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 2010

Date of Hearing : 04.02.2011

Date of Order : 18.03.2011

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 2011-12.

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 Orissa. 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 into 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 2011-12. The said application was duly scrutinized, registered as Case No.145/2010 and admitted for hearing. In the consultative process, the Commission heard the applicant, objectors, Consumer Counsel, representative of the State Government.

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 30th November in the prescribed formats. OPTCL as a deemed licensee submitted its ARR application for 2011-12 before the Commission on 29.11.2010. After due scrutiny and admission of the application, the Commission directed OPTCL to publish its ARR application in the approved format in the leading and widely circulated daily newspapers and the matter was also posted in the Commission's website in order to invite objections from the intending objectors. The Commission had also directed the applicant to file its rejoinder to the objections filed by the various objectors and to serve copy to them.

2. In compliance with the Commission's aforesaid order the OPTCL published the said public notice in the leading daily English and Oriya newspapers. The Commission issued notice to the Govt. of Orissa represented by Department of Energy to send their authorised representative to take part in the ensuing tariff proceedings.

3. In response to the aforesaid public notice of the applicant, the Commission received 8 nos. of objections/suggestions from the following persons/ associations/ institutions/ organisations.

   (1) Shri G.N. Agrawal, Advocate, Convener-cum-Gen. Secretary, Sambalpur District Consumers Federation, Balajee Mandir Bhawan, Khetrajpur, Sambalpur-768003, (2) Shri M.V. Rao, Resident Manager, M/s Ferro Alloys Corporation Ltd., 102-B, Kalinga Enclave, Nayapalli, Bhubaneswar-12, Khurda, (3) Shri Bibhu Charan Swain, M/s Power Tech Consultants, 1-A, /6, Swati Villa, Surya Vihar, Link Road, Cuttack-753012, (4) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar-751012, (5) Shri R.P. Mahapatra, Retd. Chief Engineer & Member (Gen.), OSEB, Plot No.775 (PT), Lane-3, Jayadev Vihar, Bhubaneswar-751013, (6) Shri M.V. Rao, Chairman, Power Committee, The Utkal Chamber of Commerce & Industry, N/6, IRC Village, Nayapalli, Bhubaneswar-751015, (7) Chief Executive Officer (Comm.), NESCO, WESCO & SOUTHCO, Regd. Office- Plot No. N-1/22, IRC Village, Nayapalli, Bhubaneswar-15 & (8) Shri Pradeep Kumar Nath, Chief Manager (E), NALCO, Jaydev Vihar, Bhubaneswar. All the above named objectors were present during tariff hearing and their written submission which were filed before the Commission were 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 WISE, Pune 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 04.02.2011 and it was duly notified in the leading newspapers mentioning the list of the objectors. The Commission also issued notice to the Government of Orissa through Department of Energy informing them about the date and 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 04.02.2011 and heard the Applicant, Objectors, Consumer Counsel and the Representative of the Dept. of Energy, Government of Orissa at length.

8. The Commission convened the State Advisory Committee (SAC) meeting on 14.02.2011 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 Orissa 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 2011-12 (Para 9 to 50)

9. OPTCL owns EHT network for transmission of power sourced 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 transmits power for both long term and short term open access customers as per OERC Open Access Regulations, 2005.The details of lines & Sub stations of OPTCL as on 30.11.2010 are given in the table below.

Table – 1

Sub-Station and Line Details		
400/220/132/33 kV SS	1	
400/220 kV SS	1	
220/132/33 kV SS	14	
220/132 kV SS	1	
220/33 kV SS	4	
220 kV SS	1	
132 kV SS	3	
132 kV Industrial LILO	11	
132/33 kV SS	54	
132/33/25 kV SS	1	
132/33/11 kV SS	4	
132/11 kV SS	2	
Total No. of Sub-Stations	**97**	
Voltage Label	**Lines (ckt. km.)**	**Bays**
400 kV	521.935	33
220 kV	5517.425	224
132 kV	5207.586	626
33 kV		717
25 kV		2
11 kV		39
Total	**11246.946**	**1641**

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 Orissa. OPTCL has also been notified as the State Transmission Utility (STU) 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 in letter No. 5372 dtd. 24.11.2010 the OPTCL is required to file two applications for transmission charges & SLDC charges separately for FY 2011-12.

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 before the Commission for approval of its Annual Revenue Requirement & Transmission Tariff for FY 2011-12.

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.1573.69 crore (Excluding SLDC function) in its filing of Annual Revenue Requirement and Transmission Tariff for the FY 2011-12 as against expected revenue at the existing Transmission Tariff @ 23.50 P/U at Rs.538.65 crore. The gap in the Revenue Requirement has been projected at Rs.1035.04 crore. The summary of Transmission cost/annual revenue requirement of OPTCL for 2011-12 as projected is tabulated below:

Table – 2

Revenue Requirement for FY 2011-12

(Rs. Cr.)

Transmission Cost	Approved for 2010-11	OPTCL's Proposal for FY 2011-12
Employee Cost including terminal benefits	279.56	952.06
R&M Cost	60.00	93.89
A&G Cost	15.14	38.34
Interest on loan	53.39	111.30
Interest on Working Capital	-	59.08
Special Appropriation	39.37	0.00
Depreciation	76.60	156.40

Transmission Cost	Approved for 2010-11	OPTCL's Proposal for FY 2011-12
Return on Equity	4.35	24.81
Sub-total	**528.41**	**1435.88**
Pass through expenses	-	127.25
Contingency Reserve	-	15.16
Bad & Doubtful Debt	-	0.10
GCC Expense	0.82	0.30
Total Annual Revenue Requirement	**529.23**	1578.69
Less Miscellaneous Receipts	48.30	5.00
ARR to be recovered from LTOA Customers	**480.93**	**1573.69**

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, OERC 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 for FY 2011-12 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 Conditions of Tariff) Regulation, 2009 respectively.

The costs of the deemed transmission licensee OPTCL for the FY 2011-12 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. As per CERC Regulations, 2009, Operation and Maintenance (O&M) Expenses means the expenditure incurred on operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads**.** Accordingly, OPTCL proposes **O & M Expenses** of **Rs.1084.29** crore (Excluding SLDC function) under the following heads:

Employee Cost including Terminal Benefits.

16. The Employees Expenses for FY 2011-12 has been projected by OPTCL at **Rs.952.06 crore** including Terminal Benefits of Rs.630.19 cr. on the basis of (i) employee cost (ii) terminal benefit liability of employees and pensioners (iii) payment of differential pension and pensionary benefits.

17. The employee cost details include salaries, dearness allowance, other allowances, reimbursement of medical expenses and house rent, leave travel concession, honorarium, payment under workmen compensation Act, Ex-gratia and misc. expenses, staff welfare expenses etc. The details of employee cost as proposed by OPTCL is given in table below.

Table - 3
Employee Cost

(Rs. Cr.)

	Proposed for 2011-12	**Approved for 2010-11**
Employee cost including Salaries, Dearness Allowance etc.	244.41	150.02
Terminal Benefits Liability of Employees and Existing Pensioners	630.19	140.20
Payment of Differential Pension and Pensionary Benefits to the absorbed Govt. Engineers in OPTCL/GRIDCO	87.06	-
Less: Capitalization	9.60	10.66
Total	**952.06**	**279.56**

Administrative & General Expenses

18. The A&G expenses for FY 2011-12 has been projected at **Rs.38.34 cr.** against Rs.15.14 Cr. approved for 2010-11

Repairs & Maintenance Expenses

19. OPTCL proposes Repairs and Maintenance (R&M) Expenses for FY 2011-12 at **Rs.93.89 cr**. against Rs.60.00 Cr. approved for 2010-11. The details are given in the table below.

Table – 4

Repairs and Maintenance Expenses for FY 2011-12

(Rs. Cr.)

Particulars	OERC Approval for FY 2009-10	OERC approval for FY 2010-11	OPTCL Proposal for FY 2011-12
(a) O&M			71.93
(b) Telecom R&M incl. ULDC			13.10
(c) Civil works			2.80
(d) Information Technology			6.06
Total R&M Expenses (a+b+c+d)	**47.00**	**60.00**	**93.89**

Interest on Loan Capital

20. Interest on Loan for FY 2011-12 has been projected at **Rs.111.30 crore** by OPTCL against Rs.53.39 Crore approved for 2010-11.

New Projects

21. OPTCL proposes to **spend Rs.1004.24 crore during FY 2011-12** as capital expenditure for new projects towards O&M, telecom, information technology (IT), transmission project & construction (TP & Con.) and Civil Works. The details of Capital Expenditure for FY 2011-12 are given in the table below.

Table - 5

Projected Capital Expenditure for FY 2011-12

(Rs. Cr.)

Particulars under different Heads	OPTCL Proposal for FY 2011-12	Approved for 2011-12 in Business Plan
a) O&M	291.15	106.52
b) Telecom	73.65	142.50
c) Information Technology (IT)	12.66	13.32
d) Transmission Project & Construction (Excluding Deposit works)	591.62	720.38
e) Civil Works	35.16	-
Total Capital Expenses (a+b+c+d+e)	**1004.24**	**982.72**

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

An amount of Rs.291.15 Cr has been proposed for the FY 2011-12 under Capital expenditure (CAPEX) basically for transformer capacity augmentation / substation capacity enhancement by installing third transformers in the existing Grid-Substations of OPTCL and augmentation of transmission lines to meet the future load growth. The details of item wise Capital expenditure for O&M related projects for Rs.291.15 Crore is shown in the table below.

Table – 6
PROJECTED CAPEX (O&M WING) (UPGRADATION / ADDITION OF TRANSFORMERS/LINE/CAPACITOR BANKS ETC.) for FY 2011-12

Sl. No.	Line/Equipment details	Unit Rate (Rs. in Cr.)	Quantity	Total Cost (Rs. in Cr.)
1	Power Trf. (Nos.)			
	i) UPGRADATION & THIRD TRF.			
	a) 220/132KV	6.500	6	39.000
	b)132/33KV	2.78119	14	38.937
	c)132/33KV	3.25	14	45.500
2	Estimated cost for third transformer Bays (220kV,132kV &33kV)(Phase-I, II, & III)			50.00
3	Installation of Capacitor Bank for Reactive Power Compensation. (Estimated cost for 275MVAR)			12.71
4	Augmentation of Lines (in km.)			
	a) Upgadation of conductor of 220kV Budhipadar-Tarkera DC Line by AL59 Conductor	LS	2 x 109	19.31
	b) Upgadation of conductor of 132kV Chandaka-Mancheswar Ckt-II by ACCR Conductor	1	5.52	5.52
	c) Upgadation of conductor of 132kV Chandaka-Ranasinghpur Line by ACCR Conductor	1	24.78	24.78
	d) Upgadation of conductor of 132kV Tarkera-Chhend DC Line by ACCR Conductor	1	2 x 6.165	12.33
	e) Replacement of conductor of 132kV TTPS-Chainpal DC Line by New ACSR Panther conductor	LS	2 x 3.0	0.28
	f) Upgadation of conductor of 132kV Burla PH-Budhipadar DC Line by AL59 Conductor	LS	2 x 59.38	6.47
	g) Upgadation of conductor of 132kV Chandaka-Nimapara Line (Upto Badagada LILO) by ACCR Conductor	1	30	30.00
	h) Upgadation of conductor of 132kV Chandaka-Khurda Line by AL59 Conductor	LS	36.5	2.07
	I) Upgadation of conductor of 132kV Bhanjanagar-Aska DC Line by AL59 Conductor	LS	2 x 32.93	3.59
	j) 2nd 132kV incomer bay at Berhampur for 132kV Narendrapur-Berhampur DC Line	LS		0.66
	TOTAL			**291.15**

(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 and Microwave & Optic Fibre communication between Sub-LDC to SLDC, Bhubaneswar. The PLCC systems adopted in OPTCL are generally considered to be very much

economic, reliable and dependable for voice, data and carrier back-up protection facility. The CAPEX requirement for upcoming Telecom Project (Capital Works) in FY 2011-12 is Rs.73.65 Cr, the abstract of which is given in the Table below.

Table – 7

Capax requirement for Telecommunication works in 2011-12

Particulars	Amount (Rs. cr.)
(i) Integration of 30 nos RTU	13.40
(ii) Provision of SCADA inter face points at all 220KV and above S/S	47.25
(iii) Reframing of Microwave by Optic Fibre	13.00
Total	**73.65**

(c) CAPEX FOR INFORMATION TECHNOLOGY RELATED PROJECTS:

Provision for an amount of Rs.12.66 cr. is made for FY 2011-12 towards capital expenditure for Infrastructure development of IT and automation related fields etc. as given in the table below. The amount approved by the Commission in Business Plan of OPTCL for 2010-11was Rs.20.77 Crore and Rs.13.32 Crore for 2011-12.

Table - 8

Capex for I.T. during FY 2011-12

Sl.No.	Detailed Head		Rs.in Crore
A	**ERP**		
	1	ERP-Licenses (Hqrs)	2.04
B	**Portal services**		
	1	Web Sites (Hqrs)	0.25
C	**DR**		
	1	DR	5.00
D	**PDC**		
	1	Computing Infr. Servers (Hqrs)	0.50
	2	Office Systems	
	a	PCs & Peri (Hqrs, ZITs,Field Units & S/S)	2.94
	b	Lap Tops (Hqrs)	0.05
E	**Other IT**		
	1	Document Mangement Security (Hqrs)	0.15
	2	Security (Hqrs)	0.03
	3	GIS (Hqrs)	1.00
	4	DLLD (Hqrs)	0.70
Total			**12.66**

(d) CAPEX FOR TRANSMISSION PROJECT & CONSTRUCTION:

It is proposed to spend an amount of **Rs.591.62 Cr** on transmission related infrastructure during FY 2011-12 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 – 9

CAPEX FOR TRANSMISSION PROJECTS & CONSTRUCTION

Sl. No.	Loan/ Scheme/ Contract-wise Capital Works	Actual Expenditure for First Six Months of FY 2010-11	Projection of Expenditure for balance Six Months of FY 2010-11	Total Expenditure for FY 2010-11	Projected Expenditure During FY 2011-12
	(A) ONGOING SCHEMES				
1	400/220KV s/s at New Duburi	0.13	1.67	1.80	-
2	400/220kV S/S Mendhasal	0.33	1.07	1.40	-
3	220/132kV S/S at Burla	0.00	1.00	1.00	
4	220/132 kV S/S at IB			0.00	
5	220/132 kV 20MVA transformer at Barkote	0.00	0	0.00	
6	2*100 MVA,220/132 kV S/S at Bhadrak & Associated LILO Line	0.16	1.84	2.00	
7	Const. of 2Nos. 220 kv feeder bay at Balasore	0.00	0.94	0.94	
8	Const. of 220/132 kv s/s Paradeep with associated line	0.04	0.96	1.00	
9	220/132kV s/s at Bolangir	0.03	0.97	1.00	
10	Construction of 4th Auto at Chandaka	0.00	0.67	0.67	
11	132/33kV 40MVA trf. With associated 132 & 33 KV bays at Chhend s/s	0.00	0.56	0.56	
12	132/33kV, 2x20MVA s/s at Basta	0.53	0.86	1.39	1.50
13	Constn. Of 132/33 kV s/s at Karanjia with associated lines	0.03	0.07	0.10	1.17
14	132/33kV S/S Badagada	0.16	0.44	0.60	
15	132kV feeder bay extn at Hind Metals	0.00	0.20	0.20	
16	132/33kV s/s at Phulnakhara	0.13	0	0.13	
17	132/33kV S/S at Anandpur alongwith Transmission Line (New)	2.44	6.56	9.00	0.89
18	132/33 Grid S/s at Kendrapara			0.00	
19	132/33kV s/s at Barapalli with associated lines	0.00	0.18	0.18	
20	2x12.5MVA,132/33 KV S/S at Akhusingh	0.55	4.02	4.57	
21	40 MVA,132/33kV s/s at Bidanasi	0.18	3.35	3.53	
22	2x12.5MVA,132/33 KV S/S at Nuapada	0.00	18.00	18.00	9.83
23	2x12.5MVA,132/33 KV S/S at Dabugaon		15.00	15.00	5.77
24	2x12.5MVA,132/33 KV S/S at Padampur		15.00	15.00	6.66
25	2x12.5MVA,132/33 KV S/S at Kuchinda		15.00	15.00	5.77
26	2x12.5MVA,132/33 KV S/S at Bhawanipatna		12.00	12.00	3.60
27	2x12.5 MVA, 132/33 kv s/s at Boudh with associated transmission line		18.00	18.00	8.69
28	2x40 MVA, 220/33 kv s/s at Bonai with associated transmission line		8.00	8.00	20.65
29	2x20 MVA, 132/33 kv s/s at Barbil		10.00	10.00	7.00

Sl. No.	Loan/ Scheme/ Contract-wise Capital Works	Actual Expenditure for First Six Months of FY 2010-11	Projection of Expenditure for balance Six Months of FY 2010-11	Total Expenditure for FY 2010-11	Projected Expenditure During FY 2011-12
	with associated transmission line				
30	400kV DC line Ib-Meramundali	0.23	1.53	1.76	-
31	400kV DC Line from Meramundali to Duburi			0.00	
32	400kV DC Line from Meramundali to Mendhasal			0.00	
33	220kV 2nd line from IB-Budhipadar			0.00	
34	220 kv sc line from Kuchei to K.C.Pur		0.15	0.15	
35	220 kv line from Padmanvpur to Balasore		1.00	1.00	
36	220 kv line from Narendrapur-Chandaka with bay at Chandaka	0.01	0.01	0.02	
37	220kV line from Mendhasal to Bidanasi	0.00	1.00	1.00	-
38	220kV DC Line Duburi -old -Duburi New	0.00	0.05	0.05	
39	220kV DC line Budhipadar-Bolangir	0.14	2.22	2.36	
40	220kV DC Line Bidanasi-Cuttack	0.70	9.30	10.00	5.07
41	132kV Hirakud LILO Burla Sambalpur	0.00	0.43	0.43	
42	132kV line from Mancheswar to Badagada	0.05	0.95	1.00	
43	132kV line from Badagada to Uttara	0.05	1.15	1.20	
44	132kV line from Uttara to Sijua	0.00	0.10	0.10	
45	132kV line from ICCL-Choudwar to Salipur	0.00	0.30	0.30	
46	132 KV Phulnakhara-LILO-Mancheswar	0.00		0.00	
47	132KV Line from Jagatsinghpur to Paradeep	3.00	4.00	7.00	9.72
48	132kV Hirakud LIlO Chipilima-Bergarh Line	0.00	0.43	0.43	
49	Diversion of 132kV Line from Chandaka to Nimapara			0.00	
	TOTAL (A)	**8.90**	**158.98**	**167.88**	**86.32**
B	***PROPOSED SCHEMES***				
1	2x12.5 MVA, 132/33 kv s/s at purushottampur	0.09	5.89	5.98	7.00
2	2x12.5 MVA, 132/33 kv s/s at Chandpur with associated trans. line	0.00	5.00	5.00	8.00
3	2x12.5 MVA, 132/33 kv s/s at Banki with associated transmission line	0.00	6.00	6.00	12.00
4	2x12.5 MVA, 132/33 kv s/s at Kalunga with associated transmission line		5.00	5.00	7.00
5	2x100 MVA, 220/132/33 kv s/s at Kuanrmunda with LILO arrangement from existing 220 kv Budhipadar-Tarkera dc lines	0.34	14.66	15.00	35.00
6	2x40 MVA, 220/33 kv s/s at	0.00	10.00	10.00	14.93

