.12.2008, Govt. of Orissa, Department of Energy vide letter No.1704 dated 17.02.2009 have communicated as under :

*“In the matter of extension of the moratorium period and other dispensation stipulated in Energy Department Notification No.1068/R&R-I-2/2002 dt. 29.01.2003 upto 2011-12 it is stated that Finance Department has already concurred in the proposal of keeping in abeyance of up-valuation of assets of GRIDCO / OPTCL & OHPC and freezing of RoE to GRIDCO & OHPC from the year, 2006-07 to 2010-11. The matter is going to be placed before the State Cabinet for a decision after which the same will be communicated.”.*

277. Recently CERC has issued Tariff Regulation on Generation and Transmission for the period 2009-14 vide notification dt.20.01.2009. Chapter-3, clause-17(1) stipulates that value base for the purpose of depreciation shall be the capital cost of the assets admitted by the Commission. Further in Clause-17 (4), it has been mentioned that depreciation shall be calculated annually based on straight line method and at the rates specified in Appendix-III to these Regulations for asset of generation and transmission utilities. In view of the above, the Commission has approved calculation of depreciation based on historical cost of assets.
278. The Commission has extensively dealt with the valuation of assets and calculation of depreciation in Para 5.36.1 to 5.37.5 of tariff order dated 23.06.2003 and treated transmission asset base of undivided GRIDCO at Rs.514.32 crore as on 01.04.1996.
279. A Table showing gross fixed assets as on 01.04.96 and year-wise asset addition thereafter till 2008-09 is depicted below.

**TABLE – 32****(Rs. in crore)**

<b>Year</b>	<b>OPTCL</b>
GFA as on 1.4.1996	514.32
1996-97	49.46
1997-98	39.94
1998-99	62.50
1999-00	111.79
2000-01	134.10
2001-02	86.44
2002-03	132.17
2003-04	69.46
2004-05	71.72
2005-06	158.91
2006-07	144.23
2007-08	117.02
2008-09	460.30
Asset on 01.04.2009	2152.36

280. The Commission calculated depreciation on the approved asset base at Pre-92 rate. The classification of assets has been done proportionately based on the filing submitted by OPTCL. Accordingly the Commission approves an amount of Rs.66.07 crore towards depreciation for the FY 2009-10 as per the details shown in Table below:

**TABLE - 33****(Rs. crore)**

<b>Particulars</b>	<b>Pre-92 rate of depreciation as per GOI notification dated 31.01.92</b>	<b>Book Value of asset as on 01.04.1996</b>	<b>Book Value of asset as on 01.04.2009</b>	<b>Depreciation for the year 2009-10</b>
Land and Rights		8.07	35.07	0.00
Building	1.80%	13.09	73.04	1.31
Plant & Machinery (other civil works)	1.80%	-	4.32	0.08
Plant & Machinery	3.80%	-	951.40	36.15
Plant & Machinery (line, cables and network)	2.57%	492.71	1079.38	27.74
Vehicles	12.86%	0.02	1.33	0.17
Furniture, Fixture	4.55%	0.19	1.95	0.09
Office equipment	9.00%	0.25	5.86	0.53
<b>Grand Total</b>		<b>514.32</b>	<b>2152.36</b>	<b>66.07</b>

