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

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

Case No.145 of 2009

Date of Hearing : 10.02.2010

Date of Order : 20.03.2010

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 2010-11.

O R D E R

M/s. Orissa Power Transmission Corporation Limited, Bhubaneswar (for short OPTCL), a Govt. Company registered on 29th March, 2004 under the Companies Act, 1956, is carrying on the business of transmission of electricity within the State of Odisha. It had commenced the business on 31st 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 3rd 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. 27th October 2006.

The OPTCL submitted an application in respect of its Annual Revenue Requirement (ARR) and determination of its Transmission Tariff for the FY 2010-11. The said application was duly scrutinised, registered as Case No.145/2009 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 8)

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^{th} November in the prescribed formats. OPTCL as a deemed licensee submitted its ARR application for 2010-11 before the Commission on 27.11.2009. 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 Odisha 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 10 nos. of objections/suggestions from the following persons/ associations/ institutions/ organisations.

   (1) Sambalpur District Consumers Federation, Balajee Mandir Bhawan, Khetrajpur, Sambalpur (2) Indian Metals & Ferro Alloys Limited, Bomikhal, PO-Rasulgarh, Bhubaneswar (3)Confederation of Indian Industry, 8, Forest Park, Bhubaneswar (4) Ferro Alloys Corporation Limited, GD-2/10, Chandrasekharpur, Bhubaneswar (5)R.P. Mahapatra, Plot No.775 (PT), Lane-3, Jayadev Vihar, Bhubaneswar (6) Utkal Chamber of Commerce & Industry, N/6, IRC Village, Nayapalli, Bhubaneswar (7) Shri Ramesh Ch. Satpathy, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar (8) NESCO, Corporate Office, Januganj, Balasore (9) SOUTHCO,Corporate Office, Courtpeta, Berhampur (10) WESCO,Corporate Office, Burla, Sambalpur

   All the above named objectors were present during tariff hearing except the objector No.2, but its written submission which was filed before the Commission is taken into record for the consideration of the Commission.

4. The applicant submitted its reply to issues raised by the various objectors

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 to Dr. S. Meher, Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar as Consumer Counsel for objective analysis of the licensee's Annual Revenue Requirement and tariff proposal. The Consumer Counsel presented his views in the hearing.

6. The date for hearing was fixed as 10.02.2010 and it was duly notified in the leading newspapers mentioning the list of the objectors. The Commission also issued notice to the Government of Odisha through Department of Energy informing them about the date time of hearing and requesting to send the Government's authorized representative to take part in the proceeding.

7. In its consultative process, the Commission conducted a public hearing at its premises on 10.02.2010 and heard the Applicant, Objectors, Consumer Counsel and the Representative of the Dept. of Energy, Government of Odisha at length.

8. The Commission convened the State Advisory Committee (SAC) meeting on 18.02.2018 at 3:30PM at its premises to discuss about the ARR applications and tariff

proposals of licensees. The Members of SAC, Special Invitees, the Representative of DoE, Govt. of Odisha actively participated in the discussion and offered their valuable suggestions and views on the matter for consideration of the Commission.

OPTCL's ARR & TARIFF PROPOSAL FOR FY 2010-11 (Para 9 to 48)

9. 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.The details of lines & Sub stations owned by OPTCL are given in the table below.

Table - 1

Lines & S/S as on 01.04.09 in Ckt. Km. & No.	Submitted in ARR filing
400 kV line (Ckt. Km.)	446.103
132 kV line (Ckt. Km.)	5007.915
220/132/33 kV S/S (No.)	20
132/33/11 kV S/S (No.)	57
132 kV Switching Stations	13

10. As per Clause 10 of the Transfer Scheme, OPTCL is a deemed Transmission Licensee under Section 14 of the Electricity Act 2003 for undertaking the business to transmit electricity in the State of Odisha. OPTCL has also been notified as the State Transmission Utility and accordingly, shall discharge the State Load dispatch functions till further Orders of the State Government from the date of the Transfer. But as per Commission's directive, the application for ARR & SLDC charges for SLDC function is to be filed separately.

11. As provided under Regulation 53 (1) at Chapter VIII of OERC (Conduct of Business) Regulations, 2004 and under Clause 19.3 of License Conditions of OPTCL approved by OERC vide Order Dated 27.10.2006 in Case No. 22 of 2006, OPTCL is required to submit its Annual Revenue Requirement Application for the ensuing year before Commission for approval. Accordingly, OPTCL has filed an application on 27.11.2009 before the Commission for approval of its Annual Revenue Requirement & Transmission Tariff excluding SLDC function for FY 2010-11.

Categorization of Open Access Customers:

12. All the customers seeking open access to OPTCL Transmission System are classified under two categories:

(a) Long Term Open Access Customers (LTOA Customers)

A Long Term Open Access Customer means a person availing or intending to avail access to the Inter-State/Intra-State Transmission System for a period of 25 years or more. Based on such premise, DISCOMs & Captive Generating Plants (CGPs) happen to be the long term customers of OPTCL as they use the corridor of OPTCL for bulk power purchase 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:

13. OPTCL has projected annual revenue requirement of Rs.1443.50 crore (Excluding SLDC function) in its filing of Annual Revenue Requirement and Transmission Tariff for the FY 2010-11 as against expected revenue at the existing Transmission Tariff @ 20.50 P/U at Rs.430.76 crore. The gap in the Revenue Requirement has been projected at Rs.1012.74 crore. The summary of Transmission cost/annual revenue requirement of OPTCL for 2010-11 as projected is tabulated below:

Table – 2
Revenue Requirement for FY 2010-11

(Rs. cr.)

Transmission Cost	Approved for 2009-10	OPTCL's Proposal for FY 2010-11
Employee Cost	173.11	865.13
R&M Cost	47.00	98.14
A&G Cost	14.35	26.99
Interest on loan	70.53	122.03
Interest on Working Capital		54.87
Depreciation	66.07	153.31
Advance Against Depreciation	44.36	
Return on Equity		18.31
Sub-total	**415.42**	
Pass through expenses		74.46
Contingency Reserve	9.08	15.36
Bad & Doubtful Debt		0.10
GCC Expense	0.15	0.20
Total	**424.65**	
Special Appropriation		18.33
Less Miscellaneous Receipts	30.50	3.72
Net ARR	**394.15**	**1443.50**

Details of Transmission Costs:

14. In a significant departure from the past, the National Tariff Policy, 2006 framed under the Electricity Act 2003, has embodied the National Tariff Framework which provides that the transmission tariff is to be sensitive to distance, direction and related to quantum of power flow in a transmission service network. Para 7(1) (3) of the National Tariff Policy provides for Transmission charges, to be determined on MW per circuit kilometer basis, zonal Postage Stamp basis, or on the basis of some other pragmatic variant, the ultimate objective being to get the transmission system users to share the total transmission cost in proportion to their respective utilization of the transmission system. The overall tariff framework should be such as not to inhibit planned development/augmentation of the transmission system, but should discourage non-optimal transmission investment. Till date, OPTCL has been following the Postage Stamp Method for determination of its Transmission Charges. OERC has not

yet framed any separate Regulations for determination of Intra-State Transmission Tariff to be charged by a Transmission Licensee. In such a situation, OPTCL, the deemed Transmission Licensee is guided by the Central Electricity Regulatory Commission (CERC) Terms & Conditions of Tariff Regulations, 2009 applicable for Transmission Tariff. In view of the above, OPTCL has proposed its ARR & Transmission Tariff Application for FY 2010-11 as per the related provisions pertaining to the conduct of Business and Tariff determination as provided under OERC Regulations, 2004 dated 09.06.2004 and as per the CERC (Terms and Condition of Tariff) Regulation, 2009 respectively.

The operating costs of OPTCL i.e. the State Transmission Utility (STU) for the FY 2010-11 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
- Return on Equity
- Special appropriation
- Interest on Working Capital

(B) Additional Expenses

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

(C) Pass through Expenses:

Other Expenses (Pass through of previous losses & liabilities)

Details of Fixed Charges:

15. OPTCL proposes O & M Expenses of Rs.990.25 crore (Excluding SLDC function) under the following heads:

Employee Cost including Terminal Benefits.

16. The Employees Expenses for FY 2010-11 has been projected by OPTCL at Rs.865.13 crore including Terminal Benefits of Rs.589.45 cr. on the basis of (i) The Audited Accounts of OPTCL for FY 2007-08 (ii) Provisional Accounts of OPTCL for FY 2008-09 (iii) Taking in to account the impact of Revision of Scale of Pay as per the 6th pay Commission Recommendations,2006 approved by the BoD/state Govt.

17. 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

18. The A&G expenses for FY 2010-11 has been projected at Rs.26.99 cr.

Repairs & Maintenance Expenses

19. OPTCL proposes Repairs and Maintenance (R&M) Expenses for FY 2010-11 at Rs.98.14 cr.. The details are given in the table below.

Table – 3

(Rs. cr.)

Particulars	**OERC Approval for FY 2008-09**	**OERC approval for FY 2009-10**	**OPTCL Proposal for FY 2010-11**
(a) O&M			77.19
(b) Telecom R&M incl. ULDC			16.05
© Civil works			2.00
(d) Information Technology			2.90
Total R&M Expenses (a+b+c+d)	**53.88**	**47**	**98.14**

Interest on Loan Capital

20. Interest on Loan for FY 2010-11 has been projected at Rs.122.03 crore by OPTCL.

New Projects

21. OPTCL proposes to spend Rs.559.18 crore during FY 2010-11 for ongoing projects and also on new projects towards increasing overall system capacity and strengthening transmission network. The details of Capital Expenditure for FY 2010-11 are given in the table below.

Table - 4

Projected Capital Expenditure for FY 2010-11 (Rs. cr.)	
Particulars under different Heads	**Amount**
a) O&M Wing	176.17
b) Telecom	80.00
c) Information Technology (IT)	24.07
d) Transmission Project & Construction (Excluding Deposit works)	258.94
e) Civil Works	20.00
Total Capital Expenses (a+b+c+d+e)	559.18

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

An amount of Rs.176.17 Cr has been proposed for the FY 2010-11 under Capital expenditure (CAPEX) basically for transformer capacity augmentation / substation capacity enhancement by installing third transformers in the existing Grid-Substations of OPTCL in order to meet the future load growth. The details of item wise Capital expenditure for O&M related project is shown in the table below.

Table - 5

PROJECTED CAPITAL EXPENDITURE PLAN (O&M WING)					
Sl. No.	Line/Equipment Details	Unit Rate (in lakh)	Item Category	Quantity	Total Cost (in lakh)
1	i) UPGRADATION & THIRD TRF.				
	a) 220/132 KV	650.000	160 MVA	4	2600.000
	b) 220/33 KV	417.179	40 MVA	1	417.179
	c) 132/33 KV	278.119	40 MVA	21	5840.499
	ii) SPARE TRF.				
	a) 220/132 KV	650.000	160 MVA	1	650.000
	b) 132/33 KV	278.119	40 MVA	1	278.119

Sl. No.	Line/Equipment Details	Unit Rate (in lakh)	Item Category	Quantity	Total Cost (in lakh)
2	Estimated Cost for third transformer Bays (220 kV, 132 kV & 33 kV) Nos.				6113.694
3	Installation of Capacitor Bank for Reactive Power compensation. (Estimated Cost)			125 MVAR	814.163
4	Augmentation of Lines (in km.)				
	a) 132 kV TTPS-Chainpal Ckt.I (Upgradation of conductor)		12.921	4	51.68
	b) 132 kV TTPS-Chainpal Ckt.II (Upgradation of conductor)		12.921	4	51.68
5	Substation Automation (Bidanasi, Phulnakhara & Meramundali)				800.00
	TOTAL				**17617.022**

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

In order to have a dependable, safe and effective communication system, OPTCL has implemented its own Telecommunication Network through PLCC between each Grid Sub-station and generating stations including SLDC as the prime Control Center. The PLCC systems adopted in OPTCL are generally considered to be very much economic, reliable and dependable for voice, data and carrier back-up protection facility. The CAPEX requirement for upcoming Telecom. Project (Capital Works) in FY 2010-11 is Rs.80.00 Cr, the abstract of which is given in the Table below.

Table - 6

Telecommunication Works	**Cost of the Project (Rs. cr.)**	**Fund Provision for 2010-11 (Rs. cr.)**
(i) Integration of 30 nos RTU	35.86 (to be spent in 3 years)	10.00
(ii) Provision of SCADA inter face points at all 220KV and above Grid S/S	67.48 (to be spent in 3 years)	23.00
(iii) Provision of SCADA interface points at all 132KV Grid S/S	100.47 (to be spent in 3 years)	34.00
(iv) Reframing of Microwave by Optic Fibre under ULDC Project	39.00 (to be spent in 3 years)	13.00
Total	**242.81**	**80.00**

(c) CAPEX FOR INFORMATION TECHNOLOGY RELATED PROJECTS:

Provision for an amount of Rs.24.07 cr. is made for FY 2010-11 towards capital expenditure for Infrastructure development of IT and automation related fields etc. as given in the table below:

Table-7
Projected Capex for I.T. during FY 2010-11

Sl. No.	Detailed Head	Rs. cr.
A	**ERP**	
	1. ERP-Licenses (Hqrs)	0.23
	2. ERP-Implementation	0.98
B	**Networking**	
	1. WAN	
	a) Leased Lines (ZITs)	0.20
	b) VSAT (Hqrs & SITs)	0.07
	2. LAN (Hqrs., ZITs, Field Units & S/s)	6.49
C	**DR**	
	1. DR (Hqrs)	5.00
D	**PDC**	
	1. Computing Infr. Servers (Hqrs)	6.50
	2. Office Systems	
	a) PCs & Peri (Hqrs., Field Units & S/s)	4.52
	Lap Tops	0.07
	Total	**24.07**

(d) CAPEX FOR TRANSMISSION PROJECT & CONSTRUCTION: (TRF-2)

It is proposed to spend an amount of Rs.258.94 Cr on Transmission related infrastructure during FY 2010-11 to increase the overall system capacity and to strengthen the transmission system network of the state, the details of which are shown in the table below.

Table- 8
CAPEX FOR TRANSMISSION PROJECTS & CONSTRUCTION

					Rs. cr.
Sl. No	**Loan/ Scheme/ Contract-wise Capital Works**	**Estimated cost**	**Expenditure up to 31/03/2009**	**Expenditure During the F.Y 2009-10**	**Expenditure proposed during the year 2010-11**
A	**ONGOING SCHEMES**				
1	**2**	**3**	**4**	**5**	**6**
1	400/220kV S/S Mendhasal	47.65	55.21	2.40	-
2	400/220KV s/s at New Duburi	42.07	46.83	2.30	-
3	220/132kV S/S at Burla	29.58	45.10	0.50	
4	220/132 kV S/S at IB	-	0.68	-	
5	220/33kV 2nd 20MVA trf. With associated 132 & 33 KV bays at Barkote	4.65	4.09	0.66	
6	2*100 MVA,220/132 kV S/S at Bhadrak & Associated LILO Line	27.65	15.21	17.84	
7	Const. of 2Nos. 220 kv feeder bay at Balasore	4.08	2.69	0.90	
8	220/132kV S/s at Meramundali	-	-	0.10	
9	Const. of 220/132 kv s/s Paradeep with associated line	70.21	77.95	5.00	
10	220/132kV s/s at Bolangir	28.12	27.26	1.00	
11	Construction of 4th Auto at Chandaka	7.07	4.97	2.10	
12	132/33kV 40MVA trf. With associated 132 & 33 KV bays at Chhend s/s	4.40	3.78	0.87	
13	132/33kV,2x20 MVA s/s at Basta with associated 132KV Transmission lines	16.99	5.90	6.50	

Sl. No	Loan/ Scheme/ Contract-wise Capital Works	Estimated cost	Expenditure up to 31/03/2009	Expenditure During the F.Y 2009-10	Expenditure proposed during the year 2010-11
14	Constn. Of 132/33 kV s/s at Karanjia with associated lines	24.21	16.54	1.83	
15	132/33kV S/S Badagada	7.60	7.38	0.10	0.50
16	132kV feeder bay extn at Hind Metals	4.67	1.48	3.19	
17	132/33kV s/s at Phulnakhara	7.28	7.81	0.27	
18	132/33kV S/S at Anandpur alongwith Transmission Line (New)	23.68	0.95	15.90	6.83
19	132/33 Grid S/s at Kendrapara	-	0.01	-	
20	132/33kV s/s at Barapalli with associated lines	15.87	9.96	2.67	
21	2x12.5MVA,132/33 KV S/S at Akhusingh	6.07	1.47	3.12	
22	132/33KV s/s Salipur (Balia)	-	4.09	-	
23	132/33kV s/s at Bidanasi	-	-	0.24	
24	400kV DC line Ib-Meramundali	210.77	170.56	1.00	30.00
25	400kV DC Line from Meramundali to Duburi	131.48	158.57	4.99	
26	400kV DC Line from Meramundali to Mendhasal	72.68	89.37	1.68	
27	220KV Transmission line at Barkote	-	0.21	-	
28	220kV 2nd line from IB-Budhipadar	15.22	0.01	0.50	
29	220 kv sc line from Kuchei to K.C.Pur	35.12	35.03	0.15	
30	220 kV sc line from K.C.Pur to Padmanavpur			0.15	
31	220 kv line from Padmanvpur to Balasore			0.50	
32	220 kv line from Narendrapur-Chandaka with bay at Chandaka	-	-	0.10	
33	220kV line from Mendhasal to Bidanasi	17.39	17.95	-	1.00
34	220kV DC Line Duburi -old -Duburi New	-	-	-	
35	220kV DC line Budhipadar-Bolangir	69.72	53.20	22.88	
36	220kV DC Line Bidanasi-Cuttack	15.06	1.20	10.00	5.52
37	132 kv LILO line at Rajgangpur	2.53	0.72	1.82	
38	132kV Hirakud LILO Burla Sambalpur	1.97	2..46	0.50	
39	132kV LILO on Existing of Budhipadar to Terkera at Rajgangpur s/s	-	-	0.12	
40	132kV line from Mancheswar to Badagada	5.30	3.36	1.50	
41	132kV line from Badagada to Uttara	5.28	4.16	0.50	
42	132kV line from Uttara to Sijua	3.54	3.92	0.29	
43	132KV LILO at Meramundali	0.87	0.39	-	
44	132kV line from ICCL-Choudwar to Salipur	13.54	3.85	0.70	
45	132 KV Phulnakhara-LILO-Mancheswar	2.10	2.16	0.15	
46	132KV Line from Jagatsinghpur to Paradeep	18.19	0.03	9.00	7.00
47	132kV Bolangir old and Bolangir New line	-	-	-	
48	132kV Hirakud LIlO Chipilima-Bergarh Line	2.84	2.23	-	
49	T off arrangement at Sambalpur grid s/s & equipping 1 bay	-	0.10	-	
	TOTAL-A	**995.45**	**886.38**	**124.02**	**50.85**
B	**PROPOSED SCHEMES**				
1	2x12.5 MVA, 132/33 kv s/s at Nuapada with associated transmission line	34.84	0.01	9.90	14.00
2	2x12.5 MVA 132/33 kv s/s at Dabugaon with associated transmission line	25.97	-	5.91	13.00
3	2x12.5 MVA, 132/33 kv s/s at Padampur with associated transmission line	27.57	-	6.08	14.50
4	2x12.5 MVA, 132/33 kv s/s at Kuchinda with associated transmission line	25.96	0.04	5.91	13.00
5	2x12.5 MVA, 132/33 kv s/s at Bhawanipatna with associated transmission line	19.59	0.01	5.20	7.59

Sl. No	Loan/ Scheme/ Contract-wise Capital Works	Estimated cost	Expenditure up to 31/03/2009	Expenditure During the F.Y 2009-10	Expenditure proposed during the year 2010-11
6	2x12.5 MVA, 132/33 kv s/s at Boudh with associated transmission line	29.87	0.04	6.35	14.00
7	2x12.5 MVA, 132/33 kv s/s at Purushottampur with associated transmission line	15.99	0.01	0.50	5.00
8	132 kv sc line on dc tower from Paradeep grid s/s to Jagatsinghpur grid s/s with 2 nos feeder bay extension	18.19	-	4.00	7.00
9	2x12.5 MVA, 132/33 kv s/s at Chandpur with associated transmission line	16.81	0.03	0.50	5.00
10	2x12.5 MVA, 132/33 kv s/s at Banki with associated transmission line	21.16	-	0.50	7.00
11	2x12.5 MVA, 132/33 kv s/s at Kalunga with associated transmission line	17.93	0.22	0.50	6.00
12	2x40 MVA, 220/33 kv s/s at Bonai with associated transmission line	28.74	-	4.00	7.00
13	2x20 MVA, 132/33 kv s/s at Barbil with associated transmission line	17.40	-	3.00	7.00
14	2x15 MVA, 400/220/132 kv s/s at Lapanga with associated transmission line	64.83	-	2.00	15.00
15	2x160 MVA, 220/132 & 2x20 MVA 132/33 kv s/s at Karadagadia with associated lines	80.94	0.35	0.40	10.00
16	2x100 MVA, 220/132/33 kv s/s at Kuanrmunda with LILO arrangement from existing 220 kv Budhipadar-Tarkera dc lines	67.59	-	0.50	6.00
17	2x40 MVA, 220/33 kv s/s at Gopinathpur near Nuagaon (Keonjhar) with associated lines	29.93	-	0.50	7.00
18	2x100 MVA, 220/132/33 kv s/s at Dhamara with connectivity from Bhadrak s/s	72.52	-	0.50	10.00
19	2x12.5 MVA, 132/33 kv s/s at Udala with LILO arrangement of Balasore- Baripada lines	27.12	-	0.50	8.00
20	2x20 MVA, 132/33 kv s/s at Titilagarh with 132 kv line from Kesinga	23.13	-	0.10	5.00
21	LILO of IB- Meramundali to Lapanga	15.00	-	0.50	5.00
22	132 kv connectivity from Salipur to Kendrapara	15.28	-	0.20	3.00
23	Constn. of 2x100 MVA 220/132 kv grid s/s at Cuttack, with 2 nos 220 kv feeder bay extn. at Bidanasi grid with linking arrangement at both ends.	32.67	-	0.20	7.00
24	Constn. of 2x20 MVA 132/33 kv s/s at Olaver and 2 nos 132 kv feeder bay extn. at Pattamundai with 132 kv DC line from Pattamkun dai to Olaver	35.38	-	0.20	2.00
25	Conversion of 132/11 kv grid s/s to 2x40 MVA 132/33 kv s/s 2x40 MVA 132 kv s/s at Sarasmal at Jharsuguda	13.42	-	0.10	4.00
26	Constn. of 2x40 MVA 132/33 kv s/s at Luna by making LILO arrangement from 1 circuit of existing 132 kv Kendrapara -Paradeep DC line	18.38	-	0.10	4.00
27	Construction of 2nd Ckt from Loc. No. 116 of 132 kv Chandaka- Nimapada sc line to Nimapada grid with one no 132 kv bay extn.	3.64	-	1.00	2.00
	TOTAL-B	**799.85**	**0.71**	**59.15**	**208.09**
C	**DEPOSIT WORKS**				
1	Const. of 132 kv SC line from Tarkera to MSDS-III of RSP Rourkela (Deposit Work)	5.27	2.37	-	-
2	220 kv dc line from Budhipadar to Basundhara MCL (Deposit Work)	42.15	2.78	0.50	
3	Rly line crossing from Khurda-Bolangir (Deposit Work)	3.96	2.34	-	

Sl. No	Loan/ Scheme/ Contract-wise Capital Works	Estimated cost	Expenditure up to 31/03/2009	Expenditure During the F.Y 2009-10	Expenditure proposed during the year 2010-11
4	Const. of 2 nos 33 kv bay extn. At Mancheswar (Deposit work)	0.70	0.30	0.38	
5	Shifting of 132kV Chandaka SC Line (CKT 1& 4) crossing through P.No.391,392 &4622 under Gadkon Mouza) (Deposit Work)	0.89	-	0.49	
6	Rly traction line from Jagatsingpur to Gorakhnath (Deposit work)	8.11	5.27	1.35	
7	132kV traction line from Choudwar to Kendrapara and bay extension at Choudwar (Deposit Work)	5.88	5.66	0.10	
8	Diversion of 132kV Lines from Loc.No.30 to Loc. No.39 PPT line (Deposit Work)	1.75	-	-	
9	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)	0.90	0.53	0.26	-
10	Constn. of Tomka Railway line from B.C. Mohanty & sons Ltd (D.W)	6.08	-	2.00	4.06
11	Constn. of 132 kv LILO line from Khurda-Puri for power supply to Samuka Beach near s/s Puri (D.W)	20.71	-	0.80	
12	Diversion of 220 kv line from TTPS to Joda 4th crossing (D.W)	3.09	2.19	0.50	0.19
13	Diversion of 220kV TTPS-Rengali DC Line from mine premises to Kaniha OCP	0.03	-	0.30	0.13
14	Diversion of Dhenkanal -Joranda road RTSS for clearance of right canal	0.65	0.34	0.25	
15	Diversion of Theruvalli - Jayanagar DC line near Rebatiguda	1.32	-	0.78	
16	Power supply to Bansapani RTSS from Joda grid s/s	7.40	-	5.00	1.91
17	Power supply Keonjhar RTSS from Polasponga grid s/s	7.46	-	5.00	2.12
18	Diversion of EHV line from Haridaspur Paradeep Rly line	15.02	-	2.00	10.00
19	132kV s/s at IIT, Argul	37.43	-	2.00	30.00
20	LILO of 132kV Khurda-Puri line to Samuka beach near Puri	20.71	-	2.01	14.00
21	Re-routing of 132kV DC Line from Chandaka to Sijua for AIIMS	1.34	-	0.95	
22	Diversion of 2 nos line due to proposed Talcher-Bimalgarh Rly Line	2.99	-	0.50	0.27
	TOTAL-C	**193.84**	**21.78**	**25.17**	**62.68**
	TOTAL-A+B+C	**1,989.15**	**908.87**	**208.34**	**321.62**
	Total Capex for FY 2010-11 (excluding Deposit Works) =				**258.94**

(e) CAPEX FOR CIVIL WORKS:

OPTCL proposes capital expenditure of Rs.20.00 cr. on Civil works during FY 2010-11 for on-going and new construction projects.