Sl. No.	Loan/ Scheme/ Contract-wise Capital Works	Actual Expenditure for First Six Months of FY 2010-11	Projection of Expenditure for balance Six Months of FY 2010-11	Total Expenditure for FY 2010-11	Projected Expenditure During FY 2011-12
	Gopinathpur near Nuagaon (Keonjhar)				
7	2x100 MVA, 220/132/33 kv s/s at Dhamara	0.00	3.00	3.00	20.00
8	2x12.5 MVA, 132/33 kv s/s at Udala with LILO arrangement of Balasore-Baripada lines	0.05	5.00	5.05	17.00
9	132 kv connectivity from Salipur to Kendrapara	0.00	3.00	3.00	6.00
10	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.		5.00	5.00	20.00
11	Constn. of 2x20 MVA 132/33 kv s/s at Olaver and 2 nos 132 kv feeder bay extn. at Pattamundai		5.00	5.00	18.00
12	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		3.00	3.00	7.00
13	Constn. of 2x40 MVA 132/33 kv s/s at Marshaghai (Luna) by making LILO arrangement from 1 circuit of existing 132 kv Kendrapara -Paradeep DC line		4.00	4.00	10.00
14	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.		2.00	2.00	1.64
15	2x160MVA ,220/132kV and 2x20MVA 132/33kV S/s at Karadagadia with associated lines	0.04	5.00	5.04	30.00
16	2x160MVA and 2x20MVA 220/132/33kV s/s at Lapanga with associated lines	0.55	10.00	10.55	35.00
17	2x100MVA220/132 KV S/s at Kesinga with 220DC line from Bolangir to Kesinga and one no. 220kV Bay Extension at Bolangir	0	5.00	5.00	25.00
18	Construction of 2x100MVA and 2x40MVA 220/132/33kV s/s at Puri and 2 nos 220kV Feeder bay extension at proposed 400/220/132kV s/s at Jatani (Uttara)	0	2.00	2.00	20.00
19	Construction of 2x40MVA 132/33kV s/s at Khajuriakata near Hindol Road with associated transmission lines	0	2.00	2.00	8.00
20	Construction of 220/ 132/33kV s/s at Lahanda near Joda with construction of 132kV DC line from Lahanda to Barbil	0	2.00	2.00	10.00
21	Construction of 2*315MVA 400KV grid s/s at Lapanga with LILO of one	0	10.00	10.00	30.00

Sl. No.	Loan/ Scheme/ Contract-wise Capital Works	Actual Expenditure for First Six Months of FY 2010-11	Projection of Expenditure for balance Six Months of FY 2010-11	Total Expenditure for FY 2010-11	Projected Expenditure During FY 2011-12
	circuit of 400kV Bisra -Raipur Line				
22	Construction of 2*100MVA , 220/132/33KV s/s at Pratapsasan near Balakati with associated 220KV DC LILO line of Proposed 220 KV Cuttack-Jatani Line.	0	2.00	2.00	10.00
23	2x40MVA ,132/33kV s/s at Baliguda with construction of 132kV SC line from Phulbani to Baliguda and one no. 132kV feeder bay extension at Phulbani		1.00	1.00	5.00
24	2x20 MVA, 220/33 kv s/s at Narsinghpur with LILO arrangement of 1 circuit of existing 220kV Bhanjanagar-Meramundali DC Line		2.00	2.00	7.00
25	132kV DC line from 132/33KV S/s at Salipur to 132/33KV s/s at Kendrapara		1.00	1.00	4.00
26	Construction of 2 nos. 220KV feeder fron 220/132/33kV s/s at Jayanagar to 400/220 kV s/s of PGCIL at Jayanagar with 2 nos. of 220kV bay extension		0.50	0.50	3.00
27	132kV SC line to 132KV DC line from PGCIL s/s., Kuchei to 132/33kV s/s, Baripada		1.00	1.00	6.00
28	132kV Dc line fron Baripada PGCIL(Kuchei) s/s to Jaleswar s/s with 2 nos. 132kv bay extension each at Baripada PGCIL (Kuchei) & (Jaleswar)		2.00	2.00	10.00
29	one no. 220kV feeders from proposed 220/132kV s/s of OPTCL at Cuttack to proposed 400/220kV s/s at Uttara (Jatni) with two nos.of 220kV feeder bay extension at each end		1.00	1.00	5.00
30	132KV LILO arrangement of 132kV SC line from Meramundali to Arati Steel to 132/33kV s/s , Nuapatna alongwith one no. of Feeder bay extension at Nuapatna		1.00	1.00	4.00
31	One no. 132kV DC line from proposed 200/132kV s/s at Pratapsasan to existing 132/33kV s/s at Phulnakhara		1.00	1.00	10.00
32	Provision of 132KV system at 400/220kV s/s at Mendhasal.		1.00	1.00	7.00
33	2X315MVA 400/220/33kV , 2x40MVA , 220/33kV s/s at Khuntini with associated transmission lines		5.00	5.00	30.00
34	1x315MVA , 400/220kV , 1X20MVA , 220/33kV s/s at Nisa near Angul with		3.00	3.00	20.00

Sl. No.	Loan/ Scheme/ Contract-wise Capital Works	Actual Expenditure for First Six Months of FY 2010-11	Projection of Expenditure for balance Six Months of FY 2010-11	Total Expenditure for FY 2010-11	Projected Expenditure During FY 2011-12
	construction of 400KV DC line by LILO of 400kV IB-Meramundali Line				
35	2x40MVA, 220/33kV s/s at Chhendipada with 220KV DC Line on Multi Circuit tower from proposed NISA S/S to Chhendipada		2.00	2.00	10.00
36	132/33kV s/s at Chhatabara with associated line		1.00	1.00	7.00
37	220KV connectivity from Uttara to Puri		1.00	1.00	5.00
38	132kv connectivity from Ransinghpur to Uttara		1.00	1.00	1.73
39	132kv connectivity from Joda to Barbil		0.50	0.50	3.00
40	132kv connectivity from Kuanrmunda to Chhend		0.50	0.50	3.00
41	132kv connectivity from Phulbani to Boudh		0.00	0.00	3.00
42	132kv connectivity from Junagarh to Dabugaon		0.00	0.00	5.00
43	132kv connectivity from Bhadrak to Anandpur		0.00	0.00	5.00
	TOTAL (B)	**1.08**	**140.05**	**141.13**	**505.30**
C	**DEPOSIT WORKS**				
1	220 kv dc line from Budhipadar to Basundhara MCL (Deposit Work)			-	
2	Shifting of 132kV Chandaka SC Line (CKT 1& 4) crossing through P.No.391,392 &4622 under Gadkon Mouza) (Deposit Work)			-	
3	Rly traction line from Jagatsingpur to Gorakhnath (Deposit work)			-	
4	132kV traction line from Choudwar to Kendrapara and bay extension at Choudwar (Deposit Work)			-	
5	Diversion of 132kV Lines from Loc.No.30 to Loc. No.39 PPT line (Deposit Work)			-	
6	Constn. of Tomka Railway line from B.C. Mohanty & sons Ltd (D.W)			-	-
7	Constn. of 132 kv LILO line from Khurda-Puri for power supply to Samuka Beach near s/s Puri (D.W)			-	
8	Diversion of 220 kv line from TTPS to Joda 4th crossing (D.W)			-	
9	Diversion of Dhenkanal -Joranda road RTSS for clearance of right canal			-	
10	Construction of 132KV SC line on DC tower from Theruvalli S/S to M/s.			-	

Sl. No.	Loan/ Scheme/ Contract-wise Capital Works	Actual Expenditure for First Six Months of FY 2010-11	Projection of Expenditure for balance Six Months of FY 2010-11	Total Expenditure for FY 2010-11	Projected Expenditure During FY 2011-12
	Utkal Alumina of Kuchipadar & B.E. At theruvalli (D.W.)				
11	Construction of 132kV DC line of DC tower from existing 132kv S/s at khariyar to proposed 132KV S/s at Nuapada (D.W)			-	
12	Construction of 220KV DC line for Laxmipur S/s to Aditya Alumina kansariguda (D.W.)			-	
13	Construction of 220KV SC line on DC tower from laxmipur to M/s. Utkal Alumina At Doraguda (D.W)			-	
14	construction of one no.33kV bay at IOCL-Paradeep			-	
15	Power supply to Bansapani RTSS from Joda grid s/s			-	
16	Power supply Keonjhar RTSS from Polasponga grid s/s			-	
17	132kV s/s at IIT, Argul			-	
18	Re-routing of 132kV DC Line from Chandaka to Sijua for AIIMS			-	
19	Diversion of 2 nos line due to proposed Talcher- Bimalgarh Rly Line	0.80		0.80	-
20	Other deposit work & consumer contribution			-	
	TOTAL (C)	**0.80**	**-**	**0.80**	**-**
	TOTAL (A+B+C)	**10.78**	**299.03**	**309.81**	**591.62**

(e) CAPEX FOR CIVIL WORKS:

OPTCL proposes capital expenditure of **Rs.35.16 cr. on Civil works** during FY 2011-12 for on-going and new construction projects. Besides this, Rs.2.00 Crore has been suggested during meeting for developments of sports infrastructure to encourage the players of the Power utilities in the state.

Depreciation

22. OPTCL has projected Depreciation for FY 2011-12 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.156.40 crore based on the estimated book value of assets as on 01-04-2011** (gross block as on 01-04-2010 plus projected addition during FY 2010-11). OPTCL has calculated depreciation @ Pre-92 rate for FY 2011-12 which comes to Rs.93.65 Cr. If depreciation is allowed @ pre 92 rate, OPTCL will face severe financial crunch to meet its debt repayment obligation. Hence, OPTCL prays the Commission to allow **Rs.156.40 Crore** towards depreciation in the ARR for FY 2011-12 in order to enable OPTCL to repay the loan availed for CAPEX in time. Depreciation allowed for 2010-11 was Rs.76.60 Crore.

Special Appropriation

23. The Commission had allowed Special Appropriation of Rs.39.37 Cr. to meet Debt Service Obligation for FY 2010-11 as the depreciation was allowed based on the pre-92 rate. For FY 2011-12, OPTCL has projected Rs.156.40 Crore towards depreciation considering CERC Regulations, 2009 which will take care of principal repayment obligation. The Principal repayment for 2011-12 has been projected at.Rs.132.91 Crore by OPTCL.

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.60.07 crore. OPTCL has received Rs.48.05 Crore till date (Rs.23.05 Cr. during FY 2008-09 + Rs.5.00 Cr. during FY 2009-10 + Rs.20.00 Cr during FY 2010-11) and expected to receive balance Rs.51.9445 Crore during FY 2010-11. Therefore, the licensee has projected ROE @15.5% on the equity share capital **of Rs.160.07 crore** which amounts to Rs.24.81 crore for FY 2011-12 against Rs4.35 Crore approved for 2010-11.

Interest on Working Capital

25. Based on CERC norms, OPTCL has calculated its working capital needs at Rs.492.31 crore for the FY 2011-12. Taking 12% as the rate of interest, interest on working capital amounts to **Rs.59.08 crore for 2011-12** against nil amount approved 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.15.16 crore has been projected for Contingency Reserve for the FY 2011-12 No amount was approved for 2010-11.

Provision for Bad & Doubtful Debts

27. OPTCL proposes Rs.0.10 cr. towards Bad & Doubtful Debts against nil amount approved for 2010-11.

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.0.30 crore for the FY 2011-12 against Rs.0.82 Crore approved for 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 and 2008-09 based on audited accounts. The total revenue deficit for truing up of OPTCL from FY 2005-06 to 2008-09 comes to Rs.127.25 crore. Accordingly, a sum of Rs.127.25 cr. has been proposed to be recovered from the tariff as a pass through in the ARR of 2011-12. No pass through expenses were approved for 2010-11.

Other Income and Cost/ Miscellaneous Receipts:

30. OPTCL estimates that it will earn Miscellaneous Receipts of Rs.5.00 crore from Inter-State Wheeling during FY 2011-12. The same has been deducted from the gross revenue of OPTCL to arrive at the Net ARR for FY 2011-12. .Miscellaneous receipt approved for 2010-11 was Rs.48.30 Crore.

31. OPTCL has treated the revenue receipt from short-term Open Access as nil for 2011-12.

Transmission Loss

32. OPTCL proposes Transmission Loss at 3.90% for FY 2011-12; whereas actual transmission loss in April 2010 to September 2010 works out to be 3.89%. The Transmission loss of 3.90% in 2011-12 has been approved in the Business Plan.

33. The summary of the proposed Annual Revenue Requirement under different heads for FY 2011-12 vis-à-vis the amount approved for 2010-11 is tabulated below :

Table – 10
Summary of Annual Revenue Requirement of OPTCL for FY 2011-12

(Rs. Cr.)

Items	**Proposal for OPTCL 2011-12**		**Approval for 2010-11**
(a) Fixed Cost			
O&M Expenses		**1084.29**	
Employees Cost including Terminal Benefits	*952.06*		279.56
R&M Cost	*93.89*		60.00
A&G Cost	*38.34*		15.14
Interest on Loan Capital		**111.30**	**53.39**
Depreciation		**156.40**	**76.60**
Special Appropriation		0.00	
Return on Equity		**24.81**	**4.35**
Interest on Working Capital`		59.08	
Sub-Total (a)		**1435.88**	**489.04**
b) Additional Expenses			
Special Appropriation			39.37
Contingency Reserve	*15.16*		
Bad & Doubtful Debts	*0.10*		
GCC Expense	*0.30*		0.82
Sub-Total (b)		**15.56**	**40.19**
Total Trans. Cost (a+b)		**1451.44**	
c) Pass Through Expenses		**127.25**	
d) total Annual Revenue Requirement (a+b+c)		**1578.69**	**529.23**
e) Less Misc. receipts		**5.00**	**48.30**
f) Annual Revenue Requirement to be recovered from LTOA Customers (i.e. DISCOM and CPP) (d - e)		**1573.69**	**480.93**
OPTCL's Annual revenue Requirement		**1573.69**	**480.93**

Expected Revenue from Transmission Charges

34. The revenue receipts from various transmission charges at the existing transmission tariff of 23.5 P/U shall be Rs.538.65 crore. Revenue to be earned by OPTCL from

wheeling of power to DISCOMs and other long term open access customers for FY 2011-12 at the existing rate is shown below in tabular form:

Table – 11
Sources of Revenue

Sl. No.	Customer	MU to be handled	Rate (P/U)	Trans. Loss (%)	MU to be handled incl. Trans. Loss	Amount (Rs. Cr.)
1	CESU	7722	23.5	0	7722	181.47
2	NESCO	5465	23.5	0	5465	128.43
3	WESCO	6720	23.5	0	6720	157.92
4	SOUTHCO	2848	23.5	0	2848	66.93
	Total DISCOMs	**22755**			**22755**	**534.74**
5	Emergency Sale to IMFA & NALCO	10	23.5	0	10.00	0.24
6	Wheeling of IMFA power	50	23.5	3.9	52.03	1.22
7	Wheeling of NALCO power	100	23.5	3.9	104.06	2.45
	Total	**22915**			**22921**	**538.65**

Excess or (Deficit) in the ARR:

35. OPTCL has submitted that with its present Transmission Tariff structure consisting of Transmission Charge @23.5 P/U, it would not be able to meet its current costs and it may result in a deficit of Rs.1035.04 crore as shown in table below.

Table - 12
Excess / Deficit of Revenue Requirement for FY 2011-12

(Rs. Cr.)

Total Annual Revenue Requirement	1573.69
Less : Revenue estimated from Long Term Open Access Customers at the existing transmission tariff of 23.5 paise/unit	538.65
Excess or (Deficit) in ARR at the existing Transmission Charge @ 23.5 P/U	**-1035.04**

36. The licensee, therefore, submits this application before the Commission with a request to approve its proposed ARR and the Transmission Tariff and Transmission Loss for FY 2011-12.

Proposed Tariff to Meet the Revenue Requirement for FY 2011-12

37. OPTCL has proposed Transmission tariff recovery in postage stamp (Rs./unit) Approach.

38. In postage stamp (Rs./unit) 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 2011-12 Transmission Tariff is computed as **68.68 P/U as worked out in the Table below.**

Table – 13
Computation of Transmission Tariff

(a) Total Annual Revenue Requirement in Rs. Crore	1573.69
(b) Total Million Units proposed for Wheeling in MU	22915
Proposed Transmission Tariff (P/U) = (a/b)	**68.68**
Existing transmission tariff (P/U)	23.50
% Rise over existing transmission tariff	**192%**

Open Access Charges

39. The Commission has notified the Open Access Regulation under Section 42 (2) of the Electricity Act, 2003. Consumers availing open access shall be required to pay the transmission charges for use of the transmission lines and substations of OPTCL. The Long Term Transmission Charge on the basis of MW flow is calculated by the formula as provided in the OERC (Determination of Open Access Charges) Regulations 2006 dated 06.06.2006.

40. The revenue from Short Term Open Access Charges earned from Short Term Open Access Customers is uncertain and therefore, OPTCL has not factored the same in to the Miscellaneous Receipts proposed in this application. It is submitted that the Short Term Open Access Charges is proposed and that the same will be adjusted in the revenue as year-end-adjustments at the end of the year on actual basis. Therefore, OPTCL considers Short Term Access Charges as Nil in this Application.