### **Advance against Depreciation:**

281. OPTCL has claimed an amount of Rs.52.19 crore towards advance against depreciation as per Regulation 56(ii) of CERC (Terms and Conditions of Tariff) Regulation, 2004. The amount claimed is limited to the difference between 1/10<sup>th</sup> of the loan amount and depreciation. The loan amount considered by OPTCL for calculation of advance against depreciation is Rs.1189.49 crore. 1/10<sup>th</sup> of the loan amount works out to Rs.118.94 crore. Setting aside the depreciation amount of Rs.66.75 crore claimed by OPTCL, balance Rs.52.19 crore is claimed towards advance against depreciation.
282. As per National Tariff Policy, the depreciation rates are to be notified by CERC. Under normal circumstances, these rates should ideally meet the debt service.
283. As regards depreciation and repayment of loan, the recent notification of CERC dt.20.01.2009 states the following:
- Chapter-3.17(1):** The value base for the purpose of depreciation shall be the capital cost admitted by the Commission.
- Chapter-3.17(2)** The salvage value of the asset shall be considered as 10% and depreciation shall be allowed upto a maximum of 90% of the capital cost of the asset.
- Chapter-3.17(4):** Depreciation shall be calculated annually based on Straight Line Method at rates specified in Appendix-III to these Regulations for the assets of generating station and transmission system.
- Chapter-3.17(31):** The repayment for the year of tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year.
284. However, in view of the directives and orders of the High Court of Orissa, the Commission is bound to compute depreciation, for the purpose of determination of ARR and tariff, on the basis of pre-'92 rates on the original book value of assets (i.e., after rolling back the effect of re-valuation of 1996 from the value of the assets). Depreciation computed on this basis falls short of the principal repayment obligations of the licensee which makes it necessary to allow advance against depreciation to ensure financial viability of the licensee and to ensure that the licensee meets its principal repayment obligations.
285. In the earlier years, as per the notification of the Govt. of India in 1994 specifying the rates of depreciation to be chargeable for various classes of assets in the electricity business, the rates of depreciation were adjusted so that investors were allowed to recover the cost of the asset (limited to 90%) over a relatively shorter period.
286. Even in case of depreciation rates notified in 1994 by the Govt. of India, it can be clearly demonstrated that for a particular asset financed by a 70:30 Debt Equity Ratio on a loan

with a tenor of say, 11.5% payable over a 12-year period, there is a shortfall in the coverage of debt servicing from the 10<sup>th</sup> year onwards.

**TABLE - 34**  
**Comparison of Principal Servicing obligations vis-a-vis Depreciation available**

Asset Value Capitalized = Rs. 10 crores	Financing on 70:30 D/E ratio	Loan component at 11.5% interest, repayable in equal monthly installments over a 12- year period	
YEAR	Annual Depreciation in Rs. crores (at Post-'94 Rates of 7.84%)	Annual Depreciation in Rs. crores (at Pre-'92 Rates of 3.80%)	Principal Component of EMI (in Rs. crores)
Year – 1	0.78	0.38	0.29
Year – 2	0.78	0.38	0.32
Year – 3	0.78	0.38	0.36
Year – 4	0.78	0.38	0.41
Year – 5	0.78	0.38	0.45
Year – 6	0.78	0.38	0.51
Year – 7	0.78	0.38	0.57
Year – 8	0.78	0.38	0.64
Year – 9	0.78	0.38	0.72
Year – 10	0.78	0.38	0.81
Year – 11	0.78	0.38	0.90
Year – 12	0.78	0.38	1.01

287. As seen from the preceding table, the shortfall in depreciation coverage to meet principal repayment obligation is even more acute when depreciation is on a pre-92 basis. In this case, the shortfall starts from the fourth year itself.
288. For a utility like that of OPTCL inheriting massive ageing transmission assets, it is very clear that depreciation would fall short of the principal servicing obligation, as is evident from the table in the preceding paragraph.
289. Based on the above, the Commission feels that it is necessary to allow depreciation in line with the CERC Tariff Regulation of 20.01.2009 so as to enable OPTCL to meet its

debt service obligations. This is more so because the new CERC tariff regulation has done away with the provision of Advance Against Depreciation.

290. The Commission, therefore, calculates depreciation in accordance with rates prescribed in Appendix-III of the CERC Tariff Regulations of 20.01.2009 as shown in table below and arrived at a figure of Rs.110.43 crore. In earlier paragraph, Commission had allowed Rs.66.07 crore towards depreciation based on Pre-92 rates. Balance amount of Rs.44.36 crore is allowed by the Commission as special appropriation for meeting debt obligations.