Depreciation

22. OPTCL has projected Depreciation for FY 2010-11 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.153.31 crore based on the capital cost of the asset admitted by the Commission in order to enable OPTCL to repay the loan availed for Capex in time.

Special Appropriation

23. The Commission had allowed Special Appropriation of Rs.44.36 Cr. to meet Debt Service Obligation for FY 2009-10. In the same line, the OPTCL proposes special appropriation of Rs.18.33 cr. for meeting debt obligations for FY 2010-11.

Return on Equity

24. 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 agreed to partly finance Transmission project being set up in remote areas to the extent of Rs. 100 crore by way of equity contribution over a period of three years commencing from FY 2008-09. The State Govt. has decided to provide equity support to the licensee amounting to Rs.35 crore during FY 2010-11. Till date OPTCL has received Rs.23.05 crore from the State Govt. Therefore, the licensee has projected ROE @15.5% on the equity share capital of Rs.118.12 crore which amounts to Rs.18.31 crore for FY 2010-11.

Interest on Working Capital

25. Based on CERC norms, OPTCL has calculated its working capital needs at Rs.457.24 crore for the FY 2010-11. Taking 12% as the rate of interest, interest on working capital amounts to Rs.54.87 crore for 2010-11. For the purpose of determination of working capital OPTCL has taken into consideration the O&M expenses for one month, maintenance of spares at the rate of 15% of O & M expenses and receivables equivalent to two months of Fixed Cost.

ADDITIONAL EXPENSES

Contingency Reserve

26. A sum of Rs.15.36 crore has been projected for Contingency Reserve for the FY 2010-11.

Provision for Bad & Doubtful Debts

27. OPTCL proposes Rs.0.10 cr. towards Bad & Doubtful Debts.

Grid Co-ordination Committee Expenses

28. As per provisions in Orissa Grid Code Chapter- 11, OPTCL has formed Grid Coordination Committee (GCC) under it. Expenses of the Committee have been estimated at Rs.0.20 crore for the FY 2010-11.

Pass through Expenses

29. OPTCL has proposed a truing-up of the costs and revenue for the financial years i.e 2005-06, 2006-07 & 2007-08 based on audited accounts. The total revenue deficit for truing up of OPTCL from FY 2005-06 to 2007-08 comes to Rs.74.46 crore. Accordingly, a sum of Rs.74.46 cr. has been proposed to be recovered from the tariff as a pass through in the ARR of 2010-11.

Other Income and Cost/ Miscellaneous Receipts:

30. OPTCL estimates that it will earn Miscellaneous Receipts of Rs.3.72 crore from Inter-State Wheeling of 210 MU during FY 2010-11. The same has been deducted from the gross revenue of OPTCL to arrive at the Net ARR for FY 2010-11.

31. OPTCL has treated the revenue receipt from short-term Open Access as nil for 2010-11 as this is uncertain.

Transmission Loss

32. OPTCL proposes Transmission Loss at 4.3% for wheeling for FY 2010-11 due to some inconsistency in the available power flow data. The Transmission loss of 4.3% is proposed as per Revised Business Plan.

33. The summary of the proposed Annual Revenue Requirement against different heads for FY 2010-11 is tabulated below:

Table - 9
Summary of Annual Revenue Requirement of OPTCL for FY 2010-11
(Rs. cr.)

Items	Proposal for OPTCL 2010-11	
(a) Fixed Cost		
O&M Expenses		**990.25**
Employees Cost including Terminal Benefits	865.13	
R&M Cost	98.14	
A&G Cost	26.99	
Interest on Loan Capital		122.03
Depreciation		153.31
Special Appropriation		18.33
Return on Equity		18.31
Interest on Working Capital`		54.87
Sub-Total (a)		**1357.10**
b) Additional Expenses		
Contingency Reserve	15.36	
Bad & Doubtful Debts	0.10	
GCC Expense	0.20	
Sub-Total (b)		**15.66**
Total Trans. Cost (a+b)		**1372.76**
c) Pass Through Expenses		**74.46**
d) total Annual Revenue Requirement (a+b+c)		**1447.22**
e) Less Misc. receipts		**3.72**
f) Annual Revenue Requirement to be recovered from LTOA Customers (i.e. DISCOM and CPP) (d - e)		**1443.50**
OPTCL's Annual revenue Requirement		**1443.50**

Expected Revenue from Transmission Charges

34. The revenue receipts from various transmission charges at the existing transmission tariff of 20.5 P/U shall be Rs.430.76 crore. Revenue to be earned by OPTCL from wheeling of power to DISCOMs and other long term open access customers for FY 2010-11 at the existing rate is shown below in tabular form:

Table – 10
Sources of Revenue

Sl. No.	Customer	MU to be handled	Rate (P/U)	Trans. Loss (%)	Qty. handled incl. Trans. Loss If any (MU)	Amount (Rs. Cr.)
1	**CESU**	6670	20.50	0.00	6670	136.74
2	**NESCO**	5140	20.50	0.00	5140	105.37
3	**WESCO**	6451	20.50	0.00	6451	132.25
4	**SOUTHCO**	2585	20.50	0.00	2585	52.99
	Total DISCOMs	**20846**			**20846**	**427.34**
5	Emergency Sale to CPP	10	20.50	0.00	10	0.21
6	Wheeling of ICCL power	50	20.50	4.30	52.2	1.07
7	Wheeling of NALCO power	100	20.50	4.30	104.5	2.14
	Total	**21006**			**21012.7**	**430.76**

Excess or (Deficit) in the ARR:

35. OPTCL has submitted that with its present Transmission Tariff structure consisting of Transmission Charge @20.5 P/U & Transmission Losses @ 4.3%, it would not be able to meet its current costs and it may result in a deficit of Rs.1012.74 crore as shown in table below.

Table - 11

(Rs. cr.)

Total Annual Revenue Requirement	1443.50
Less : Revenue estimated from Long Term Open Access Customers at the existing transmission tariff of 21 paise/unit	430.76
Excess or (Deficit) of ARR at the existing Wheeling Rate @ 20.5 P/U	**-1012.74**

36. 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 2010-11.

Proposed Tariff to Meet the Revenue Requirement for FY 2010-11.

37. OPTCL has proposed Transmission tariff recovery in two ways.

(i) Transmission Tariff in Rs./unit Approach.
(ii) Transmission Tariff in Rs. / MW / Month Approach.

38. In Rs. per unit approach the Transmission Tariff is determined by dividing the Total ARR with the Total energy handled /Wheeled in the system in MU. For FY 2010-11 Transmission Tariff is computed as 68.72 P/U as worked out in the Table below.

Table - 12

Items	OPTCL Proposal
(a) Total Annual Revenue Requirement in cr.	**1443.50**
(b) Total Million Units proposed for Wheeling in MU	**21006.00**
Proposed Transmission Tariff (P/U) = (a/b)	**68.72**

39. (a) In Rs. per Megawatt per Month approach the Transmission Tariff is determined by dividing the Total ARR with the Total generation capacity of state including share from Inter State Generating Stations (ISGS). The total generation

capacity of the generators in the state of Odisha including the state's share from ISGS is estimated as 4004.39 MW.

Rs./MW / Month = $\dfrac{\textbf{Total Annual Revenue Requirement (ARR)}}{\textbf{Total generation capacity of state including ISGS share * 12}}$

(b) The total transmission charge of OPTCL is proposed to be shared amongst the existing 6 nos. Long term customers (viz. four Discoms, ICCL & NALCO) based in the proportion of their utilization of above mentioned Generation capacity. The basis of proportionate utilization is determined as per the Maximum demand of CESU, SOUTHCO, NESCO, and WESCO and as per MW wheeled by ICCL and NALCO during the previous period in line with the Commission's approach adopted in ARR of SLDC for FY 2009-10.

Table - 13
Maximum Demand of LTOA Customers

LTOA Customer	Apr.09	May.09	Jun.09	Jul.09	Aug.09	Sep.09	Max demand in MW
CESU	984.624	**988.52**	986.66	960.26	940.55	946.648	988.52
SOUTHCO	375.74	372.04	360.08	367.22	375.57	**376.64**	376.64
WESCO	899.274	887.07	761.56	871.49	842.34	**975.118**	975.118
NESCO	706.43	671.69	681.8	**708.17**	705.42	707.31	708.17
M/s. IMFA	0.56	0.45	0.42	0.42	5.13	**20.49**	20.49
Nalco	21.67	20.76	20.88	88.92	**92.98**	55.77	92.98
						Total =	**3161.92**

(c) The total maximum demand of Discoms, IMFA & NALCO for FY 2010-11 is estimated as 3161.92 MW considering the highest demand of Discoms and highest drawal of ICCL & NALCO during the first six months of FY 2009-10 which is shown in the table below.

(d) Based on the above maximum demand, the capacity utilization factor is determined and accordingly the total transmission charge of OPTCL is to be shared amongst the long term customers in the weighted average ratio of their proportionate capacity utilization on monthly basis. The sharing of the total OPTCL's ARR among the LTOA customers and the transmission tariff in Rs./MW/Month for FY 2010-11 is shown in table below:

Table -14
Sharing of total Revenue Requirement among the LTOA customers for FY 2010-11

LTOA Customers	Capacity utilization ratio	Allotted MW for capacity utilization	% Allocation for sharing ARR	Annual Sharing of ARR (Rs. Cr.)	Monthly sharing of ARR (Rs. Cr.)
CESU	988.52 *4004.39 / 3161.918	1251.90	31.26%	451.28	37.61
SOUTHCO	375.74 * 4004.39 / 3161.918	476.99	11.91%	171.95	14.33
WESCO	971.18 * 4004.39 / 3161.918	1234.93	30.84%	445.17	37.10
NESCO	708.17 * 4004.39 / 3161.918	896.85	22.40%	323.30	26.94
M/s. IMFA	20.49 * 4004.39 / 3161.918	25.95	0.65%	9.35	0.78

LTOA Customers	Capacity utilization ratio	Allotted MW for capacity utilization	% Allocation for sharing ARR	Annual Sharing of ARR (Rs. Cr.)	Monthly sharing of ARR (Rs. Cr.)
Nalco	92.98 * 4004.39 / 3161.918	117.75	2.94%	42.45	3.54
	Total =	**4004.38**	**100%**	**1443.50**	**120.29**
Transmission Tariff in Rs./MW/Month =				**300399.53**	

40. OPTCL proposes that in Rs./unit (per unit) approach some risk factor/ uncertainty is involved. There is chance of less/ more realization of revenue than the approved ARR when the actual billed quantum (MU) to the six LTOA customers is less/ more than the OERC approved quantum (MU), which is based on projection. This may exceed or fall behind the projected quantum depending upon the power scenario of that year. Where as in Rs / MW / Month approach, the total approved ARR can be recovered on monthly basis as fixed revenue irrespective of actual power flow in the network.

41. To avoid risk, OPTCL has proposed to recover the total ARR of Rs.1443.50 cr. from the long term customers in the weighted average ratio of their proportionate capacity utilization on monthly basis i.e. Rs.300399.53/ MW / Month.

42. Based on the above, OPTCL proposes the LTOA charges and STOA charges as given in the table below. Besides above Charges, the Open Access customers are also required to pay any other charges as determined by the Commission as per provisions under Chapter-II (CHARGES FOR OPEN ACCESS) of the Regulations 2006.

Table - 15
Abstract of OA Charges proposed by OPTCL for FY 2010-11

DETAILS	In Rs./unit approach	In Rs./MW approach
Net Annual Revenue Requirement (Rs. cr.)	1443.50	1443.50
Proposed Energy to be transmitted in OPTCL Network (MU)	21006.00	-
Proposed MW (State's Generation capacity including ISGS share)	-	4004.39
Proposed Transmission Tariff	68.72 P/U	300399.53 Rs./MW/Month
Long term Open Access Charges in terms of Rs./MW/Day	**16492.39**	**9876.15**
Short term Open Access Charges in terms of Rs./MW/Day	**4123.10**	**2469.04**
Penal Charges @	**25% of the Transmission Charge**	
Meter Charges @	**Rs.2000/- per month**	

Security Mechanism :

43. 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. 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.

44. In addition to above, OPTCL is facing difficulties in claiming TDS certificate from the DISCOMs. Tax is being deducted at source (TDS) by DISCOMs starting April 2009 on transmission charges before making payment as it is the statutory obligation of the person responsible for paying such sum to OPTCL pursuant to the provisions of the Income Tax Act, 1961. The statement of TDS shall be issued to the payee whose income tax has been deducted. As reported by the DISCOMs, they are facing problems in issuing TDS Certificates to OPTCL due to the absence of a firm payment mechanism between DISCOMs and OPTCL as the DISCOMs are making payment to GRIDCO under the existing arrangement.

Rebate:

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

Delayed Payment Surcharge:

46. 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:

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

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

OPTCL's proposal for FY 2010-11 are:

(i) Annual Revenue Requirement at Rs.1443.50 cr..

(ii) Recovery of Transmission Charge @ 300399.53 Rs/MW/Month or @ 68.72 P/U.

(iii) Transmission Loss for wheeling as 4.3% on energy drawal.

(iv) 25% of the Transmission Charge towards Penal Charges.

(v) Rs.2,000/- per month towards Meter Charges.

VIEWS OF CONSUMER COUNSEL, ON TRANSMISSION TARIFF PROPOSAL OF OPTCL FOR 2010-11 (para 49 to 61)

49. 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 2010-11. Dr. S. Meher of Nabakrushna Choudhury Centre for Development Studies (NCCDS) appointed as Consumer Counsel put up certain queries and objections regarding ARR and tariff 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.

50. 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 2010-11. Based on their nature and type, these objections have been categorized broadly as indicated below:

Analysis of the Proposal by Consumer Counsel

51. Dr. Meher of Nabakrushna Choudhury Centre for Development Studies acting as Consumer Counsel had analyzed the application of the licensee and some of the important observations are as follows:

Revenue Gap

52. OPTCL has given the proposal for revenue requirement of Rs.1443.50 cr. and revenue from long-term open access customer of Rs.430.76 cr., leaving a shortfall of Rs. 1012.74 cr. during the FY 2010-11. This shortfall has been calculated at the existing transmission tariff @ 20.5 P/U. OPTCL proposes to recover the annual fixed cost of Rs.1443.50 cr. in full from the long term open access customers like DISCOMs & CGPs on energy drawl during FY 2010-11 in two ways, i.e. either through recovery of the same on monthly basis @ Rs.300399.53/MW/Month, or @ 68.72 P/U from 1.4.2010 considering the transmission loss for wheeling as 4.3% on energy drawl.

Table - 16
Revenue Gap of OPTCL during FY 2010-11

(Rs. cr.)

Total Annual Revenue Requirement	1443.50
Revenue from long-term open access customer	430.76
Revenue Gap at the existing Wheeling Rate @ 20.5 P/U	(-)1012.74

Annual Revenue Requirement

53. OPTCL has projected its revenue requirement during FY 2010-11 about 266 per cent more than that approved for FY 2009-10. The revenue requirement constitutes not only fixed cost and additional expenses but also pass through cost of Rs.74.46 cr. Earlier these costs were not allowed by the Commission. If the pass through cost were deducted, then the revenue gap would be Rs.938.28 cr.. The pass through of previous loss and liabilities would certainly impose burden on the consumers and therefore should not be allowed.

54. The areas of concern include the pass through cost, increase in O&M expenses (322.36%), interest on loan capital (73.02%) and depreciation (132.04%). OPTCL has proposed Rs.54.87 crore as interest on working capital, which the Commission has not approved for the current FY 2009-10

55. The increase in employee cost seems to be too high (399.76%), although it includes terminal benefits. Similarly, increase in A&G cost seems to be too high (88.08%). Repair and Maintenance is required in order to operate the system effectively. However, in 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 to mention here that the actual R&M expenditure for each financial year is always less than the approved figure (see chart), indicating that

OPTCL has not taken any measure to spend higher amount on R&M as approved by the Commission.

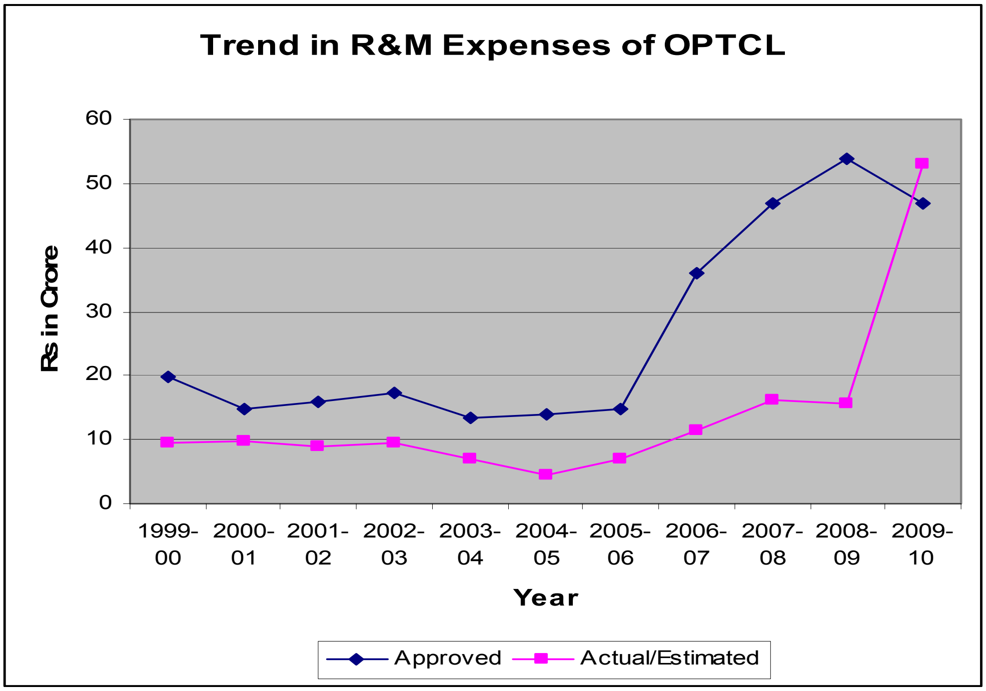
56. OPTCL had proposed an amount of Rs.189.51 cr. as interest on loan capital during the FY 2009-10, but the Commission had approved only Rs.70.53 cr.. Again during FY 2010-11, OPTCL has proposed Rs.122.03 crore as interest payment. OPTCL should explain such significant increase in interest. Is there 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 undue burden on the consumers.

Table - 17
Annual Revenue Requirement of OPTCL

(Rs. cr.)

	2009-10 (Approved)	2010-11 (Proposed)	% Change
O & M Expenses	234.46	990.26	322.36
(a) Employees Cost	173.11	865.13	399.76
(b) Repair & Maintenance Cost	47.00	98.14	108.81
(c) A & G Cost	14.35	26.99	88.08
Interest on Loan Capital	70.53	122.03	73.02
Interest on working capital and short-term loan	0.00	54.87	
Depreciation	66.07	153.31	132.04
Advance against depreciation	44.36	0.00	
Special Appropriation	0.00	18.33	
Return on Equity	0.00	18.31	
Addl. Expenses (contingency reserve, bad & doubtful debt, GCC exp.)	9.23	15.66	69.66
Total transaction cost	424.65	1372.76	223.27
Pass through Expenses	0.00	74.46	
Total ARR	415.42	1447.22	248.38
Less Misc. Receipts	30.50	3.72	-87.80
Net ARR	394.15	1443.50	266.23

57. The significant increase in expenses as mentioned above would impose excessive 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.

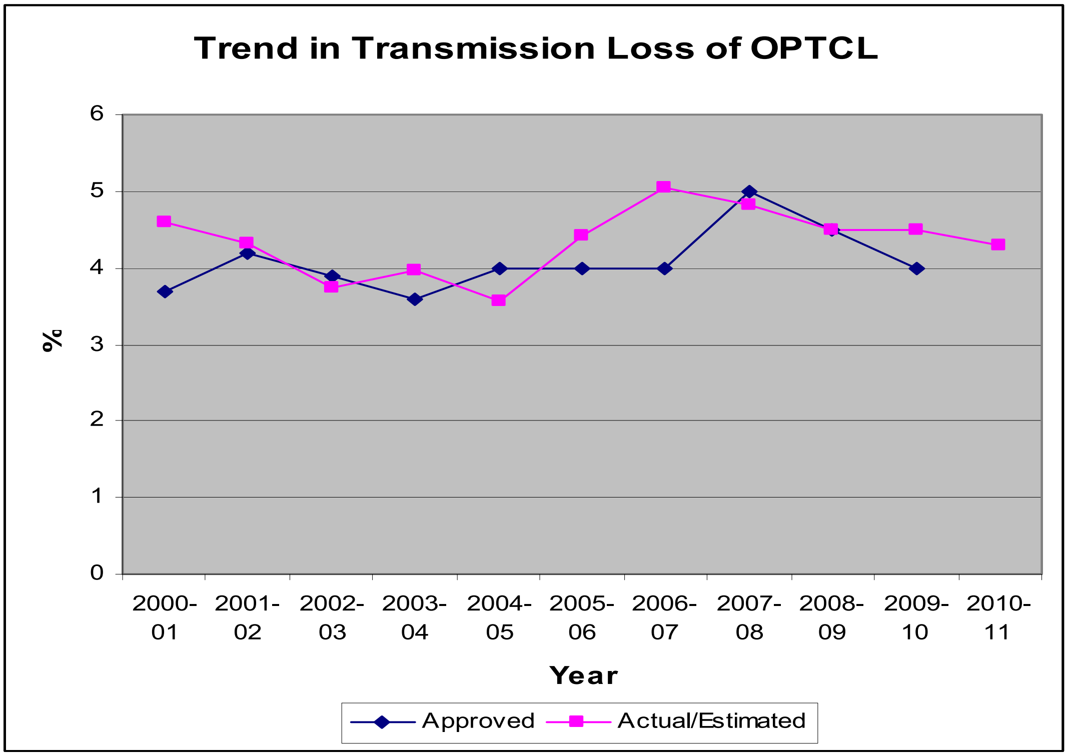


Revenue from Tariff

58. OPTCL has calculated the revenue receipts to be Rs.430.76 crore at the existing rate of tariff, i.e., @ 20.5 P/U, based on the projection of GRIDCO. OPTCL has expected to deliver 21006 MU of energy to GRIDCO, while the actual projection submitted by DISCOMs for the FY 2010-11 is 22005.10 MU. As the projected demand of the DISCOMs is more than the projection of GRIDCO, the revenue receipts of OPTCL would increase if projection of DISCOMs is realised and hence revenue gap would be reduced accordingly.

Transmission Loss

59. OPTCL has proposed a transmission loss of 4.3% for the FY 2010-11. The Commission had approved 4% transmission loss for FY 2009-10. The 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, this has never been achieved. Rather, the trend seems to be in the reverse direction after FY 2004-05. Further, the level of loss projected during FY 2010-11 (i.e. 4.30%) remained almost same with that during 2001-02 (i.e. 4.31%). OPTCL has failed to arrest the high transmission loss due to its inefficiency and hence, positive outcome of power sector reform is yet to be felt in the State. In conformity with the power sector reform, therefore, OPTCL needs to reduce the transmission loss significantly. Therefore, the transmission loss may be fixed at most 3% for the FY 2010-11, observed the consumer counsel.



Tariff proposal

60. OPTCL claims that with the existing Tariff structure, consisting of Transmission Charge @ 20.5 P/U and Transmission Loss @4.3%, it is not able to meet current costs, which would result in a deficit of Rs.1012.74 cr.. OPTCL, therefore, proposes to recover the annual fixed cost in full from DISCOMs and CGPs either through recovery on monthly basis @ Rs.3 lakh/MW/month, or @ 68.72 P/U from 1.4.2010 with transmission loss for wheeling as 4.3% on energy drawl. This tariff proposal may not be accepted as it would impose more burdens on the general consumers. Instead, for the benefit of the consumers there is a need to reduce the current costs of OPTCL which has been projected at a much higher side.