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

Table - 14
Abstract of OA Charges proposed by OPTCL for FY 2011-12

DETAILS	In Rs./unit approach
Net Annual Revenue Requirement (Rs. cr.)	1573.69
Proposed Energy to be transmitted in OPTCL Network (MU)	22915
Proposed Transmission Tariff (P/U)	68.68
Power flow (equivalent of 22915 MU) in MW	2615.87
Long term Open Access Charges in terms of Rs./MW/Day	16482.02
Short term Open Access Charges in terms of Rs./MW/Day	4120.51
Meter Charges @	Rs.2000/- per month

Reactive Energy Charges:

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

Rebate:

43. 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:

44. 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:

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

46. Further, OPTCL on dt.18.01.2011 has filed a supplementary submission for claiming Incentive for the year 2009-10. In its application, OPTCL has submitted the system availability of OPTCL transmission network for FY 2009-10 as 99.86%. The availability has been computed by OPTCL following the procedure laid down in Appendix-IV of CERC Regulations, 2009. OPTCL was entitled to get incentive for the year 2009-10 as per CERC Regulation since, the Transmission System availability was more than 98%.

47. OPTCL submitted that PGCIL has been raising monthly transmission charges to its constituents including GRIDCO in pursuance of the CERC Regulations, 2009. This monthly charge includes the incentive for that month based on Transmission system Availability Factor for the calendar Month (TAFM). The transmission system charges for the month is linked to TAFM calculated as per the procedure laid down in Appendix-IV CERC Regulations, 2009.

48. The TAFM for OPTCL's network needs to be calculated taking into account outages of transmission line and auto-transformers for a particular month based on outage data shown for that month in the monthly System Performance Report prepared by SLDC. Hence, it is not possible to calculate TAFM month-wise and accordingly prepare the monthly transmission charge bill including the incentive in the first week of the succeeding month.

49. OPTCL now submits that the incentive due to OPTCL for the year 2009-10 may be allowed in the ARR and Transmission Tariff order for FY 2011-12. The incentive is to be paid by the six long-term customers of OPTCL (four DISCOMs, NALCO and IMFA) as per the calculation worked out in the Table below.

Table - 15

CALCULATION OF INCENTIVE CLAIMED BY OPTCL FOR 2009-10

Name of the long-term customer	Energy Wheeled by OPTCL During 2009-10 (MU)	Bills raised by OPTCL during 2009-10 (Rs. Cr)	Transmission System Availability during 2009-10 for calculation of incentive	Transmission System Availability above 98%	Incentive claimed by OPTCL for 2009-10 (Rs. Cr)
(1)	**(2)**	**(3)**	**(4)**	**(5)=(4)-98%**	**(6)=(3) x (5)/100**
CESU	6234..64	127.81	99.86%	1.86%	2.38
NESCO	4715.45	96.67	99.86%	1.86%	1.80
WESCO	6298.62	129.12	99.86%	1.86%	2.40
SOUTHCO	2285.69	46.86	99.86%	1.86%	0.87
NALCO	394.68	8.09	99.86%	1.86%	0.15
IMFA	115.81	2.37	99.86%	1.86%	0.04
Total Incentive Claimed (Rs. in Crore)					**7.64**

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

OPTCL's proposal for FY 2011-12 are:

(i) Annual Revenue Requirement at Rs.1573.69 cr.

(ii) Recovery of Transmission Charge @ 68.68 P/U.

(iii) Transmission Loss for wheeling as 3.90% on energy drawal.

(iv) Rs.2000/- per month per meter towards Meter Charges to be paid by LTOA customers.

(v) Approve the incentive claimed by OPTCL for the year 2009-10 in the ARR & Transmission tariff order for FY 2011-12.for an amount of Rs.7.64 Crore.

VIEWS OF CONSUMER COUNSEL, ON TRANSMISSION TARIFF PROPOSAL OF OPTCL FOR 2010-11 (para 51 to 69)

51. 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 2011-12. World Institute of Sustainable Energy (WISE), Pune 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.

52. 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 2011-12. Based on their nature and type, these objections have been categorized broadly as indicated below:

Analysis of the Proposal by Consumer Counsel

53. WISE acting as Consumer Counsel had analyzed the application of the licensee and some of the important observations are as follows:

Revenue Gap

54. OPTCL has given the proposal for revenue requirement of Rs.1573.69 cr. and revenue from long-term open access customer of Rs.538.65 cr., leaving a shortfall of Rs.1035.04 cr. during the FY 2011-12. This shortfall has been calculated at the existing transmission tariff @ 23.5 P/U. OPTCL proposes to recover the annual revenue required of Rs.1573.69 cr. in full from the long term open access customers like DISCOMs & CGPs on energy drawl (22915 MU) during FY 2011-12 by levying transmission tariff @ 68.68 P/U from 1.4.2011 considering the transmission loss for wheeling as 3.9% on energy drawl.

Table - 16
Revenue Gap of OPTCL during FY 2011-12

(Rs. cr.)

Total Annual Revenue Requirement	1573.69
Revenue from long-term open access customer at existing transmission tariff @ 23.5 P/U	538.65
Revenue Gap at the existing transmission tariff	(-)1035.04
Proposed transmission tariff (P/U)	68.68

Annual Revenue Requirement

55. OPTCL has projected its revenue requirement during FY 2011-12 at about 227 per cent more than that approved for FY 2010-11. The revenue requirement constitutes not only fixed cost and additional expenses but also pass through expenses of Rs.127.25 cr.; these costs were not allowed by the Commission in earlier order. If the pass through cost were deducted, then the revenue gap would be Rs.907.79 cr. As per the earlier truing up exercise, done by the Commission, OPTCL has surplus fund; so the pass through of previous loss and liabilities may not be allowed.

56. The areas of concern include the pass through cost, increase in employee cost (241%), R&M Cost (56.48%), A&G cost (153%), interest on loan capital (108%) and depreciation (104%). The percentage changes in components of ARR are given in table below. OPTCL has proposed Rs.59.08 cr. as interest on working capital, which the Commission has not approved in earlier tariff orders.

Table – 17

Percentage change in components of ARR

ITEMS	Approved for 2009-10	Approved for 2010-11	OPTCL's Proposal for FY 11-12	Approved 10-11 over Approved 09-10	Proposed 11-12 over Approved 10-11
Employees Cost including Terminal Benefits	173.11	279.56	952.06	61.49%	240.56%
R&M Cost	97.00	60.00	93.89	-38.14%	56.48%
A&G Cost	14.35	15.14	38.34	5.51%	153.24%
Interest on Loan Capital	70.53	53.39	111.30	-24.30%	108.47%
Depreciation	66.07	76.60	156.40	15.94%	104.18%
Return on Equity	0.00	4.35	24.81		470.34%

Employee cost including terminal benefits

57. The increase in employee cost seems to be too high (240%), although it includes terminal benefits and payment of differential pension and pensionary benefits of Rs.717.25 cr. The proposed and approved employee costs in last two ARRs are given in table below.

Table - 18

Employee cost including terminal benefits (Rs. cr.)

Item	Proposed for 2009-10	Approved for 2009-10	Proposed for 2010-11	Approved 2010-11	Proposed 2011-12
Gross amount	498.99	186.17	875.78	290.22	961.66
Less capitalization	*7.61*	*7.61*	*10.66*	*10.66*	*9.60*
Net employees cost	491.38	178.56	865.12	279.56	952.06

58. Order on OPTCL's Business Plan had fixed some criteria regarding employee cost. According to that Basic pay + GP can be increased by 3% yearly, DA has to be given at the prevailing Govt. rate and HRA has to be calculated as 15% of Basic pay + GP. While proposing the employee cost for FY 2011-12, licensee has taken the Basic pay + GP of FY 2009-10 (provisional) as the basis and calculated it for FY 2010-11 and

FY 2011-12 by escalating it 3% annually. But the approved figure of Basic pay + GP for FY 2010-11 (Rs.62.12 cr.) should be considered for this calculation. For DA, the rates considered are 45% for FY 2010-11 (approved rate was 33%) and 63% for FY 2011-12. The HRA is also assumed as 20% of Basic pay + GP instead of 15% as given in business plan. These rates may be reviewed. The terminal benefits may be finalized as per independent valuation report.

A&G Cost

59. Proposed A&G cost seems to be too high (153% increase over FY 2010-11 approved). As per Business Plan 5.5% yearly escalation in A&G is allowed. Considering the approved A&G cost of FY 2010-11 (Rs.15.14 cr.), the revised cost may be Rs.15.97 cr. against proposed Rs.38.34 cr.

R&M Cost

60. Repair and Maintenance is required in order to operate the system effectively. Proposed R&M expenses increased by 56% over approved in FY 2010-11. Further, it is to mention here that the actual R&M expenditure for each financial year was always less than the approved figure, nearly just 50% (see table below), except FY 2010-11. Therefore, consumer should not be burdened with excessive projected R&M expenses.

Table – 19
R&M Expenses

R&M	Approved	Actual
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	54.03
2010-11	60.00	16.16 (upto Sept'10) 98.14 (proposed)
2011-12		93.89 (proposed)

Interest on loan

61. OPTCL had proposed an amount of Rs.122.03 cr. as interest on loan capital during the FY 2010-11, but the Commission had approved only Rs.53.39 cr. Again during FY 2011-12, OPTCL has proposed Rs.111.30 crore as interest payment. OPTCL has proposed to avail new loan of Rs.903.82 cr. in FY 2011-12 at the interest rate of 11%. As the licensee has not taken this loan, this is a future proposal only so the interest burden of that in the tune of Rs.68.94 cr. should not be allowed in the ARR. Also interest burden of State Govt. cash loan of Rs.0.26 cr. should not be allowed as per Govt. directives.

Capex Plan

62. The licensee has submitted a capex plan for FY 2011-12 of Rs.1004.24 cr. This is different than what they have submitted on 12.07.2010 of Rs.982.72 cr. as mentioned in the table below. The reasons for variation in expenses under O&M and telecom need to be verified.

Table – 20
Capex Plans of OPTCL

Particulars	ARR for 11-12	CAPEX Plan submitted on 12.7.10
O&M	291.15	106.52
Telecom	73.65	142.5
Information Technology	12.66	13.32
TP & Con. (Excluding Deposit Works)	591.62	720.38
Civil Works	35.16	
Total Capital Expn.	**1004.24**	**982.72**

Depreciation

63. The licensee has claimed Rs.156.40 cr. as depreciation according to the Gross Fixed Asset (GFA) of Rs.3032.84 cr. (provisional as on 01.04.2011). The Commission in the earlier transmission tariff order (of FY 2010-11) had finalized the GFA as Rs.1924.48 cr. (actual as on 01.04.2009) and Rs.2478.16 cr. (approved as on 01.4.2010). If the yearly additional asset figures, as given in ARR, have been taken into consideration, then also GFA amount (as on 01.4.2011) does not match with the claim of licensee. The detailed calculation based on two different options is given below. Commission may review the actual yearly addition and finalize the GFA for determining the depreciation for FY 2011-12.

Table – 21

Calculation of Gross Fixed Asset

	As on 01.4.09 (approved)	Addition in 09-10	As on 01.4.10	Addition in 10-11	As on 01.4.11
Option 1	1924.48	163.84	2088.32	453.74	2542.06
Or					
Option 2			2478.16 (Approved in FY 10-11 order)	453.74	2931.90

Return on equity

64. Return on equity has been claimed as Rs.24.81 cr. on equity base of Rs.160.07 cr. This equity is constituted of old equity (Rs.60.07 cr.), already received equity (Rs.48.05 cr.) and expected equity (Rs.51.94 cr.). The Commission should not allow return on old and expected equity base. So, the reasonable return on equity is Rs.7.45 cr. (15.5% of received equity of Rs.48.05 cr.) which should be considered in ARR.

Table – 22
Annual Revenue Requirement of OPTCL

(Rs. Cr.)

ITEMS	Approved for 09-10	Approved for 2010-11	Proposed for FY11-12	10-11 vs. 09-10	11-12 vs. 10-11
Employees Cost including Terminal Benefits	173.11	279.56	952.06	61.49%	240.5%
R&M Cost	97.00	60.00	93.89	-38.14%	56.48%

ITEMS	Approved for 09-10	Approved for 2010-11	Proposed for FY11-12	10-11 vs. 09-10	11-12 vs. 10-11
A&G Cost	14.35	15.14	38.34	5.51%	153.24%
Interest on Loan Capital	70.53	53.39	111.30	-24.30%	108.47%
Depreciation	66.07	76.60	156.40	15.94%	104.18%
Repayment obligation	44.36	-			
Return on Equity	0.00	4.35	24.81		
Interest on Working Capital	0.00	-	59.08		
Sub-Total	*415.42*	*489.04*	*1435.88*	*17.72%*	*193.61%*
Special Appropriation		39.37			
Pass Through Expenses		-	127.25		
Contingency Reserve	9.08	-	15.16		
Bad & doubtful debt Debts	0.00	-	0.10		
GCC Expense including SLDC charges	0.15	0.82	0.30		
Total (Rs. Cr.)	*424.65*	*529.23*	*1578.69*	*24.63%*	*198.3%*
Less Misc. Receipts	30.50	48.30	5.00		
Annual Revenue Requirement (Rs. Cr.)	394.15	480.93	1573.69	22.02%	227.2%
Transmission Charges (paise/unit)	20.50	23.50	68.68	14.64%	192.2%

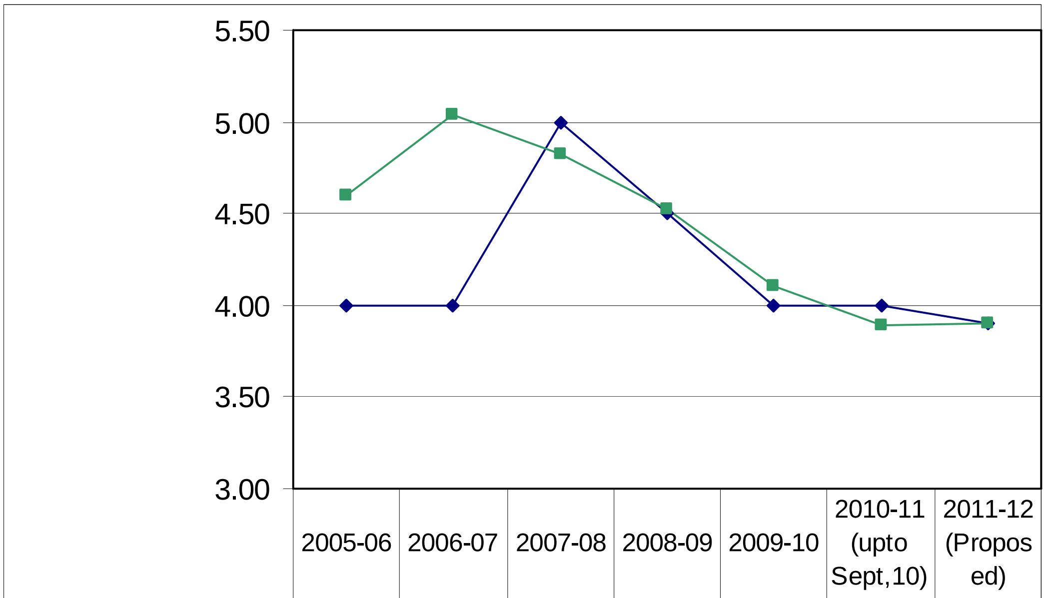
65. The significant increase in all expenses as mentioned above would impose excessive burden on the general consumers of the state, as this would be passed on to the ultimate users through GRIDCO and DISCOMs. Therefore, there is a need to reduce these expenses for the benefit of the consumers.

Revenue from Tariff

66. OPTCL has calculated the revenue receipts to be Rs.538.65 crore at the existing rate of tariff, i.e., @ 23.5 P/U, based on the projection of GRIDCO. OPTCL has expected to deliver 22915 MU of energy to GRIDCO, while the actual projection submitted by DISCOMs for the FY 2011-12 is 23014 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

67. OPTCL has proposed a transmission loss of 3.9% for the FY 2011-12. The Commission had approved 4% transmission loss for FY 2010-11. 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 (see chart 1). Further, the actual level of loss during FY 2009-10 (i.e. 4.11%) 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 reasonable level for the FY 2011-12.



	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11 (upto Sept,10)	2011-12 (Proposed)
Approved (%)	4.00	4.00	5.00	4.50	4.00	4.00	3.90
Actual audited (%)	4.60	5.04	4.82	4.52	4.11	3.89	3.90

Chart 1: Transmission loss of OPTCL

Tariff proposal

68. OPTCL claims that with the existing Tariff structure, consisting of Transmission Charge @ 23.5 P/U and Transmission Loss @3.9%, it is not able to meet current costs, which would result in a deficit of Rs.1035.04 cr. OPTCL, therefore, proposes to recover the annual fixed cost in full from DISCOMs and CGPs through the rate of 68.68 P/U from 01.4.2011 with transmission loss for wheeling as 3.9% on energy drawl. This tariff proposal may be reviewed 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

69. OPTCL has projected its revenue requirement during FY 2011-12, which is 227 per cent higher than the approved figure for FY 2010-11. 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 2011-12 may not be allowed for the best interest of the consumers.

VIEWS OF OBJECTORS ON TRANSMISSION TARIFF APPLICATION OF OPTCL FOR FY 2010-11 (Para 70 to 120)

Legal Issues

70. 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.

Transmission Loss

71. One objector submitted that OPTCL had projected the transmission loss @ 3.9% for FY 2011-12 as against Commission's approval of 4% for 2010-11 but Sovan Kanungo Committee had recommended stepwise reduction of transmission loss so that same is brought at par with that of Central Power Grid. The loss projected during FY 2011-12 remain almost the same with that during 2001-02 (4.31%). OPTCL has failed to arrest the high transmission loss due to non-completion of most of the lines including those entrusted to the PGCIL. PGCIL has taken up the 400kVA Meramundali-New Duburi D/C line at own estimated cost. Their failure resulted into huge loss to OPTCL and unnecessary burden to consumers of the state. OPTCL has not yet identified the areas where loss is maximum, so as to formulate action plans for loss reduction. OPTCL should inform the methodology adopted to estimate the transmission loss for every year. OPTCL should have undertaken energy audit of lines and sub-stations to know the quantum of transmission loss in the system. Thus proposing loss as per the business plan prepared during 2007 without any heed to the Kanungo Committee recommendation is meaningless. Hence transmission loss proposed by OPTCL is to be justified with the various measures taken or else burden will ultimately go to the consumers only. OPTCL should have under taken energy audit of lines and sub-stations to know the quantum of transmission loss in the system and the said works may be assigned to energy auditing firms/certified energy auditor.