**TABLE - 35**

**(Rs. crore)**

<b>Particulars</b>	<b>Pre-92 rate of depreciation as per GOI notification dated 31.01.92</b>	<b>Book Value of asset as on 01.04.1996</b>	<b>Book Value of asset as on 01.04.2009</b>	<b>Depreciation for the year 2009-10</b>
Land and Rights		8.07	35.07	0.00
Building	3.34%	13.09	73.04	2.44
Plant & Machinery (other civil works)	3.34%	-	4.32	0.14
Plant & Machinery	5.28%	-	951.40	50.23
Plant & Machinery (line, cables and network)	5.28%	492.71	1079.38	56.99
Vehicles	9.50%	0.02	1.33	0.13
Furniture, Fixture	6.33%	0.19	1.95	0.12
Office equipment	6.33%	0.25	5.86	0.37
<b>Grand Total</b>		<b>514.32</b>	<b>2152.38</b>	<b>110.43</b>

### **Return on Equity**

291. OPTCL has claimed an amount of Rs.13.30 crore towards return on equity on a share capital of Rs.95.07 crore. OPTCL in its filing had stated that at the time of de-merger of GRIDCO effective from 01.04.2005, the equity share capital of OPTCL was Rs.60 crore leaving the balance equity share capital with GRIDCO. Further, the State Govt. has decided to provide equity support to licensee amounting to Rs.35.00 crore during financial year 2008-09 to partly finance transmission project being set up in remote areas.

292. As regards the amount of Rs.60 crore of share capital, the Commission vide para 335 and 336 of the Transmission Tariff Order 2008-09 dealt the issue in details. Extract of the para is reproduced below:

“OPTCL has claimed an amount of Rs.8.40 crore towards Return on Equity on its share capital of Rs.60 crore @ 14% per annum. In application, OPTCL has stated that at the time of vesting of the transmission & distribution business with GRIDCO by the State Govt. on 01.04.1996, the Equity Share Capital was Rs.327.00 crore. During the subsequent year’s upto FY 2004-05, there were additional infusions of equity capital of Rs.165.98 crore by the State Govt. raising the total equity of GRIDCO to Rs.492.98 crore. At the time of de-merger of GRIDCO effective from 01.04.2005, the equity share capital of OPTCL was stated at Rs.60 crore, leaving the balance equity share capital with GRIDCO. The equity share capital issued to Govt. of Orissa was both in consideration of cash & other than cash. Therefore, the licensee is entitled to ROE @14% on the equity share capital of Rs.60 crore. The commission in earlier orders referred to the GoO notification of 29.1.2003, wherein it has been stated that GRIDCO & OHPC shall not be entitled to any return in equity till the sector becomes viable or FY 2005-06 whichever is earlier. Further, in a partial modification earlier notification the Govt. of Orissa in its letter No.5302 dtd. 6.5.2003 stated as under :

*GRIDCO and OHPC shall not be entitled to any Return on Equity (ROE) except in respect of the new projects Commissioned after 01.04.2006 till the sector become viable or and of 2005-06 whichever is earlier”.*

The Commission would like to clarify that letters have been written to Govt. of Orissa to clarify the status of the letter dtd. 29.1.2003, as it has great impact on Tariff. In reply to Commission’s letter No.DIR (T)-216/07 vol-II/2807 dated 31.12.2008, Govt. of Orissa, Department of Energy vide letter No.1704 dated 17.02.2009 have communicated as under:

*“In the matter of extension of the moratorium period and other dispensation stipulated in Energy Department Notification No.1068/R&R-I-2/2002 dt. 29.01.2003 upto 2011-12 it is stated that Finance Department has already concurred in the proposal of keeping in abeyance of up-valuation of assets of GRIDCO / OPTCL & OHPC and freezing of RoE to GRIDCO & OHPC from the year, 2006-07 to 2010-11. The matter is going to be placed before the State Cabinet for a decision after which the same will be communicated.”.*

293. Regarding return on equity support of Rs.35 crore from the State Govt., Commission would decide as and when the same is received in cash by OPTCL from the State Govt. Keeping in view of the above fact, the Commission does not consider it proper to allow return on equity to OPTCL for 2009-10.