Summing Up

61. OPTCL has projected its revenue requirement during FY 2010-11, which is 266.23 per cent higher than the approved figure for FY 2009-10. The areas of concern are the pass through of past loss and high increase in employee cost, A&G cost, repair and maintenance cost and interest on loan capital. This higher proportion of increase in cost for FY 2010-11 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 most 3% for the FY 2010-11.

VIEWS OF OBJECTORS ON TRANSMISSION TARIFF APPLICATION OF OPTCL FOR FY 2010-11 (Para 62 to 132)

Legal Issues

62. M/s IMFA submitted that there is actually no transmission of electricity from the point of injection (i.e. from Choudwar) to the point of delivery at Therubali. The

power supplied by IMFA is being transmitted through the method of displacement. So, IMFA has suggested that the proposed transmission tariff of @Rs.300399.53/MW/Month or @ 68.72 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.

63. One objector is of the view that the separation of OPTCL from GRIDCO from 2005 till now is more cosmetic. Practically OPTCL and GRIDCO continue to function as one unit. Hence the Commission may direct OPTCL to function as an independent Engineering Organization with independent Board of Directors than that of Gridco.

64. Another objector stated that OPTCL has submitted the ARR for FY 2010-11 based on the Commission's approved figures for different components for FY 2008-09 & FY 2009-10 for which no audited account has been submitted for the year 2008-09 and the Commission is requested to treat any expenditure above the approved amount as unauthorized and non-prudent expenditure and should not be accepted.

65. One objector submitted that for the FYs 2005-06, 2006-07 and 2007-08, the audited actual expenditure figures are varying widely from the approved amount by the Commission and the Commission is requested to treat any expenditure above the approved amount as unauthorized and non-prudent expenditure and should not be accepted..

66. 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.

67. 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 to the observations made by the Appellate Tribunal for Electricity in their judgment dated 13.12.2006 while determining the transmission tariff for FY 2010-11.

68. Some objectors submitted that the total quantum of energy to be handled in the OPTCL transmission system during the year 2009-10 will be less due to power cuts and load shedding resulting in lower revenue realisation.

Transmission Loss

69. One objector submitted that OPTCL had projected the transmission loss @ 4.3% for FY 2010-11 as against Commission's approval of 4% for 2009-10 but Sovan Kanungo Committee had recommended reduction of transmission loss @ 0.3% per year and OPTCL has not taken any step to reduce the same. Based on the above, the objector suggested to allow transmission loss to OPTCL in FY 2010-11 at par with ER Grid of ISTS @ 3.5% for FY 2010-11.

70. 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 4.3% will increase the quantum of power procurement of GRIDCO resulting in increase in Bulk Supply Price for FY 2010-11. The objectors requested the Commission not to allow transmission loss at more than 3% from FY 2010-11 onwards.

71. An objector submitted that the transmission loss has been projected at 4.30% for the year 2010-11, against 4.0% approved by the Commission for the current year is not acceptable.

72. One objector submitted that the approved transmission losses may be limited to 3.7% for the ensuing year since, during FY 2010-11 more energy is to be handled with high voltage transmission system i.e. 400 kV and 220 kV as new EHT consumers have under taken to draw power in 220 kV. Thus, it is expected that the loss would be less than 4%.

73. Another objector submitted during the hearing that the Commission had approved the transmission loss of 4% for the year 2009-10 even though it should have been lower. He further submitted that the 400 KV Meramundali–Mendhasal feeder has been charged, the power flow in the 400 KV Rengali–Jayanagar feeder is possible in both directions after the directional relay was made inactive and the Meramundali - Duburi line is ready for charging at any time. He, therefore, submitted that the losses should be substantially reduced during FY 2010-11 and hence transmission loss of 3.7% should only be allowed by the Commission.

System Availability

74. One objector submitted during the hearing that CERC (Terms & Conditions of Tariff) Regulation, 2009 have specified that Normative Annual Transmission System Availability Factor (NATAF) should be 98% for recovering of full fixed cost. He submitted that OPTCL has furnished system availability of 99.59% & 99.49% respectively for FY 2008-09 & 2009-10 (April to November, 2009). As per Regulation 2.2.6 of OGC Regulation 2006, SLDC is to certify the availability of State Transmission System. He, therefore, submitted that the Commission should direct OPTCL to get the system availability certified by SLDC to ascertain the veracity of the statement of OPTCL.

75. Another objector submitted that the ARR application of OPTCL should not be accepted till the company fulfills the requirement of the consumers such as the transmission availability which should be 98% but it is less than 90% at present.

Efficient Network Construction:

76. Another objector submitted that during the Performance Review Meetings of OPTCL, the Commission had observed time and again that there was huge cost and time over-run in construction of vital lines and substations and a few had not been completed in spite of time over-run of 10 years and more. During recent hearings on Approval of ARRs of 4 (Four) DISCOMs, the Consumer Counsels as well as Consumer Representatives categorically brought to the notice of the Commission their plight due to acute persistent low voltage in their areas. A list of 18 EHT lines was handed over to Director (Engg) during hearing which had been declared overloaded by SLDC since last 3 to 4 years. He further submitted that no visible/appreciable improvement in efficient network construction has been noticed after creation of OPTCL five years ago w.e.f. 01.04.2005 as an Independent Transmission Organization/Utility. He castigated OPTCL as hallmark of callousness and inefficiency.

Key Performance Indicators

77. One objector submitted that Govt. of India, Ministry of Power has indicated that AT & C loss only is the Prime Performance Indicator (PPI) for DISCOMs. He submitted that similarly Para 7.3 (1) of National Tariff Policy of MOP dated 06.01.2006 has

clearly stipulated that Key Performance Indicators (KPIs) of a State Transmission Utility (STU) would include efficient Network Construction; System Availability and reduction of System Loss. He, therefore, submitted that the performance of OPTCL, being Odisha STU, should have to be measured based on the aforesaid KPIs to allow ARR for FY 2010-11 in favor of OPTCL by the Commission.

Installation of Capacitor Banks for Reactive Compassion

78. Another objector submitted that the Commission vide Order dated 06.04.2009 directed OPTCL to install 150 MVAR Shunt Capacitors in 10 nos of Grid Sub Stations in FY 2009-10 and balance Shunt Capacitors of 125 MVAR in 13 nos of Grid Substations during FY 2010-11 with the twin objectives i.e. to improve the voltage in the command areas of those 23 nos of Grid Substations and to save about 247.50 MW at this hour of acute power shortage the State is passing through. During hearing, OPTCL submitted that DPRs are under preparation and a proposal for availing a loan of Rs.18.594 cr. from REC has been initiated. He further submitted that when Odisha is suffering from acute shortage of power and the low voltage during the availability of power has added to the woes and sufferings of 30 Lakhs of consumers of the State. OPTCL being STU should discharge its solemn duty of power supply at normal voltage, but even after the direction of the Commission the licensee is sleeping over the subject and is approaching this important issue of consumers with casual and routine manner which is not at all acceptable. He, therefore, prayed before the Commission to direct OPTCL to install 275 MVAR Shunt Capacitors in 23 nos of identified Grid Substations by July, 2010 failing which penalty @ Rs.1 Lakh/day for each day delay thereafter may be imposed on OPTCL.

Provision of SCADA Equipments in 220 KV Substations

79. One objector submitted during the hearing that OPTCL is violating the Orissa Grid Code (OGC) Regulations by not providing the SCADA Interface at all 220 KV Grid Substations in accordance with the amendment notified by the Commission. It should have been completed within 3 years starting from FY 2009-10. However, no work seems to have been carried out during this period. He therefore submitted that specific dates should be intimated by OPTCL for each of the 220 KV Sub-stations, so that other users can plan their data transmission system accordingly.

Provision of data communication for the balance 30 Grid Sub-stations

80. One objector submitted that OPTCL has not furnished any details regarding provision of data communication for the balance 30 Grid Sub-stations. He categorically submitted during the hearing that neither any schedule date for completion of this work which has not been taken up for the past several years, in violation of the Orissa Grid Code (OGC) Regulations, has been submitted nor has OPTCL applied exemption under Section 1.8 of the said Regulations.

Out–sourcing of Works by OPTCL

81. One objector submitted during the hearing that he has in various tariff hearings pointed about outsourcing of work by the Applicant-OPTCL to PGCIL, NTPC and others. This is resulting in higher capital cost in the estimates as well as the payment of markup to these Central PSUs. That in reply to the submissions of the Petitioner, OPTCL at Para-8 submitted that the claim of the Objector is not acceptable as outsourcing is a globally accepted practice and results in better efficiency and also optimally reduces the execution time, as a more experienced agency does the work. It was further submitted that PGCIL is more experienced than the applicant in the matter

of construction activities relating to 400 KV and higher voltage systems and execution of telecom work like ULDC projects.

82. He further submitted that OPTCL is a Transmission Licensee and constructions of transmission lines are a part of its core competence which cannot be outsourced. Even in the above submission, OPTCL admits that only for 400 KV and higher voltage systems PGCIL has got more experience. Therefore, outsourcing of systems of lower voltage even for 132 KV is an admission of lack of competence of OPTCL which needs immediate improvement. This is all the more necessary because OPTCL is only to procure towers, conductors, Insulators, Circuit Breakers, Transformers, Control & Relay equipments and has only to install the same and complete the construction. The core competence required is drawing up of specifications, contract management and supervision. During the public hearing, OPTCL admitted the lack of man power of proper quality and quantity. However, the submission of OPTCL that the training of the employees is conducted in Odisha and outside is not convincing. There is definite deterioration in the Organization which is to be arrested; otherwise it will result in adverse effect on the Power Sector of Odisha.

Construction of 400 KV Grid Substations by OPTCL for evacuation of Surplus Power of Independent Power Producers (IPPs) to other States through OPTCL System:

83. One objector during hearing submitted that the Commission is well aware that about 2 dozen IPPs have executed M.O.Us with Govt. of Odisha in 2006 and again in 2008 & 2009 for capacity addition of about 30.000 MW from which Odisha share might be around 8000MW as per Govt. of Odisha Thermal Policy vide Notification dated 08.08.2008.

84. He submitted that the present CMD, OPTCL as Chairperson EPRC for the year 2007-08 had approved the following Inter-State Transmission System for evacuation of Surplus Power of IPPs to other States of India. It is as under:

a. Establishment of 765/400 KV Polling Station at Jharshuguda.
b. Establishment of 765/400 KV Pooling Station at Dhenkanal.
c. Establishment of 765/400 KV Pooling Station at Anugul.
d. Dhenkanal Pooling Station to Anugul Pooling Station 765 KV 2xS/c Transmission Line.
e. Anugul Pooling Station to Jharsuguda Pooling Station 765 KV 2xS/c Transmission Line.
f. Jharsuguda Pooling Station to Dhenkanal Pooling Station 765 KV 2xS/c Transmission Line.

85. He further submitted that it is understood that the status of execution of New Projects approved by ERPC for Odisha is now as under:-

Table - 18

Sl. No	Name of Project	Status	Remarks
A	**Trans. System for Gen. Projects in Odisha**		
a)	765 KV Anugul & Jharsuguda Sub-station	NIT Issued on 20.01.2010 Award targeted for June'10	Being implemented under 1st phase of the system
b)	765 KV Dhenkanal Sub-station & associated system.	Implementation shall be taken up after confirmation of the generation schedules	Being implemented under 2nd phase of the system
c)	765 KV Anugul & Jharsuguda Line and associated LILO lines	NIT issued on Dec'09 & Jan'10 Award targeted for May/Jun'10. Completion Schedule-Progressively with 30 months (LILO by 21 months) after award i.e. by Dec'12	Being implemented under 1st phase of the system
2	**400 KV Strengthening Scheme**		
a)	400 KV Bolangir, Keonjhar, Duburi (Extn.)	Tender floated in Dec'09, Awarded targeted for May/Jun'10	Completion Sch.-28 months after first award i.e. progressively by Oct'12
b)	400 KV Uttra (Jatni) Sub-station	Tendering to be taken up after finalization of land (under progress) and awarded by Aug/Sep'10	Completion Sch.-28 months after first award i.e. progressively by Oct'12
c)	Associated lines for above	Tender floated in dec'09. Awarded targeted for May/Jun'10	Completion Sch.-28 months after first award i.e. progressively by Oct'12

86. He submitted during the hearing that OPTCL being STU should plan for Evacuation Plan for IPPs in & around Jharsuguda Area & Anugul area under 1st phase for connection with 765/400 KV Pooling Station at Jharsuguda and Anugul through 400 KV STU Substations at Lapanga, NISA/BOINDA & Meramundali Annexure as suggested below:-

A. **Evacuation plan for IPPs in/around Jharsuguda Area**. A 400 KV substation will have to be built in Lapanga which is about 46 KM away from proposed Jharshuguda Pooling Station. IPPs like Sterlite Energy Ltd (SEL) (2400 MW),Indh- Bharat (700 MW) and IBTPS Expn (1320 MW) can be connected through 400 KV Lapanga Substation which only involves construction of 95 KM of 400 KV line at an expense of Rs.250 cr..

B. **Evacuation Plan for IPPs in/around Anugul Area through 400 KV Substations at NISA/Boinda.**
A 400 KV Substation may have to be built in NISA/BOINDA which is about 30 KM away from proposed Anugul Pooling Station. IPPs like Jindal India Thermal Power (1200 MW), Monnet Power Corporation Ltd. (1000 MW) & Jindal Steel & Power Ltd (1320 MW) can be connected through 400 KV NISA/Boinda substation which involves construction of about 75 KM of 400 KV D/C line at an expense of Rs.205 cr..

C. **Evacuation Plan for IPPs in / around Anugul area through 400 KV Meramundali Annexe Station.**

A 400 KV substation will have to be built at Meramunadali Annexe which is about 20 KM from Anugul Pooling Station. IPPs like LANCO (2640 MW), GMR (1400 MW) & Bhusan (1000 MW) can be connected through 400 KV Meramundali. Annexe Substation which involves construction of about 55 KM at an expense of Rs.205 cr.

He submitted that Evacuation Plan under (A), (B) & (C) above may cost to Odisha STU about Rs.1000 cr. which can be raised from REC or PFC availing loan or can be constructed based on " Tariff based competitive bidding guidelines for transmission service" issued by MOP on 13.04.2006.

87. He further submitted that as per his rough approximate calculation, if these Evacuation Schemes are not taken up by OPTCL, both OPTCL and SLDC are set to lose Rs.400 cr. per annum from 2017 onwards towards Wheeling and Scheduling Charges and on the other hand Odisha will have to pay to Power grid & ERLDC about Rs.500 cr./annum towards CTU Wheeling Charges & ERLDC/NLDC Scheduling Charges from 2017 for sourcing Odisha share of 8000 MW.

Restoration of 400 KV IB- Meramundali D/C Line (235 CKM)

88. Another objector submitted that OPTCL being ODISHA STU has not yet commissioned 400 KV IB-Meramundali D/C Line (235 CKM) which is regarded virtually as the LIFELINE-link between Western Odisha and Central Odisha for transfer of power. He submitted that this scheme was scheduled to be completed at an expense of Rs.110 cr. by 31st March, 2001 but could not be completed due to the negligence of GRIDCO/OPTCL officials as well as by M/s KEC the entrusted contractor to execute the same.

89. He submitted that it is now estimated that the restoration and commissioning of line requires an additional amount of Rs.110 cr. and the Commission has been insisting on OPTCL since 2006 to undertake and commission this important line by 2008 positively.

90. He further submitted that now when the State of Odisha is languishing with acute shortage of power and M/s Sterlite Energy Ltd have come forward to offer 100% generation from its 1st 600 MW Unit which is expected to be commissioned by April/May 2010, it is not understood how GRIDCO/OPTCL will evacuate this Power from Western Odisha to Central Odisha. He submitted that he is apprehending that Odisha will have to import this power through ER Grid of ISTS by paying additional Wheeling Charges of 18 to 20 paise/KWH to Power Grid and Scheduling Charges to ERLDC which 30 Lakhs Odisha consumers have to bear in addition to the Scheduling Charges of SLDC and Wheeling Charges of OPTCL. This is sheer inefficiency of OPTCL ignoring the directives of the Commission time & again to make this vital 400 KV D/C line ready by 2008.

91. He, therefore, prayed that the Commission should examine this issue through a Public Hearing and Order for restoration of 400 KV IB-Meramundali D/C line by end 2010/early 2011 by OPTCL so that this line can be tapped for 400 KV Grid Substations at Lapanga, NISA/Boinda & Meramundali Annexe proposed under STU Plan to be connected in turn with 765/400 KV Pooling Stations of CTU proposed at Jharsuguda & at Anugul under phase-I Programme.

92. He further submitted that it is understood that conspiracy is going on in OPTCL with assistance of Officials in CEA and POWERGRID not to allow this ambitious Evacuation Plans as well as the restoration of 400 KV IB-Meramundali D/C line by

OPTCL so that POWERGRID can construct the proposed 765 KV 2xS/C from Jharsuguda Pooling Station to Anugul Pooling Station availing the existing Right-of-Way (ROW) of 400 IB-Meramundali D/C line sanctioned by MOEF as POWERGRID officials have confidentially expressed their helplessness to obtain ROW for the proposed 765 KV lines as it would pass through dense forests.

93. He, therefore, prayed that the Commission should start a suo-muoto Public Proceeding on this very subject to safeguard the interest of Odisha.

Supervision Charges

94. One objector stated that the licensee is forcing all EHT customers, not only to bear the entire cost of bay extension but also demanding an interest of 6 percentage over deposit of Rs.10.00 lakhs per MW, towards augmentation charges, which is not site-specific. There is no justification to claim supervision charges for bay extension, lines, switching station @ 16 % plus service tax there on being constructed by the EHT customers on behalf of the licensee. Moreover a lot of works like tendering, manufacturer's drawing approval, and approval of Electrical Inspector etc are not done by the licensee. Therefore, EHT customers should be given reimbursement. He, therefore, submitted that the Commission may reduce the ARR of OPTCL to the extent of full or part value of the supervision charges and the benefit of infrastructure loan, in accordance with the provisions relating to misc. revenue under Electricity Act 2003.

Infrastructure Loan

95. An objector submitted during the hearing that OPTCL is asking for payment of infrastructure loan in two installments by the EHT and even 33 KV consumers at the rate of Rs.10.0 lakhs per MW which is not site specific for the industrial consumers. Even though OPTCL in its Agreement format has provided that the infrastructure loan is being willingly given by the consumers, in fact, it is a demand. Any industry requesting for waival of this loan is not allowed permission for availing power supply. The conditions of the infrastructure loan also violate natural justice. He submitted that even though simple interest @ 6% per annum is provided, no annual interest payment is being made for a period of 5 years. After the end of 5 year period, simple interest @ 6% is calculated on reducing balance method and this amount is payable in 12 monthly installments. He further submitted that in Table 12 of the ARR proposal of OPTCL, even though an amount of Rs.48.73 crore is shown as the closing balance of infrastructure loan on 31.03.2010, no principal or interest amount is shown for repayment.

Government Assistance

96. One objector stated that as per the letter No 1793 dated 18.02.2009 of Deptt. of Energy the State Government was considering the aspect of providing subsidy to OPTCL for the year 2009-10. Moreover the Govt had also taken in principle decision to provide capital investment of Rs.100 Cr to OPTCL in the form of share capital over 3 years. This should be considered while finalization of transmission tariff for the year 2010-2011.

Capital Expenditure

97. One objector stated that the licensee has furnished details of the capital expenditure under head CAPEX which is an expenditure of capital nature and should not be

considered as a part of the annual revenue requirement for computation of the transmission tariff and Open Access Charges.

98. Some objectors said that the Capital Expenditure Schemes ought to be filed separately and should be detailed in nature and should include the Cost–Benefit Analysis so that the same can be scrutinized by the Commission.

99. One objector submitted that the charges payable to PGCIL should not form part of the ARR. OPTCL has recently been off loading the work of preparation of specifications, tender documents, submission of recommendations for Vendor selection, on outside agencies. Similarly a lot of other works are also being entrusted to the outside agencies. Such action is seriously reducing the core competency of the licensee and should be avoided.

100. 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. No useful purpose will be served by installation of equipment by the industries / generators unless the OPTCL SCADA interface is in place.

101. The Objector suggests that OPTCL should state the reasons as to why speech and data communication equipments were not provided for 30 Nos. of 132 KV sub-stations under OPTCL when OGC Regulation provides for installation of such equipments.

R&M Expenditure

102. One objector submitted that the R&M expenditures for the year 2010-11 should be computed based on the actual expenditures of the past years and the proposed figures in their ARR should not be accepted.

103. The objector has pointed out that OPTCL in its ARR has proposed expenditure of Rs.98.14 crore towards maintenance of lines and sub-stations during FY 2010-11 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.

104. 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).

105. Some objectors submitted that most of the R&M expenditure envisaged in the ARR of OPTCL is in nature of the Capital Expenditure to increase the life and capacity of the asset which should not be treated as R&M expenses.

106. 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. Accodingly, the R&M expenses for FY 11 ought to be Rs.18.94 crore and that the same can be trued up as and when actual expenditures are submitted after necessary prudence checks.

107. One objector held that provision of more funds in the past has not improved the system for which sincere and dedicated efforts are needed by OPTCL to achieve the goal.

108. 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 spent under R&M from the year 2000-01 and 2009-10 towards R&M and how much it has spent during 2000-01 and 2009-10 and what are the improvements.

Employee and A & G Cost

109. The Reliance-managed DISCOMs submitted that Employee Expenses might be of the order of Rs.540 Cr against OPTCL's claim of Rs.865 Cr.

110. One of the objectors indicated that National Productivity Council (NPC) had been assigned to study OPTCL organizational structure and carry out a comprehensive restructuring, to meet the increasing demand of the sector and of important aspects of the transmission utility. It will be prudent to recruit new staff only after getting the organizational restructuring report from the NPC, so that the actual employee cost requirement may be known.

111. An objector held that OPTCL has proposed an A & G expenditure of Rs. 26.99 crore in the FY 2010-11 as against the approval of Rs.17.50 crore during 2009-10. He submitted that if an escalation of 5.5% is allowed then Rs.18.46 crore may be allowed to OPTCL towards A&G expenses for FY 2010-11.

Interest on Loan

112. Some objectors submitted that OPTCL has claimed the interest on loan for an amount of Rs.122.03 crore for the year 2010-11 against Rs.37.06 crore based on the principle approved by OERC.

113. Some objectors stated that interest on the GOO Bonds of Rs. 400 crore was proposed to be converted into equity in line with the Commission's BST order for 2003-04 and subsequent tariff orders. Hence, the interest on GOO Bonds should not be taken into account.

114. Some objectors pointed out that the Financing Charges of Rs.15.26 crores projected by OPTCL is unreasonably high and OPTCL should be directed to furnish the details of the aforesaid charges.

115. An 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%. He therefore submitted that the interest rate for the PFC loan @ 8.5% may be considered.

116. Another objector pointed out that the details of the interest on new project loan of Rs. 503.27 crore for Rs.38.39 crore have not been furnished by OPTCL for scrutiny. Hence, the claim for the same should not be considered.

Interest on Working Capital

117. An objector pointed out that the loan base taken for computation of interest on loan includes the loan availed by GRIDCO and subsequently transferred to OPTCL towards working capital. As the loan base is yet to be divided into capital expenditure loan and working capital loan, no interest on working capital loan should be allowed to OPTCL.

118. Another objector, however, has supported the claim of OPTCL for interest on working capital and quoted the order of the CERC that the interest of the working capital should be allowed to licensee even though the licensee does not avail any such loan for meeting the working capital.

Fixed Assets & Depreciation

119. 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. Accordingly the depreciation may be considered by the Commission at Rs.153.31 crore.

120. Another objector pointed out that depreciation may be permitted at CERC approved rates, whereas the State Government as per the directives of the High Court instructed to adopt the depreciation charges at pre-1992 rates which have been extended up to 2010-11. He, therefore, submitted that depreciation charges at the higher CERC approved rate may not be approved by the Commission.

121. One objector pointed out that the gross fixed asset of OPTCL has increased by Rs.1638 Cr i.e from Rs.541.32 Cr as on 01/04/96 to Rs.2152.36 Cr as on 01/04/2009 whereas the transmission loss has remained more or less same. Thus the high expenditure on assets addition and the interest thereon is of no use and hence should not be allowed in the final order of OPTCL.

Contingency Reserve

122. An objector held that OPTCL has projected the investment towards contingency reserve for Rs.15.36 crore in FY 2010-11. 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 by the Commission.