72. 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 wants to continue with 3.9% loss as against 4% fixed by OERC for 2010-11 without any effort to reduce its losses. OPTCL's proposal for approval of transmission loss at 3.9% will increase the quantum of power procurement of GRIDCO resulting in increase in Bulk Supply Price for FY 2011-12. The objectors requested the Commission not to allow transmission loss at more than 3% from FY 2011-12 onwards.

73. An objector agreed with the transmission loss as projected by OPTCL at 3.9% for the year 2011-12. However, Commission should check the findings of the latest load flow study and the same may be considered for the computation of loss energy in FY 2011-12.

Capital Expenditure

74. One objector stated that the licensee has decided to hand over number of SCADA projects under CAPEX directly to PGCIL. OPTCL has to incur additional Rs.7.9 crore for this. OPTCL should not handover any work directly to PGCIL or any party without a tender. OPTCL should conduct competitive bidding / tender and handover the project to commercially lowest bidder. The Commission should not consider such amount in ARR, as this will result in additional financial burden on the consumers.

75. 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.

76. 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 on. Majority of the objectors are of the view that the expenditure incurred by OPTCL in a year which is basically for asset addition should not form part of the ARR. Such expenditure should be capitalized only when the system in totality is integrated in the system and benefit for such system started flowing to the company.

77. 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.

R&M Expenditure

78. One objector pointed out that R&M cost for various projects of lines and substations is too high. Most of the projects are abnormally delayed even after entrusting to PGCIL for timely completion. In view of that, in a single year, the proportion of spending seems to be high and hence a part of this may be allowed to pass on. Further, actual expenditure is always less than approved expenditure, indicating that OPTCL has not taken any action to spend the required amount on R&M as approved by the Commission.

79. One objector suggested that OPTCL should prepare a Comprehensive Renovation Scheme (CRS) for sub-stations which are more than 20 years old and arrange funding from Financial Institutions (FIs).

80. Some objectors submitted that most of the R&M expenditure envisaged in the ARR of OPTCL is in nature of the Capital Expenditure which should not be treated as R&M expenses.

81. One objector submitted that the R&M expenditures proposed for the year 2011-12 is Rs.93.89 Crore where as actual expenditures in the FY 2009-10 was Rs.32.84 Crore against approved Rs.47 Crore. It is observed that even in the absence of fund constrains, the levels of expenditure are low as compared to the approved expenses. ATE in their order dated 13.12.2006 had directed to consider Rs.15 Crore towards R & M for 2006-07, which was to be trued up based on actual expenses of OPTCL by the commission.

82. 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 from the year 2000-01 and 2010-11 towards R&M and what are the improvements.

Employee and A & G Cost

The relevant comments of the objectors on employee and A & G Cost are as under:

83. The Reliance-managed DISCOMs submitted that Employee Expenses might be of the order of Rs.154.19 Cr against OPTCL’s claim of Rs.210.57 Cr. The Commission may scrutinize the details of terminal benefit as claimed by OPTCL and determine the amount of deficit funding, if any, after adjusting for the expected corpus availability in line with earlier orders of the Commission where in deficit financing was to be amortised over several years, the same may be extended in the current year as well. The Commission can also appoint a new actuary for valuation of terminal benefits.

84. Employee cost including the terminal benefits has increased due to pay revision by 240%. However increase in A&G cost seems to be high in the range of 635% as compared to the previous year approved figure.

85. A&G cost proposed by OPTCL, approved by OERC and actual expenditure since 2000-01 to 2010-11 may be produced before approval of the ARR.

86. An objector held that OPTCL has proposed an A & G expenditure of Rs.38.34 crore in the FY 2011-12 as against the approval of Rs.15.14 crore during 2010-11. He submitted that if an escalation of 5.5% is allowed then Rs.16 crore may be allowed to OPTCL towards A&G expenses for FY 2011-12.

Interest on Loan

87. Some objectors submitted that OPTCL should explain significant increase in interest component. Is there any abnormal delay in the completion of ongoing projects, which has added to the interest? M/s OPTCL may prevail upon the delaying agencies like PGCIL not to pass on cost over run and thereby the interest burden. The entire amount should not be passed on to transmission tariff at a time, as it would impose undue burden on consumer.

88. One objector submitted that interest on loan based on the principle adopted by Commission in last year order is Rs.27.48 Crore as against the claim of Rs.111.30 Crore by OPTCL.

89. Some objectors pointed out that the Financing Charges of Rs.14.62 crore projected by OPTCL is unreasonably high and OPTCL should be directed to furnish the details of the aforesaid charges.

90. Another objector pointed out that the details of the interest on new project loan of Rs.903.82 crore are not available for scrutiny. Therefore, the same may not be approved by the Commission whereas the claim was Rs.68.94 Crore.

Interest on Working Capital

91. An objector pointed out that the transmission charge is the first charge recovered from monthly BSP bill and rebate allowed by OPTCL has been considered as a part of revenue requirement in the subsequent ARR. Therefore, there may not be any need for working capital for OPTCL.

Fixed Assets & Depreciation

92. An objector pointed out that OPTCL has calculated depreciation at the post -94 rate whereas the Commission vide order dated 22.03.2005 (clause 6.22) has adopted a principle to allow the depreciation at pre-92 rate i.e. @ 3.13% on gross fixed assets. As the sector has not turned around, the Commission may adopt the same principle for determination of depreciation. Accordingly the depreciation may be considered by the Commission at Rs.93.65 crore.

Contingency Reserve

93. An objector held that OPTCL has projected the investment towards contingency reserve for Rs.15.16 crore in FY 2011-12. But the objector is of the opinion that the provision for the investment towards contingency reserve is not there in the OERC (Terms and Conditions for the Determination of Tariff) Regulation, 2004. Further, the commission in its order dated. 20.03.2010 in case no. 145 of 2009 had held that OPTCL out of a total accumulated reserve of Rs.95.75 Crore had invested only

Rs.27.06 Crore and for the balance of Rs.68.69 Crore, OPTCL has been unable to give the details. Hence this should be disallowed by the Commission.

Return on Equity

94. An objector submitted that OPTCL has proposed reasonable return of Rs.24.81 crore applying 15.5% pretax basis. He submitted that as the sector has not yet turned around, return may not be allowed on Rs.60 Crore. Till date OPTCL has received only Rs.28.05 Crore from the State Govt. against Rs.100 Crore agreed to finance transmission projects. Therefore, return @ 15.5% on the equity value of Rs.28.5 Crore may be allowed i.e. Rs.4.35 Crore. Since OPTCL has not given the proof or submitted the audited balance sheet for the receipt of the balance amount of Rs.71.94 Crore, the return on the same should not be allowed.

Bad and Doubtful Debts

95. An objector stated that the 100% transmission charges is the first charge recovered from monthly BSP bill through Escrow. Therefore, the provision for bad and doubtful debt has no merit and the claim of OPTCL for Rs.0.10 crore should not be allowed.

Past Losses/Pass through Expenses

96. An objector held that the claim made by OPTCL in its ARR for FY 2011-12 towards past losses has no merit as the same items were already dealt in the ARR for FY 2010-11 and Commission accordingly had undertaken truing up exercise of OPTCL based on audited actuals from FY 07 to FY 09 and found a surplus. Hence the claim of Rs.127.25 crore should not be allowed.

97. The revenue requirement constitutes not only fixed cost and additional expenses but also pass through cost of Rs.127.25 crore. If the pass through cost were deducted, then the revenue gap would be Rs.1446.44 crore. The pass through of previous loss and liabilities would certainly impose burden on the consumers and therefore should be adjusted in steps in different years.

Special Appropriation:

98. An objector pointed out that OPTCL has proposed special appropriation of Rs.39.37 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 for FY 2006-07. Hence, special appropriation may be excluded in computation of the OPTCL ARR. Regarding shortfall of repayments of loans over and above the allowed depreciation, OPTCL may negotiate with the banks / FIs for a longer tenure or moratorium in repayment of principle.

Transmission Tariff

99. An objector held that the proposed transmission tariff of 68.68 paise/unit for the FY 2011-12 is about 192% higher than the approved transmission charges of 23.5 P/U for the FY 2010-11 excluding SLDC charges without any improvement in the quality of transmission and reduction of transmission loss.

100. The Commission has to scrutinized the transmission cost proposed by OPTCL critically and reduce the transmission tariff to 20 P/U.

101. Projected demand of the DISCOMs (23014.126 MU) is more than the projection of the revenue receipts of OPTCL, the revenue gap of OPTCL would be reduced accordingly.

102. Reliance managed DISCOMs submitted that truing up exercise may kindly be done due to variation in the factual demand of the DISCOMs vis-à-vis the approved figures for FY 2010-11 and the resultant benefit may be passed on to the consumers by way of truing up exercise.

Income from Wheeling

103. 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.17.50 Crore for FY 2006-07. Accordingly the DISCOMs submitted before the Commission to consider the same figure while computing wheeling charges of OPTCL and same principle may be adopted in subsequent years and accordingly truing up exercise may be carried out.

104. OPTCL has earned Rs.59.49 crore in FY 2009-10 as miscellaneous income from inter-state wheeling and other receipts. OPTCL has estimated Rs.35.76 crore from the same source in FY 2010-11. Therefore in the absence of any audited figure one objector proposed the miscellaneous receipts as Rs.48.30 crore for FY 2011-12, as approved by the Commission in FY 2010-11 order.

Special Issues

105. 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 2010-11.

106. The erection of 132/33 KV substations is not being done in time.

107. Sub-stations and lines of OPTCL are not properly maintained by the authority in-charge due to want of required number of skilled manpower. OPTCL has to appoint skilled labourers in the sub- station maintenance work.

108. OPTCL should produce a status report about what action they have taken as directed by the Commission in the earlier orders like evacuation plan of mega thermal power plants, updating perspective transmission planning, restoration plan of 400kV Ib-Meramundali D/C line etc.

109. OPTCL should produce the status report of overloaded lines and sub-station of the state.

110. OPTCL should confirm that equipment for online data transaction to SLDC from the EHT feeders of all EHT substations have been provided. If not present the current status.

111. One Objector was of the view that there is no justification to claim supervision charges @ 16% by OPTCL for the lines and sub-stations constructed by the EHT consumers of the State as the entire employee cost and A&G expenses are being allowed by the Commission in the ARR to OPTCL. If such supervision charges are allowed to the licensee, the Commission may reduce in the ARR of OPTCL to the extent of the collection of supervision charges by OPTCL.

112. OPTCL is recovering the capital cost of the apex meters from the EHT consumers. The reasons for claiming Rs.2000/ p.m. towards meter charges have not been indicated.

113. NALCO submitted that imposition of transmission charges for power delivered at CPP, Angul is also baseless and the same is not acceptable. NALCO has submitted that till date they have not paid meter charges as they have installed another stand- by meter as check meter which is referred in case main meter becomes faulty OPTCL should conduct the Transmission Planning study for OPTCL EHT transmission system in coordination & consultation with GRIDCO and DISCOMs**.**

114. OPTCL should conduct the Transmission Planning study for OPTCL EHT transmission system in coordination & consultation with GRIDCO and DISCOMs**.**

Additional submission after hearing

115. The Reliance managed DISCOMs has submitted additional written submission on dt18.02.2011 as per direction of the Commission during hearing. They submitted that the variation of revenue of OPTCL due to sales variation is required to be trued up in their Annual Truing up Exercise and any additional revenue earned by OPTCL above the ARR, due to over/under drawal by DISCOMs from FY 2005 to FY 2010 may be considered for truing up of the respective Year.

116. It is further submitted that GoO should take over the liability of Terminal Benefits for those OSEB employees who are transferred to OPTCL/OHPC as per the 1st Transfer Scheme for the period prior to FY 1999 as a part of reform and restructuring cost in line with the provision of National Electricity Policy.

117. Further, the Reliance managed DISCOMs has submitted the list of urgent work which needs to be undertaken by OPTCL for improvement of Power Supply within the licensed area of WESCO, NESCO & SOUTHCO and request to the Commission to give necessary direction to OPTCL for execution of the project.. The details licensee- wise are given below:-

118. **NESCO**

A. New Required Projects

- 2x 20 MVA 132/33 KV Grid Sub-Station at Barbil and associated Transmission Line from Joda Grid Substation
- 2x 12.5MVA 132/33 KV Grid Sub-Station at Udala and LILO arrangement of Balasore-Baripada lines.
- 2x 40 MVA 220/132/33 KV Grid Sub-Station at Dhamara with LILO connectivity from Duburi-Balasore Lines.
- .132 KV S/C Lines to 132 KV D/C from PGCIL Grid Sub-Station Kuchei to 132/33 KV Grid Sub-Station Baripada.
- Construction of 132 KV D/C Grid from Baripada Grid Sub Station (Kuchei) to Jalesar Grid-Sub-Station
- 132 KV Connectivity Lines from Bhadrak to Anandapur Grid Sub-Station

B. Up -gradation of Sub-Stations

Table – 23

Sl. No.	Name of Existing Sub-Station	Existing Capacity	Required Capacity
1	132/33 KV Grid Sub- Station Basta	2x125 MVA	2x20 MVA
2	132/33 KV Grid Sub- Station Jaleswar	2x20MVA+12.5 MVA	3x20 MVA
3	132/33 KV Grid Sub- Station Karankia	2x12 MVA	2x20 MVA
4	132/33 KV Grid Sub- Station Rairangpur	2x20 MVA	2x20 MVA
5	132/33 KV Grid Sub- Station Balasore	2x100MVA	2x160 MVA
6	132/33 KV Grid Sub- Station Joda	3x20 MVA+1x12.5 MVA	1x40 MVA+3x20 MVA
7	132/33 KV Grid Sub- Station Joda	2x100 MVA	3x100 MVA
8	132/33KV Grid Sub- Station Polasponga	2x20 MVA+1x40 MVA	2x40 MVA+1x20 MVA
9	132/33 KV Grid Sub- Station Anandapur	2x12.5 MVA	2x20 MVA
10	132/33 KV Grid Sub- Station Jajpur	2x20 MVA + 1x40 MVA	2x40 MVA+1x20 MVA
11	132/33 KV Grid Sub- Station Jajpur Road	1x40 MVA+1x20 MVA	2x40 MVA+1x20 MVA
12	132/33 KV Grid Sub- Station Jajpur Road	1x40 MVA	2x40 MVA

119. **WESCO**

A. New Required Project

Table – 24

1	A) NEW 132/33 KV GSS BINKA 2X20 MVA
	B) 132 KV LINK LINE TO BINKA FROM SONEPUR
	C) CONVERSSION OF 132 KV LINE FROM BALANGIR TO SONEPUR FROM SC LINE TO DC LINE. ONE CKT FOR SONEPUR & OTHER FOR BINKA PROPOSED
2	A) NEW 132/33 KV GSS KANTABANJI 2X40 MVA
	B) 132 KV LINK LINE TO KANTABANJI FROM KHARIAR
3	A) NEW 132/33 KV GSS PADAMPUR 2X20 MVA
	B) 132 KV LINK LINE TO PADAMPUR FROM PATNAGARH
	C) CONVERSSION OF 132 KV LINE FROM BALANGIR TO PATNAGARH FROM SC LINE TO DC LINE. ONE CKT FOR SONEPUR & OTHER FOR PADAMPUR PROPOSED
4	A) NEW 132/33 KV GSS GOLAMUNDA 2X12.5 MVA
	B) 132 KV LINK LINE TO GOLAMUNDA FROM JUNAGARH
	C) 132 KV DC LINE FROM JAYAPATNA TO GJUNAGARH. ONE CKT FOR JUNAGARH AND THE OTHER FOR GOLAMUNDA PROPOSED
5	A) NEW 132/33 KV GSS MANESWAR 2X20 MVA
	B) 132 KV LINK LINE TO MANESWAR FROM SAMBALPUR
	C) 132 KV DC LINE FROM KANTAPALI TO SAMBALPUR. ONE CKT FOR SAMBALPUR & OTHER FOR MANESWAR PROPOSED
6	A) NEW 132/33 KV GSS KUCHINDA 2X20 MVA
	B) 132 KV LINK LINE TO KUCHINDA FROM JHARSUGUDA
7	A) NEW 132/33 KV GSS JHARSUGUDA 2X40 MVA
	B) 132 KV LINK LINE TO UCHINDA FROM JHARSUGUDA

B. Up-gradation of Sub-Stations:

Table – 25

LOCATION	EXISTING	PROPOSED
SONEPUR	2X12.5 MVA	2X40 MVA
BRAJARAJNAGAR		
KHARIAR	1X20 MVA, 1X12.5 MVA	2X20 MVA
BUDHIPADAR	1X20 MVA, 1X12.5 MVA	1X20 MVA, 1X40 MVA
BARPALI	2X12.5 MVA	2X40 MVA
SAMBALPUR	2X31.5	2X40 MVA
KESINGA	1X20 MVA, 1X40 MVA	2X40 MVA
RAJGANGPUR	2X40 MVA	3X40 MVA
SUNDARGARH	2X20 MVA	2X20 MVA, 1X40 MVA
BARKOT	2X20 MVA	2X40 MVA
JODA	1X12.5 MVA	1X20 MVA

120. **SOUTHCO**

- Upgradation of capacity at Berhampur 132kv Grid Substation:
- Proposed 132kv Grid Substation at Pursothampur:
- Proposed 132/33kv Grid Substation at Boudh with associated 132 line:
- Upgradation o capacity at Jaynagar Grid Substation:
- Proposed to install 132kv Grid Substation at Dabugaon:
- Upgradation of capacity at Rayagada Grid Sub-station:
- Handing over of 33/11 KV S?S at Rayagada to Southco
- Proposal to install 132kv Grid Substation at Akhusingi:
- Upgradation of 132/33kv transformer capacity at Sonepur:
- Proposal to install 132/33kv Grid Sub-station at Laxmipur:
- Upgradation of 132/33kv transformer capacity at Sunabeda:
- Upgradation of 132/33kv transformer capacity Tentulikhunti:
- Upgradation of 132/33kv transformer capacity at Phulbani:

REJOINDER BY OPTCL TO THE QUERY OF OBJECTORS (Para 121 to 168)

121. In response to the views of objectors on the ARR and Tariff Application of OPTCL for 2011-12, OPTCL had filed rejoinders for the same. The response of OPTCL has been broadly classified into the following issues.

Legal Issues

122. The present ARR and transmission tariff application has been filed and submitted based on the audited accounts for FY 2008-09 and provisional accounts for FY 2009-10. Hence, the question of misguiding by the Licensee does not arise.