### **Contingency Reserve**

294. For the year 2009-10, OPTCL has proposed Rs.15.01 crore towards contribution to contingency reserve to be passed on to tariff. OPTCL has stated that requirement of contingency reserve in a natural calamity-prone state like Orissa need not be over emphasized. Investment towards contingency reserve relates to maintaining an emergency fund to meet expenses towards unforeseen calamities. Contingency reserve is being kept in a separate reserve fund and invested in specified securities. The Commission scrutinized the provisional account of OPTCL for 2007-08. From Schedule-2 of the Balance-sheet, it is found that OPTCL has invested Rs.83.77 crore in contingency reserve fund. Commission observes that OPTCL in its annual accounts has been showing the interest accrual at a constant figure of Rs.2.08 crore in 2005-06, 2006-07 and 2007-08 in spite of the fact that the amount of investment has increased from year to year. Expressing dissatisfaction regarding the investment of contingency fund, Commission directs the licensee to file the details of investments of the contingency reserve with the Commission by 30.4.2009.
295. The Commission, therefore, does not accept the claim of Rs.15.01 crore towards contingency reserve for the year 2009-10 and allows 10% rise over the audited figure of 2006-07 i.e. Rs.8.25 crore. Hence, the Commission approves an amount of Rs.9.08 core for the year 2009-10 under the head contingency reserve to be passed on to revenue requirement.

### **Provision for Bad & Doubtful Debt**

296. OPTCL claimed an amount of Rs.0.02 crore towards bad and doubtful debt during 2009-10. The Commission does not allow the same on the ground that OPTCL is getting 100% of its revenue through Escrow from the DISCOMs.

### **Grid Co-ordination Committee Expenses**

297. OPTCL claimed an amount of Rs.0.15 crore towards Grid Coordination Committee expenses for the year 2009-10. In line with last year's tariff order, Commission approves the same.

### **Interest on Working Capital:**

298. OPTCL has proposed an amount of Rs.26.39 crore towards interest on working capital as per CERC (Terms & Conditions of Tariff) Regulations, 2004. The Commission does not feel it justified to allow the same in the revenue requirement, since the Transmission Charge is the first charge being recovered from BSP bill of DISCOMs. Moreover rebate allowed by OPTCL has been considered as a part of revenue requirement for 2009-10.

### Pass Through Expenses

299. OPTCL for the FY 2009-10 claimed an amount of Rs.51.41 crore under this head as a pass through in Revenue requirement. Details of the Pass through Expenses are given below:

**TABLE-36**

1.	Differential loss amount not allowed by the Commission	Rs.9.06 crore
2.	Interest paid to PFC on re-schedulement of loan	Rs.18.98 crore
3.	Interest disallowed by Commission in the tariff order for 2007-08	Rs.23.37 crore
	<b>Total:</b>	<b>Rs.51.41</b>

300. OPTCL has claimed that Commission had allowed Rs.24.95 crore of accumulated loss upto 31.03.2006 as a pass through in the revenue requirement for 2008-09. The accumulated loss as on 31.03.2008 based on the provisional account is Rs.34.01 crore. Hence, OPTCL claimed the differential amount of Rs.9.06 crore (34.01 – 24.95) to be allowed as a pass through in the revenue requirement.
301. In compliance to Commission's query, OPTCL has submitted the cash flow statement for the year 2007-08. It is observed from the cash flow statement that OPTCL at the year end posted positive cash balance of Rs.31.77 crore after meeting all the obligations. Hence, Commission does not allow pass through of the past loss of Rs.9.06 crore in the revenue requirement. However, this will be reviewed after receipt of the audited accounts for the year 2007-08.
302. As stated by OPTCL, the licensee has paid Rs.18.98 crore extra towards interest to PFC for re-schedulement of loan during 2008-09 and claimed as a pass through in the revenue requirement for the year 2009-10. Commission will consider this issue after receipt of the audited accounts of OPTCL for 2007-08 and 2008-09. For the present, Commission is not allowing the same.
303. Regarding Rs.23.37 crore of interest liability proposed by OPTCL the Commission would like to point out that for the year 2007-08 the computation of the approved interest was based on certain principles which have been narrated in Para 5.4.4.1 to 5.4.4.21 of Commission's Transmission Tariff order dated 22.03.2007 in Case No.56 of 2006. There is no justification to reconsider the above decision of the Commission again for passing the extra burden of interest.