123. Some objectors have held that OPTCL has projected the investment towards contingency reserve for Rs.15.36 Cr in FY 2010-11. The provision for the investment towards contingency reserve is not there in the OERC (Terms and Conditions for determination of tariff) Regulations, 2004. The objector had earlier appealed before ATE and ATE directed to allow 1/5th of the R & M towards contingency reserve. The objectors, therefore, submitted that an amount of Rs.3.785 Cr might be allowed to OPTCL for FY 2010-11 based on the directive of ATE.

124. One objector pointed out that the contingency fund of Rs.83.77 Cr with OPTCL may be utilized in emergencies like natural calamities.

Return on Equity

125. An objector submitted that OPTCL has proposed reasonable return of Rs.18.31 crore applying 15.5% pretax basis. He submitted that as the sector has not yet turned around, reasonable return may not be allowed.

126. Another objector stated that as per Govt. of Odisha Notification dated 29.01.2003 the transmission licensee is not entitled for any return on equity.

Past Losses/Pass through Expenses

127. An objector held that the claim made by OPTCL in its ARR for FY 2010-11 towards past losses has no merit as the same items were already dealt in the ARR for FY 2008-09 and hence may not be allowed. He submitted that the truing up exercise

needs to be conducted for OPTCL with due prudent checking of all the components of ARR.

Special Appropriation:

128. An objector pointed out that OPTCL has proposed special appropriation of Rs.18.33 crore for meeting debt service obligations. He submitted that in previous years, the Commission had allowed additional depreciation limiting to the 1/10th of loan value for repayment of debt service obligations. He further submitted that the aforesaid issue was objected before the ATE in view of the principles adopted in National Tariff Policy. He submitted that the ATE had directed to exclude the AAD in the OPTCL ARR FY 2006-07. Hence, special appropriation may be excluded in computation of the OPTCL ARR.

Transmission Tariff

129. An objector held that the proposed transmission tariff of 68.72 paise/unit for the FY 2010-11 is about 335% hike of the approved transmission charges of 20.5 P/U for the FY 2009-10 which is clearly unacceptable. He submitted that the Commission may retain the transmission tariff approved for the year FY 2009-10 for FY 2010-11 also.

Income from Wheeling

130. The Reliance-managed DISCOMs submitted that the Commission had considered Rs.5.0 Cr towards the wheeling income for the FY 2006-07 which had been overruled at ATE which directed the Commission to consider Rs.17.00 Cr. Accordingly the DISCOMs submitted before the Commission to consider the same figure while considering wheeling charges of OPTCL for FY 2010-11.

Special Issues

131. 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 FY 2009-10.

132. Another objector submitted that the Govt. of India and the State Govt. have announced to give electricity to all through Rajeev Gandhi Gramin Bidyut Yojana & Biju Gramya Jyoti Yojana programme under grid connected route by 2012 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.

REJOINDER BY OPTCL TO THE QUERY OF OBJECTORS (para 133 to 184)

133. In response to the views of objectors on the ARR and Tariff Application of OPTCL for 2010-11, 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 as the licensee has filed application in accordance with the OERC (Terms and Conditions for Determination of Tariff) Regulations, 2004 and Clause 19.3 of License Conditions of OPTCL (effective from 01.11.2006) approved by OERC vide 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 2007-08 and provisional accounts for FY 2008-09. Hence, the question of misguiding by the Licensee does not arise.

136. The present application cannot be rejected by making a general 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.

138. The objector, IMFA, advocates for non-levy of transmission charges stating the reason that there is actually no transmission of electricity from the point of injection (i.e. from Choudwar) to the point of delivery at Therubali. OPTCL does not agree to the proposition of the objector for non-levy of the transmission charges. The beneficiary has the obligation to pay transmission charges and the loss if it intends to wheel power from one place to another because OPTCL has made huge investments for commissioning the transmission network. In this context, the objector is requested to submit one estimation to find out the opportunity cost of putting up the transmission lines for its own use (i.e, wheeling of its own power from Choudwar to Therubali by constructing its own line and to maintain the same) and compare the same with the transmission charges allowed by the Commission, if the objector intends not to use OPTCL transmission system. OPTCL further states that the judgment dated 10.11.2006 of the Hon'ble High Court of Odisha, Cuttack passed in M.A. No. 614 of 2002, which is relied by the objector in Para 11 has no application in the present proceeding as the same is now pending before the Hon'ble Supreme Court of India, New Delhi.

Quality of Supply

139. OPTCL is always ready to coordinate with GRIDCO & DISCOMs and endeavors its best effort towards successful implementation of the Central and State sponsored schemes. OPTCL has conducted the Transmission Planning study for OPTCL EHT transmission system in coordination & consultation with GRIDCO and DISCOMs. Accordingly OPTCL is taking all effort to renovate / modernize and strengthen its infrastructure to cater to the future load.

140. OPTCL further stated that it has undertaken construction of new lines and sub-stations as well as working on war-footing to complete all the ongoing projects. Also a good number of new projects have been proposed for strengthening the transmission infrastructure considering the future load growth and for improvement of quality of power supply.

Transmission Loss

141. The Commission had approved 5% loss for 2007-08, 4.5% loss for 2008-09 & 4% for 2009-10. The actual transmission loss for 2006-07, 2007-08, 2008-09 and 2009-10 (April '09 to October'09) is computed as 5.04%, 4.82%, 4.52% and 4.28 % respectively. Based on the present trend, OPTCL has proposed the Transmission Loss @ 4.3 % for 2010-11. 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.

System Availability

142. The system availability of OPTCL transmission network for FY 2008-09 & FY 2009-10 (April to November, 2009) is computed as 99.59% and 99.49% respectively following the procedure laid down in CERC Regulation, 2009. The detailed calculation sheets on system availability have been furnished by OPTCL at Annexure-I (page 19 to 86) in the reply to the Commission's Query No. 2.

Transmission Projects

143. The detailed status report on transmission projects completed during FY 2007-08, FY 2008-09 & under execution by OPTCL during FY 2009-10 have been furnished in the ARR application of OPTCL in the formats prescribed by the Commission (Page No. 196-198).

144. With regard to present status report of 400 kV Ib-Meramundali line, it is humbly submitted that a fresh survey has been conducted to assess the up-to-date damage for preparation of the detailed cost estimate for revival of the line. The load flow study is being done to establish techo-economic justification of the restoration of the line. After Detailed Project Report is prepared and administrative approval is accorded, OPTCL will move the Commission with a fresh petition seeking approval for the investment proposal.

Completion of Projects

145. In response to the projects undertaken by OPTCL, it is submitted that timely implementation of transmission projects depends on various factors. OPTCL has been commissioning new transmission projects, but has not been able to complete some of the old transmission projects as per schedule for reasons beyond the control of the licensee. The reasons are right of way, theft of materials, court cases, poor contractual performance, delay in getting statutory clearances etc. OPTCL has taken effective measures to complete these lines as early as possible. As a matter of fact, OPTCL has been able to commission a good number of old projects during 2008-09 and during first six months of 2009-10 and expects to complete some other old projects by end of the current financial year. Hence, actual capital cost for commissioning these projects need to be allowed by the Commission so that OPTCL will be in a position to service the loan availed for completing these projects in the interest of the consumers of the State.

Supervision Charges

146. With regard to the objections made by an objector; the licensee stated that it is to mention that after detailed discussion with the prospective industries and as per advice of the State Govt., OPTCL has formulated a policy to mobilize funds for construction of key transmission lines from EHT consumers for their benefit and the fund is being repaid to those EHT consumers along with interest @ 6% per annum. OPTCL has not forced any EHT consumers to make funds available for construction of new lines. Such a policy is in the interest of the consumers of the State as it carries an interest rate of 6% per annum as against the prevailing interest rate of 11 to 12% per annum and the matter relating to Supervision Charges is subjudice. OPTCL has no further views in this regard.

Catering of load growth due to RGGVY scheme

147. Considering the load growth in future years, OPTCL has proposed for construction of new lines and sub-stations for which CAPEX of Rs.258.94 cr. is proposed for FY 2010-11. OPTCL has made Transmission Planning Study in this regard for the 11th

Plan Period which has taken into account the upcoming huge demand due to RGGVY & BGJY schemes besides fulfillment of system stability requirement. Coordinated efforts by OPTCL, GRIDCO & DISCOMs are being made to meet the future load growth due to RGGVY & BGJY.

System Improvement

148. OPTCL is duty bound to provide SCADA interface points at all 220 kV sub-stations. OPTCL BoD has accorded administrative approval in the 37th meeting held on 18.12.2009 to the proposal placed for the above purpose. Signing of MOU with Power grid is under progress. Thereafter, the investment proposal will be submitted to OERC for kind approval. The schedule of completion of the project at all 220 kV sub-stations in totality shall be progressively within 36 months from the date of release of advance payment or signing of agreement with OPTCL. The tentative schedule of completion of the project is 31st March, 2013.

149. Regarding integration of 30 nos of grid sub-stations for establishment of speech and data communication facilities up to SLDC, Bhubaneswar, the scheme has been approved by BoD of OPTCL in its 34th meeting held on 17.08.2009. Approval for the investment proposal has been sought from OERC in Case No. 124/2009 and the same is pending for disposal. The agreement has been signed with POWERGRID on 28.10.2009. Arrangement of funds for implementation of the project will be made after receipt of the approval from the Commission.

150. In reply to the query by an objector OPTCL stated that the present status on installation of Capacitor Banks (total 275 MVAR) at 23 nos. of existing grid sub-stations of OPTCL is mentioned below:

a) The In-principle approval of BoD has been obtained. Relevant estimates have been sanctioned.
b) DPR has been prepared. Proposal for availing loan from REC on a total estimated cost of Rs.18.594 cr. has been initiated.

Outsourcing of Works

151. OPTCL humbly states that the claim of the objector is not acceptable as outsourcing is now-a-days a globally accepted practice in this changed techno-economic scenario which not only result 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 & higher voltage systems and execution of telecom works like ULDC projects.

Annual Audited Account & Revenue Gap

152. The present ARR and transmission tariff application has been prepared and submitted based on the Audited Accounts of OPTCL for FY 07-08, provisional Accounts of OPTCL for FY 08-09, relevant facts and evidential documents. Moreover, OPTCL had furnished all information and other details as per the prescribed formats provided by OERC with full justifications.

153. A copy of Provisional Balance Sheet and Profit & Loss Account for FY 2008-09 as approved by the BoD of OPTCL for income tax purpose has been filed by OPTCL before the Hon'ble Commission in reply to OERC Query No. 14 at Annexure-20. A

copy of the compliance to Commission's queries has been sent along with the rejoinder.

154. In the mean time, the annual accounts for FY 2008-09 have been finalized and the same shall be placed before the Board for authentication and approval in its next meeting scheduled to be held on 5th February 2010. The audited accounts along with the report of the Statutory Auditors will be submitted to the Commission in due course.

155. OPTCL does not agree to the statement that there was huge gap between the audited figures and the provisional figures. Therefore, the figures proposed for expenses for different heads are reliable and trust worthy for fixing the Annual Revenue Requirement for 2010-11.

Transmission Tariff

156. OPTCL has proposed the transmission tariff of 68.72 P/U to recover the proposed ARR of Rs.1443.50 cr. for FY 2010-11 which is based on the OPTCL's Audited Accounts for FY 2007-08, Provisional Accounts for FY 2008-09, facts and materials on record. Unless the current transmission tariff is revised upwards, OPTCL will be left with a deficit of Rs.1012.74 cr. as has been shown in Table –27 (page 40 of 49) in the ARR application. However, the licensee has no objection if the arrear pension liabilities are staggered over a period of 3 to 4 years in order to avoid steep rise in transmission tariff.

Income from Inter-state Wheeling

157. The interstate wheeling of Energy in MU for the past years are shown in the following Table:

Table - 19

Year	Energy billed for Inter-State Wheeling (in MU)
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	33.74
2009-10 (April'09 to Nov'09)	158.93

158. It may be observed from the above table that 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 Odisha 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.

159. In view of the above, the receipt from inter-state wheeling is anticipated to be limited to only Rs.3.72 cr. as proposed by OPTCL in its ARR application for FY 2010-11. The contention of the objector that it should be scaled up to Rs.17.50 cr. 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.

TRANSMISSION COST

Employee cost:

160. The major part of the O&M expenses is towards the Employee Cost including terminal benefits. For 2010-11, the same has been projected at Rs.865.13 cr., which is much more than the O&M expenses of Rs.501.75 cr. calculated as per CERC norms.

161. OPTCL's projection of Employees Cost for 2010-11 is based on audited accounts of 2007-08, provisional accounts of 2008-09, relevant facts and evidential documents. The assumptions made while projecting different expenditures under Employees Cost have been indicated in the TRF-13 enclosed to the ARR Application at page 99. With regard to the objections on the proposed expenditure on the various heads of employee cost, OPTCL has made the clarification in the ARR application of OPTCL at page 4 to 7.

R & M Cost:

162. 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 planned to undertake preventive and proper maintenance of its lines and grid sub-stations in the ensuing years for which Rs.98.14 cr. is proposed towards R&M expenses during the FY 2010-11.

163. In this regard, it is to mention that to meet the performance standards set 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 in the existing system to handle the increased load in the system. Besides, the expenditure on account of repair of defective power transformers, renovation of earthing system of EHT lines and grid sub-stations 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, installation of Capacitor Banks etc. are treated as CAPEX in nature. OPTCL has therefore planned to undertake preventive and proper maintenance of its lines and grid sub-stations in the ensuing year for which Rs.98.14 crore is proposed towards R&M expenses during FY 2010-11.

164. The provisional expenditure incurred under R&M head for 2008-09 is Rs.15.65 cr. The spillover of some R&M out flow of FY 2008-09 amounting to Rs.6.39 cr. is to be

paid during the current fiscal year. An amount of Rs.28.93 cr. has already been spent during April'09 to November'09 towards R&M expenditure for FY 2009-10 out of total approval of Rs.47.00 cr.. 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 ground wire etc. Apart from this, up to January 2010, the committed expenditure for FY 2009-10 under R&M head for which orders have been placed is Rs.54.64 crore.

165. Apart from this, up to January 2010, the committed expenditure for FY 2009-10 on R&M head for which orders have been placed is Rs.54.64 cr.. 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, 2009 has already reached Rs.28.93 crore.

166. 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.

167. 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.

168. OPTCL has been very much pragmatic in proposing its R&M requirement & hence does not agree to the projections made by the objector.

A & G Expenses:

169. The A&G expenses have shown an increasing trend due to price rise and inflation. During FY 2008-09, the A&G expenses were Rs.20.00 cr. (as per cash flow statement) against OERC approval of Rs.16.57 cr.. Based on the actual expenses of Rs.10.38 cr. during FY 2009-10 (up to November'09), the A&G Expenses for FY 2009-10 is estimated to be around Rs.39.84 cr. against OERC approval of Rs.14.35 cr..

170. Therefore, the A&G Expenses of Rs.26.99 cr. for FY 2010-11 has been proposed over the projected estimate for FY 2009-10 and OPTCL's projection towards A&G expenses is very much realistic which needs full consideration.

Interest Charges:

171. 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.37.06 cr. against OPTCL's proposal for Rs.122.03 cr..

172. Out of the total projected CAPEX of Rs.559.18 cr. 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 in respect of new projects have been submitted by OPTCL in reply to the Query No. 19 of the Commission. A copy of the compliance to Commission's queries

has been sent along with this rejoinder. 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, 2010.

173. Regarding the financial charges of Rs.15.26 cr., 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.

Depreciation:

174. OPTCL has projected depreciation of Rs.153.31 cr. for FY 2010-11 considering the depreciation rate as prescribed by CERC on upvalued Assets and additions thereto. OPTCL has already submitted Asset Register to the Commission up to 2006-07. The finalized Asset Register for FY 2007-08 has been filed before the Commission on 19.01.2010. The Asset Register for FY 2008-09 is under preparation and will be submitted to OERC shortly. Therefore, OPTCL is entitled to depreciation on the book value & at CERC rate.

Advance Against Depreciation (AAD):

175. OERC vide ARR & Transmission Tariff Order dated 20.03.2009 for FY 2009-10 has allowed Special Appropriation 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.

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

177. Thus, OPTCL submits that the OERC may kindly allow Special Appropriation of Rs. 18.33 cr. for FY 2010-11 as proposed in line with its earlier ARR & Transmission Tariff Order dated 20.03.2009 for FY 2009-10. OPTCL will not be in a position to service the loan repayment if Special Appropriation is not considered by the Hon'ble Commission.

Return on Equity:

178. Return on Equity is projected based on CERC Regulations, 2009.

Interest on Working Capital:

179. Interest on Working Capital is projected based on CERC Regulations, 2009. OPTCL will have no objection for detail scrutiny of the same and to the estimation of Commission towards fixation of Interest on Working Capital as this proposal is based on CERC tariff regulation.

Contingency Reserve:

180. 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 subsection (1) of Section 69 framed under the Electricity (Supply) Act, 1948 which have been saved under Section 185 (d) of the Electricity Act, 2003, OPTCL has calculated the Contingency Reserve @ 0.5% on Gross Block.

181. With regard to the ATE Order dated 13.12.2006 relating to the ARR & Transmission Tariff for 2006-07 in which Contingency Reserve expense forms a component of the ARR, it may be noted that the said order has been challenged before the Supreme Court of India vide Civil Appeal No. 417 of 2007. The Appeal is subjudice as of now. Hon'ble SCI 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.

Pass through Expenses:

182. The proposal for truing-up of the costs and revenue for the three financial years i.e. 2005-06 to 2007-08 are based on audited accounts and OPTCL has requested the Commission to allow the excess net cost incurred over and above the cost allowed as a pass through in the ARR for FY 2010-11 to bridge the operational loss from the year of its inception. The loss was incurred by OPTCL due to approval of costs and revenue by the Hon'ble Commission for the respective year on projected basis. 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 have to pay the charges incurred reasonably by the licensee.

183. A sum of Rs.74.46 cr. is the excess net cost incurred over and above the cost allowed by the Commission which is required to be allowed as a pass through in the ARR of OPTCL during the financial year 2010-11.

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

184. As desired by the objector, Year-Wise Comparison of proposal, approval and actual expenditure against R&M, A&G, and O&M head for the period from 2000-01 to 2009-10 (up to Nov' 09) are given below.

Table – 20
R&M, A&G and O&M Expenses from FY 2000-01 to FY 2009-10

(Rs. cr.)

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	36.00	25.57	15.85	14.89	17.3	291.39	166.05	142.32
2007-08	54.00	47.00	25.62	14.79	15.71	20.36	250.91	201.49	178.5
2008-09	82.12	53.88	33.39	25.93	16.57	20.00	259.93	203.31	188.93
2009-10 (April to Nov 09)	123.74	47.00	28.93	39.84	14.35	10.38	654.96	234.46	172.53

Note: O&M expenditure comprises of Employee Cost, R&M cost and A&G cost

OPTCL'S RESPONSE TO QUERIES RAISED BY THE DIRECTOR (TARIFF) IN THE PUBLIC HEARING ON 10.02.2010 (para 185 to 224)

185. Director Tariff OERC during Hearing of the case no 145/2009 relating to ARR & Transmission Tariff Application of OPTCL FY 2010-11 raised certain queries on different issues relating to the ARR application for compliance by OPTCL.

Transmission Loss

186. OPTCL has proposed transmission loss of 4.3% for 2010-11 as against 4% transmission loss approved by the Commission for FY 2009-10. In reply to Commission's queries, OPTCL submitted that the Transmission Loss for 1st seven months of 2009-10 was estimated at 4.28%. The Sovan Kanungo Committee in 2001 had recommended step-wise reduction of at least 0.3% per annum in Transmission Loss so that the Transmission Loss is brought to a level at par with POWERGRID – the CTU. OPTCL may furnish Roadmap of reduction of transmission loss to the Commission in view of the construction of new lines and substations for which huge investment has been made in the last decade (2000-2009).

187. In reply to the query, OPTCL submitted the details of Transmission loss in EHT network since inception of OPTCL in the tabular form as under:

Table – 21
Details of Transmission Loss from FY 2005-06 to FY 2009-10

Year	OERC Approval	Actual
2005-06	4%	4.43%
2006-07	4%	5.04%
2007-08	5%	4.82%
2008-09	4.5%	4.52%
2009-10	4%	4.28% (Apr-Oct'09)

188. OPTCL submitted that the Transmission Loss is purely a technical loss. From the fluctuation of transmission loss derived for different years, it is evident that the transmission loss is dependent on the system configuration and power flow requirements at different load centers. In view of the increasing demand for power at an accelerated pace due to ongoing industrialization in Odisha and stoppage of trading of power due to shortage scenario, there will be increased flow of power in the OPTCL transmission network contributing to increased transmission loss.

189. Regarding Roadmap of reduction of transmission loss, OPTCL submitted that reduction in loss levels of 0.20% for FY 2010-11, 0.10% for FY 2011-12 and a further reduction of 0.20% for FY 2012-13 i.e. transmission loss of 4.0% during FY 2012-13 has been envisaged in the Revised Business Plan at Para 4.18 (page 20) submitted to the Commission on 09.06.2009. The reduction in transmission loss expected to be achieved by OPTCL is significantly realistic and OPTCL is committed to achieve the specified loss reduction levels.

190. OPTCL is of the view that if high loss reduction target is fixed for FY 2010-11, then this will lead to a situation wherein OPTCL will be unable to achieve the target and its cash flow will be affected. Penalising for reasons beyond OPTCL's control are not fair and would adversely affect the financial viability of OPTCL.

191. The summary of loss reduction target to be achieved for the next three years has been shown in the table given below:

Table - 22
Transmission Loss Trajectory from FY 2010-11 to FY 2012-13

Item	FY10-11	FY11-12	FY12-13
Transmission Loss	4.30%	4.20%	4.00%

Transmission Loss Reduction Strategy:

192. In reply to the query, OPTCL submitted as under:

Implementation of Transmission Projects:

193. As detailed in its ARR application for FY 2010-11, OPTCL has envisaged to complete a number of ongoing transmission projects (lines & sub-stations) and also planned to start implementation of a quite good number of transmission projects during 2010-11. OPTCL will also undertake installation of additional transformers and capacitor banks. This would cater to the growing demand, improve quality of supply and reduce transmission loss.

194. Innovative operational activities: the operational activities to be taken up by OPTCL for loss reduction are mentioned here under:

(a) 400 KV system and 220 KV system in OPTCL system is synchronized but the 132 kV system is not synchronized. As a result, some of the 132 kV lines are getting overloaded while other 132 kV lines remain lightly loaded. For example, the Rajgangpur S/S with about 80MW load was receiving power supply either from Budhipadar Auto or from Tarkera Auto. By doing a system study with the software available with SLDC, it was observed that synchronization of both Budhipadar Auto and Tarkera Auto at 132KV level is feasible and accordingly now at Rajgangpur they are synchronized.
OPTCL has placed procurement order on M/s PRDC, Bangalore for "Mipower" licenses in the office of CGM (O&M) so that further studies on synchronization of the 132KV systems would be conducted and accordingly implemented as far as possible to reduce the loss. At present there is scope to synchronise 132KV system at the following points:-

1. Duburi-Jajpur Road D/C vs Paradeep-Kendrapara-Jajpur Road D/C (Duburi Auto with Paradeep Auto).
2. Joda-Polasponga-Karanjia S/C vs Kuchei-Rairangpur-Karanjia S/C (Joda Auto with Kuchei Auto)
3. Tarkera-Rourkela vs Joda-Nalda-Rourkela (Tarkera Auto with Joda Auto)
4. Budhipadar-Burla PH D/C vs Rairakhol-Angul-TTPS S/C vs Chainpal-Angul S/C (Burla PH with TTPS).
5. Nimapara-Puri S/C vs Khurda-Puri S/C (Parallel operation)
6. Aska-Berhampur S/C vs Narendrapur-Berhampur S/C (Narendrapur Auto with Bhanjanagar Auto).
7. Bidanasi-Choudwar S/C vs Meramundali-Arati-Choudwar Ckt. I and Chainpal-Dhenkanal-ICCL-Choudwar Ckt. II (Bidanasi Auto with Meramundali Auto).
8. Bidanasi-Chandaka S/C vs 132KV Switchyard at Chandaka (Bidanasi Auto with Chandaka Auto).
9. Theruvali-Kesinga S/C vs Katapali-Bolangir-Saintala S/C (Theruvali Auto with Katapali Auto).
10. Balasore-Soro-Bhadrak (Balasore Auto with Bhadrak Auto).

(b) Presently there are 6 nos. transformers whose tap changers are defective (Ganjam, Jharsududa, Soro, Kalarngi, Joda & Angul). Once all the tap changers are set right, parallel operation would be possible leading to further transmission loss reduction.

(c) 565 nos. Energy Audit meters are being installed in different feeders to have 100% Energy Audit. From this, feeders with high losses will be identified and remedial measures will be taken.