123. The present application cannot be rejected by making a general statement that proposed transmission charge is totally illegal, arbitrary and base less, as OPTCL has furnished all information as per prescribed formats prescribed by OERC with full justification.

124. OPTCL and GRIDCO are two separate entities carrying on different businesses having full-fledged Board of Directors. So far as functioning of OPTCL with a full fledged Independent Board of Directors is concerned, it is to mention that OPTCL, as a separate legal entity, OPTCL was incorporated under the provision of the Companies Act, 1956 on 29.03.2004 as a Public Limited Company. Consequent upon implementation of the Orissa Electricity Reforms (Transfer of Transmission and related activities) scheme, 2005, OPTCL started its commercial operation with effect from 01.04.2005. Since inception, the company has an independent Board of Directors for governing the organisation by establishing broad policies and objectives. OPTCL being a Govt. Company (as entire share capital of the company is held by the Govt. and its nominees), the State Govt. is empowered to appoint Directors from time to time as per provision under Articles of Association of the Company. At present OPTCL is having an independent Board of Directors comprising both functional and non-functional Directors, which is exercising powers and discharging the duties and responsibilities as conferred on it under Articles of Association of the Company pursuant to relevant provisions under the Companies Act, 1956.

Quality of Supply

125. OPTCL is always ready to coordinate with GRIDCO & DISCOMs and endeavors its best effort towards successful implementation of the Central and State sponsored schemes like RGGVY, BGJY. OPTCL has conducted the Transmission Planning study by PRDC for OPTCL EHT transmission system in coordination & consultation with GRIDCO and DISCOMs. In the study report submitted by PRDC, the load growth due to schemes like RGGVY, BGJY as forecasted by DISCOMs have been considered.

126. OPTCL further stated that to cater to the growing demand of the State and to eradicate persisting low voltage pockets in some areas of the State, OPTCL has undertaken construction of new lines and sub-stations as well as working on war-footing to complete all the ongoing projects. The details have been submitted to the Commission. Further, in the tariff application document, the projects completed during 2007-08, 2008-09, 2009-10 and projects under execution during 2010-11 have been shown in detail. The above amply shows effort of OPTCL to provide quality supply to DISCOMs at its grid sub-station end. OPTCL is not responsible for failure of DISCOMs to supply quality power to end consumers of the State through their distribution network.

Transmission Loss

127. The Commission had approved 5% loss for 2007-08, 4.5% loss for 2008-09, 4% loss for 2009-10 & 4% loss for 2010-11. The actual transmission loss for 2006-07, 2007-08, 2008-09, 2009-10 & 2010-11 (April'10 to September'10) is computed as 5.04%, 4.82%, 4.52%, 4.11% and 3.89% respectively. Based on the present trend, OPTCL has proposed the Transmission Loss of 3.9 % for 2011-12. 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%.

128. With regard to Energy Audit, OPTCL has already identified about 600 points where Energy Audit Meters are required to be installed. These metering points shall cover the ICTs/Auto Transformers, Power Transformers and EHT lines of OPTCL. At present, the transmission loss is estimated by deducting the energy sent out to the

DISCOMs from the energy input/ injected to the network. Once the Audit Energy Meters are in place, OPTCL will be in a position to assess the individual transmission element-wise loss incurred. The elements with high losses can be identified and remedial actions can be taken. After installation & commissioning of the Audit Energy Meters, OPTCL shall go for energy audit through professional/ certified Energy Auditors. The Techno-Commercial bid for procurement of 0.2 class Audit Energy Meters has been opened on 26.01.2011 and the bids are under evaluation by OPTCL.

System Availability

129. OPTCL is making all out efforts to supply the power requirement of the State through its transmission system comprising 97 grid sub-stations and more than 11000 ckt. km. long transmission lines of different voltage classes spread across the geographical area of the State. One of the key performance indicators i.e. Availability of Transmission System of OPTCL is more than 98% in all the previous years since 2005-06 i.e. the year OPTCL commenced its business. For the year 2009-10, the Availability of Transmission System was worked out as 99.86% following the formula indicated in the Appendix IV of CERC (Terms and Conditions of Tariff) Regulations, 2009. This speaks of the fact that the transmission system is kept available for 99.86% of the time during the whole year.

Transmission Projects

130. The detailed status report on transmission projects completed during FY 2007-08, FY 2008-09, FY 2009-10 & under execution by OPTCL during FY 2010-11 have been furnished in the ARR application of OPTCL in the formats prescribed by the Commission (Page No. 191-194).

131. OPTCL has proposed to evacuate Orissa State share power from the upcoming IPPs through identification of certain individual IPPs & pooling their entire power by connecting the IPPs to the pooling stations in the near vicinity rather than through pooling network for each individual IPP. M/s PRDC, Bangalore were assigned the System Study work for Power System Studies on proposed 400kV Ring system in transmission network of OPTCL. The firm has submitted the final report wherein it has recommended for 8 nos. new 400kV Grid Sub-Stations and 20 nos. 400kV transmission lines to be commissioned in three phases. System Study has been carried out with upcoming load of 6363 MW forecasted during the end of 12th plan period i.e. during FY 2016-17. 17 nos. IPPs with installed capacity of 22775 MW and ITPS (OPGC) with 1320 MW Capacity are expected to be commissioned by the end of 12th plan period. Those have been considered in the aforesaid System Study taking into account Orissa State share of 6064 MW. Out of 8nos. 400kV Grid Sub-Stations, 3nos. at Lapanga, Nisha, Khuntuni will be constructed to evacuate about 5755MW power as detailed below. Remaining 5 Grid Sub-Stations at Kuanrmunda, Joda, Bhadrak, Dhamara, Paradeep, Puri, Kesinga & Berhampur will be constructed for meeting the load growth. The study report on 400kV ring system will be submitted to the Commission shortly.

Lapanga : To evacuate Orissa State share of 1380MW from M/s Sterlite Energy and ITPS (OPGC). Nearly 500MW power will be absorbed in the fast growing areas like Rourkela and Bolangir. This Grid Sub-Station will be interlinked to M/s Sterlite Energy’s IPP and hence to Jharsuguda 765/400kV pooling station of CTU facilitating transfer of marginal surplus power from Orissa to outside states.

Nisha :- To evacuate power from M/s Monnet Ispat & Energy having installed capacity of 1005MW and supply this power to Meramundali and Chendipada areas to meet about 350MW demand of 52nos.coal washeries.

Khuntuni :- The Industries like M/s Tata, M/s Jindal, M/s Visa, M/s Rohit Ferrotech, M/s Maithan Ispat will avail power through Khuntuni – Duburi Transmission system. This Grid Sub-Station is located near the load center to cater the power to Mendhasal, Uttara (Jatni), Joda, Industrial hub of Duburi and its command area. The IPPs like Aarati, Tata Power, CESC and Visa Power will be connected to this system for evacuation of about 5755MW of power.

OPTCL Board has accorded approval for construction of these 3nos. 400 KVGrid Sub-Stations for which land acquisition is under progress.

In this scheme it is envisaged for the connection of Orissa System with CTU system only at Jharsuguda through Sterlite IPP.

It is also envisaged that Orissa State share power would be drawn by displacement method directly by connecting it to selected IPPs. This mode of availing power will help from unnecessary overburdening the state consumers of paying wheeling charges to CTU. The entire power from the selected IPPs would be drawn by Orissa Grid and the balance power from other IPPs would be connected to 765/400KV Grid Sub-Stations of CTU system for onward transmission to outside Orissa.

132. Further, it is submitted that Perspective Transmission Planning of OPTCL system with system peak of 4459MW by the end of 11th plan period has been carried out by M/s PRDC. In the study report following proposals have been suggested.

- 400kV Grid Sub-Stations with associated lines - 5nos.
- 220kV Grid Sub-Stations with associated lines - 17nos.
- 132kV Grid Sub-Station with associated lines - 32nos.
- Reactive power compensation of 760MVAR at different Grid Sub-Stations.

In addition to above, another proposal for augmentation and capacity addition of existing 58nos. Grid Sub-Stations have been proposed.

Similarly Perspective Transmission Planning with system peak of 6363MW by the end of 12th plan period has been carried out by M/S PRDC. In addition to the proposal given in the study report for the 11th plan period, following additional proposals have been made in the study report up to the year 2016-17.

- 400kV Grid Sub-Stations with associated lines - 4nos.
- 132kV Grid Sub-Stations with associated lines - 1no.
- Reactive power compensation of 350 MVAR at Duburi, Bhadrak and Berhampur.

The above mentioned study reports for 11th & 12th plan periods have already been submitted to the Commission. Further, for construction of the proposed projects indicated in the study report for 11th plan period, M/s PRDC are also assigned with the work to carryout the study on prioritization of the proposed project during four years i.e. from the year 2009-10 to 2012-13. M/s PRDC have submitted the draft reports in this regard and the final reports are expected shortly.

133. As regards restoration plan of 400 kV Ib-Meramundali DC line, the Commission has accorded in-principle approval in interim order dated 29.12.2010 in case No. 15 & 127/2010 to the investment proposal of OPTCL. OPTCL had proposed to entrust the restoration work to M/s. Sterlite Energy Ltd. for which an agreement has been entered into between OPTCL and M/s. Sterlite Energy Ltd. on 12.11.2010. The work would be completed within 24 months from the date of signing of the agreement.

Completion of Projects

134. In case of very few numbers of projects, OPTCL has taken more than 10 years time for completion. This delay was beyond the control of OPTCL and mostly attributable to severe ROW problem and prolonged court cases. However, during last year i.e. 2009-10, OPTCL has been able to complete record number of projects including long delayed projects. OPTCL is giving maximum efforts in planning the project execution, regular monitoring of work, review of progress of projects to complete the projects as per the schedule. In the application document, the projects completed during 2007-08, 2008-09, 2009-10 and projects under execution during 2010-11 have been submitted to the Commission. Hence, Commission may allow the Capital Cost as well as interest as proposed by OPTCL in its ARR application for FY 2011-12.

Supervision Charges

135. With regard to objections related to collection of infrastructure loan and supervision charge by OPTCL, Review Petition of OPTCL Case No. 63/2006 [OPTCL Vs. Director (Engg.), OERC and Others] for review of OERC Order dated 22.07.2006 passed in Case No. 36 of 2005 and the Case No. 03/2007 (M/s Project Development Consultants Vs. OPTCL) have been analogously heard by the Commission. The hearing was concluded on 18.01.2011 and the Commission has kept the order reserved. Since the final order of the Commission is awaited, the very similar points now raised by the Objector are not liable to be debated in the present tariff proceeding.

Catering of load growth due to RGGVY scheme

136. The Perspective Transmission Planning of OPTCL system with system peak of 4459MW by the end of 11^{th} plan and system peak of 6363MW by the end of 12th plan period have been carried out by M/s PRDC. In the study reports submitted by M/s PRDC, the load growth due to schemes like RGGVY, BGJY as forecasted by DISCOMs have been considered.

System Improvement

137. In compliance to the amendment dated 29.08.2008 of Chapter-4 of OGC Regulations, 2006, it has become mandatory to provide SCADA interface points at all 220kV grid sub-stations of OPTCL by laying OPGW cable. PGCIL has been engaged as Consultant by OPTCL for turn-key execution of OPGW works under expansion of ULDC system on “Cost plus basis” in view of the following reasons;

1) Vast experience of PGCIL as utility in the field of Fibre Optic and Microwave based communication system for SCADA/EMS/DMS applications.
2) Profound experience in Engineering, Procurement, Commissioning, Operation and Maintenance of large Transmission system including OPGW Technology.
3) PGCIL has adequate experience for doing similar specialized jobs like Fibre Optic communication within India and abroad.

4) PGCIL is also the Consultant for turn-key execution of ULDC scheme in other regions including Eastern Region of which OPTCL is a constituent member.

5) PGCIL has also more than 8 years of experience in executing similar project involving live line replacement of earth-wire by OPGW cable.

6) Moreover, PGCIL has the mandate of Eastern Region Power Committee (ERPC) for implementation of Fibre Optic Communication system in lieu of Microwave links installed under ULDC scheme which are also inter-linked with the current project. Further, PGCIL has also implemented ULDC Project in OPTCL for which integration issues of existing ULDC links and the system to implement as part of Microwave replacement project with proposed Optic Fibre links can be best resolved if the executing agency is one and the same.

In consideration of the above fact, the BoD of OPTCL in their 37th Meeting held on 18.12.2009 has approved the proposal to undertake the project through consultancy service of PGCIL by laying OPGW cable at an estimated cost of Rs.67.48 Crore including overhead charges of PGCIL @ 12% and other service taxes as applicable. Further, the matter has been duly examined by the Commission during hearing in Case No. 20/2010 while hearing the investment proposal for this project and the in-principle approval has been accorded by the Commission vide order dated 02.11.2010.

138. 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 of 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. During the interim period, OPTCL shall try to accommodate the data in respect of industries temporarily in its own channel from the nearest 220kV grid sub-station up to the existing SCADA interface point for final transmission to SLDC.

139. Under ULDC Scheme, all the generating stations and important grid sub-stations of OPTCL were considered for transmission of on-line data to SLDC. Accordingly, 60 locations were selected in the 1st phase for on-line data transmission and the scheme has already been completed. Further, 30 grid sub-stations, which were not integrated with SLDC SCADA system in the 1st phase have been identified for on-line data transmission to SLDC. The tendering process for the above work is under progress through consultancy support of PGCIL as per the decision of BoD of OPTCL. The orders for execution of the above works shall be awarded by the PGCIL by the end of April 2011 and the work is likely to be completed by 2012.

140. The status of overloaded lines and sub-stations along with Action Plan of OPTCL for removal of the deficiencies are given below:

Table – 26

Status of Overloaded EHT Lines

Sl. No.	Name of EHT Line	Action Plan
1	220kV Budhipadar - Tarkera DC Line	Existing ACSR Panther / Zebra conductors will be replaced with higher current carrying conductors in a phased manner.
2	132kV Tarkera - Chhend DC	
3	132kV Burla PH - Budhipadar DC	
4	132kV Chandaka - Mancheswar Ckt-II	
5	132kV Chandaka – Ranasinghpur	
6	132kV Chandaka - Nimapara (up to Badagada LILO Point)	
7	132kV Chandaka – Khurda	
8	132kV Bhanjanagar - Aska DC	

Table – 27

Status of Overloaded Substations

Sl. No.	Name of Grid S/S	Existing Capacity	Proposed Capacity	Action Taken / Action Plan
1	Angul	2x20MVA, 132/33kV	1x40+2x20MVA, 132/33kV	One 20MVA replaced with 40MVA in Oct'2010. 3rd 20MVA will be commissioned during 11-12 F/Y.
2	Balasore	2x100MVA, 220/132kV	2x160MVA, 220/132kV	160MVA Auto Transformers will be installed in 11-12 F/Y.
3	Balugaon	2X20MVA, 132/33kV	1x40+2x20MVA, 132/33kV	One 20MVA replaced with 40MVA in Oct'2010. 3rd 20MVA will be commissioned during 11-12 F/Y.
4	Bargarh	2x40MVA, 132/33kV	3x40MVA, 132/33kV	3rd 40MVA will be commissioned by Mar'11.
5	Baripada	2x31.5MVA, 132/33kV	1x40+2x31.5MVA, 132/33kV	40MVA commissioned in Nov'2010
6	Berhampur	1x40+1x20MVA, 132/33kV 1x12.5MVA, 132/11kV	2x40+1x20MVA, 132/33kV	New 40MVA transformer will be commissioned by May'2011.
7	Bhadrak	2x100MVA, 220/132kV	1x160+2x100MVA , 220/132kV	3rd 160MVA Auto transformer will be commissioned in FY11-12
		2x40+1x12.5MVA, 132/33kV	3x40MVA, 132/33kV	New 40MVA transformer commissioned in Jan'2011.
8	Bhanjanagar	1x16+1x12.5MVA, 132/33kV	1x40+1x20+1x16 MVA, 132/33kV	40MVA was commissioned in Dec'2010. 3rd 20MVA will be commissioned during 11-12 F/Y.
9	Bidanasi	2x100MVA, 220/132kV	1x160+2x100 MVA, 220/132kV	3rd 160MVA Auto Trans will be commissioned in 11-12 F/Y.
		2x40MVA, 132/33kV	3x40MVA, 132/33kV	3rd 40MVA commissioned in Jul'2010
10	Chainpal	2x20+1x12.5MVA, 132/33kV	1x40+2x20 MVA, 132/33kV	40MVA commissioned in Dec'2010
11	Chhend	2x40MVA, 132/33kV	3x40 MVA, 132/33kV	3rd 40MVA commissioned in May'2010
12	Duburi	1X40MVA, 220/33kV	2x40 MVA, 220/33kV	2nd 40MVA will be commissioned in 11-12 F/Y.