### Miscellaneous Receipts

304. OPTCL has proposed Rs.0.50 crore from inter-state wheeling of 30 MU during FY 2009-10. OPTCL has stated that as per Western Regional Power Committee Regional Energy Account on ABT, it is observed that a total of 13.40 MU of ER-NTPC scheduled energy is wheeled through Orissa system during first six months of 2008-09. Considering the present trend of wheeling during the first six months of 2008-09, OPTCL estimates inter-state wheeling at 30 MU maximum during FY 2009-10 and will earn miscellaneous revenue of Rs.0.50 crore during the year.
305. The Commission examined the filing submitted by OPTCL. In TRF-5, OPTCL during 2009-10 projected an amount of Rs.30 crore from other general receipts over and above Rs.0.50 crore. Moreover in the cash flow statement of 2008-09 (upto December) OPTCL reveals that it has already collected Rs.20.81 crore from supervision charges alone.
306. Hence Commission deducts Rs.30.50 crore from the revenue requirement of OPTCL to arrive at the net annual revenue requirement for 2009-10.

### Rebate

307. Rebate of 2% on Annual Revenue Requirement amounting to Rs.21.86 crore is claimed by OPTCL as a part of revenue requirement. In line with the last year's order, Commission does not allow the same separately as the licensee claimed rebate under the head finance charges. However, Commission will allow the rebate as per actuals after the receipt of the audited accounts.

### Transmission Cost

308. The total energy to be transmitted in the OPTCL system is estimated at 19231 MU the details of which are presented in the Table below:

**TABLE – 37**

<b>Transmission Details</b>	<b>Proposed MU by OPTCL</b>	<b>Approved MU by OERC</b>
Sale to DISCOMs	18726.15	18921
Wheeling to industries from CGPs	300	300
Sale to CGPs by GRIDCO	10	10
<b>Total</b>	<b>19036.15</b>	<b>19231</b>

309. The details of expenses proposed by OPTCL and approved by the Commission for FY 2009-10 towards transmission charges are depicted in the Table below:

TABLE – 38

(Rs. in crore)

ITEMS	Proposal for 2009-10			Approval for 2009-10		
	Charged to OPTCL	Charged To SLDC	Total	Charged to OPTCL	Charged to SLDC	Total
<b>(a) FIXED COST</b>						
O&M Expenses						
Employees Cost including Terminal Benefits and Compensation for personnel of Load Dispatch Centre (LDC)	484.66	6.72	491.38	173.11	5.45	178.56
R&M Cost	122.74	1.00	123.74	47.00	1.00	48.00
A&G Cost	36.94	2.90	39.84	14.35	1.15	15.50
Interest on Loan Capital	189.51	0.00	189.51	70.53	0.00	70.53
Depreciation	66.69	0.06	66.75	66.07	0.06	66.13
Advance Against Depreciation (Repayment obligation)	52.19		52.19	44.36	0.00	44.36
Return on Equity	13.30		13.30	0.00	0.00	0.00
Interest on Working Capital	26.39	0.00	26.39	0.00	0.00	0.00
Provision of Reinvestment for infrastructure development for EBC		2.00	2.00	0.00	2.00	2.00
<b>Sub-Total (a)</b>	<b>992.42</b>	<b>12.69</b>	<b>1005.10</b>	<b>415.42</b>	<b>9.66</b>	<b>425.08</b>
<b>b) Pass Through Expenses</b>	51.41	0.00	51.41	0.00	0.00	0.00
<b>Total Trans. Cost (a+b)</b>	<b>1043.83</b>	<b>12.69</b>	<b>1056.51</b>	<b>415.42</b>	<b>9.66</b>	<b>425.08</b>
<b>c) Additional Expenses</b>						
Contingency Reserve	15.01	0.00	15.01	9.08	0.00	9.08
Bad & doubtful debt Debts	0.02	0.00	0.02	0.00	0.00	0.00
GCC Expense	0.15	0.00	0.15	0.15	0.00	0.15
<b>Sub-Total (c)</b>	<b>15.18</b>	<b>0.00</b>	<b>15.18</b>	<b>9.23</b>	<b>0.00</b>	<b>9.23</b>
<b>d) Total Annual Revenue Requirement (a+b+c)</b>	<b>1059.01</b>	<b>12.69</b>	<b>1071.69</b>	<b>424.65</b>	<b>9.66</b>	<b>434.31</b>
<b>e) Less Misc. Receipts</b>	<b>0.50</b>	<b>0.00</b>	<b>0.50</b>	<b>30.50</b>	<b>0.00</b>	<b>30.50</b>
<b>f) Annual Revenue Requirement to be recovered from LTOAC (i.e. DISCOM and CPP) (d-e)</b>	<b>1058.51</b>	<b>12.69</b>	<b>1071.19</b>	<b>394.15</b>	<b>9.66</b>	<b>403.81</b>
<b>g) Rebate 2% Annual Revenue Requirement</b>	<b>21.60</b>	<b>0.00</b>	<b>21.60</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>h) Net Annual Revenue Requirement (f+g)</b>	<b>1080.11</b>	<b>12.69</b>	<b>1092.80</b>	<b>394.15</b>	<b>9.66</b>	<b>403.81</b>