195. CERC (Terms & Conditions of Tariff) Regulations, 2009 have specified that Normative Annual Transmission System Availability Factor (NATAF) should be 98% for recovery of full annual fixed cost of OPTCL. To the Commission's query, OPTCL has furnished system availability of 99.59% & 99.49% respectively for FY 2008-09 & 2009-10(April to November, 2009). As per Regulation 2.2.6 of OGC Regulation, 2006, SLDC is to certify the availability of State Transmission System. OPTCL should, therefore, get the system availability certified by SLDC and submit the same to the Commission.

196. In reply to the query, OPTCL submitted that the System Availability of 99.59% during the year 2008-09 and 99.49% from April 2009 to November, 2009 have been certified by SLDC and are furnished at ANNEXURE -1.

Apportionment of Annual Fixed Cost (AFC):

197. OPTCL at Page-49 of its ARR Application for FY 2010-11 has proposed Transmission charges @ Rs.300399.53/MW/Month or @ 68.72 P/Kwh for transmission of power at 400/220/132 KV only over OPTCL's EHT transmission system. In Rs./ MW/Month approach, OPTCL has apportioned the Annual Fixed Cost (AFC) based on ratio of maximum demand of individual customer to that of total maximum demand. OPTCL may clarify as to under which Regulation the AFC is apportioned in the ratio of maximum demand of a beneficiary to that of total maximum demand.

198. In reply to the query, OPTCL submitted that the basis of calculation of transmission tariff in terms of Rs./MW/Month taking the MW arrived from the maximum demand of DISCOMs is adopted by OPTCL in line with the OERC order dated 20.03.2009 in Case No. 65/2008 approving ARR and Fees and operating charges for SLDC function for FY 2009-10. This has been explained in its compliance to Commission's queries (Query No. 13) at page 11-12 submitted to the Commission on 19.01.2010.

Installation of capacitor banks:

199. The Commission vide Order dated 06.04.2009 had directed OPTCL to install 150 MVAR in 10 nos. of Grid Sub stations in FY 2009-10 and balance 125 MVAR in 13 nos. of Grid Substations during FY 2010-11 with the objective of improving the voltage in the command areas of those 23 nos. of Grid Substations. In reply to a query, OPTCL submitted that DPRs are under preparation and a proposal for availing a loan of Rs.18.594 cr. from REC has been initiated. OPTCL should submit the Roadmap for installation of all 275 MVAR Shunt Capacitor Banks in one go in 23 nos. of identified Grid Substations by end July, 2010 so as to attain the objective stipulated in the Commission's Order dated 06.04.2009.

200. In reply to the query, OPTCL submitted that the Capacitor Banks presently available in the OPTCL system were procured 15 years back. In the meantime a lot of changes have taken place in the technology front of capacitor banks and ancillary equipments. OPTCL has collected the technical specifications from other State Utilities and

Manufacturers which took some time. Now technical specification with loss capitalization formula and scope of work has been prepared. Accordingly the tender notice for installation of capacitor banks in 23 Nos. of S/S as detailed at ANNEXURE-2 is going to be floated within a month. The work of installation of capacitor banks will be completed by January, 2011. It is not feasible to install the capacitor banks by July, 2010.

201. OPTCL submitted the roadmap for installation of capacitor banks as under:

- February, 2010- Investment proposal to be filed before OERC.
- March, 2010- Getting approval from OERC & Floating of Tender.
- May, 2010- Opening of Tender.
- September, 2010- Award of Contract
- November, 2010- Supply of Materials.
- January, 2011 - Commissioning of capacitor banks.

Status of Transmission Projects:

202. OPTCL has been directed by the Commission vide letter no. 2508, dtd.09.11.2009 to submit the status of new transmission projects under construction during FY 2007-08 and 2009-10 (Up-to-date). But OPTCL has not yet furnished the Cost Over-Run & Time Over-Run of the said projects. The same may be furnished immediately.

203. In reply to the query, OPTCL submitted that the relevant information has been furnished at ANNEXURE-3 with the reply.

Reactive Energy Charges:

204. In response to Commission's query on Reactive Energy Charges, OPTCL has proposed the Reactive Energy Charges @6.00Paise/KVArh for FY 2010-11. The details of analysis for proposing the same may be submitted to the Commission.

205. In reply to the query, OPTCL submitted that the submission of OPTCL for fixing the Reactive Energy Charges at 4 or 5 paise / KVArh based on study report of the consultant PRDC, Bangalore for FY 2009-10 was not considered by the Commission in Case No. 22/2009. Thus, OPTCL has proposed the Reactive Energy Charges @ 6.00Paise/KVArh for FY 2010-11 in line with the Commission's order dated 06.04.2009 in Case No. 22/2009 on Reactive Energy Charges for FY 2009-10 and as per Clause 1.7 of Orissa Grid Code 2006 which states that the rate for charge/payment of Reactive Energy Charges shall be 5 paise / KVArh with effect from 14.06.2006 and shall be escalated at 0.25 paise / KVArh per year thereafter, unless otherwise revised by OERC.

Status of SCADA/EMS:

206. OPTCL should submit the list of S/Ss where SCADA is fully operational. Both the SCADA and EMS (Energy Management System) functions should be operational enabling the system operator to access real time power system data for optimum utilization of energy resources and ensuring reliability in the power system including grid interruption analysis.

207. In reply to the query, OPTCL submitted that the list of sub-stations covered under ULDC Project for data acquisition is annexed herewith at ANNEXURE-4. Out of 60 nos. grid S/S, 56 nos. had been made operational under ULDC scheme. The electrical parameters such as Bus Voltage, Power flow (both active and reactive) and system

frequency are being monitored at SLDC end through SCADA system. The supervisory control has not yet been implemented in the Eastern Region so far.

208. OPTCL further submitted that under the EMS (Energy Management System) package, the following features are provided.

- Demand estimation
- Generation Scheduling
- Real time power flow under contingency condition.

209. The demand estimation feature considering weather condition of the State are implemented considering historical data only which covers the weather condition automatically.

210. Regarding Generation Scheduling, the EMS package has the facility of merit order despatch considering less cost power to be scheduled first and to meet the base load requirement whereas high cost power to be utilized for peaking purpose. Considering the ground reality in our state, the state thermal power is being scheduled first for base load requirement and low cost hydro power is utilized for peaking support. Therefore, the facility as envisaged in the EMS package is not utilized.

211. OPTCL submitted that after availability of isolator status (which is under progress) from all grid sub-stations, the real time contingency analysis shall be taken up.

R&M Expenditure:

212. OPTCL is required to furnish actual expenditure on R&M up to January 2010 for the financial year 2009-10. Further, the projection for February 2010 & March 2010 may be submitted.

213. In reply to the query, OPTCL submitted that the actual expenditure on R&M up to 31st January 2010 is Rs.40.04 cr.. The projection of expenditure under R&M head for February 2010 & March 2010 is estimated at Rs.21.28 cr.

Utilisation of Contingency Reserve:

214. As regards investment in contingency reserve, OPTCL in its reply to query stated that Rs.27.055 cr. had been invested towards securities of Govt. of Odisha against utilisation of contingency reserve fund. But in Schedule-2 of the Approved Annual Accounts for 2008-09 submitted by OPTCL, it is found that the amount of contingency reserve as on 31.03.2009 is shown at Rs.95.76 cr. OPTCL is required to explain, the utilisation of the balance amount of Rs.68.71 cr. (Rs.95.76 cr. – Rs.27.05 cr.) of contingency reserve. Commission in para 294 of the Transmission Tariff Order directed OPTCL to file details of the investment of contingency reserve before 30.04.2009. Hence, OPTCL is directed to file the utilisation of the contingency reserve as stated above appearing in the balance sheet for 2008-09.

215. In reply to the query, OPTCL submitted that pursuant to the rules made under subsection (1) of Section 69 of Electricity (Supply) Act, 1948 which has been saved under Section 185(d) of the Electricity Act 2003, OPTCL has calculated contingency reserve @ 0.5 % on Gross Block. The fund is required to meet the expenses towards unforeseen calamities to which our transmission system is exposed to. OPTCL has Rs.27.055 cr. as investment in the securities of Govt. of Odisha against the total contingency reserve of Rs.95.75 crore as per the approved accounts of 2008-09.The investment has been done as per the provisions contained in Section IV of 6th schedule to Electricity (Supply Act) 1948. The details are as under*:*

Table - 23

Bond issued by	Principal Amount (Rs.)	Rate of interest	Date of investment
OSDL-2011	113400000/	9.45%	15.11.2001
OSDL-2014	73100000/	5.60%	1.7.2004
OSDL-2017	84050000/	7.17%	1.4.2005
Total	**27,05,50,000/**		

Employees cost:

216. The audited accounts for 2007-08 and approved accounts for 2008-09 submitted by the licensee reveal an amount of Rs.210.60 cr. and Rs.507.02 cr. respectively towards employees cost. OPTCL is directed to submit the bifurcation of the above amount in the Format TRF-13 as prescribed by the Commission.Further OPTCL may clarify whether the employees cost stated above includes any impact of 6th Pay recommendation or not? If yes, the impact of 6th Pay revision provided for in the accounts may be quantified under different heads such as Basic Pay, GP/DP, DA, HRA, Medical Allowance etc.

217. In reply to the query, OPTCL submitted that the bifurcation of the Employees Cost in the format TRF-13 as prescribed by the Commission as per audited accounts for 2007-08 and approved accounts for 2008-09 amounting to Rs.210.60 cr. and Rs.500.26 cr. respectively has been enclosed as ANNEXURE -5.

218. OPTCL submitted that the Employees Cost of Rs.500.26 cr. includes provision for Rs.53.62 cr. towards Arrear Salary and allowances payable to the employees of the Corporation up to 31.03.2009 (Rs.33.57 cr. up to 31.03.2008) on account of pay revision with effect from 01.04.2005 for non-executives and from 01.01.2006 for executives. The break-up of provision as on 31.03.2009 is as under.

Table - 24

Particular	Amount (Rs. cr.)
Basic Pay	42.59
Grade Pay	9.62
House Rent Allowance	1.13
Medical Allowance	0.28
Total	**53.62**

Terminal Liability:

219. OPTCL may furnish the actual amounts disbursed under terminal liabilities during the year 2008-09 and 2009-10.

220. In reply to the query, OPTCL submitted that the amount disbursed under terminal liabilities for FY 2008-09 and 2009-10 (up to 31.01.2010) is given as below:

Table - 25

(Amount in Rs.)

Category	FY 2008-09	FY 2009-10 (up to 31.01.2010)
Pension	444440817	531621324
Gratuity	39939147	30821756
Leave Encashment	38555689	49568000

Investment of Trust Fund:

221. OPTCL may furnish details of investments of the Trust Fund in different financial instruments as on date.

222. In reply to the query, OPTCL submitted that the details of investments of the Trust Fund in different financial instruments as on 16.02.2010 have been enclosed as ANNEXURE -6.

Asset Addition:

223. OPTCL may state the reasons for showing asset addition at a much lesser value as against the amount approved by the Commission.

224. In reply to the query, OPTCL submitted that the reasons for Asset Addition at a much lesser value as against the amount approved by the Commission are mainly due to the following reasons:

- Right of way problem during the period of execution.
- Court cases
- Non-availability of Forest clearance.

VIEWS OF THE GOVT. OF ODISHA

225. The representative of the State Govt. who participated during the public hearing on 10.02.2010 submitted that the views of the Govt. would be filed before the Commission very soon. The Govt. of Odisha, Department of Energy vide letter No.1577 dated 23.02.2010 informed the Commission that the State Govt. has taken a decision to provide Rs.100.00 Cr. as equity investment to OPTCL in three years to support the expenditure on the non-remunerative schemes to the inaccessible areas and achieving social goals. In accordance with that decision the State Govt. has already provided Rs.23, 05, 55,000/- and Rs.5.00 cr. during 2008-09 and 2009-10 respectively to OPTCL. Out of the balance amount, Rs.50.00 cr. will be provided during the year 2010-11. Although the Govt. has not taken any specific view on the hike of Transmission tariff from 20.50 paise /kwh to 68.72 paise/kwh proposed by OPTCL for FY 2010-11, the Govt. has expressed its specific views on Tariff for High end consumers & Tariff setting and fixation of performance parameter for the DISCOMs which are reproduced as under:

a) **Tariff for High end consumers**
If the High end Consumers are agreeable to pay higher tariff to get uninterrupted power supply and costly power, decision in this regard may be taken by the Commission.

b) **Tariff setting and fixation of performance parameter for the DISCOMs**
This aspect may be considered by the Commission and necessary direction may be issued to the Distribution Companies for achieving better results in terms of consumer satisfaction by giving quality power and improvement in their collection efficiency and reduction of T & D and AT & C losses.

OBSERVATION OF THE STATE ADVISORY COMMITTEE (SAC)(Para 226 to 230)

226. The State Advisory Committee (SAC) constituted under Section 87 of Electricity Act, 2003 met on 18th Feb, 2010 to deliberate on the Annual Revenue Requirement and tariff application for the FY 2010-11 of utilities, namely OHPC, OPTCL, GRIDCO, SLDC, CESU, NESCO, SOUTHCO and WESCO.

227. The Director (Tariff) made a brief presentation on the ARR and tariff applications for FY 2010-11 as under:

Table - 26

Name of the Utility	ARR approved by OERC in FY 2009-10 (Rs. cr.)	ARR proposed for FY 2010-11 (Rs. cr.)	% Rise Proposed in ARR for FY 2010-11	OERC approved Tariff in FY 2009-10 (Paise/KWH)	Proposed Tariff for FY 2010-11 (Paise/KWH)	% rise proposed in Tariff for FY 2010-11
OHPC	335.35	422.98	26.13	59.68	75.27	26.12
GRIDCO	2949.80	5480.22	85.78	122.20	262.89	115.13
OPTCL	394.15	1443.50	266.23	20.50	68.72	235.22
SLDC	9.66	14.90	54.30	0.50 (Avg)	0.71 (Avg)	42.00
DISCOMs	3827.48	3995.36	4.38	265.15	280.98	5.97

It was pointed out to the Members of SAC that the proposed tariff hike of 5.97% as shown by the DISCOMs is based on the existing Bulk Supply Price (BSP) and Transmission Tariff of GRIDCO & OPTCL respectively for the year 2009-10. Any increase in BSP for the DISCOMs and the Transmission Tariff of OPTCL would correspondingly add to the proposed rise suggested by the DISCOMs in their Retail Supply Tariff.

228. The members of the SAC opined that as and when there is a rise in GRIDCO cost as well as Transmission tariff, it would be necessary to enhance the retail supply tariff of DISCOMs. They further pointed out that time & cost overruns of OPTCL projects had increased transmission cost. This cost should not be passed on to consumers. OPTCL needs to have a well structured project management cell to expedite projects. Also OPTCL should not offload work to contractors where it can be taken up by the organization at lesser cost. R & M expenditure should be properly scrutinized and higher depreciation charges should not be allowed. The transmission losses are being manipulated to account for the losses of the licensee. The Kanungo Committee had recommended progressive reduction in transmission loss @ 0.3% per year and this should be followed. The transmission losses should be reduced from 4.3% to 3%. The consumers should not be doubly burdened due to increased transmission loss and interest and depreciation accruing from asset addition.

229. Some Members opined in the meeting that due to low voltage on account of inaction of OPTCL consumers of Odisha are suffering. The East Cost Railway (ECR) submitted in the meeting of SAC that the quality of power supply in the state is deteriorating day by day. For Railways, especially Kaipadar Road, Kendrapara Road & Solari traction sub-stations under CESU are frequently affected due to interruptions/voltage variations. The Mail Express Trains in Berhampur-Khurda Road-Puri-Cuttack sections losing punctuality almost every day not only giving very bad image to East Coast Railway at Ministry of Railways/New Delhi but also causing inconvenience to the traveling public. ECR submitted its specific opinion that quality of power supply is to be improved, priority should be given to Railways and power restrictions in Railway Traction category should not be imposed.

230. On the whole, the SAC Members stressed on reduction of loss and cost of supply to ultimate consumers and improvement in performance standard and opined for a

moderate rise in tariff which must be accompanied by improvement in quality of supply and service to the consumers.

COMMISSION'S OBSERVATIONS (Para 231 to 376)

231. The Commission, for approval of ARR and determination of transmission tariff for OPTCL for the FY 2010-11 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 Odisha Power Sector.

232. 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.

233. 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 fulfill 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 as well has been followed by the Commission for this ARR determination for FY 2010-11.

234. In a significant departure from the past, the National Tariff Policy, 2006 framed under the Electricity Act 2003, has embodied the National Tariff Framework which provides that the transmission tariff is to be sensitive to distance, direction and related to quantum of power flow in a transmission service network. Para 7(1) (3) of the National Tariff Policy provides for Transmission charges, to be determined on MW per circuit kilometer basis, zonal Postage Stamp basis, or on the basis of some other pragmatic variant, the ultimate objective being to get the transmission system users to share the total transmission cost in proportion to their respective utilization of the transmission system. The overall tariff framework should be such as not to inhibit planned development/augmentation of the transmission system, but should discourage non-optimal transmission investment.

235. Further, Para 7.3(1) of National tariff Policy states that the financial incentives and disincentives should be implemented for the CTU and the STU around the key performance indicators (KPI) for these organizations. Such KPIs would include efficient network construction, system availability and loss reduction.

236. 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

237. 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'.

238. OPTCL in its ARR filing for FY 2010-11 stated that Transmission loss is purely technical in nature. As such, OPTCL has no control over the transmission loss due to several factors, which is evident from the variation in the transmission loss figures derived for different years as per the Gross Method adopted by OERC. It is to be noted that OPTCL system mostly consists of EHT transmission lines, auto-transformers and power transformers. The transmission loss is dependent on the system configuration and power flow requirements at different load centres. In view of the increasing demand for power at an accelerated pace due to ongoing fast industrialization and rural initiatives under Central and Sate sponsored schemes as well in Odisha and remarkable reduction in trading of surplus power, there will be increased flow of power in the OPTCL transmission network contributing to increased transmission losses. Hence, OPTCL has proposed a figure of 4.30% as Transmission Loss for wheeling for FY 2010-11 as per Revised Business Plan against the Commission's approval of 4% for FY 2009-10.

239. In reply to objector's queries, OPTCL stated that the Commission had approved 5% loss for 2007-08 & 4.5% loss for 2008-09 & 4% for 2009-10. The actual transmission loss for 2006-07, 2007-08, 2008-09 and 2009-10 (April '09 to October'09) is computed as 5.04%, 4.82%, 4.52% and 4.28 % respectively. Based on the present trend, OPTCL has proposed the Transmission Loss @ 4.3 % for 2010-11. 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. Hence, OPTCL does not agree to the suggestion of the objector for not allowing transmission loss more than 3%.

240. 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 2009-10 upto October, 2009 was 4.28%.The Transmission loss for the period from April'09 to October'09 varies between 3.0% to 4.82%. This kind of loss variation is on account of the nature and quantum of power flow in the system. The details of Transmission loss as reported by OPTCL from April'09 to October'09 is given in the table below.

Table – 27
CALCULATION OF TRANSMISSION LOSS IN EHT SYSTEM FROM APR.'09 TO OCT.'09
(All in MU)

MONTH	APR'09	MAY'09	JUNE'09	JULY'09	AUG'09	SEP'09	OCT'09	TOTAL
POWER INPUT								
TOTAL HYDRO	439.22	216.90	211.98	498.54	756.98	525.02	392.73	3041.37
TOTAL THERMAL	520.43	570.99	424.10	374.75	475.87	482.28	540.60	3389.01
Total CPP & Power Banking	227.91	211.66	257.14	281.68	167.79	161.83	323.20	1631.21
TOTAL STATE INPUT	**1187.56**	**999.55**	**893.22**	**1154.97**	**1400.64**	**1169.13**	**1256.53**	**8061.59**
TOTAL EREB INPUT	549.95	705.69	745.75	566.42	497.95	644.39	592.35	4302.50
TOTAL IMPORT	1737.51	1705.23	1638.97	1721.39	1898.59	1813.52	1848.87	12364.09
POWER EXPORT								
Total DISCOM	1643.50	1621.20	1569.70	1603.35	1737.48	1660.78	1684.23	11520.24
ICCL	0.34	0.32	0.29	0.30	3.67	14.16	19.58	38.67
NALCO	15.05	14.83	14.47	66.13	69.17	40.07	55.88	275.62
TOTAL EXPORT	**1658.90**	**1636.35**	**1584.46**	**1669.79**	**1810.32**	**1715.01**	**1759.69**	**11834.52**
Tr. Loss (in MU)	78.6	68.9	54.5	51.6	88.3	98.5	89.2	529.56
Tr. Loss (in %)	**4.52%**	**4.04%**	**3.33%**	**3.00%**	**4.65%**	**5.43%**	**4.82%**	**4.28%**

241. In reply to queries of Director (Tariff), OPTCL stated that the reduction in transmission loss expected to be achieved by OPTCL is significantly realistic and OPTCL is committed to achieve the specified loss reduction levels. OPTCL is of the view that if high loss reduction target is fixed for FY 2010-11, then this will lead to a situation wherein OPTCL will be unable to achieve the target and its cash flow will be affected. Penalising for reasons beyond OPTCL's control is not fair and would adversely affect the financial viability of OPTCL. The summary of loss reduction target to be achieved for the next three years has been shown in the table given below

Table – 28
Transmission Loss Trajectory

	FY 2010-11	FY 2011-12	FY 2012-13
Transmission Loss	4.30%	4.20%	4.00%

242. 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. The approved and actual transmission loss for the year 2005-06 to 2009-10 is furnished in the table below.

Table – 29

	2005-06	2006-07	2007-08	2008-09	2009-10
Approved (%)	4.00	4.00	5.00	4.50	4.00
Actual audited (%)	4.60	5.04	4.24	4.52	4.28 (upto Oct,09)

243. The Commission observes 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 Captive 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 approves a figure of 4% for FY 2010-11 as transmission loss for wheeling.

244. The Commission directs that OPTCL shall continuously monitor the operation of the transmission system, prevent overloading wherever possible by load diversion and take up innovative measures for improving system loading of the existing network. 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.

Annual Revenue Requirement of OPTCL

Operation and Maintenance expenses

245. The operation and maintenance expenses of OPTCL are considered under the following heads:

- Employees Cost
- Administration and General expenses
- Repair and Maintenance expenses
- Less expenses capitalized

Employees Cost

246. For the financial year 2010-11, OPTCL has estimated an amount of Rs.865.12 cr. The projection is based on audited data for 2007-08. Based on provisional data for 2008-09 and recommendations of 6th Pay Commission approved by Board of Directors/ State Govt. major components of the expenses for FY 2010-11 are depicted in the table below:

Table – 30
Components of Employee Cost

(Rs. cr.)

Basic pay	76.33
DA	35.11
HRA	15.207
Provision towards arrear pay revision	147.13
Terminal benefit	589.45
Others	12.49
Less capitalization	10.66
Total	**865.12**

247. The Commission in its transmission tariff order for FY 2009-10 had approved the following expenses towards employees cost and now a hike of 484.49% has been proposed for FY 2010-11 as mentioned hereunder: -

Table – 31
Employee Cost approved for FY 2009-10 and proposed for FY 2010-11

(Rs. cr.)

Item	Proposed for 2009-10	Approved for 2009-10`	Proposed for 2010-11	Percentage rise
Gross amount	498.99	186.17	875.78	
Less capitalization	7.61	7.61	10.66	
Net employees cost	491.38	178.56	865.12	484.49%

248. On scrutiny of the data provided by OPTCL, it is ascertained that the following factors attributed to abnormal rise in employees cost.

- Provision towards arrear pay due for implementation of 6th Pay Commission Recommendations - Rs.147.13 cr.
- Provision towards terminal liability - Rs.589.45 cr.

249. The Commission is aware that OPTCL has already implemented the award of 6th Pay Commission and the employees are currently drawing their salary on revised pay structure. Hence the actual data provided by the licensees for the year 2008-09 as per provisional accounts may not be correct representative of the base figure, to be considered for projecting the basic pay and GP for the FY 2009-10 as well as 2010-11. Therefore, for a realistic assessment of the basic pay + GP, the Commission called for the data for the break up of salary drawn during last 4 to 5 months. OPTCL in compliance to the query submitted the data shown in table below:

Table – 32

(Rs. cr.)

Month	Basic Pay	GP	HRA	Other	Total
Sep, 2009	4.50	0.70	0.70	1.46	7.36
Oct, 2009	4.50	0.70	0.70	1.46	7.36
Nov, 2009	4.49	0.69	0.70	1.72	7.60
Dec, 2009	4.50	0.70	0.70	1.72	7.62
Jan, 2010	4.49	0.69	0.70	1.73	7.61
Average per month	4.50	0.70	0.70	1.62	7.51
Extrapolated for 12 months for FY 2009-10	54.00	8.40	8.40	19.44	90.12

250. OPTCL in its submission has mentioned the number of employees as under:

Table – 33
Status of Employee Position in OPTCL

As on 01.04.2009	As on 01.04.2010	As on 01.04.2011
3798 Nos.	3552 Nos.	NA

The basic pay + GP for FY 2010-11 is determined after factoring in average number of employee and taking into account the normal annual increment @3% on Basic Pay + Grade Pay extrapolated for 12 months for 2009-10 (mentioned in table above).