Sl. No.	Name of Grid S/S	Existing Capacity	Proposed Capacity	Action Taken / Action Plan
13	Jajpur Town	1x40+1x20MVA, 132/33kV	2x40+1x20MVA, 132/33kV	New 40MVA transformer will be commissioned by May'2011.
14	Jayanagar	1X20+1X12.5MVA, 132/33kV	2x20+1x12.5MVA, 132/33kV	2nd 20MVA transformer will be commissioned in 11-12F/Y.
15	Joda	2x100MVA, 220/132kV	3x100MVA, 220/132kV	3rd 100MVA will be commissioned in 11-12 F/Y
		3X20+1x12.5MVA, 132/33kV	1x40+2x20+1x12.5 MVA, 132/33kV	40MVA will be commissioned before Mar'2011.
16	Junagarh	2x12.5MVA, 132/33kV	1x40+1x20+1x12.5 MVA, 132/33kV	20MVA installed in Oct'2010. 3rd 40MVA will be commissioned in 11-12 F/Y.
17	Katapalli	2x100MVA, 220/132kV	3x160MVA, 220/132kV	3rd 160MVA will be commissioned in 11-12 F/Y.
		2x20MVA, 132/33kV	1x40+2x20MVA, 132/33kV	3rd 40MVA will be commissioned by Mar'11.
18	Kesinga	2x20MVA, 132/33kV	1x40+2x20MVA, 132/33kV	40MVA installed in July'2010. 2nd 20MVA will be commissioned in 11-12 F/Y.
19	Meramundali	2x100MVA, 220/132kV	3x100MVA, 220/132kV	3rd 100MVA will be commissioned in 11-12 F/Y
20	Narendrapur	2x160MVA, 220/132kV	2x160+1x100MVA , 220/132kV	3rd 100MVA will be commissioned in 11-12 F/Y
		1x40+1x20 MVA, 132/33kV	2x40+1x20MVA, 132/33kV	2nd 40MVA will be commissioned in 11-12 F/Y.
21	Nimapara	3x12.5MVA, 132/33kV	1x40+2x12.5MVA, 132/33kV	40MVA commissioned in Aug'2010.
22	Nuapatna	1x12.5+1x20MVA, 132/33kV	1x40+1x20+1x12.5 MVA, 132/33kV	40MVA commissioned in Aug'2010 in place of 12.5MVA. Removed 12.5MVA will be installed within May'2010.
23	Paradeep	2x20MVA, 132/33kV	2x20+1x12.5MVA, 132/33kV	3rd 12.5MVA will be commissioned in May'2011.
24	Patnagarh	1x12.5+1x 20MVA, 132/33kV	1x20+2x12.5MVA, 132/33kV	3rd 12.5MVA will be commissioned in May'2011.
25	Polasponga	3x20MVA, 132/33kV	1x40+2x20MVA, 132/33kV	40MVA commissioned in Jan'2011.
26	Puri	2x31.5MVA, 132/33kV	1x40+2x31.5MVA, 132/33kV	3rd 40MVA will be commissioned by May'11.
27	Rajgangpur	2x40MVA, 132/33kV	3x40MVA, 132/33kV	3rd 40MVA will be commissioned in 11-12 F/Y.
28	Ranasinghpur	2x40MVA, 132/33kV	3x40MVA, 132/33kV	3rd 40MVA will be commissioned in Mar'2011.
29	Salipur	2x12.5MVA, 132/33kV	1x20+2x12.5MVA, 132/33kV	One 12.5MVA was replaced with 20MVA in Nov'2010. Removed 12.5MVA will be installed as 3rd transformer in 11-12 F/Y.
30	Sonepur	2x12.5 MVA, 132/33kV	3x12.5MVA, 132/33kV	3rd 12.5MVA will be commissioned in Mar'2011.
31	Soro	2x20MVA, 132/33kV	1x40+2x20MVA, 132/33kV	3rd 40MVA will be commissioned within Jan'2011.

Sl. No.	Name of Grid S/S	Existing Capacity	Proposed Capacity	Action Taken / Action Plan
32	Sunabeda	2x12.5MVA, 132/33kV	3x12.5MVA, 132/33kV	3rd 12.5MVA will be commissioned in 11-12 F/Y.
33	Sundargarh	2x20MVA, 132/33kV	1x40+2x20MVA, 132/33kV	40MVA will be commissioned in place of 20MVA within Feb'2011. Removed 20MVA will be installed as 3rd transformer in 11-12 F/Y.
34	Tentulikhunti	2x12.5MVA, 132/33kV	1x20+2x12.5MVA, 132/33kV	20MVA will be commissioned in place of one 12.5MVA within Mar'2011. Removed 12.5MVA wil be installed as 3rd transformer in 11-12 F/Y.
35	Therubali	2x12.5MVA, 132/33kV	3x12.5MVA, 132/33kV	3rd 12.5MVA will be installed in 11-12 F/Y

Outsourcing of Works

141. OPTCL states that the claim of the objector is not acceptable as outsourcing is now-a-days a globally accepted practice which reduces the cost as the work is done by a more experienced agency. Some of the works are awarded to PGCIL since OPTCL was having shortage of manpower at that time. The objection raised that "OPTCL has recently been off-loading the work of preparation of specifications, tender documents, submission of recommendations for vendor selection on outside agency" is not correct. In spite of severe shortage of technical hands, OPTCL is carrying out these works on its own.

Transmission Tariff

142. OPTCL has projected total wheeling MU during FY 2011-12 as has been approved by the Commission in OPTCL's 5-year (FY 2008-09 to FY 2012-13) Business Plan. The Commission may take suitable decision in this regard.

Income from Inter-state Wheeling

143. The rate of 17.50 P/U billed by OPTCL since long for Inter-State Wheeling Charge has been disputed by a number of beneficiary Utilities. They are not paying @ 17.50 P/U. CERC passed its order at a rate of around 3.5 P/U for the period 2001-04. Against CERC order, OPTCL had moved ATE, New Delhi. ATE dismissed the Appeal. OPTCL again filed a review petition before ATE which has also been dismissed. The rate in force is now around 3.5 P/U towards inter-State Wheeling Charge. Entities are returning back the Wheeling Charge bills to OPTCL with the condition that bills are acceptable only if raised as per CERC order. In view of the above, there is a clear cut position of Wheeling Charge rate which is around 3.5 P/U. Presently, MPPTCL is not paying anything 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 P/U in its accounts.

144. In view of the above, the receipt from inter-state wheeling is anticipated to be limited to only Rs. 5 Crore as proposed by OPTCL in its ARR application for FY 2011-12. The contention of the Objectors that it should be scaled up to Rs.17.50 Crore as per the impugned ATE Order dated 13.12.2006 which is pending before Hon'ble

Supreme Court of India for disposal is totally misconceived and hence liable to be rejected.

Misc. Receipt

145. OPTCL has projected revenue receipt from LTOA Customers. But the revenue receipt from STOA Customers and Meter Charges being uncertain have not been projected.

TRANSMISSION COST

Capital cost

146. For any major investment of Rs.10 Crore or more, OPTCL is obtaining Commission's approval justifying the purpose of investment and cost benefit analysis of the respective projects. The DISCOMs are made Respondents in the investment proposal of OPTCL for giving their views which are considered by the Commission while approving the proposal.

Employee cost:

147. OPTCL's projection of Employee Cost for FY 2011-12 is based on Audited Accounts of FY 2008-09, Provisional Accounts of FY 2009-10, facts and submission of evidential documents. For maintaining consistency, OPTCL appointed the actuary M/s. Bhudev Chatterjee who had been appointed by OERC to assess the terminal liabilities for FY 2007-08 & FY 2008-09. As per valuation made by the actuary the terminal liabilities as on 31.03.2012 comes to Rs.1457.99 Crore. On the basis of the data available with supporting documents as on 31.03.2010, projections as on 31.03.2011 & 31.03.2012, additional fund requirement of Rs 630.19 have been projected towards terminal liabilities. The assumptions made while projecting different expenditures under Employee Cost have been indicated in the **TRF-13** (page 92) in the ARR Application.

148. OPTCL has taken the following steps with regard to the manpower restructuring and deployment.
   (a) Manpower restructuring exercise through PWC and its implementation has been completed in 2002-03.
   (b) Restriction on recruitment of base level posts has been imposed by Government of Orissa vide Finance Dept. letter No. 32861 dated 03.8.2004.
   (c) Massive regularization of NMR in 1997 resulted in over staffing. Due to surplus manpower, technical support staff could not be recruited for a long period of time.
   (d) In order to fill the gap arising out of shortage of skilled manpower, ITI/Dip. Qualified persons are engaged through outsourcing agency.
   (e) The issue relating to shortage of manpower and permission for recruitment are under consideration at the PE Dept., Finance Dept. of Govt. of Orissa.

In spite of shortage of manpower, OPTCL is putting in its best effort to keep in place a healthy transmission system with the available manpower.

R & M Cost:

149. OPTCL intends to undertake preventive and proper maintenance of its lines and grid sub-stations in the ensuing years for which Rs.93.89 Crore is proposed towards R&M expenses during the FY 2011-12. In this regard the observation of Hon'ble ATE in its order dated 08.11.2010 in Appeal No. 55, 56 & 57 of 2007 in respect of the

Transmission Tariff order of OPTCL for FY 2007-08 is given below for kind appreciation of the Commission.

(a) *The mere fact that OPTCL was unable to utilize the amount allocated towards R&M expenses in the previous year can not be a ground to deny the Repair & Maintenance expenses to the OPTCL on the basis of norms for the subsequent year, since OPTCL is required to carry on its obligation for efficient management of the transmission system in the state.*

(b) *The State Commission has been monitoring the R&M works of the OPTCL by taking up periodical review and engaging an independent team of experts to monitor and report the progress of the R&M works being undertaken by OPTCL.*

(c) *The Transmission system of OPTCL is the backbone of the power system of the State of Orissa. The lines and substations 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 Distribution Companies who are the real beneficiaries would be put into trouble and the entire power system would be in complete jeopardy. Orissa has sent a phase of industrial resurgence, which requires quality power supply of international standard, if industrial units are to utilize the capacity to the fullest extent.*

150. Utilization of the materials have already started against various works pertaining to R&M of EHT grid sub-stations and transmission lines after receipt of materials for which the expenditure of Rs.16.915 Crore incurred during FY 2008-09 (as per Audited Accounts) and Rs.32.48 Crore during FY 2009-10 (as per Provisional Accounts). For FY 2010-11, as per cash flow statement, the expenditure already incurred up to November'10 is Rs.30.98 Crore. Considering the trend as shown in cash flow statement up to Nov'10, the expenditure towards R&M for the whole year (FY 2010-11) may reach up to the approved amount of Rs.60 Crore. Hence, OPTCL does not agree to the assumption of the objector that OPTCL has not taken any action to spend the required amount on R&M as approved by the Commission.

151. OPTCL has been very much pragmatic in proposing its R&M requirement and does not agree to the projections made by the Objectors of Rs.20.07 Crore considering 6% rise over 2006-07 which lacks substances.

152. In order to achieve the desired performance standards, OPTCL has already planned (through Business Plan/Master Maintenance Plan) for replacement of old, obsolete and defective equipment like CB, CT, PT, LA, Station Batteries etc. and also to keep spares to meet possible exigencies and failure of equipments. The network has to be renovated/ upgraded in order to ensure quality power supply and to meet the increased demand. It is not possible to prepare feasibility reports and search for financing agencies to avail small amounts of loans against individual category of equipments which have outlived their useful life and which may be needed in case of exigencies and failure. The transformer capacity upgradation/sub-station capacity enhancement by installing third transformers in the existing grid sub-stations, augmentation of transmission lines etc. have been proposed under the head "CAPEX FOR O&M RELATED PROJECTS" at page 15-16 of the application document. For implementation of these works, OPTCL would arrange funding from financial institutions as has been rightly suggested by the Objector.

A & G Expenses:

153. The expenditure incurred towards A&G for FY 2008-09 as per audited accounts was Rs.18.25 Crore against OERC approval of Rs.16.57 Crore and for FY 2009-10 it was Rs.26.81 Crore as per Provisional Accounts against OERC approval of Rs.14.35 Crore. The A&G expenses have shown an increasing trend due to price rise and inflation. The expenditure incurred up to November 2010 is Rs.15.41 Crore as per cash flow statement. The A&G Expenses for FY 2010-11 is estimated to be around Rs.31.78 Crore.

154. Therefore, the A&G Expenses of Rs.38.34 Crore and Employee Cost of Rs.952.06 Crore proposed for FY 2011-12 are very much realistic which need full consideration**.**

155. The projection towards Interest on Loan Capital is very much realistic as it is based on facts and evidential documents. The details are submitted in **TRF-3** for consideration by the Commission. OPTCL does not agree to the Objector's suggestion for not passing the amount at a time. Further, out of the total projected CAPEX of Rs.1004.24 cr. towards new projects, the Commission has already approved a good number of projects. Term loan for most of the projects have been proposed to be availed from REC, PFC and commercial banks. Besides the major Captive Expenditure on various lines & sub-stations are to be effected for which huge Capital Expenditure is to be incurred. OPTCL prays the Commission to take a suitable decision on interest cost for FY 2011-12.

156. Regarding the financial charges of Rs.14.62 cr., which includes 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:

157. OPTCL has projected depreciation of Rs.156.40 Crore for FY 2011-12 based on the Provisional Accounts of OPTCL for FY 2009-10 considering the depreciation rate as prescribed by CERC on upvalued Assets and additions thereto. OPTCL does not agree to the suggestion given by the Objectors on depreciation.

Special Appropriation:

158. OPTCL has not proposed any amount towards Special Appropriation for FY 2011-12 as the amount Rs.156.40 Crore projected towards depreciation takes care of the principal repayment obligation. It is a mistake of fact cited by the Objectors.

Return on Equity:

159. Return on Equity is projected based on CERC Regulations, 2009. OPTCL does not agree to the suggestion given by Objectors as this is contrary to the provisions of CERC Regulations.

Interest on Working Capital:

160. Interest on Working Capital is projected based on CERC Regulations, 2009. OPTCL does not agree to the suggestion given by Objectors as this is contrary to the provisions of CERC Regulations.

Contingency Reserve:

161. The projection towards Contingency Reserve is very much realistic which needs full consideration. Hon'ble ATE in its order dated 08.11.2010 in Appeal No. 55, 56 & 57 of 2007 in respect of Transmission Tariff order of OPTCL for FY 2007-08 had confirmed the findings given by the State Commission regarding Contingency Reserve with the following observations.

(a) *In regard to allowing the claim of Contingency Reserve, it has to be stated that State like Orissa which is highly prone to natural calamities like cyclone and floods every now and then, the provision of Contingency Reserve to meet such contingency is quite desirable and reasonable. It may not be correct to contend that the Contingency Reserve can be allowed only when the Regulations were framed with regard to that.*

(b) *The provision of Contingency Reserve is essential for a deemed Transmission Licensee like OPTCL with a vast Transmission Network.*

162. OPTCL prays the Commission to take a suitable decision in this regard. As per law, the Contingency Reserve is to be created @ 0.5 % on Gross Block Maximum of 5 % of Gross Block. Therefore, the contention of Objectors is not acceptable.

Pass through Expenses:

163. The Commission undertook the truing up exercise in the ARR of OPTCL for FY 2010-11 for finding the surplus without mentioning any valid reason. The present proposal for pass through of Rs.127.25 Crore is based on the Audited Accounts of FY 2005-06 up to FY 2008-09 and on Provisional Accounts for FY 2009-10 which needs consideration for pass through in one installment otherwise survival of OPTCL will be doubtful if past losses are not allowed as a pass through.

164. As the losses have arisen due to lower tariff allowed by the Commission in past years the same need to be serviced by way of recovery through tariff only. Under the provisions of the Electricity Act, 2003 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. Hence, OPTCL does not agree to the suggestion of the objector for adjustment in steps in different years.

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

165. As desired by the objector, year-wise proposal, approval and actual expenditure towards R&M, A&G, and O&M for the period from 2000-01 to 2010-11 (up to Dec' 10) are given below. The actual figures are as per audited accounts up to the year 2008-09. For the year 2009-10, the actual figures are based on provisional accounts. For the year 2010-11 (up to November'10), the actual figures are based on cash flow statement.

Table-28

(Rs. Crore)

Year	**R&M cost**			**A&G cost**			**O&M (Employee Cost+ R&M cost + A&G cost)**		
	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	11.31	15.85	14.89	17.3	291.39	166.05	142.32

Year	R&M cost			A&G cost			O&M (Employee Cost+ R&M cost + A&G cost)		
	Proposal	**Apprv.**	**Actual**	**Proposal**	**Apprv.**	**Actual**	**Proposal**	**Apprv.**	**Actual**
2007-08	54.00	47.00	16.51	14.79	15.71	12.82	250.91	201.49	239.99
2008-09	82.12	53.88	16.91	25.93	16.57	18.24	252.32	195.70	527.77
2009-10	122.74	47.00	32.48	36.94	14.35	26.81	644.34	234.46	302.36
2010-11	98.14	60.00	30.98 (up to Nov.)	26.99	15.14	15.41 (up to Nov.)	990.25	354.70	229.61 (up to Nov.)

Other issues

166. **Meter Rent :** OPTCL has been collecting the cost towards check metering system only from the EHT consumers/ beneficiaries who have been connected to the network recently (i.e. within last 5 years). For the consumers, who were existing earlier, both the main & check energy metering system have been provided by OPTCL. Besides, in secondary side of all the power transformers in the EHT grid sub-stations, OPTCL has provided main & check meters to record the energy sent out to the DISCOMS. Further, the repair & maintenance of all such billing meters are covered by OPTCL through AMC. Hence OPTCL's claim for meter rent is justified.

167. It is reiterated that OPTCL has prayed the Commission to issue necessary direction to M/s IMFA and M/s NALCO to pay the transmission charge towards supply of emergency as well as back up power with retrospective effect from 1.04.2010 as they are not paying the same in spite of monthly bills being raised by OPTCL. The claim of OPTCL is justified as the transmission system of OPTCL is being used for power transmission for the said purpose. Hence, OPTCL does not agree to the remarks of M/s NALCO that the proposal is baseless and implies non-application of mind.

168. OPTCL has provided meters for NALCO at both Angul and Damanjodi ends. On the basis of monthly reading of these meters, monthly energy and transmission charges are being raised on M/s NALCO. Hence, OPTCL is entitled to get the Meter Rent from the Objector M/s NALCO as would be approved by the Commission.

OPTCL'S RESPONSE TO QUERIES RAISED BY THE DIRECTOR (TARIFF) IN THE PUBLIC HEARING (Para 169 to Para 191)

Director Tariff OERC during Hearing of the case no 145/2010 relating to ARR & Transmission Tariff Application of OPTCL FY 2011-12 raised certain queries on different issues relating to the ARR application for compliance by OPTCL.

Implementation of Transmission Projects:

169. OPTCL may submit the status of new transmission projects under construction during FY 2009-10 and 2010-11(up to date). OPTCL may also furnish to the Commission the cost overrun & time overrun due to delay in completion of projects.

170. In reply to the query, OPTCL submitted the status of new transmission projects under execution during FY 2009-10 & 2010-11 (up to date) along with cost overrun and time overrun due to delay in completion of projects are given in table below..