### Transmission Charges

310. Accordingly, Transmission Charges are worked out at 20.50 paise per unit which shall be applicable for transmission of power at 220 KV/132KV over OPTCL's EHT transmission

lines and sub-stations and shall be payable by the DISCOMs and CGPs. It will also be applicable for the purpose of transmission of energy from a CGP to its industries located at a separate place(s) within the State.

311. OPTCL had proposed the STOA charges at par with that of LTOA charges in its ARR Application for FY 2009-10. The Commission examined the same and proceeded to determine LTOA and STOA charges as mentioned above in conformity with the existing Open Access Regulations. The Commission has notified the Intra-state Open Access Regulations, 2005 under Sections 39, 40, 42, 86 & 181 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 estimated energy for transmission in OPTCL's system is 19,231 MU with an average demand of 2195 MW. The net transmission cost as indicated in the table above (Table – 38 ) is Rs.394.15 crore. This works out to a sum of Rs.4919/MW/day. The Long Term Open Access (LTOA) customers availing Open Access under relevant Regulations of OERC shall pay Rs.4919/MW/Day towards transmission charges. In accordance with OERC Regulation, the Short Term Open Access (STOA) customers shall pay at the rate of 25% of the LTOA charges. Accordingly, the Commission approves a rate of Rs.4919/MW/day and Rs.1230/MW/day as LTOA and STOA charges respectively for FY 2009-10. This will be in addition to other charges in accordance with Open Access Regulation.

#### **Transmission Loss for Wheeling**

312. OPTCL had proposed that out of the energy supplied to transmission licensee, 4.5% shall be deducted towards transmission loss and balance is liable to be delivered at delivery point at 220/132 kV. The Commission approves transmission loss for wheeling at 4% for the FY 2009-10.

#### **Special Provision for Harnessing CGP's / Co-generating Surplus Power**

- 313 The State is likely to face power deficit on account of growing demand arising out of industrialization and massive rural electrification work being undertaken. Hence, there is urgent necessity to fully utilise the existing capacity of different Captive Generating Plants/Co-generating Plants to ensure uninterrupted power supply to the consumers of the State. In this connection the Commission have already decided an implementation plan in their Order dtd. 28.02.2009 in Case No. 6 to 20 of 2009. The GRIDCO, OPTCL, SLDC and the Distribution Companies must take expeditious action in terms of the action plan pertaining to them. The extract of the order dtd. 28.02.2009 of the Commission in the aforementioned Case vide para-16 and 17 is reproduced below for ready reference and compliance by all concerned.