251. As regards Dearness Allowance, the present rate approved by Govt. of Odisha is 27% on Basic Pay + GP with effect from 01.07.2009. In the past, there has been a periodic rise in DA from 1st day of January and July of each year. With anticipated rise in DA @3%, the annual average DA is evaluated at around 33%. The Commission approves DA rate of 33% for the financial year 2010-11.

252. In respect of other major expenditures such as medical allowance, house rent allowance etc. the following principles have been adopted.

Medical allowance/reimbursement - 5% of (Basic Pay + GP)

House rent allowance - 15% of (Basic Pay + GP)

253. As regards arrear dues arising out of implementation of 6th Pay Commission recommendations, the Commission in the last year Tariff Order (Para 229) directed to allow the arrear payment to employees in a staggered manner over a period of time. Therefore, as against the proposed amount of Rs.147.13 cr., the Commission allows 1/3rd i.e. Rs.49.04 cr. in the ARR for FY 2010-11.

Terminal Benefits

254. For the year 2010-11, OPTCL has projected an amount of Rs.589.45 cr. towards terminal liability. OPTCL in its submission stated the following reasons for showing such abnormal figure of Rs.589.45 cr. in one year.

Table – 34

Projection of Terminal Liability by OPTCL for FY 2010-11 (Rs. cr.)

1	Projected liability as per actuary (approved by Commission) as on 31.03.2008	702.65
2	Projected actuarial liability as on 31.03.2010	1277.50
3	Difference to be funded	574.85
4	Add provident fund	0.50
5	Add carryover of differential amount approved by Commission	43.88
6	Less : cash outgo for 2008-09 approved by Commission	29.33
	Grand Total	**589.45**

255. At the time of hearing CMD, OPTCL clarified that Commission may treat the above terminal liability as a regulatory asset and pass the same through ARR over a period of 3 to 4 years, instead of allowing in one year.

256. In Tariff Order for FY 2009-10, the Commission in para 235 and 236 directed the following:

"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 31.3.2008. 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 31.3.2010 again for *proper assessment, taking into consideration the impact of 6th Pay revision. After receiving the actuarial valuation report, the Commission would take necessary steps to fund the same."*

257. The Commission in accordance with the above observations in the last tariff order for FY 2009-10 had already appointed an independent actuary on 08.12.2009 to undertake valuation of terminal liability of OPTCL and four DISCOMs upto 31.3.2009 with projection for FY 2009-10 and FY 2010-11. The employee and pensioners data of all licensees have been provided to the actuary and the valuation is under process at present. Pending valuation report of the actuary as discussed in above para, the Commission for FY 2010-11 adopts the same method as was done in the last tariff order for FY 2009-10, to evaluate the terminal liabilities of OPTCL. Table below depicts the methodology and computation of terminal liabilities of OPTCL for FY 2010-11.

Table – 35
Calculation of Terminal Liability

(Rs. cr.)

1	Installment of deficit funding approved	43.88
2	Carrying charges	0
3	Cash outgo for 2008-09	52.21
4	Cash outgo for 2009-10 (prorated for whole year)	73.44
5	Less cash outgo for 2008-09 as approved in tariff order 2009-10	29.33
	Net liability	140.20

258. The statement of Employees Cost for FY 2010-11 proposed by OPTCL and approved by the Commission is depicted in table below:

Table – 36
Employees Cost proposed and approved for FY 2010-11

(Rs. cr.)

Sl No.	Particulars	Approved for FY 09-10	Approved for FY 10-11	Approved for FY 10-11	Assumption
1.	Salaries (Basic Pay+ Grade Pay)	49.93	76.33	62.12	
2.	Overtime	0.01			
3	Dearness Allowance	23.47	35.11	20.50	33% of Basic Pay & GP
4	Other Allowance	0.64	0.66	0.66	
5	Bonus and Overtime	0.50	0.50	0.50	
6	Sub Total (1 to 4)	74.04	112.60	83.78	
	OTHER STAFF COST				
7	Reimbursement of Medical Expenses	2.50	3.82	3.11	5% of the basic pay + GP
8	Leave Travel Concession	1.00	1.00	1.00	
9	Reimbursement of House Rent	6.20	15.27	9.32	15% of the basic pay + GP
10	Interim Relief to Staff/ Premium under GIS	0.25	0.45	-	
11	Encashment of Earned Leave	-	0.14	-	

Sl No.	Particulars	Approved for FY 09-10	Approved for FY 10-11	Approved for FY 10-11	Assumption
12	Honorarium	0.01	0.05		
13	Payment under Workmen compensation Act	0.05	0.03	0.03	
14	Ex-gratia	-	2.00		
15	Miscellaneous	0.30	0.65	0.55	
16	Sub Total (7 to 14)	10.31	23.40	14.01	
17	Staff Welfare Expenses	1.00	3.20	3.20	
18	Terminal Benefits	76.94	589.45	140.20	
19	Total (6+16+17+18)	162.29		241.19	
	Less : Capitalisation	7.61		10.66	
	Net Total	154.68		230.53	
	Arrear due to 6th Pay Commission recommendation	23.88	147.13	49.03	
	Total	**178.56**	**865.12**	**279.56**	

R&M Expenses

259. OPTCL has proposed an amount of Rs.98.14 cr. towards repair and maintenance expenditure for FY 2010-11. The details of R&M expenditure are given below:

Table – 37
Break up of R&M expenses under different heads

Sl No.	Item	Rs. cr.
1.	Operation & Maintenance wing	77.19
2.	Telecom R&M including ULDC	16.05
3.	Information Technology	2.90
4.	Civil works	2.00
	Total	**98.14**

260. Item-wise R&M expenditure of operation and maintenance wing proposed by OPTCL for FY 2010-11 is shown in the table as under:

Table – 38
ITEM-WISE R&M EXPENDITURE OF O&M WING PROPOSED FOR FY 2010-11

Sl. No.	Line/Equipment details	Unit Rate (Rs. lakhs)	Quantity	Total Cost (Rs. Lakhs)
1	Circuit Breaker (Nos.)			
	a) 220kV	18.08	12	216.96
	b) 132kV	7.98	44	351.12
	c) 33kV	2.52	42	105.84
2	Station Battery (Sets)	16.73	4	66.92
3	C.T. (Nos.)			
	a) 220kV	4.3	45	193.50
	b) 132kV	1.35	130	175.50
	c) 33kV	0.31	100	31.00
4	P.T./C.V.T. (Nos.)			
	a) 220kV	3.33	15	49.95
	b) 132kV	1.37	20	27.40
	c) 33kV	0.23	10	2.30

Sl. No.	Line/Equipment details	Unit Rate (Rs. lakhs)	Quantity	Total Cost (Rs. Lakhs)
5	L.A. (Nos.)			
	a) 220kV	0.57	30	17.10
	b) 132kV	0.4	100	40.00
	c) 33kV	0.01	125	1.25
6	a)Relays (Diff types.)	LS		100.00
	b)Bus bar protection relays in 220 kV substations	3	4	12.00
7	a)Testing equipment (Different types in Nos.)	LS		200.00
	b)Puncture Insulator detector kit			20.00
	c)BDV Test kit (motorized)	2	15	30.00
	d)BDV Test kit (Automatic)	5	2	10.00
	e)Portable DGA Kit	32	3	96.00
	f)On Line Filter M/C	20	3	60.00
8	Transformer Oil (kl)	0.52	500	260.00
9	Control cable.(Assorted in km.)	1	30	30.00
10	SF-6 Gas Cylinders (50 kg.) in Nos.	0.56	50	28.00
11	Overhauling of CB	LS		100.00
12	Illumination of Grid Substation.	LS		80.00
13	Spare for ERS system.	LS		200.00
14	AMC on Energy Metering System.	LS		60.00
15	Repair of defective Power Transformers	LS		1500.00
16	Renovation of Earthing system of EHT lines & Grid S/s.	LS		10.00
17	AC Machine (In Nos)	0.190	80	15.20
18	Civil Works	LS		200.00
19	Billing Energy meters & accessories(Supply installation & commissioning)			61.00
20	Audit Energy meter (0.2 class ABT compliant with installation & commissioning)			950.00
21	Insulator(In Nos)			
	a)90 KN LR	0.06	800	48.00
	b)90 KN Disc	0.005	3000	15.00
	c)120KN Disc	0.007	1200	8.40
	d)160KNDisc	0.007	3350	23.45
	e) 90KN SRPC	0.005	300	1.50
	f)120 KN SRPC	0.007	40	0.28
	g)120KN LR	0.835	200	167.00
	h)70 KN Disc Insulator	0.00555	3000	16.65
22	Conductor(In KM)			
	a)AAAC Zebra	2.4	20	48.00
	b)ACSR Zebra	2.08	2	4.16
	c)ACSR Panther	1.25	0	0.00
23	GI Earth Wire(7/3.15)(KM)	0.22	200	44.00
24	a) Vibration damper(in Nos.) (conductor)	0.006	500	3.00
	b) Vibration damper(in Nos.) (Earth Wire)	0.004	500	2.00
25	GI Angle(In MT)			
	45x45x5mm	0.55	40	22.00
	50x50x6mm	0.55	40	22.00

Sl. No.	Line/Equipment details	Unit Rate (Rs. lakhs)	Quantity	Total Cost (Rs. Lakhs)
	65x65x6mm	0.55	10	5.50
	75x75x6mm	0.55	10	5.50
26	H/W Fitting(In Nos)	LS		20.00
27	GI flat(In MT) 50x6mm	0.60	10	6.00
28	Station Transformer (250/500KVA) in Nos.	3.73	10	37.30
29	Spare 5%	LS		200.00
30	Misc. expenses for O&M field divisions such as; painting of towers & transformers, Switch yard cleaning, transportation of trfs., Welding of tower members, AMC on A/C Machines, Gardening & Sanitary works etc.	LS		1500.00
31	Equipment condition monitoring & diagnosis(CPRI)	10	20	200.00
32	a)DG Sets(1 KVA)	0.2	40	8.00
	b)DG Sets(5 KVA)	0.5	20	10.00
	TOTAL			**7,718.78**

261. OPTCL proposes to spend Rs.16.05 cr. towards telecom R&M including ULDC. Details of the above amount is given in table below:

Table – 39

R&M of Telecom Wing proposed in FY 2010-11

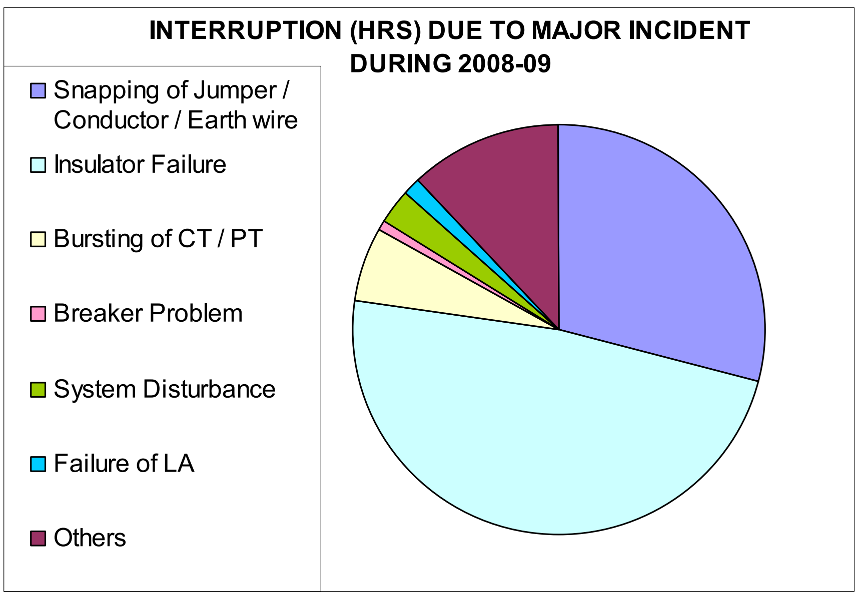
AMC of RTU under ULDC project	Rs.30 lakh
AMC of SCADA/EMS package	Rs.40 lakh
AMC of APS package	Rs.35 lakh
Spares for PLCC/PABX/Battery & Charger	Rs.100 lakh
AMC of Wideband communication package	Rs.40 Lakh
Rent of Lease line (For 3 nos + 1 Hqrs. – SLDC)	Rs.20lakh
Procurement of spares under different packages	Rs.100 lakh
Royalty charges/License fees payable to DOT for Wideband communication system under ULDC project.	Rs.119 lakh
Insurance charges for ULDC equipment	Rs.20 lakh.
Revival of carrier back-up protection system(13 line in 1st phase)	Rs.85 lakh
Replacement of existing VPS at SLDC (2X2 quadrant) by a larger sized VPS (4X2 quadrant)based on DLP technology	Rs.340 lakh
Replacement of old analog PLCC sets by new digital PLCC sets to all relevant Grid S/S (10 sets in 1st phase)	Rs.130 lakh
Procurement incircuit component tester etc.	Rs.20 lakh
Procurement of Air conditioner machine (38 nos)	Rs.12 lakh
Provision of logic earth and surge arrester at different Grid S/S (10nos.)	Rs.6 lakh
Procurement of Fusion splicing tools along with other related equipments for OPGW maintenance work	Rs.40.00 lakh
R & M of Telecom. Works under different Divisions	Rs.468 lakhs
Total	**Rs.16.05 cr.**

Interruptions

262. The Commission reviewed the interruptions occurred in the OPTCL system. A table and a pie-chart indicating the duration and nature of interruption of transmission system of OPTCL during 2008-09 are depicted below:

Table – 40
Interruption due to Major Incidents during FY 2008-09

Incident	Duration of Interruption	No. of Interruptions
Snapping of Jumper / Conductor / Earth wire	78:28:00	76
Insulator Failure	130:09:00	59
Bursting of CT / PT	15:32:00	20
Breaker Problem	2:15:00	2
System Disturbance	7:08:00	5
Failure of LA	4:14:00	11
Others	31:56:00	31
* The duration of interruption indicated above is the sum total of interruptions occurred at different areas (s/s) during the year. However, there was no total blackout experienced for the State during the year 2008 – 09.		



Initiatives taken for Operation and Maintenance

263. The Commission in Para 253 of the order dt.20.03.2009 while approving the ARR and Transmission Tariff of OPTCL for FY 2009-10 had stipulated as under:

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

264. In line with above observation and in continuation with the earlier enquiries conducted in respect of Operation and Maintenance of OPTCL system, field inspection of EHT system of OPTCL has been initiated through independent experts.

265. During the year 2009-10, the Commission has engaged the teams of independent experts to enquire into the Maintenance and Operation of EHT (O&M) Division of Kesinga, Theruvali, Balasore, Jajpur Road (Part), Joda, Bhubaneswar (Part). Other than the above, EHT system under other different O&M divisions have been completed earlier.

266. After completing the inspection of the enquiry, the teams submitted their reports and made presentations on their findings before the Commission and the concerned officers of OPTCL.

267. **Summary of Recommendations made by the Enquiry Teams on O&M of OPTCL.**

- Provision of PLCC/SCADA is completely neglected in most of the Grid S/S OPTCL should provide SCADA interface in all 220 KV Grid S/S.
- Very old ABCBs, MOCBs, BOCBs specifically at Rayagada, Kesinga and Theruvali Grids may be replaced immediately.
- As 220kV and 132 kV network & the associated grid S/Ss of the system is the backbone of the transmission system, a regular planned maintenance and timely augmentation of lines and substations with proper protection system in place are required to minimize breakdowns and extend uninterrupted power supply to DISCOMs. Further a system can be so designed that it can meet the contingency maintenance.
- OPTCL should maintain its network in a proper manner and plan out the strategy starting from procurement to timely maintenance**.** OPTCL has been directed to replace the circuit breakers wherever required in a phased manner and should be completed within next one year.
- Modern way of management and planning is required by OPTCL for a healthy transmission system to extend quality & reliable power to DISCOMs. Hence, for better flexibility of the transmission system, OPTCL should set up a team consisting of professionally experts in each O&M circle to attend any type of problem in the grids under that circle.
- There should be regular review by the GM of EHT (O&M) circle regarding functioning of each O&M Division under his control at least once in each quarter and the review report with all the problems along with the suggestions/remedial measures should be sent to the Corporate office of OPTCL for appropriate action.
- OPTCL should carryout regular patrolling of all the feeders. The weak points identified during regular patrolling should be replaced during the prearranged shutdown to avoid longer interruptions owing to breakdowns/faults. Regular/Periodical patrolling of all lines must be ensured. Review/analysis of each interruption should be made and planning strategy should be developed for proper operation and maintenance of the transmission system

- Alternative source of supply should be made available at all grid substations to avoid total power failure in the region due to fault in the single source of supply. All EHT Grid S/S should operate in a ring arrangement.
- Civil maintenance of control rooms, quarters & buildings etc. are badly neglected causing damage to structures and equipments, hence the Commission directed OPTCL to review the works of Civil Works Divisions and repair and maintenance works should be done immediately to avoid further deterioration.
- Transformers should be off-loaded at erection sites instead at Central Store to avoid time & cost over run. The Commission directed that the civil construction and the dispatch schedule of the equipment should be properly planned for the purpose.

  In addition to the above, the present poor condition of transmission system can be ascribed to poor maintenance, long delay in execution of projects and monitoring performances of various elements of system.

268. An analysis of the figures approved by Commission and actual expenditure as per audited accounts are given in table below:

Table – 41
Actual R&M Expenses vis-à-vis approved R&M Expenses

(Rs. cr.)

Year	R&M Expenses approved by OERC	Actual R&M Expenditure
1999-2000	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	16.52
2008-09	53.88	15.66
2009-10	47.00	40.04 (upto Jan, 2010 as per cash flow)
2010-11	98.14 (Proposed)	

269. The Commission observed from the table above that actual expenditure for the financial year is always less than the amount approved by OERC for R&M expenses. However, for the FY 2009-10, OPTCL could spend Rs.40.04 cr. upto January, 2010, which is close to the figure approved by the Commission.

270. The transmission system of OPTCL is the life-line of the power system of Odisha. 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.

271. The Commission also desires that performance standards of OPTCL should be suitably improved adopting the best practices of operation and maintenance for transmission lines and sub-stations.

272. The Commission will continue to take up periodical reviews of Repair and Maintenance works of the licensee and engage independent team of experts to monitor and report the progress of R&M works being undertaken. Technical audit to recheck and verify the status of work being executed by the licensee shall be a regular feature in the year 2010-11. If OPTCL fails to build up the system as desired by the Commission, the expenditure now 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.

273. Against annual R&M expenditure of around Rs.10 cr. in the past decade starting from 1999-00, the R&M expenditure during 2009-10 has increased appreciably. In view of utilization of fund of Rs.40.04 cr. upto Jan.'10 towards repair & maintenance work during FY 2009-10 as against the approved amount of Rs.47 cr., the Commission hereby allows Rs.60 cr. towards R&M expenses for the FY 2010-11.

Administration & General Expenses

274. OPTCL during FY 2010-11 has proposed Rs.26.99 cr. towards A&G expenses. Break up of expenses for FY 2010-11 along with the figures for 2008-09 and 2009-10 as filed by the licensee is depicted in the table below:

Table - 42
Administration and General Expenses

(Rs. cr.)

Sl No.	Particulars	FY 08-09 (prov.)	FY 09-10 (OERC appr)	FY 09-10 (Estmn.)	Projection for FY 10-11
1	Property related expenses	0.39		0.47	0.56
2	Communication	0.48		0.57	0.69
3	Professional Charges	0.96		1.41	1.96
4	Conveyance & Traveling	2.54		3.05	3.66
5	Other Expenses	12.96		15.97	18.66
6	Material related expenses	0.51		0.51	0.51
7	OERC License Fee	0.50		1.00	1.0
8	**Sub-Total (1 to 7)**	18.34	**14.35**	**22.97**	**27.04**
9	Less : Expenses capitalised	0.01		0.05	0.05
Total A & G Expenses		**18.33**	**14.35**	**22.92**	**26.99**

275. In line with earlier orders, the Commission allows escalation of 5.5% (Rate of inflation as measured by W.P.I.) over the approved amount of Rs.14.35 cr. for FY 2009-10. Hence, the Commission allows Rs.15.14 cr. towards A&G expenses for FY 2010-11.

Interest on Loan

276. OPTCL has proposed Rs.122.03 crore towards interest on long term loan for the FY 2010-11. Loan-wise interest payment schedule as proposed by the licensee is exhibited in table below :

Table – 43
Interest on Loan Capital

(Rs. cr.)

Sl No	Particulars	Rate of Interest	Principal CB as on 31.03.10	Loan to be received during 2010-11	Principal repayment for 2010-11	Interest payment for 2010-11	Total payment for 2010-11
A	**Govt. Loans**						
	State Govt. (Cash Loan)	13.00%	2.00		0.12	0.26	0.38
	State Govt. (CRF)	0.00%	15.00		0.00	0.00	0.00
	Central Govt. Loan	9.00%	11.26		0.00	1.01	1.01
	GoO Bonds	13.00%	400.00		20.00	26.00	46.00
	IBRD Loan	13.00%	0.00		0.00	0.00	0.00
	Sub Total		**428.26**		**20.12**	**27.27**	**47.39**
B	**Institutional Loans**						0.00
	REC Loan (Old)	10.61%	0.00		0.00	0.00	0.00
	REC Loan (New)	10.90%	30.53		0.51	3.33	3.84
	REC Loan (New)	11.75%	10.59		0.00	1.24	1.24
	REC Loan (New)	12.75%	15.33		0.00	1.96	1.96
	REC Loan (New)	11.50%	24.17		0.00	2.78	2.78
	PFC Loan	11.25%	3.82		3.82	0.22	4.04
	Sub Total		**84.44**		**4.33**	**9.53**	**13.86**
C	**Secured Loan**						
	Union Bank of India	8.25%	27.24		14.29	1.71	16.00
	HUDCO	11.50%	108.17		28.87	10.92	39.79
	UCO Bank	9.00%	46.64		33.36	2.87	36.23
	Oriental Bank of Commerce	8.75%	116.35		28.57	9.06	37.63
	Sub Total		**298.40**		**105.09**	**24.56**	**129.65**
D	**GRIDCO Bonds**						0.00
	Open Market Loan	11.50%	0.10		0.10	0.00	0.10
	Pension Trust Bond	9.00%	42.00		42.00	3.03	45.03
	Sub Total		**42.10**		**42.10**	**3.03**	**45.13**
E	Deposit from EHT Consumers						
	Sub Total of Infrastructure Loan	**48.73**		**0.00**	**0.00**	**0.00**	
F	**Loans for New Projects (PFC/REC)**	11.50%	164.37	503.27	0.00	38.39	**38.39**
G	**Short Term Loans for New Projects from Banks**	10.75%	18.26	55.92	0.00	3.99	**3.99**
H	**Other Loans & Finance Charges**						
	Employee Housing Loans	12.00%	0.79		0.00		
	Finance Charge		0.00		0.00	15.26	15.26
	Sub Total		0.79			15.26	15.26
I	**Grand Total**		**1035.83**	**559.18**	**171.64**	**122.03**	**293.67**

277. It is observed from the above table that during FY 2010-11, OPTCL proposes to avail long-term loan of Rs.503.27 crore from PFC/REC for undertaking new projects. Further, short-term loan for new projects amounting to Rs.55.92 crore is proposed to

be availed during FY 2010-11. Interest impact on above loans is claimed at Rs.42.38 crore.

278. In a reply to query raised by the Commission on availability of new loan, OPTCL furnished the date-wise availability of the loans shown in table below:

Table – 44

1.	No. of projects sanctioned and agreement executed	15 nos.	Rs.422.77 cr.
2.	No. of projects sanctioned and agreement to be executed	1 no.	Rs.137.44 cr.
3.	No. of projects pending for sanction	3 nos.	Rs.129.81 cr.
4.	Amount of loan availed during FY 2009-10 (by end of Feb.'2010)	**Date**	**Amount**
		28.3.2008	Rs.30.53 cr.
		06.8.2008	Rs.10.59 cr.
		17.3.2009	Rs.15.33 cr.
		12.8.2009	Rs.24.17 cr.
		Total :	**Rs.80.62 cr.**

279. Commission at different times had given approval to the following schemes/projects:

Table – 45

Sl. No	Name of the Project	Approval of OERC in	Amount in cr.	Schedule date of completion
1.	400 KV Meramundali – Duburi D.C. line	Case No.01/2007	131.47	06/09
2.	220/132 KV S/S at Bhadrak alongwith associated transmission line	Case No.01/2007	27.64	06/09
3.	132/33 KV S/S at Basta along with associated transmission line	Case No.01/2007	16.98	06/09
4.	132/33 KV S/S at Karanjia along with associated transmission line	Case No.01/2007	24.20	06/09
5.	132/33 KV S/S Barapalli along with associated transmission line	Case No.01/2007	15.86	06/09
6.	132/33 KV S/S at Anandpur along with associated transmission line	Case No.58/2007	06/10	06/10
7.	132/33 KV S/S at Purushottampur along with associated transmission line	Case No.04/2007	15.99	Sep,09
8.	132 KV Paradeep-Jagatsinghpur S.C. line with feeder bay extension at both ends.	Case No.04/2007	18.19	24 months from the date of award.
9.	* 132/33 KV S/S at Nuapada along with associated transmission line	Case No.15/2008	34.84	June,2010
10.	* 132/33 KV S/S at Dabugaon along with associated transmission line	Case No.15/2008	25.97	Dec,09
11.	132/33 KV S/S at Chandpur along with associated transmission line.	Case No.15/2008	16.81	Dec,09
12.	* 132/33 KV S/S at Padampur along with associated transmission line	Case No.19/2008	27.57	24 months from the date of award.
13.	* 132/33 KV S/S at Kuchinda along with associated transmission line	Case No.19/2008	25.96	24 months from the date of award.
14.	* 132/33 KV S/S at Bhawanipatna along with associated transmission line	Case No.20/2008	19.59	24 months from the date of award.
15.	* 132/33 KV S/S at Boudh along with associated transmission line	Case No.20/2008	29.87	24 months from the date of award.
16.	132/33 KV S/S at Banki along with associated transmission line	Case No.24/2008	21.16	24 months from the date of award.