Table - 29

STATUS OF PROJECTS UNDER CONSTRUCTION DURING FINANCIAL YEAR 2009-10 & 2010-11

Sl. No.	Name of the Project	Estimated Cost (Original)	Estimated Cost (Revised)	Expenditure till completion	Expenditure till date if not completed	Schedule date of completion	Actual date of completion	Anticipated date of Completion	Cost over run	Time over run	Reason of delay
	FY 2009-10										
1	1 x 100 MVA Auto transformer at 220/132kV Paradeep Substation with 220 KV D.C line from Duburi to Paradeep	50.00	70.214	77.95	-	12/2004	09/2009	-	7.736	58 months	ROW & Court cases
2	1 x 50 MVA 220/132 KV Auto transformer at Paradeep Grid S/S	-	-	-	-	-	-	-	-		-
3	2x12.5MVA, 132/33KV substation at Karanjia with associated lines.	24.21	-	17.99	-	06/2008	09/2009	-	-	15 months	-
4	2x12.5 MVA 132/33 KV Grid S/S at Barpali	15.87	-	13.28	-	06/2008	11/2009	-	-	17 months	-
5	2x12.5 MVA 132/33 KV Grid S/S at Basta (1st Transformer)	16.99	-	11.54	-	10/2008	12/2009	-	-	14 months	Due to water logging
6	400 KV D.C line from Meramundali to Duburi	43.00	131.48	-	154.56	10/2008	-	06/2011	-	Work in progress	ROW & Court cases. The original contractor left the job, PGICL is entrusted to complete the balance work.
7	2nd 100 MVA 220/132 KV Auto-transformer at Bhadrak Grid S/S	27.65	-	21.82	-	12/2006	09/2009	-	-	33 months	Non availability of auto-transformer
8	Installation of 3rd 40MVA, 132/33kV transformer at Chend S/S (Completed)	4.40	5.21	4.99	-	12/2007	06/2010	-	-	30 months	-
9	2x12.5 MVA 132/33 KV Transformer at Akhusing Switching Station along with associated bay.	6.07	-	5.01	-	07/2009	02/2011	-	-	18 months	Due to Mao affected area.
10	2x20 MVA 132/33 KV S/S at Anandpur with associated line (Completed)	23.68	-	17.82	-	06/2010	09/2010	-	-	3 months	-
11	132 KV Feeder bay extension work at Hind Metal Switching Station.	4.67	-	2.02	-	10/2009	10/2009	-	-	Nil	-
12	220 kV D.C line from Bidanasi to Cuttack	15.06	-	-	2.35	12/2010	-	06/2011			Work in progress
13	Installation of additional 40 MVA 132/33 KV transformer at Bidanasi S/S (Completed)	3.95	-	0.6	-	03/2010	07/2010	-	-	4 months	Non availability of transformer
14	400 KV D.C line from Meramundali to Mendhasal	65.43	72.68	89.19		12/2004	01/2010	-	16.51	61 months	ROW & Court cases. One line is charged at 400 KV & other line is charged at 220 KV.
15	400 KV D.C line from Mendhasal to Bidanasi	17.39	-	-	17.80	12/2004	03/2011	-	-	-	ROW & Court cases
16	220 KV D.C line from Burla to Bolangir (Completed)	69.72	76.06	65.73	-	12/2003	04/2010	-	-	76 months	ROW & Court cases. The original

Sl. No.	Name of the Project	Estimated Cost (Original)	Estimated Cost (Revised)	Expenditure till completion	Expenditure till date if not completed	Schedule date of completion	Actual date of completion	Anticipated date of Completion	Cost over run	Time over run	Reason of delay
											contractor left the job midway.
17	132 KV Mancheswar-Badagada S.C line on D.C tower	5.30	-	-	3.62	06/2008	-	-	-	Work is held up.	Sever ROW problem
18	132 KV Badagada-Uttara S.C line on D.C tower	5.28	-	4.51	-	09/2008	03/2010	-	-	18 months	ROW Problem
19	132 KV Uttara-Sijua S.C line on D.C tower	3.54	-	3.97	-	04/2008	09/2009	-	0.43	17 months	ROW Problem
20	132 KV Hirakud-LILO Burla-Sambalpur line.	1.97	-	2.47	-	03/2001	08/2009	-	0.5	101 months	Due to forest clearance
21	220/132 KV Grid S/S at Bolangir (completed)	20.51	24.97	24.69	-	07/2009	05/2010	-	-	10 months	Due to non charging of 220 KV line.
22	400/220 KV S/S at Mendhasal (Completed)	47.65	-	45.49	-	08/2003	10/2008	-	-	50 months	ROW Problem & forest clearance on 400 KV line.

FY 2010-11

1	2x12.5 MVA 132/33 KV Grid S/S at Basta (2nd Transformer)	16.99	-	11.54	-	10/2008	06/2010	-		22 months	Due to Water logging
2	2x20 MVA, 132/33 KV S/S at Barbil with associated line.	17.04	-		1.64	11/2011		-			Work in progress
3	2x20 MVA 132/33 KV S/S at Anandpur with associated line (Completed)	23.68	-	18.32	-	06/2010	09/2010	-		3 months	
4	220 kv D.C line from Bidanasi to Cuttack	15.06	-	-	4.39	12/2010	-	06/2011			Work in progress
5	2x40 MVA, 220/33 KV S/S at Bonai with associated line	24.20	-	-	1.76	11/2011	-	11/2011			Work in progress
6	132 KV Paradeep - Jagatsinghpur S.C. Line	16.72	-	-	3.04	11/2011	-	11/2011			Work in progress
7	400 KV D.C line from Meramundali to Duburi	43.00	131.48	-	154.56	10/2008	-	06/2011	-	Work in progress	ROW & Court cases. The original contractor left the job, PGICL is entrusted to complete the balance work.
8	Installation of 3rd 40MVA, 132/33kV transformer at Chend S/S (Completed)	4.40	5.21	4.82	-	12/2007	06/2010	-	-	30 months	-
9	2x12.5 MVA 132/33 KV Transformer at Akhusing Switching Station alongwith associated bay. (Charged on 5.2.11)	6.07	-	5.01	-	07/2009	02/2011	-	-	18 months	Due to Mao affected area.
10	Installation of additional 40 MVA 132/33 KV transformer at Bidanasi S/S (Completed)	3.95	-	0.66	-	03/2010	07/2010	-	-	4 months	Non availability of transformer
11	400 KV D.C line from Meramundali to Mendhasal	65.43	72.68	89.19	-	12/2004	01/2010	-	16.51	61 months	ROW & Court cases. One line is charged at 400 KV & other line is charged at 220 KV.
12	400 KV D.C line from Mendhasal to Bidanasi	17.39	-	-	17.80	12/2004	03/2011	-	0.41		ROW & Court cases

Sl. No.	Name of the Project	Estimated Cost (Original)	Estimated Cost (Revised)	Expenditure till completion	Expenditure till date if not completed	Schedule date of completion	Actual date of completion	Anticipated date of Completion	Cost over run	Time over run	Reason of delay
13	220 KV D.C line from Burla to Bolangir (Completed)	69.72	76.06	65.73	-	12/2003	04/2010	-	-	76 months	ROW & Court cases. The original contractor left the job midway.
14	132 KV Mancheswar-Badagada S.C line on D.C tower	5.30	-	-	3.47	06/2008	-	-	-	Work is held up.	Sever ROW problem
15	132 KV Badagada-Uttara S.C line on D.C tower	5.28	-	4.51	-	09/2008	03/2010	-	-	18 months	ROW Problem
16	132 KV Uttara-Sijua S.C line on D.C tower	3.54	-	3.97	-	04/2008	09/2009	-	0.43	17 months	ROW Problem
17	220/132 KV Grid S/S at Bolangir (completed)	20.51	24.97	27.55	-	07/2009	05/2010	-	2.58	10 months	Due to non charging of 220 KV line.
18	400/220 KV S/S at Mendhasal	47.65	-	45.49	-	08/2003	10/2008	-	-	50 months	ROW Problem & forest clearance on 400 KV line.
19	400/220 KV S/S at Duburi	42.07	-	-	35.98	12/2003	-	03/2011	-	-	Work in progress. BHEL Engrs are at site to rectify the oil leakage & other defects of transformer prior to commissioning
20	132/33 KV S/S at Badagada	7.60	-	7.80	-	01/2001	09/2010	Completed	0.2	116 months	
21	2x12.5 MVA, 132/33 KV S/S at Nuapara with S.C. line on D.C. tower from existing 132/33 KV S/S, Khariar to Nuapara with 1 no. 132 KV bay extension at Khairar Grid S/S [72.288 Kms.] [REC]	34.95	-	-	6.29	06/2012	-	06/2012	-	-	Work in progress
22	2x12.5 MVA, 132/33 KV S/S at Dabugaon with S.C. line on D.C. tower from existing 132/33 KV S/S, Tentulikhunti to Dabugaon with 1 no. 132 KV Bay extension at Tentulikhunti [40.753 Kms.] [REC]	24.99	-	-	5.49	06/2012	-	06/2012	-	-	Work in progress
23	2x12.5 MVA, 132/33 KV S/S at Padampur with S.C. line on D.C. tower from existing 132/33 KV S/S, Patnagarh to Padampur with 1 no. 132 KV bay extn at Patnagarh S/S [45.532 Kms.] [REC]	27.71	-	-	5.33	06/2012	-	06/2012	-	-	Work in progress
24	2x12.5 MVA, 132/33 KV S/S at Kuchinda with LILO arrangement of existing Sambalpur - Rourkela 132 KV line [29.358 Kms.][REC]	20.61	-	-	4.44	06/2012	-	06/2012	-	-	Work in progress
25	2x12.5 MVA, 132/33 KV S/S at Bhawanipatna with LILO arrangement of existing Kesinga-Junagarh 132 KV line	20.50	-	-	3.61	06/2012	-	06/2012	-	-	Work in progress

Sl. No.	Name of the Project	Estimated Cost (Original)	Estimated Cost (Revised)	Expenditure till completion	Expenditure till date if not completed	Schedule date of completion	Actual date of completion	Anticipated date of Completion	Cost over run	Time over run	Reason of delay
	[6.61 Kms.] [REC]										
26	2x12.5 MVA, 132/33 KV S/S at Boudh with S.C. line on D.C. tower from existing 132/33 KV S/S, Sonepur to Boudh with 1 no. 132 KV Bay extension at Boudh S/S [50.732 Kms.] [REC]	33.53	-	-	5.92	06/2012	-	06/2012	-	-	Work in progress
27	2x20 MVA, 132/33 KV S/S at Kalunga with LILO arrangement of existing Budhipadar-Tarkera 132 KV line 2.671 Kms.] (PFC)	17.93	-	-	0.23	09/2012	-	09/2012	-	-	Work in progress
28	2x40 MVA, 220/33 KV S/S at Gopinathpur Keonjhar with LILO arrangement of existing 220 KV TTPS - Joda D/C line. [1.5 Kms.] [Canara Bank: 25.23 Cr.]	29.93	-	-	0.26	09/2012	-	09/2012	-	-	Work in progress
29	2x100 MVA + 2 x 40 MVA, 220/132/33 KV S/S at Kuanrmunda (Mandiakudar) with LILO arrangement from existing 220 KV Budhipadar - Tarkera D/C line. [14.912 Kms.] [Canara Bank : 52.80 Cr.]	67.59	-	-	0.42	03/2013.	-	03/2013.	-	-	Work in progress
30	2x160 MVA, 220/132 KV S/S & 2x20 MVA, 132/33 KV S/S at Lapanga with LILO arrangement of existing Budhipadar- Burla 220 KV line to Lapanga [0.3 Km.] and LILO arrangement of 132 KV Budhipadar-Burla D.C. line [2Kms.] & 132 KV Shyam DRI-Rourkela S.C. line [10 Kms.] Cr. [Canara Bank :59.66 Cr.]	64.83	-	-	5.40	03/2013.	-	03/2013.	-	-	Work in progress
31	1x20 MVA, 220/33 KV S/S in the premises of 400/20 KV S/S at Mendhasal	9.34	-	-	-	06/2011	-	06/2011	-	-	Work in progress and contractor yet to furnish the bills.
32	Stringing of 2nd Circuit from Loc.116 to Nimapara Grid S/S of the 132 KV SC line on DC tower from Chandaka to Nimapara(26.087 Kms.).	2.16	-	-	0.34	01/2011	-	03/2011	-	-	Work in progress

R&M Expenditure:

171. In reply to the query, OPTCL submitted that the actual expenditure on R&M during FY 2010-11 (up to 31st January 2011) is Rs.63.44 Crore as per Cash Flow Statement. Up to the FY 2008-09, the R&M expenditure of OPTCL was less compared to the amounts approved by the Commission. But during FY 2009-10, due to expeditious

action taken by OPTCL, the R&M expenditure has substantially improved. Against the approved R&M expenditure of Rs.47 Crore for FY 2009-10, OPTCL has been able to spend Rs.32.48 Crore as per Provisional Accounts. Similarly, during the current FY 2010-11, OPTCL has already incurred R&M expenditure of Rs.63.44 Crore upto January 2011 as per Cash Flow Statement against approved amount of Rs.60 Crore.

Audited Balance Sheet

172. OPTCL submitted that the final account for the FY 2009-10 duly authenticated by the OPTCL Board has already been submitted to the statutory auditors. Their report is expected within a week's time. On receipt of the same, it would be immediately submitted to the Commission.

Payment of Differential Amount of Pension and Pensioners Benefit:

173. In reply to the query, OPTCL submitted that the copy of the proceedings of the meeting held on 16.08.2010 under the Chairmanship of the Commissioner-cum-Secretary, Department of Energy, Govt. of Orissa to discuss payment of differential pension and pensionary benefits to absorbed Electrical Engineers in OPTCL/GRIDCO/OHPC and other organizations was filed as Annexure-II (Page-76-77) in the OPTCL's ARR application for FY 2011-12. The last Para of the proceedings is reproduced below:

"It is decided that the cases of absorbed employees may be considered who shall refund the pension and pensionary benefits received within the stipulated time period and exercise revised option. Accordingly the file will be endorsed to finance department for obtaining their concurrence on getting the information from the transferee organisations regarding requirement of total amount and differential amount along with their board resolution and action taken in moving to OERC to obtain approval of the differential amount in the ARR."

174. As per the decision taken in the above meeting, the transferee organization OPTCL submitted the proposal before OERC in the ARR application of FY 2011-12 seeking approval of Rs.87.06 Crore under the head "I (B) TERMINAL BENEFIT- (b) Payment of differential Pension and Pensionary Benefit Liability" towards payment of differential pension and pensionary benefits to the absorbed Govt. engineers in OPTCL/GRIDCO. The amount of Rs.87.06 Crore has been included under Employee Cost since this liability will be due to inclusion of fresh pensioners to whom the terminal benefits and pension will be paid like the payment now being made to the existing pensioners.

175. After getting approval of the Commission in the tariff order for FY 2011-12, the same will be submitted to Department of Energy, Govt. of Orissa along with the resolution of the OPTCL Board to that effect and the requirement of total amount for obtaining concurrence from Finance Department.

176. The details of additional liability i.e. the differential terminal liabilities of Rs.87.06 Crore were not included in the database submitted to the independent actuary appointed by OERC.

177. However, the actuary valuation in respect of the differential Pension and Pensionary Benefit Liability to absorbed Electrical Engineers amounting to Rs.59.77 Crore as on 31.03.2009 carried out by an independent actuary is filed for kind appreciation of the Commission**.** Total differential pension and Gratuity Liability as on 31.03.2010 is

Rs.87.06 Crore; details of the same have been shown in the OPTCL letter dated 13.05.2010 addressed to the Additional Secretary to Govt., Department of Energy, GoO [Annexure-II (Page-74- 75) of the OPTCL's ARR application for FY 2011-12].

Action Taken To Meet Additional Demand Due To RGGVY & BGJY:

178. The existing system of OPTCL is able to cater the present demand of consumers across various parts of the State including remote areas. In case of inadequacy/ in-accessibility, new lines and grid sub-stations are being taken up to take care of further load growth due to ongoing schemes like Rajiv Gandhi Grameen Vidyut Yojana (RGGVY) & Biju Gram Jyoti Yojana (BGJY). Considering the upcoming load of 968 MVA due to the above schemes, Perspective Transmission Planning of OPTCL system with system peak of 4459 MW by the end of 11th plan period has been prepared by M/s. PRDC Ltd. which has since been submitted to the Commission. In the study report following proposals have been suggested:

- 400KV Grid Sub-Station with associated lines - 5 nos.
- 220KV Grid Sub-Station with associated lines - 17 nos.
- 132KV Grid Sub-Station with associated lines - 32 nos.
- Reactive power compensation of 760 MVAR at different Grid Sub-Stations.

179. To meet the enhanced demand, large number of new projects is being executed by OPTCL in the greater interest of the consumers of the State. During the current year 2010-11 (up to 31.01.2011), OPTCL has commissioned around 76 km. of 400 kV line, 353 km. of 220 kV line, 86 km. of 132 kV line and added 602.5 MVA transformation capacity to its transmission system. The status of various new projects (lines & grid sub-stations) are as under:

- 21 nos. projects are under various stages of execution.
- 5 nos. new projects will be started within March, 2011.
- 13 nos. projects having administrative approval of OPTCL Board are planned to be started during 2011-12 and completed in 2013-14.
- 15 nos. new projects for which OPTCL Board has accorded in-principle approval are in various stages of progress in regard to survey, investigation, land acquisition etc.

180. Apart from its plan to execute new grid sub-stations and lines, the following measures are being taken up by OPTCL to meet the enhanced demand of consumers.

- Action plan for transformer capacity addition & up-gradation at 59 nos. of existing grid sub-stations is under progress. On completion, aggregate transformation capacity of 2692.5MVA will be added to the intra-state transmission system. The grid sub-stations where the transformers are overloaded, additional 3rd power transformers are being installed in phased manner to improve the supply condition in the respective area. The commissioning works are being taken up and are planned to be completed by FY 2011-12.
- Looking at the enhanced power flow requirements, 8 nos. of EHT Lines have been identified for upgradation of existing conductors with high capacity HTLS (High Temperature Low Sag)/AAAC conductors during FY 2011-12.

These have been shown under CAPEX in ARR & Transmission Tariff application for FY 2011-12.

Evacuation of Power from IPPs and Mega Thermal Plants:

181. In the reply to the query, OPTCL submitted that to evacuate Orissa State share power from the upcoming IPPs, OPTCL has identified certain individual IPPs & pooling their entire power by connecting the IPPs to the pooling stations in the near vicinity rather than through pooling network for each individual IPP. M/s PRDC, Bangalore were assigned the System Study work for Power System Studies on proposed 400 kV Ring system in transmission network of OPTCL The firm has submitted the final report wherein it has recommended 8 nos. new 400 kV Grid Sub-Stations and 20 nos. of 400 KV transmission lines to be commissioned in three phases. The study report on 400KV ring system has been submitted by Sr. G.M. (Corporate Planning), OPTCL to OERC vide letter No. CP-PRDC-2/2010(Pt.) 562(2) dated 27.01.2011.

182. The aforesaid System Study has been carried out considering upcoming load of 6363 MW forecasted by the end of 12th Plan Period (FY 2016-17) as well as taking into account evacuation of the Orissa share of 6064 MW from upcoming 17 nos. IPPs (with installed capacity of 22775 MW) and ITPS (OPGC) (with installed capacity of 1200 MW) expected to be commissioned by the end of 12th Plan Period. Out of the proposed 8 nos. 400 kV Grid Sub-Stations mentioned in the Study Report, 3 Grid Sub-Stations will be constructed at the following places to evacuate about 5755 MW power.