*“16. After going through the records and submission made by GRIDCO and the representative of CGPs and keeping in view the current difficult situation now being faced by the State as well as the recession being experienced by manufacturers and the economy, the Commission considers it fit and appropriate at this stage to pass an interim*

*order to enable harnessing of the available idle/bottled up capacity of CGPs at a reasonable price and keep the principal producing units in a sustainable mode while at the same time not burdening the users of electricity who are also hit badly by the recession. While the CCPPO expects the price prevailing in the Indian power exchange and the price available through UI mechanism, it cannot be such as to burden all consumers with an unsustainable loading through higher price. Considering all aspects in totality and adopting the principle of “harmonious balance” the Commission hereby directs as under :-*

- i) Keeping in view the number of CGPs in the State and their large variations in size/capacity and usage of fuel it is difficult for both CGPs and GRIDCO to adopt the competitive bidding route. The verification of costs and determination of prices, given the manner in which costs are allocated as between the main product and captive power generated, is going to be a cumbersome and long drawn affair. Considering the incongruent nature of different CGPs and Co-generating plants, the Commission examined and decided to adopt a simple approach and mechanism by which GRIDCO can procure power from CGPs in and around a reference point of the highest generation cost, currently being procured by GRIDCO.*
- ii) Because of the nature of generation by a CGP and captive generators with surplus power are at liberty of selling power, even for a short duration in the Power Exchange, it is not necessary in the interim to have a dividing line between short-term and long-term power. Power that can be scheduled on a day ahead basis can be absorbed in the system and can be programmed for full procurement by GRIDCO. CGPs/Co-generating plants who are capable of giving day ahead schedule should be, for the time being, treated as suppliers of firm power. Power injected by the CGPs/Co-generating plants without giving day ahead schedule would be treated as injectors of inadvertent power.*
- iii) For supply of power by the CGPs/Co-generating plants to GRIDCO for sale to DISTCOs meant for consumption by the consumers in the State, the procurement price of firm power from the CGPs as indicated at (ii) above will be Rs.3.00/KWh with effect from 01.3.2009. However, to encourage co-generation as is mandated under the Electricity Act, 2003 the power generated by co-gen. plants e.g. sponge-iron plants such as NINL, Arati Steel, Tata Sponge, etc. may be given an incentive and shall be paid @ Rs.3.10 per/KWh with effect from 01.3.2009. The procurement price of Rs.3.00/KWh for all power meant for sale to Discoms is considered just and reasonable keeping in view the current cost of Rs.2.76/KWh of the highest cost of generation from a TPS in the Eastern Region. A premium of about 10% (ten percent) on this price is considered appropriate as a stimulous to the harnessing of bottled up capacity with the CGPs.*
- iv) In order to encourage the CGP/Co-generating plants to fully utilize their bottled up capacity for generation of captive power/Co-generation power and to enable GRIDCO to access power from different sources including CGPs/Co-generating plants for meeting the demands in the State and making available a good quantum of power for trading, GRIDCO should offer a remunerative price to the CGPs in respect of power used for trading. Keeping in view the prevailing rate in the power exchanges, UI rate and price quoted in the bidding it would be just and*

*equitable for GRIDCO and the CGPs and Co-generating plants to have an indicative rate of Rs.3.50 per KWh for procuring surplus power meant for trading. This is merely an indicative price suggested by the Commission. However, individual CGPs/Co-generating plant and GRIDCO, if they so like, may enter into further negotiation for an agreed price above this indicative rate. However, the procurement price by GRIDCO from the Captive Generating Plants/Co-generating plants for the purpose of trading should not unduly vary from the indicative price of Rs.3.50 per KWh now being suggested by us as an interim measure. This is necessary for the benefit of the consumers of the State because the profit earned by GRIDCO from the trading will be taken as 'other receipt' to meet its revenue requirement and bridge the gap in the ARR. After bridging of the gap in the ARR, the balance of surplus gained on account of trading of CGPs/Co-generation power may be shared with the CGPs/Co-generation plants at the year end.*