Sl. No	Name of the Project	Approval of OERC in	Amount in cr.	Schedule date of completion
17.	220/132 KV S/S & 132/33 KV S/S at Karadagadia along with associated transmission line	Case No.31/2008	80.94	24 months from the date of award.
18.	132/33 KV S/S at Kalunga along with associated transmission line.	Case No.74/2008	17.93	Dec,2010
19.	132/33 KV S/S at Barbil along with associated transmission line	Case No.74/2008	17.40	Dec, 2010
20.	220/33 KV S/S at Bonai along with associated transmission line	Case No.74/2008	28.74	Dec, 2010
21.	220 KV Bidanasi – Cuttack D.C.line	Case No.74/2008	9.43	Oct,2010
22.	Restoration of 220 KV Budhipadar-Burla-Bolangir D.C. line	Case No.74/2008	28.88	July,09
23	Provision of 3rd transformer bays with capacity up-gradation in different S/Ss.	**Case No.39/2008	152.30	2008-09
			125.82	2009.10
24	2x12.5 MVA,132/33 KV S/S at Udala along with associated transmission line	Case No.86/2009	29.22	June-2011
25	2x20 MVA,220/33 KV S/S at Keonjhar along with associated transmission line	Case No.86/2009	29.68	April-2011
26	2x160 MVA,220/132 kV and 2X20 MVA, 132//33 KV S/S at Lapanga along with associated transmission line	Case No.86/2009	70.19	December-2011

280. In the Tariff Order for FY 2009-10, the Commission had allowed interest on new loan, on the basis of actual receipts by OPTCL. During 2008-09, actual receipt of loan was Rs.41.12 crore (Rs.30.53 cr. + Rs.10.59 cr.). This year till 28.02.2010 the actual receipt of loan is Rs.80.62 crore which includes Rs.41.12 crore stated above. Hence, the Commission hereby allows interest on the loan amount of Rs.80.62 crore incurred till 28.02.2010.

281. For the present the claim of OPTCL towards interest of Rs.38.39 crore on new long term loan and Rs.3.99 crore on new short-term loan is disallowed, on the ground that the receipt of loan amount during 2010-11 is uncertain.

282. Except the above stated loans all the other loans are old and inherited from desegregated balance sheet of GRIDCO. Loan-wise analysis is done in subsequent para to determine the prudence of loans availed by the licensee.

State Govt. Loan

283. OPTCL reports that loan from State Govt. (Cash loan) stands at Rs.2.00 crore as on 31.3.2009. 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

284. 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 2010-11.

GoO Bonds

285. The amount of Rs.400.00 crore in the form of zero coupon bonds 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 from the Govt. of Odisha. As such, no interest shall be allowed on the zero coupon bond for FY 2009-10.

REC Loan (New)

286. As detailed in table 44, OPTCL availed Rs.80.62 crore of loan by 28.2.2010 at different rates of interest. Date-wise receipt of loan along with rate of interest is given as under :

Table – 46

Amount of loan	Date of receipt	Rate of Interest	Amount of Int. for 2010-11
Rs.30.53 cr.	28.3.2008	10.90%	3.84
Rs.10.59 cr.	06.8.2008	11.75%	1.24
Rs.15.33 cr.	17.3.2009	12.75%	1.96
Rs.24.17 cr.	12.8.2009	11.50%	2.78

287. The interest claimed by the licensee has been scrutinized and for the year 2010-11, an amount of Rs.9.82 cr. towards interest is allowed by the Commission.

Power Finance Corporation

288. This is an old project related loan allocated to OPTCL at the time of segregation of asset and liabilities of GRIDCO. The Commission allows the interest liability of Rs.4.04 cr. for 2010-11 as claimed by OPTCL after due scrutiny.

Loan from UBI

289. 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 31.3.2010 stands at Rs.27.24 cr. OPTCL proposes to repay an amount of Rs.14.29 cr. during FY 2010-11 leaving a balance of Rs.12.95 cr. to be repaid in subsequent year.

290. In line with the principle followed in the last year tariff order, the Commission allowed interest impact of Rs.1.71 cr. during FY 2010-11 as claimed by the licensee after due scrutiny.

Loan from HUDCO

291. 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. After repayment the same loan as at the end of 31.03.2010 is projected at Rs.108.17 cr. During 2010-11, OPTCL proposes to repay Rs.28.87 crore towards principal leaving a balance of Rs.79.30 cr. as on 31.03.2011.

292. The Commission hereby approves the interest amount of Rs.10.92 crore for FY 2010-11 as claimed by the licensee.

Loan from UCO Bank

293. 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% (floating). This loan was subsequently transferred to OPTCL. The loan balance as on 31.03.2010 is projected at Rs.46.64 crore. During FY 2010-11, OPTCL estimated an amount of Rs.33.36 crore towards repayment of principal leaving a balance of Rs.13.28 crore as on 31.03.2011.

294. The Commission hereby approves the same and allows an interest amount of Rs.2.87 crore as a pass through in the revenue requirement of FY 2010-11.

Loan from Oriental Bank of Commerce

295. During 2005-06, GRIDCO had availed an amount of Rs.200.00 crore as loan from the Oriental Bank of Commerce to swap principal and interest of IBRD loan. This loan was assigned to OPTCL at the time of transfer of liability. The loan balance as on 31.03.2010 stands at Rs.116.35 crore. During 2010-11, OPTCL estimated an amount of Rs.28.57 crore towards repayment of principal leaving a balance of Rs.87.78 crore as on 31.03.2011.

296. The Commission hereby approves the same and allows the interest of Rs.9.06 crore as a pass through in the revenue requirement for FY 2010-11.

Pension Trust Bond

297. In line with the order of the earlier year for the FY 2008-09 and 2009-10, the Commission allows interest of Rs.3.03 cr. for the FY 2010-11 as a pass through in the annual revenue requirement.

Finance Charges

298. For the FY 2010-11, OPTCL claimed an amount of Rs.15.26 crore towards finance charges. Finance charges include Guarantee Commission, Stamp Duty, Service fee, Commitment charges, Audit fees, Bank commission from collection from consumers, bank charges for demand draft, etc.

299. The Commission in the last tariff order had allowed an amount of Rs.16.80 crore under this head. For the FY 2010-11, the amount of Rs.15.26 cr. claimed by OPTCL is allowed by the Commission.

300. Based on the above, the total interest liability has been worked out at Rs.53.39 crore as summarized in the table below:

Table – 47
Total Interest Liability

(Rs. cr.)

Sl. No.	Particulars	Rate of Interest	Principal (C.B.) as on 31.03.10	Loan to be received during 10-11	Principal Repay-ment for 10-11	Approved Interest Payment for 10-11
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.	9.00%	11.26		-	1.01

Sl. No.	Particulars	Rate of Interest	Principal (C.B.) as on 31.03.10	Loan to be received during 10-11	Principal Repay-ment for 10-11	Approved Interest Payment for 10-11
5	IBRD Loan (Thr. GOO)	13.00%			-	0.00
	Sub Total		**428.26**		**0.12**	**1.01**
6	REC (Term Loan)	10.61%	0.00		0.00	0.00
	REC Loan (New)	10.90%	30.53		0.51	3.33
	REC Loan (New)	11.75%	10.59		0.00	1.24
	REC Loan (New)	12.75%	15.33		0.00	1.96
	REC Loan (New)	11.50%	24.17		0.00	2.78
7	PFC (F L)	11.25%	3.82		3.82	0.22
	Sub-Total		**84.44**		**4.33**	**9.53**
8	OSEB Loan	11.50%	0.10		0.10	0.00
9	Bond PF/99 (P. Trust)	9.00%	42.00		42.00	3.03
	Sub-Total		**42.10**		**42.10**	**3.03**
10	Union Bank of India	8.25%	27.24		14.29	1.71
11	HUDCO	11.50%	108.17		28.87	10.92
12	UCO Bank	9.00%	46.64		33.36	2.87
13	OBC	8.75%	116.35		28.57	9.06
	Sub-Total		**298.40**		**105.09**	**24.56**
14	HDFC Ltd.- (Emp. Housing Loan)	12.00%	0.79		0.00	0.00
15	Loan for new Infrastructure from PFC/ REC	11.50%	164.37	503.27	0.00	0.00
16	Short Term Loans for New Projects from Banks	10.75%	18.26	55.92	0.00	0.00
17	Deposit From EHT Consumers		48.73		0.00	0.00
18	Finance Charges		0.00		0.00	15.26
	TOTAL		**1035.83**	**559.18**	**151.64**	**53.39**

301. The Commission, therefore, allows an amount of Rs.53.39 crore on account of interest payment.

Depreciation

302. OPTCL has claimed an amount of Rs.153.31 crore towards depreciation for the year 2010-11. The computation is based on CERC (Terms and Conditions of Tariff) Regulation, 2009. A detailed statement of fixed assets and block-wise computation of depreciation is given in the table below:

Table – 48
Block-wise computation of depreciation

(Rs. cr.)

Particulars	Deprcn. rate prescribed by CERC Regul'n,2009	Deprcn. @ Pre-92 rate as per GoI Notification	Gross Block (01.04.09) (Provn.)	Gross Block (01.04.10) (Proj.)	Deprcn. for FY 2010-11 as per CERC Regul'n	Deprcn. for FY 2010-11 @ Pre-92 rate
Land and Rights	0.00%	0.00%	34.02	41.82	-	-
Buildings	3.34%	1.80%	70.63	70.63	2.36	1.27
Plant & Machinery (Other Civil Works)	3.34%	1.80%	4.21	4.21	0.14	0.08
Plant & Machinery	5.28%	3.80%	1101.34	1353.74	71.48	51.44
Plant & Machinery (Lines, Cables & Network Assets)	5.28%	2.57%	1196.05	1487.32	78.53	38.22
Vehicles	9.50%	12.86%	1.43	1.76	0.17	0.23
Furniture, Fixture	6.33%	4.55%	2.00	2.46	0.16	0.11
Office Equipment	6.33%	9.00%	6.20	7.62	0.48	0.69
TOTAL			2415.88	2969.56	153.31	92.04

303. OPTCL submits that if pre-92 rate is adopted for computation of depreciation then OPTCL will face severe financial burden to meet its debt repayment obligation. Hence, OPTCL has urged the Commission to allow Rs.153.31 crore towards depreciation in the ARR of FY 2010-11 to enable OPTCL to repay the loan of Rs.151.64 cr. in order to avail of CAPEX in time.

304. It is revealed from the above table that Gross Fixed Asset as on 31.3.2010 would be at Rs.2969.56 crore as against the actual figure of Rs.2415.88 crore as on 31.3.2009. Thus, as per OPTCL projection there is an addition of asset of Rs.553.68 crore during 2009-10. In the balance sheet of OPTCL for the year 2008-09, work-in-progress of old projects was Rs.663.20 crore. Therefore, the addition of fixed assets of Rs.553.68 crore for the year 2009-10 appears to be reasonable and the Commission approves the same.

Upvaluation of Asset:

305. The Dept. 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 01.4.96 and No.5207 dt.01.04.1996 would be kept in abeyance from

the financial year 2001-02 prospectively till 2005-06 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-92 norms.

306. 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. Govt. vide its Notification No.R&R-I-15/2009/81, Dtd.06.01.2010, have agreed to the following:

"(i) The bonds issued by GRIDCO and OHPC, to the State Government, consequent upon revaluation of assets shall not carry any interest for further period of five years from FY 2006-07 to FY 2010-11.

(ii) The additional equity share, allotted to the State Government based on revaluation of assets, should not earn any Return on Equity for a further period of five years from FY 2006-07 to FY 2010-11.

(iii) Both GRIDCO/OPTCL and OHPC would be entitled to depreciation on the revalued (pre-92) assets.

(iv) Both GRIDCO/OPTCL and OHPC shall repay the principal amount of the loan amount actually taken from the State Government along with the interest as per the terms and condition of loan other than those attributable to the revaluation of assets.

(v) The State Government investment actually made in Upper Indravati project, excluding the normative equity, should yield return to the State Government with effect from FY 2010-11 after clearance of loan liabilities of PFC. However, interest at the rate of 7% should be charged and paid on this investment from FY 2006-07 onwards.

(vi) Returns on equity on the old Hydro Power Plants may be allowed to OHPC, in respect of new projects commissioned after 01.4.1996".

307. Commission vide letter No.JD(F)-175/02/3235 dtd.27.01.2010 suggested the following amendment with regard to fixed assets for calculation of depreciation among other suggestions.

"Both GRIDCO/OPTCL and OHPC would be entitled to depreciation on the pre-revalued assets calculated at pre-92 norms notified by Government of India."

308. *Govt. of Odisha vide letter No.1577 dtd.23.02.2010 mentioned the following :*

"In this regard necessary notification for keeping in abeyance the upvaluation of assets of GRIDCO and OHPC till 2010-11 has been issued by Government under intimation to all concerned. Government orders will be obtained for modification of the above notification on the basis of the suggestion of OERC intimated vide their letter No. JD(F)-175/02/3235 dt.27.01.2010."

309. As per Regulation 17 (Chapter-III) of CERC (Terms and Condition of Tariff) Regulations, 2009, depreciation shall be computed in the following manner, namely:

(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system:

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation including Advance against Depreciation as admitted by the Commission upto 31.3.2009 from the gross depreciable value of the assets.

(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on *pro rata* basis.

310. In view of the above, the Commission has approved calculation of depreciation based on historical cost of assets.

311. 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.

312. A Table showing gross fixed assets as on 01.04.96 and year-wise asset addition thereafter till 2008-09 is depicted below.

Table – 49

(Rs. cr.)

Year	OPTCL
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	206.10
2008-09	143.34
Asset on 01.4.2009	1924.48
Asset addition approved during 09-10	553.68
Asset on 01.4.2010	2478.16

313. The Commission has 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.76.70 crore towards depreciation for the FY 2010-11 as per the details shown in Table below:

Table – 50

(Rs. cr.)

Particulars	**Pre-92 rate of depreciation as per GOI notification dated 31.01.92**	**Book Value of asset as on 01.04.1996**	**Book Value of asset as on 01.04.2010**	**Depreciation for the year 2010-11**
Land and Rights		8.07	34.89	0.00
Building	1.80%	13.09	72.45	1.30
Plant & Machinery (other civil works)	1.80%	-	4.32	0.08
Plant & Machinery	3.80%	-	1129.73	42.93
Plant & Machinery (line, cables and network)	2.57%	492.71	1226.88	31.53
Vehicles	12.86%	0.02	1.47	0.19
Furniture, Fixture	4.55%	0.19	2.06	0.09
Office equipment	9.00%	0.25	6.36	0.57
Grand Total		**514.32**	**2478.16**	**76.70**

314. 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.

315. 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.

316. However, in view of the directives and orders of the High Court of Odisha, 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.

317. 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.

318. 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 10th year onwards.

Table – 51

Comparison of Principal Servicing obligations vis-a-vis Depreciation available

Asset Value Capitalized = Rs. 10 cr.	**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. cr. (at Post-'94 Rates of 7.84%)	Annual Depreciation in Rs. cr. (at Pre-'92 Rates of 3.80%)	Principal Component of EMI (Rs. cr.)
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

Asset Value Capitalized = Rs. 10 cr.	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. cr. (at Post-'94 Rates of 7.84%)	Annual Depreciation in Rs. cr. (at Pre-'92 Rates of 3.80%)	Principal Component of EMI (Rs. cr.)
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

319. 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.

320. 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.

321. 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.

322. The Commission, therefore, has calculated the 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.127.67 crore. In earlier paragraph, Commission had allowed Rs.76.70 crore towards depreciation based on Pre-92 rates. The balance amount of Rs.50.97 crore is allowed by the Commission as a special appropriation for meeting debt obligation.

323. During FY 2009-10, the Commission had allowed depreciation to OPTCL on an asset base of Rs.2152.36 crore as on 31.3.2009. After the actual figure for 2008-09 is available, the asset base stands reduced to Rs.1924.48 crore. This has been worked out as under:

Approval of Gross Fixed Asset as on 01.4.2009 (2009-10 Tariff Order)	Rs.2152.36 crore
Less allowed for 2007-08 (Provisional)	Rs.117.02 crore
Less allowed for 2008-09 (Projection)	Rs.460.30 crore
Add the audited figure of 2007-08	Rs.206.10 crore
Add the provisional figure of 2008-09 as per actuals	Rs.143.34 crore
Actual Gross Fixed Assets as on 01.4.2009	Rs.1924.48 crore

324. Based on the actual figures available, the depreciation for the year 2009-10 is re-computed and the depreciation amount for 2009-10 works out to Rs.98.74 crore as against an amount of Rs.110.43 crore approved by the Commission for the year 2009-10. Hence, an excess amount of Rs.11.69 crore (110.43 – 98.74) has to be adjusted against the approved depreciation for 2010-11. In line with the above discussion, a

table showing the computation of depreciation at Pre-92 rate and as per CERC notification is exhibited below.

Table - 52

(Rs. cr.)

Particulars	**Pre-92 rate of depreciation as per GOI notification dated 31.01.92**	**Depreciation rate prescribed by CERC Regn.**	**Book Value of asset as on 01.04.2010**	**Depreciation for the year 2010-11 as per Pre-92 rate**	**Depreciation for the year 2010-11 as per CERC Regn.**
Land and Rights			34.89	0.00	
Building	1.80%	3.34%	72.45	1.30	2.42
Plant & Machinery (other civil works	1.80%	3.34%	4.32	0.08	0.14
Plant & Machinery	3.80%	5.28%	1129.73	42.93	59.65
Plant & Machinery (line, cables and network)	2.57%	5.28%	1226.88	31.53	64.78
Vehicles	12.86%	9.50%	1.47	0.19	0.14
Furniture, Fixture	4.55%	6.33%	2.06	0.09	0.13
Office equipment	9.00%	6.33%	6.36	0.57	0.40
Grand Total			**2478.16**	**76.70**	**127.67**

325. The Commission approves the following for FY 2010-11.

Table – 53

Depreciation for FY 2010-11	Rs.76.60 crore
Special appropriation for FY 2010-11 for repayment of debt	Rs.50.97 crore
Total	**Rs.127.67 crore**
Less excess allowed during FY 2009-10	Rs.11.69 crore
Balance to be considered in the ARR for FY 2010-11	Rs.115.97 crore

Special Appropriation

326. OPTCL has claimed Rs.18.33 crore towards special appropriation to be provided in the ARR for FY 2010-11. The basis of claiming the above amount is explained in the table below.

Table - 54

Calculation of Special Appropriation (Rs. cr.)	
Total Repayment of Loan amount (Principal) for FY 2010-11	171.64
Less : Depreciation as per CERC norms	153.31
Balance amount treated as Special Appropriation for repayment of loan for FY 2010-11	**18.33**

327. The figures have been scrutinized and found that the repayment liability proposed by the licensee includes an amount of Rs.20 crore towards Govt. bond and Rs.7.28 crore towards infrastructure loan. The Commission had disallowed payment of interest on Govt. loan and infrastructure loan. Hence, the projected repayment of Rs.171.64 crore would work out to Rs.144.26 crore (Rs.171.64 cr. – Rs.20.00 cr. – Rs.7.28 cr.). The Commission in the above para allowed depreciation including special appropriation amounting Rs.115.97 crore which is ideal to meet the debt service obligation of OPTCL given the fact that OPTCL has already a surplus cash balance of Rs.24.77 crore (Rs.48.94 cr. – Rs.24.17 cr. loan taken from REC) by end of Jan. 2010.

328. Hence, the Commission is not inclined to allow the special appropriation of Rs.18.33 crore claimed by the licensee to meet the debt obligation.

Return on Equity

329. OPTCL has claimed an amount of Rs.18.31 crore towards return on equity on a share capital of Rs.118.12 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. In addition the State Govt. has agreed to part finance transmission projects being set up in remote areas to the extent of Rs.100 crore by way of equity contribution over a period of 3 years commencing from 2008-09. Till date OPTCL has received Rs.23.05 crore from State Govt. and for the year 2010-11 it is expected to receive Rs.35.00 crore. Commission in their reasoned order vide Para 292 of the last tariff order disallowed Return on Equity on Rs.60 crore. In line with earlier order, the Commission also disallows Return on Equity on above amount of Rs.60 crore for the year 2010-11.

330. Regarding Return on Equity support from State Govt. over and above Rs.60 crore, it is ascertained from the audited accounts of the year 2008-09 that in Schedule 1 OPTCL mentioned an amount of Rs.23.05 crore as share capital pending allotment. In subsequent submission, OPTCL furnished the copy of letter vide No.3560 dtd.25.3.2009 and 9464 dtd.11.9.2009 wherein it has been mentioned that govt. has released Rs.23.05 cr. and Rs.5.00 cr. respectively to OPTCL in shape of equity share capital towards execution of new transmission projects in the backward districts of the state. The Commission, therefore, allows return @ 15.5% on the equity value of Rs.28.05 cr. as stated above. Thus, the Commission approves Return on Equity for an amount of Rs.4.35 cr. during FY 2010-11.

Contingency Reserve

331. For the year 2010-11, OPTCL has proposed Rs.15.36 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 Odisha need no over emphasis. 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 audited account of OPTCL for 2008-09. From Schedule-2 of the Balance-sheet, it is found that OPTCL has invested Rs.95.75 crore in contingency reserve fund. On a query regarding utilization of contingency reserve OPTCL has given the following reply:

> *Pursuant to the rules made under subsection (1) of section 69 of Electricity (Supply) Act, 1948 which have been saved under section 185(d) of the electricity Act 2003, OPTCL has calculated Contingency reserve @0.5% on*

Gross Block. The fund is required to meet the expenses towards unforeseen calamities to which our transmission system is exposed to. OPTCL has Rs.27.055 crore as investment in the securities of Govt. of Odisha against the total contingency reserve of Rs.95.75 crore as per the approved accounts of 2008-09. The investment has been done as per the provisions contained in Section IV of 6th schedule to Electricity (Supply) Act, 2948. The details are as under :

Table - 55

Bond issued by	*Principal Amount (Rs.)*	*Rate of interest*	*Date of investment*
OSDL-2011	*113400000*	*9.45%*	*15.11.2001*
OSDL-2014	*73100000*	*5.60%*	*01.7.2004*
OSDL-2017	*84050000*	*7.17%*	*01.4.2005*
Total	*270550000*		

332. During FY 2006-07 to 2009-10, the Commission had allowed the following amount towards contingency reserve as detailed below:

Table – 56
Contingency Reserve approved by the Commission

2006-07	12.59 crore
2007-08	10.49 crore
2008-0 9	13.10 crore
2009-10	09.08 crore
Total	**45.26 crore**

333. Against accumulated amount of Rs.95.75 cr. in the contingency reserve fund at the end of 2008-09, only Rs.27.06 cr. has been invested. No satisfactory reply is coming out as to what happened to the balance Rs.68.69 cr. besides Rs.9.08 cr. approved for 2009-10. Hence, the Commission disallowed the claim of OPTCL towards contingency reserve.

Provision for Bad & Doubtful Debt

334. OPTCL claimed an amount of Rs.0.10 crore towards bad and doubtful debt during 2010-11. The Commission does not allow the same on the ground that OPTCL is getting 100% of its revenue through Escrow from the DISCOMs on first charge basis.

Grid Co-ordination Committee Expenses

335. OPTCL claimed an amount of Rs.0.20 crore towards Grid Coordination Committee expenses for FY 2010-11. The Commission hereby approves the same.