- v) *In respect of injection of inadvertent power the payment would be equal to the pooled cost of hydro power of the State during 2008-09 and 2009-10 as the case may be depending on the period of supply.*
- vi) *The rate of power indicated in (iii), (iv) and (v) will also be applicable with effect from 01.3.2009 to those CGPs/Co-generating plants having subsisting contracts/agreements with GRIDCO. This will be without any prejudice to the outcome of any dispute/arbitration pending in any court of law or any authority and will have no retrospective effect whatsoever.*
- vii) *GRIDCO will devise a mechanism to decide on the quantum of energy to be procured for the Discoms and the quantum to be traded at the higher price of procurement. A transparent and simple accounting method must be maintained to obviate any dispute with CGPs/Co-generation plants. The accounts must also clearly show how the gap in the GRIDCO's ARR is being bridged and how the remaining surplus is being shared with the CGPs/Co-generation plants to the extent of power traded. The Commission hastens to state that they do not wish to prescribe a price at which the quantum being traded should be procured. We are only indicating a price around which procurement may be done for trading.*
- viii) *It will take some time for the CGPs for establishment of SCADA and PLCC, wherever not yet done. OPTCL as on date have not implemented installation of SCADA in many grid substations. As recently stated in the tariff hearing in case No.63/2008, OPTCL has already taken initiative for expansion of ULDC scheme for broadband connectivity. In view of the above and considering the present situation of power availability in the State the Commission directs that the provision of installation of SCADA and PLCC shall not be insisted upon for the CGPs before procuring their surplus power in the State grid as this is an emergent step taken by the Commission in an extremely difficult situation through which the state is passing through. However, the alternative mode of communication for the connectivity with the nearest SCADA interface point of the licensee i.e. telephone, fax, carrier communication, broadband communication, internet/other developed mode of communication should be established by the CGPs within three months from the date of synchronization with the grid.*

ix) *The CGPs/Co-generating plants may be paid as per the rates indicated in (iii), (iv), (v) and (vi) in the proportion of CGP/Co-generation power consumed inside the state and traded outside the state as certified by the Chief Load Despatcher of SLDC in each month.*

17. *The Commission further reiterates that this is a common interim order and the arrangement suggested in Para 16 is an interim implementation plan and would be operative from 01.3.2009. After 30.6.2009 the Commission would review this arrangement as envisaged in Para 12.28 of the CGP pricing policy announced by the Commission in their order dated 14.3.2008.”*

### **Transmission Charge Payment Mechanism**

314. As per clause 11 of the Orissa Electricity Reforms (Transfer of Transmission and Related Activities) Scheme, 2005, the transmission charge of OPTCL shall be duly secured by a first charge over the receivables of GRIDCO from DISCOMs and other Open Access Customers in favour of OPTCL. Receivables of DISCOMs are escrowed in favour of GRIDCO. As on today there is no escrow arrangement between DISCOMs and OPTCL. According to the Transfer Scheme, the charge of OPTCL shall be duly secured by a first charge over the receivable of GRIDCO in favour of OPTCL. DISCOMs are customers of OPTCL. OPTCL will bill the Distribution Companies for the use of transmission services on the basis of meter reading at the delivery point to DISCOMs with a copy to GRIDCO. This bill will be paid by GRIDCO to OPTCL from the receivables of DISCOMs escrowed with them.

### **Rebate**

315. For payment of bills through a letter of credit on presentation/upfront by cash within two working days, a rebate of 2% shall be allowed. If the payments are made by a mode other than through a letter of credit but within a period of one month of presentation of bills by the Distribution Licensee, a rebate of 1% shall be allowed.

### **Late Payment Surcharge**

316. In case payment of bills by the licensees is delayed beyond a period of 1 month from the date of billing, a late payment surcharge at the rate of 1.25% per month shall be levied by OPTCL.

317. The transmission tariff in respect of OPTCL will become effective from 1<sup>st</sup> April, 2009 and shall continue until further order.

The application of OPTCL in Case No.63 of 2008 is disposed off accordingly.

**Sd/-**  
**(K.C. BADU)**  
**MEMBER**

**Sd/-**  
**(B.K. DAS)**  
**CHAIRPERSON**