Payment of SLDC Charges

336. Based on CERC (Fees and Charges of Regional Load Despatch and Other related matters) Regulations, 2009, the Commission has approved the ARR for SLDC for FY 2010-11 wherein it has been computed that OPTCL has to Pay 10% of SOC to SLDC. Accordingly, OPTCL will pay an amount of Rs.0.6214 cr. per annum to SLDC towards System Operation Charges for FY 2010-11. The details of SOC are available in the ARR of SLDC approved in Case No.146/2009.The said amount of Rs.0.6214 crore is allowed in the ARR of OPTCL to be recovered through in its Transmission Tariff.

Interest on Working Capital

337. OPTCL has proposed an amount of Rs.54.87 crore towards interest on working capital as per Reg. 18(1)(c) of CERC Regulation, 2009. 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 monthly BSP bill of DISCOMs. Moreover rebate allowed by OPTCL has been considered as a part of revenue requirement for 2010-11. There may not be any need for working capital in case of OPTCL.

Pass Through Expenses

338. OPTCL for the FY 2010-11 claimed an amount of Rs.74.46 crore under this head as a pass through in Revenue requirement on the basis of truing up exercise undertaken by OPTCL. The negative balance of OPTCL as per the audited account of 2007-08 works out to Rs.74.46 crore which the licensee claims to recover through tariff. The Commission has undertaken the truing up exercise of OPTCL based on audited actuals from 2006-07 to 2008-09 which is depicted in the table below.

Table - 57

(Rs. cr.)

Particulars	2006-07 (Audited)			2007-08(Audited)			2008-09(Audited)		
	OERC Approval	Actual	Truing up	OERC Approval	Actual	Truing up	OERC Approval	Actual	Truing up
1	2	3	4	5	6	7	8	9	10
EXPENDITURE									
Employee Cost	115.16	113.71	113.71	138.78	210.66	163.23	125.25	492.61	149.02
R & M Cost	36.00	11.31	11.31	47.00	16.51	16.51	53.88	16.92	16.92
A & G Cost	14.89	17.30	14.89	15.71	12.82	12.82	16.57	18.25	16.57
Gross Interest	68.03	119.09	93.09	60.86	111.23	85.23	79.43	101.29	75.29
Less:Capitalisation	-	*2.86*	*2.86*		*0.58*	*0.58*	-	*4.04*	*4.04*
Net Interest	68.03	116.23	90.23	60.86	110.65	84.65	79.43	97.25	71.25
Depreciation	43.51	98.64	43.51	48.10	108.54	48.10	61.12	109.82	61.12
Adv. Against Depreciation	48.09	-	48.09	31.22	-	31.22	12.59	-	12.59
Other Expenses (GCC Expenses)	-	-	-	1.56		-	0.13	-	-
Bad Debts	-	-	-			-			
Total Expenditure	**325.68**	**357.19**	**321.74**	**343.23**	**459.18**	**356.53**	**349.47**	**734.85**	**327.47**
Prior Period Adjustments	-	15.60	-		(27.58)	-		(0.76)	-
Special appropriation to cover Previous Loss	-	-	-	23.01		23.01	15.00	-	15.00
Contingency Reserve	12.59	8.25	8.25	10.49	11.36	10.49	13.10	9.99	9.99
Reasonable Return	-	-	-			-	-		
Provision for Benefit Tax		0.23	0.23		0.22	0.22	-	0.24	-
Interest on working capital	-	-	-			-			
Rebate 2 % on ARR		-	-			-			
TOTAL COST	**338.27**	**381.27**	**330.22**	**376.73**	**443.18**	**390.25**	**377.57**	**744.32**	**352.46**
Less misc. receipt	5.00	16.86	16.86	3.00	28.21	28.21	1.00	36.84	36.84
Net transmission cost	333.27	364.41	313.36	373.73	414.97	362.04	376.57	707.48	315.62

339. To sum up the surplus/deficit of truing up figure over the approved figure is indicated in table below :

Table – 58

(Rs. cr.)

Year	Approved	True up	Deficit (-)/Surplus (+)
2006-07	333.27	313.36	19.91
2007-08	373.73	362.04	11.69
2008-09	376.57	315.62	60.95

It is clear from the above table that OPTCL need not require any amount towards special appropriation on past losses. Hence, the Commission hereby disallows the claim of Rs.74.46 crore towards pass through expenses.

Miscellaneous Receipts

340. OPTCL has proposed Rs.3.72 crore towards miscellaneous receipt from inter-state wheeling of 210 MU during FY 2010-11. The Commission examined the cash flow of 2009-10 (upto Jan., 2010) submitted by OPTCL. It is revealed that OPTCL had earned Rs.45.55 crore from wheeling charges, supervision charges and other receipts. Prorating for the whole year the figure works out to Rs.54.66 crore. The Commission in FY 2009-10 approved 310 MU of power towards wheeling to CGPs which was included in determining the transmission charge. The cost of wheeling works out to Rs.6.36 crore (310x20.5). Excluding the above amount of Rs.6.36 crore the miscellaneous receipt works out to Rs.48.30 crore (Rs.54.66 cr. – Rs.6.36 cr.) which is approved by the Commission for the FY 2010-11 to be adjusted from the total revenue requirement.

Transmission Cost

341. The total energy to be transmitted in the OPTCL system is estimated at 20464 MU for FY 2010-11, the details of which are mentioned in the Table below:

Table– 59

Details of Energy for Transmission	Proposed by OPTCL (MU)	Approved by OERC (MU)
Sale to DISCOMs	20846	20154
Wheeling to industries from CGPs	150	300
Sale to CGPs by GRIDCO	10	10
Total	**21006**	**20464**

342. The details of expenses proposed by OPTCL and approved by the Commission for FY 2010-11 towards transmission charges are depicted in the Table below:

TABLE – 60
ARR Proposed and Approved for OPTCL for FY 2010-11
(Rs. cr.)

ITEMS	Approved for 2009-10	Proposed for 2010-11	Approved for 2010-11
Employees Cost including Terminal Benefits	173.11	865.13	279.56
R&M Cost	97.00	98.14	60.00
A&G Cost	14.35	26.99	15.14
Interest on Loan Capital	70.53	122.03	53.39
Depreciation	66.07	153.31	76.60
Repayment obligation	44.36	18.33	-
Return on Equity	0.00	18.31	4.35
Interest on Working Capital	0.00	54.87	-
Sub-Total	**415.42**	**1357.10**	**489.04**
Special Appropriation			39.37
Pass Through Expenses		74.46	-
Contingency Reserve	9.08	15.36	-
Bad & doubtful debt Debts	0.00	0.10	-
GCC Expense including SLDC charges	0.15	0.20	0.82
Total	**424.65**	**1447.22**	**529.23**
Less Misc. Receipts	**30.50**	**3.72**	**48.30**
Annual Revenue Requirement to be recovered from LTOA Consumers (i.e. DISCOMs and CGPs)	**394.15**	**1443.50**	**480.93**
Transmission Charges (paise/unit)	**20.50**	**68.72**	**23.50**

Transmission Charges

343. OPTCL in its ARR Application for FY 2010-11 has proposed Transmission charges @ Rs.300399.53/MW/Month or @ 68.72 P/Kwh for transmission of power at 400/220/132 KV only over OPTCL's EHT transmission system. In Rs./MW/Month approach, OPTCL has apportioned the Annual Fixed Cost (AFC) based on ratio of maximum demand of individual customer to that of total maximum demand.

344. But, the Commission has followed the same principle of Postage stamp method as in earlier years for determination of Transmission Charges of OPTCL system. Accordingly, the Transmission Charges are worked out at 23.50 paise per unit which shall be applicable for transmission of power at 400 KV/220 KV/132 KV 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.

345. The Commission has notified the Intra-state Open Access Regulations, 2005 under Section 42 (2) of the Electricity Act, 2003.Consumers availing open access shall be required to pay the transmission charges for use of the transmission lines and substations of OPTCL. The estimated energy for transmission in OPTCL's system is 20464.0 MU with an average demand of 2336 MW. The net transmission cost as indicated in the table above is Rs.480.93 crore. The LTOA charges, therefore, work out to a sum of Rs.5640.00/MW/day. The long term open access customer availing

Open Access under relevant Regulations of OERC shall pay Rs.5640.00/MW/Day towards transmission charges. In accordance with OERC Regulation, 2005, the short term open access customers shall pay at the rate of 25% of the long-term open access charges. Accordingly the Commission approves the rate of Rs.1410.00/MW/day for STOA customers. This will be in addition to other charges in accordance with Open Access Regulations.

Transmission Loss for Wheeling

346. OPTCL had proposed that out of the energy supplied to transmission licensee, 4.3% shall be deducted towards transmission loss and balance is liable to be delivered at delivery point at 400KV/220KV/132KV. The transmission loss was 5.04% in 2006-07, 4.24% in 2007-08, 4.52% in 2008-09 and the same has been computed at 4.28% during 2009-10 from April to October, 2009 against 4% approved for the current year. Taking these ground realities into account, the Commission hereby approves transmission loss for wheeling at 4% for the FY 2010-11, the same level as approved for 2009-10.

Implementation of Intra-State ABT

347. OERC (Intra-State ABT) Regulation, 2007 was published in Odisha Gazette on 14.02.2008. As per Regulation 1 (III), OERC (Intra-State ABT) Regulation, 2007 is in force from 14.02.2008 i.e. the date of publication in the Official Gazette.

348. The status of implementation of Intra-State ABT was as under:-

- The licensees i.e. DISCOMs were yet to implement the Intra-State ABT in the State as Distribution System Operation and Control Center (DSOCC) of DISCOMs were not fully operational for On-Line monitoring and operation of Intra-State ABT.
- SLDC was not geared up and had not established Energy Accounting & Settlement System Centre (EASSC) for preparation of both provisional & final monthly Energy Account, weekly UI Account & weekly Reactive Energy Account
- On-Line Schedule vs. Drawal data was not available.

349. Three meetings were held in the Conference Hall of the Commission on 18.07.2009, 17.09.2009 and 25.11.2009 where the matters relating to implementation of Intra State ABT were discussed thread bare step by step in the presence of the representatives of the various stake holders, i.e. DISCOMs, GRIDCO, SLDC & OPTCL.

350. In the 3rd meeting held on 25.11.2009, Joint Director (IT), OERC presented the On-Line data of all DISCOMs indicating their individual drawal in 15 minute mode with the corresponding frequency and the UI charges which were available in OERC Web Site www.orierc.org under Utility Interface w.e.f. 20.11.2009. As the On Line Data are available, it was suggested and agreed in the 3rd meeting held on 25.11.2009 to hold a full day workshop on the "Mock Exercise" in the premises of OERC on 23.12.2009 for implementation of Intra-State ABT in 15 minute mode.

351. A full day "Mock Workshop" was held in the Conference Hall of the OERC on 23.12.2009 for implementation of Intra-State ABT. During the period of "Mock Workshop", an effective inter-action between each DISCOM and SLDC was made as regards to their command area points of injections of power to each DISCOM, points of Intra-DISCOM transfer and its energy accounting etc.

352. A consensus emerged in the "Mock workshop" held on 23.12.2009 for effective implementations of intra-State ABT which were as under:-

- Intra-State ABT will be implemented in First Phase with DISCOMs vis-à-vis GRIDCO.
- Generators, CGPs & other beneficiaries will join in Second Phase after successful operation of First Phase.
- All the Discoms should fully strengthen their DSOCCs for implementation of Intra-State ABT on 24x7 hours for real time operation mode deploying the required manpower and infrastructure.
- All the DSOCCs should arrange to display the Schematic Diagram showing from the OPTCL network from the Exchange Metering Points to Distribution network up to 11 KV feeders of the respective DISCOM.
- All the 33 KV Feeders except the feeders supplying to Process Industries, District HQs and State Capital should be grouped under Category 'A', Category 'B" and Category 'C' are to be provided with UFR at graded settings and the same may be intimated to OPTCL by 15.01.2010 for initiating the appropriate action for installation of such UFRs.

Difficulties expressed by DISCOMs during hearings for implementation of Intra-State ABT

353. During hearings on ARR Applications of DISCOMs for FY 2010-11, DISCOMs have expressed their difficulties as under for implementation of Intra-State ABT (Phase-I).

- CESU has given utmost importance for implementation of the schedule given by SLDC. All field level officers have been instructed to strictly follow the schedule. However, due to some confusing media report, in some places the field units of CESU may have unintentionally deviated the schedule buckling under the public pressure resulting in over-drawal from the Grid.
- NESCO has stated that it was getting a schedule of 420 MW from SLDC against the average drawal of 530 MW. NESCO is facing difficulties to curtail the demand of 5 Traction Consumers, 2 Defence Consumers & 3 Emergency Power Consumers. NESCO has ascertained that the implementation schedule given by SLDC is not correct as SLDC is taking average assessed data for Kuchei & Bhadrak Grid Sub-stations due to non-availability of real time data. NESCO has already given requisition to OPTCL for installation of UFRs on the 33 KV Feeders at different Grid Sub-Stations as per the decision in the Workshop held on 23.12.2009.
- WESCO has stated that at present it is not fully equipped in all respects for implementation of Intra-State ABT (Phase-I). WESCO has underlined the following practical difficulties encountered during implementation of Intra-State ABT.
  - There is no such special feeder for giving power supplies on priority basis to Hospital, Water supply and Railways etc. and they are all availing power supply from shared feeders, so the Intra-State ABT implementation is becoming increasingly difficult.
  - There is no control mechanism to regulate the power supply of individual industrial consumer, so the implementation of Intra-State ABT mechanism is a difficult task.

- In all the existing 97 nos of 33KV feeders, all the feeders have no incoming VCBs and similarly in case of all 463 nos 11KV feeders, all the 11KV feeders have no out going VCBs.
- DSOCC requires real time data acquisition from all 33/11KV Substations (SCADA system) for proper implementation of Intra-State ABT.

- SOUTHCO has stated that after implementation of the schedule given by SLDC, it is noticed that at times SLDC directly restricts drawal of SOUTHCO by instructing OPTCL Grid Substations to reduce power further after 6 P.M. & also from 6 A.M. to 6 P.M. resulting in consumers' dissatisfaction because of frequent load restriction in the area of SOUTHCO. SOUTHCO has further stated that the data given by SLDC is also mismatched with the load allocated and load drawal as per the implementation schedule. The drawal data of SOUTHCO available in the website of OERC relates to past 15 minute drawal of 220KV Auto Transformer which does not help SOUTHCO to manage the drawal within the schedule. Some times OPTCL extended the Machhkund supply of Odisha share up to Mohana Grid Substation on which SOUTHCO has no control. These problems need to be sorted out/ addressed before the implementation of Intra-State ABT (Phase-I).

354. The Commission would decide shortly the exact date of implementation of Intra-State ABT (Phase-I) for commercial settlement of UI & Reactive Energy Account.

Reactive Energy Charges:

355. OPTCL in its ARR application for FY 2010-11 has submitted that the Reactive Energy Charges shall be separately determined by the Commission as per Regulation 4 (5) of OERC (Determination of Open Access Charges) Regulations, 2006. The Commission has been insisting on OPTCL – the licensee to file the proposal of Reactive Energy Charges and vide Lr. No. 2689 dtd. 16.12.2008 directed OPTCL to file the determination of Reactive Energy Charges for FY 2009-10 by 31.12.2008. OPTCL vide affidavit dtd. 12.02.2009 filed the application for approval of Reactive Energy Charges @ 4 or 5 paise/KVArh or as decided by the Commission. During hearing on 21.3.2009, OPTCL submitted before the Commission that the requisite software for calculation of Reactive Energy charge is being developed in-house which would be ready for installation and commercial operation by end June, 2009. The Commission vide Order dtd. 06.4.2009 had directed OPTCL to install 150 MVAR compensation in 10 nos. of grid substations viz Bolangir, Patnagarh, Sonepur, Kendrapara, Patamundai, Rairangpur, Jajpur Town, Kesinga, Khariar and Saintala in FY 2009-10 and balance 125 MVAR in 13 nos. of Grid substation viz. Sambalpur, Dhenkanal, Puri, Ransinghpur, Bidanasi, Chandikhol, Choudwar, Cuttack, Nuapatna, Paradeep, Bhadrak, Jaleswar and Sunabeda during 2010-11 subject to system study report after installation of 1st phase 150 MVAR compensation.

356. The Commission vide order dated 20.3.2009 had already approved ARR and levy of Operating Charges for FY 2009-10 for SLDC separating SLDC Charges from Transmission Charges of OPTCL with effect from 01.4.2009 and suitably ring-fencing SLDC to function as an Independent System Operator.

357. Further, the Commission in order dated 06.04.2009 in Case No. 22/2009 had approved for preparation and billing of weekly Reactive Energy Charges (both provisional and final) for FY 2009-10 @ 5.75 paise / KVArh by SLDC as per Clause 1.7 of OGC during the interim period till the Commission finally approves an

appropriate Reactive Energy Charges. The submission of OPTCL for fixing the said charges at 4 or 5 paise / KVArh based on study report of the consultant PRDC, Bangalore for FY 2009-10 was not considered.

358. The Commission vide para 23.2 and 23.3 of the Order dtd. 06.4.2009 observed as under:

"23.2 We are extremely unhappy and note with serious concern the tendency of OPTCL to defer the implementation of Reactive Energy charges to FY 2010-11. As the State is suffering from low voltage and there is wide spread discontentment amongst the consumers of the State due to such low voltage, we direct OPTCL and SLDC to finalise, install and put into Commercial Operation the required hardware and software for calculation of Reactive Energy Charges by SLDC by 15th June, 2009.

23.3 We further direct SLDC to file its status of preparation of Reactive Energy Charges before us by 15th June, 2009 duly serving a copy to all the Respondents who participated during hearing on 21.03.2009."

359. The Commission had directed OPTCL to install 275 MVAR short capacitors with the twin objectives i.e. to improve the voltage in the command areas of 23 nos. of Grid Substations as well as to save a considerable quantity of energy lost in the system in absence of requisite reactive compensation.

360. During hearing on 10.02.2010, OPTCL submitted the present status on installation of Capacitor Banks (total 275 MVAR) at 23 nos. of existing grid sub-stations of OPTCL and development of system for Reactive Energy Billing as under:

- The In-principle approval of BoD has been obtained. Relevant estimates have been sanctioned.
- DPR has been prepared. Proposal for availing loan from REC on a total estimated cost of Rs.18.594 cr. has been initiated.
- New format for billing KVARH in 15-minute DIP has to be incorporated in the Base Computer Software (BCS) used by EBC of GRIDCO for conversion of Meter data.
- OPTCL submitted that as informed by OPTCL's Service Provider, M/s. Secure Meters Ltd, since the existing BCS (SMART-2K) shall be obsolete in near future and replaced by a new software (M-CUBED), the above mentioned format shall be incorporated in the new BCS. The matter is being constantly pursued with the Service Provider. M/s. Secure Meters Ltd. have intimated that the new software is expected to be developed and delivered by the end of February, 2010.

361. In view of the Commission's above orders and observations on Reactive Energy Charges for FY 2009-10, OPTCL has proposed such charges @ 6.00 paise / KVArh for FY 2010-11 in line with the provision of Clause 1.7 of OGC which states that the rate for charge/payment of Reactive Energy Charges shall be 5 paise / KVArh with effect from 14.06.2006 and shall be escalated at 0.25 paise / KVArh per year thereafter, unless otherwise revised by OERC.

362. The Commission accepts the proposal of OPTCL for collection of the Reactive Energy charges provisionally @ 6.00 paise / KVArh as per Clause 1.7 of OGC for FY 2010-11 and directs the licensee to file the calculation of Reactive Energy Charges afresh with full justification thereof at the earliest.

Penal charges and meter rent:

363. OPTCL in its ARR for FY 2010-11has proposed to levy penal charges @ 25% of Transmission Charges and Meter Rent @ Rs.2000 per Month. In reply to commission's queries, OPTCL had stated that the Commission under Regulation (8) in Chapter-II (CHARGES FOR OPEN ACCESS) Regulations, 2006 has mentioned Penal Charges as follows:

"(i) Penal charges, if any, for wrongful use of the transmission and/or distribution systems that adversely affect the power system, shall be decided by the Nodal Agency and borne by the open access customers."

364. Further, the Maharashtra Electricity Regulatory Commission in MERC (Transmission Open Access) Regulations, 2005 under Regulation 11.4 (Principles for levy of charges) has approved the penal charges as follows:

> **"*11.4-*** *A Transmission System User shall also be liable to pay an additional* ***penal charge*** *at the rate of twenty five (25) per cent of the transmission charges for the use of an Intra-State transmission system which is in excess of the transmission capacity rights allotted to such user."*

365. In line with the above, OPTCL proposes penal charges at the rate of twenty five (25) per cent of the transmission charge for approval by the Commission to be paid by OA customers during FY 2010-11 for any wrongful use of the transmission system including that of utilization in excess of the transmission capacity rights allotted to them.

366. Since presently such type of situation does not arise in OPTCL system, the Commission did not accept the proposal of OPTCL for levy of Penal Charges and claim of meter Rent from OA Consumers for FY 2010-11.

Special Provision for Harnessing Surplus Power from CGPs/Co-generation

367. 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.

368. The Commission vide Order dtd.28.10.2009 has approved an attractive tariff for harnessing of surplus/bottled up power of about 600 MW from Captive Generating Plants/Cogeneration plants of the State. In the said order at para 19(vii), Commission directed that GRIDCO should coordinate with OPTCL and ensure that the frequent disturbance of grid at Old Duburi, Paradeep and Choudwar is rectified so that the CGPs located in these areas do not find any difficulty in injecting their surplus power to the grid, when their surplus power is so essential for the State's use. Further, in para 19(viii), of the said order the Commission directed that regarding the provision of SCADA, PLCC and grid connectivity, the clarifications issued and stipulations imposed in the order dated 4.8.2009 in case No.60 of 2009 will be applicable.

Perspective Plan for Evacuation of Power from IPPs signed MoUs with Govt. of Odisha for installation of Mega Thermal Power Plants in the State

369. During the hearing, some objectors had expressed their concern that OPTCL had not outlined any action plan as yet for evacuation of power from 21 nos. of Mega Thermal

Power Plants coming up in Odisha for which 13 nos. IPPs and 8 nos. MPPs have signed MoUs with Govt. of Odisha for installation of about 28000 MW.

370. The Commission observed that as per Clause 3.4 of Orissa Grid Code (effective from 14th June, 2006) CEA would formulate perspective transmission plan for inter-state Transmission System as well as Intra-State Transmission System. These perspective transmission plans would be continuously updated to take care of the revisions in load projections and generation scenarios considering the seasonal and time of the day variations. The STU shall carry out planning process from time to time as per the requirement for identification of major State Transmission system, including schemes in the State which shall fit in with the perspective plan developed by CEA.

371. The Commission, therefore, directs OPTCL - the STU to file before 30th April, 2010 the perspective action plan for drawal of Odisha share as well as the evacuation of surplus power from these Mega Thermal Power Plants connecting with the proposed 765 KV Pooling Stations at Jharsuguda and Angul. The Commission further directs OPTCL to file the restoration plan of 400 KV Ib-Meramundali D/C line (235 CKM) by 30th April, 2010 positively. The perspective action plan should address the issue of drawal of state's share of IPPs directly without necessitating payment to CTU & ERLDC for drawal of Orissa's share from IPPs of Orissa. The OPTCL should rise to the occasion so that it is able to receive its due share in wheeling charges from consumers of other states getting power from IPPs. The important issues raised by the objectors on the matter of ensuring adequate transmission corridors for both drawal of power for State use and evacuation of power for the consumers outside the State from the IPPs, need to be addressed by OPTCL in its submission of prospective action plan.

Transmission Charge Payment Mechanism

372. 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 of DISCOMs with a copy to GRIDCO.

373. At present in the transmission tariff orders for FY 2008-09 and 2009-10, OPTCL would bill the Transmission Charges to the DISCOMs for the use of transmission services on the basis of meter reading at the delivery point with a copy to GRIDCO. The bill would be paid by GRIDCO to OPTCL from the receivables of DISCOMs escrowed with GRIDCO and the balance amount available shall be utilized for payment of Bulk Supply Price (BSP). This creates a lot of inconvenience for OPTCL and GRIDCO as well as the DISCOMs with regard to reduction of income tax at source consequently the issue of tax deduction certificate by the ultimate disbursing officer. After due consideration of the difficulties pointed out by OPTCL the Commission feels that the existing procedures needs suitable modification. Commission, therefore, directs that GRIDCO shall issue a standing and irrevocable instruction to the DISCOMs and the Escrow Bank (Union Bank of India) permitting the DISCOMs to make payment against the monthly transmission charge bills of

OPTCL from the Escrow Account. DISCOMs shall make payment of transmission charges to OPTCL before making payment of bulk supply bills of GRIDCO.

Rebate

374. For payment of bills through a letter of credit or by payment in cash within two working days (except holidays under N.I. Act), 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

375. 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.

376. The transmission tariff approved as above in respect of OPTCL will become effective from 1st April, 2010 and shall continue until further order.

The application of OPTCL in Case No.145 of 2009 is disposed of accordingly.

(B.K.MISRA)	(K.C. BADU)	(B.K. DAS)
MEMBER	MEMBER	CHAIRPERSON