(a) At Lapanga for evacuation of state share power from M/s. Sterlite Energy Ltd. & ITPS.

(b) At Nisha for evacuation of power from M/s. Monnet Ispat & Energy.

(c) At Khuntuni for evacuation of power from M/s. Aarati, M/s. Tata Power, M/s. CESC and M/s. Visa Power.

OPTCL Board has accorded approval for construction of the above 3 nos. Grid Sub-Stations for which land acquisition is under progress. The other 5 nos. Grid Sub-Stations will be constructed at Kuanrmunda, Joda, Dhamara, Paradeep & Berhampur for meeting the load growth.

183. OPTCL also submitted that Orissa State share power would be drawn by displacement method directly by connecting it to selected IPPs. This mode of availing power will relieve the state consumers from unnecessary paying wheeling charges to CTU. The entire power from the selected IPPs would be drawn through Orissa Grid and the balance power from other IPPs would be connected to 765 / 400 kV Grid Sub-Stations of CTU system for onward transmission to outside Orissa. In the above matter, several rounds of discussion have taken place among CEA, PGCIL, OPTCL and GRIDCO.

Installation of capacitor banks:

184. In reply to the query, OPTCL submitted that the Commission in consideration of the Investment proposal of OPTCL for Rs.18.594 Crore towards installation of Capacitor Banks (total 275MVAR) at 23 nos. existing grid sub-stations was accorded in-principle approval vide order dated 20.05.2010 in Case No. 23/2010. At Para 6 of the said order, the Commission had made certain directions and observations for compliance by OPTCL. The compliance report in this regard has been filed by OPTCL before the Commission through affidavit dated 25.01.2011. The submissions

made point wise through the aforesaid affidavit are reproduced below for kind appreciation of the Commission.

(a) OPTCL had already floated the Tender Call Notice for installation of 275MVAR Capacitor Banks at 23 nos. of existing grid sub-stations in line with the original investment proposal put forth by OPTCL during the hearing on 29.04.2010. In view of the Commission's order dated 20.05.2010, the Tender Call Notice has been cancelled.

(b) At Para 6 (ii) and (iii) of the order, the Commission desired that a fresh study should be conducted to ascertain the power factor and voltage profile of the sub-stations prior to installation of Capacitor Banks. Deviation to the proposal should be filed in the Commission.

OPTCL has conducted fresh in-house System Study for assessing utilization of 275 MVAR Shunt Capacitors at different low voltage grid sub-stations considering the changed transmission network scenario. In view of the recent internal study report, a modified list has been drawn up (filed as ANNEXURE-I along with the affidavit dated 25.01.2011) incorporating the names of new grid sub-stations where Shunt Capacitors are to be installed. Simultaneously the names of earlier proposed grid sub-stations where Shunt Capacitors are not required to be installed have been deleted. The total number of grid sub-stations in the revised list has come down to 20 instead of earlier 23 nos. However, total MVAR compensation included in the revised proposal remain the same as was proposed in our original proposal i.e. 275 MVAR.

The revised list of 20 nos. grid sub-stations for installation of 275 MVAR Shunt Capacitors at an aggregate estimated cost of Rs.12.71 Crore has been approved by the Board of OPTCL in its 43rd Meeting held on 22.09.2010.

(c) At Para 6 (iv) and (v) of the order, the Commission had observed that OPTCL may also explore the possibility of installation of Capacitor Banks on lease basis with proper annual maintenance contract. OPTCL should complete the proposed project within 31.03.2011.

It is humbly submitted that the Tender Specification prepared by OPTCL has a provision for "10 year Annual maintenance Service" by the prospective bidders. M/s. ABB Ltd. & M/s. Shreem Capacitors Ltd. were contacted. They informed that they had not supplied Capacitor Banks on lease basis. Further, if OPTCL explores for installation of Capacitor Banks on lease basis, the bidders have to visit site, collect data and conduct their own system study which would be a time consuming process.

(d) At Para 6 (vii) of the order, the Commission had directed OPTCL to file timeline for such installation before 15th June 2010 duly serving copies to all the distribution licensees.

As submitted at sub-Para (b) above, consequent upon fresh in-house System Study, names of grid sub-stations and estimated cost for installation of Capacitor Banks have been revised and thereafter approval of the Board to the modified proposal accorded. For these reasons, floating of tender was delayed. Meanwhile, OPTCL has received the tender documents for installation of Capacitor Banks. These are presently under evaluation. Considering time required for compliance of proper procedure, OPTCL would require 2/3 months time for placing order on the successful bidder. The work would be completed within one year from the date of placement of order. Hence, it would not be possible to complete the project within 31.03.2011 as has been directed by the Commission.

185. In view of the above, OPTCL prayed the Commission to

a) Kindly approve the revised proposal for installation of 275 MVAR Shunt Capacitors at 20 nos. grid sub-stations at an aggregate estimated cost of Rs.12.71 Crore;

b) Allow OPTCL to go ahead with the works keeping mandatory 10-year AMC Clause for the bidders in the tender specification instead of doing it on leased basis.

c) Allow time to OPTCL up to 31.3.2012 to complete installation of Shunt Capacitors at 20 nos. grid sub-stations.

Action Taken to Eradicate Low Voltage:

186. The EHT voltage as per Rule 54 of I.E. Rule, 1956 should be between +10% and -12.5%, i.e., 132 KV level should be in the range 116-145 KV and 220 KV level should be in the range 193-242 KV. OPTCL has, however, experienced voltage out of such allowable limits in some of its grid S/Ss of 220 & 132 KV. The names of such S/Ss have been communicated by OERC letter No.4726 dt.19.8.2010. OPTCL has to explain the action taken to solve this problem.

187. In reply to the query, OPTCL submitted that the voltage readings logged at each grid sub-station on hourly basis are the instantaneous voltage value at that particular hour. At some 220 & 132 KV grid sub-stations such instantaneous recorded voltage readings fall beyond the allowable limits. The readings do not reflect the actual voltage profile of the identified grid sub-stations since the readings are not the average figures. Some times due to prevailing exigency conditions at the time of logging the voltage value, the voltage might have exceeded or fallen below the permissible voltage range.

188. Following actions have been taken by OPTCL to solve the voltage problem at the identified grid sub-stations:

i. The 220kV/132kV voltage profile of grid sub-stations has improved appreciably in the command areas after commissioning of 220kV Kuchei-Balasore Ckt-II, Katapalli–Bolangir Ckt-I, Mendhsala – Narendrapur Ckt-I.

ii. Appropriate remedial measures are taken by OPTCL to control high voltage at grid sub-stations like Jayanagar & Budhipadar where PGCIL transmission system has been integrated. Operational measures required on the part of PGCIL are implemented through ERLDC & ERPC.

189. OPTCL's Action Plan for improvement of 132kV voltage profile at the identified grid sub-stations include construction of new lines & grid sub-stations, upgradation of conductors with high capacity conductors in existing lines, installation / upgradation of auto-transformers & co-ordination regarding 33kV load diversion to adjacent grid sub-stations through augmentation of distribution network by concerned DISCOMs.

Implementation of Recommendations of Technical Enquiry Committee:

190. As per the observations/recommendations of the Technical Enquiry Committee constituted by the Commission, OPTCL has to complete the pending works for

increase in overall performance of the transmission system. Hence, OPTCL has to clarify whether the proposal for 2011-12 of Rs.71.93 Cr. for R&M maintenance and Rs.291.15 Cr. for CAPEX for O&M related projects incorporates the expenditure to be incurred for implementation of the enquiry committee recommendations.

191. In reply to the query, OPTCL submitted that OPTCL's R&M proposal of Rs.71.93 Crore and CAPEX proposal of Rs.291.15 Crore in respect of O&M activities projected in the ARR application for FY 2011-12 have included the expenditure to be incurred towards implementation of the observations/recommendations of the Technical Enquiry Committee as mentioned above. Further, OPTCL has also envisaged to take up additional CAPEX works like installation of Capacitor Banks & upgradation of line conductors in future as per requirement of the transmission system.

VIEWS OF THE GOVT. OF ORISSA (Para 192 to 196)

192. The representative of the State Govt. who participated during the public hearing on 04.02.2011 submitted that the views of the Govt. would be filed before the Commission very soon. The Govt. of Orissa, Department of Energy vide letter No.1728 dated 28.02.2011 informed the Commission the following points.

193. **Up-Valuation of Assets:** The suggestions of the Commission to keep the support of Govt. in the matter of keeping the effect of up-valuation of assets of GRIDCO/OPTCL and OHPC, allowing the moratorium on debt services to the State Govt. till the sector turns around and not allowing ROE to GRIDCO/OPTCL and OHPC till the sector becomes viable on cash basis has not been agreed to by the Govt. in Finance Dept. However steps have been taken on the other recommendations of the Commission and will be placed before the cabinet for approval.

194. **Capacity Addition -** State Govt. have signed 30 MoUs with IPPs for setting up of the Thermal Power Plants having capacity of 3800 MW out of which state share would be 6770 MW. One unit of 600 MW of Sterilite Energy has been commissioned during Aug, 2010 and other 3 units (600X3) are expected to be commissioned during the year 2011-12. Similarly M/s. Arati Steel Ltd. has commissioned 50 MW in March, 2010. Besides GMR Kamalanga Energy Ltd. (1050 MW), Ind Barath Energy (700 MW) and Maa Durga Thermal Power Company (60 MW) have progressed well for commissioning their projects by end of 2012.

195. **CAPEX Programme:** A budget provision of Rs.43 Cr. is being made to provide OPTCL during 2011-12 as viable gap funding for construction of grid substation and associated transmission lines in backward and inaccessible areas to improve the quality of supply of power. Similarly a budget provision of Rs.205 Cr. for the year 2010-11 for CAPEX programme has been made. As per the scheme there may be provision for Rs.325 Cr. for the year 2011-12 under CAPEX.

196. **Implementation of Intra-State Availability Based Tariff (ABT) -** The Hon'ble Commission may take appropriate steps with regard to the implementation of ABT keeping in view of the demand and supply position of the State. However, it should be kept in mind that the general consumer shall not suffer from power Regulation on account of the implementation of ABT.

OBSERVATION OF THE STATE ADVISORY COMMITTEE (SAC) (Para 197 to 205)

197. 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 2011-12 of utilities, namely OHPC, OPTCL, GRIDCO, SLDC, CESU, NESCO, SOUTHCO and WESCO. The Committee *inter alia* observed the following:

Tariff Filing for the year 2011-12

198. Retail tariff is dependent on the cost of hydro generation by OHPC and cost of thermal generation by OPGC, NTPC and other Central Generating Stations, cost of procurement by GRIDCO, cost of transmission by OPTCL, expenditure required to be incurred by SLDC and the cost of distribution of the distribution companies. Even if the cost of distribution by the distribution companies is kept unchanged at the current year (2010-11), which is not at all possible, the Retail tariff is bound to increase if there is increase in the cost of generation, cost of procurement and cost of transmission and charges of SLDC.

199. If on account of rise in cost of generation, procurement, transmission, supply and distribution there is need for rise in tariff, the Commission may do so after thorough scrutiny but present level of consumer service must be improved commensurate with rise in tariff.

200. In this context it was clarified by the Commission during the course of discussion that to improve the quality of supply particularly to solve the problem of low voltage there is need for system upgradation like replacement of the old conductors, upgradation of the existing distribution transformers, installation of circuit breakers and timely operation and maintenance of the distribution and transmission network. For this to happen there is need for investment as well as a change in attitude and behaviour of the employees of the licensee in promptly looking to the problem and grievances of the consumers. When investment would be made, the financing costs like repayment of principal and payment of interest have to be appropriately factored in the tariff. Therefore, the tariff rise and improvement in quality of supply go hand in hand, it was clarified.

Recovery of the financing cost through enhanced transmission charges

201. OPTCL has started action for construction of new grid substations and upgradation of the existing grids and transmission lines to improve the quality of supply in backward and inaccessible areas like Dabugaon, Nuapara, Kalahandi, Kuchinda, Barbil etc. The State govt. have decided to provide Rs.60 crore per annum to OPTCL as viable gap funding for a period of five years starting from 2011-12. Govt. of India may also provide around Rs.15 crore per annum as their share. Nevertheless, OPTCL has to borrow the balance amount from the financial institutions for which the loans have to be serviced. This will have a direct impact on transmission tariff. Members opined that Commission may look to this aspect while designing the transmission tariff for OPTCL.

202. It was clarified by the Commission that while finalizing the transmission tariff the financing cost has to be taken into account but what is crucial is the need for timely completion of the various transmission projects in order to avoid cost overrun and time overrun which in the past have put a heavy strain on the general consumers. The additional cost arising out of delay in implementation should not be passed on to the

consumers. OPTCL has to tone up its internal administration and engage experienced engineers for timely preparation of Project Reports, tendering and execution and close monitoring.

203. OPTCL should reduce its loss by at least 1%. OPTCL can manage very well by this reduction of loss and enhanced efficiency without any hike in its tariff. In respect of SLDC, some members suggested that there is no need to charge any additional fees to enhance tariff and burden the consumers.

204. Some members of SAC have advised to the Commission for prudent check of the cost figures submitted by OPTCL in its ARR before approval. In any case, the transmission charge of the State should not go more than 10% that of last year.

205. The Commission reiterated that it would be just and fair to all stakeholders of the power sector to ensure that while the interests of the consumers need to be protected by providing service at reasonable and affordable rates, the viability and sustainability of the power utilities is also to be ensured.

COMMISSION'S OBSERVATIONS (Para 206 to 365)

206. The Commission, for approval of ARR and determination of transmission tariff for OPTCL for the FY 2011-12 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 ground realities of the Orissa Power Sector.

207. 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.

208. 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. Further the Commission has also allowed some amount towards repair and maintenance of OPTCL's staff quarters and guest house. The same principle as well has been followed by the Commission for this ARR determination for FY 2011-12.

209. 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.

210. 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.

211. As per OPTCL filing the transmission system availability has been more than 99% for last two years. Pending the verification, the Commission has allowed some amount of incentive to recover in the tariff for improvement in the voltage in OPTCL network and reduction of interruptions and also maintain the OPTCL network as per the CERC formulae of incentive on Transmission Tariff of CTU.

212. 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 for FY 2011-12

213. 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’.

214. OPTCL in its ARR filing for FY 2011-12 stated that the actual transmission loss in the OPTCL transmission system from April 2010to September 2010 works out to be 3.89% and OPTCL proposes transmission loss of 3.90 % for the year FY 2011-12 based on the approval in the business plan of OPTCL

215. 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% loss for 2009-10 & 4% loss for 2010-11. The actual transmission loss for 2006-07, 2007-08, 2008-09, 2009-10 & 2010-11 (April’10 to September’10) is computed as 5.04%, 4.82%, 4.52%, 4.11% and 3.89% respectively. Based on the present trend, OPTCL has proposed the Transmission Loss of 3.9 % for 2011-12. 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%.

216. 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 2010-11 is furnished in the table below.

Table – 30

	2005-06	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**
Approved (%)	4.00	4.00	5.00	4.50	4.00	4.00
Actual audited (%)	4.60	5.04	4.24	4.52	4.11	3.89 (upto Sept,10)

217. The Commission observes that the transmission loss is dependent on system configuration and power flow requirements at different load centers. The Commission vide Order dated 19.07.2010 in Business Plan of OPTCL had approved the Transmission loss of OPTCL system as 3.9% for FY 2011-12. Hence, the Commission approves the same i.e. 3.9% for FY 2011-12 as transmission loss for wheeling.

218. 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

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

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

Employees Cost

220. For the financial year 2011-12, OPTCL has estimated an amount of Rs.952.06 cr. towards employees cost. Major components of the expenses for FY 2011-12 are depicted in the table below:

Table – 31
Components of Employee Cost

(Rs. cr.)

Basic pay	98.57
DA	62.11
HRA	19.71
Provision towards arrear pay revision	49.04
Terminal benefit	717.25
Others	14.98
Less capitalization	9.60
Total	**952.06**

221. The Commission in its transmission tariff order for FY 2010-11 had approved the following expenses towards employees cost and now a hike of 240.56% has been proposed for FY 2011-12 as mentioned hereunder: -

Table – 32
Employee Cost approved for FY 2009-10 and proposed for FY 2010-11
(Rs. cr.)

Item	Proposed for 2010-11	Approved for 2010-11	Proposed for 2011-12	Percentage rise
Gross amount	875.78	290.66	961.66	
Less capitalization	10.66	10.66	9.60	
Net employees cost	865.12	279.56	952.06	240.56

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

- Provision towards arrear pay due for implementation of 6th Pay Commission Recommendations - Rs.49.04 cr.
- Provision towards terminal liability - Rs.717.25 cr.

223. With the broad analysis of employees cost as mentioned in above Para, the item-wise (major item) analysis of employees cost of OPTCL is discussed as under:

Salaries (Basic and Grade Pay): Under the head OPTCL estimates an amount of Rs.98.57 cr. during FY 2011-12 as against an amount of Rs.62.12 cr. approved by the Commission during FY 2010-11. While estimating the amount, the licensee has relied upon the audited data for FY 2009-10, which shows an amount of Rs.92.91 crore towards basic pay and grade pay. Over the figure of 2009-10 the licensee has assumed 3% escalation annually to determine the figure of Basic Pay + Grade pay. On scrutiny of the provisional accounts for 2009-10, it is found that provision towards 6th pay Commission and wage revision arrear has already been included in the figure of Rs.92.91. Therefore, while estimating the annual impact of Basic pay + GP for 2011-12, the arrear impact should have to be excluded from the base figure of Rs.92.91 crore discussed above. This has not been followed by the licensee.

224. Therefore, for a realistic assessment of Basic Pay + G.P for 2011-12, the Commission called for the data of break-up of salary drawn during last 4 months. OPTCL in compliance to query submitted this data shown in table below:

Table-33
(Rs. crore)

Month	Basic Pay	GP	DA	HRA	Others	Total
August, 2010	4.44	0.69	1.53	0.70	0.35	7.71
September, 2010	4.47	0.68	1.25	0.69	0.34	7.43
October, 2010	4.44	0.69	1.44	0.70	0.33	7.60
November, 2010	4.47	0.68	1.49	0.70	0.34	7.68
Average for four months	4.46	0.69	1.43	0.70	0.34	7.62
Extrapolated for 12 months for FY 2010-11	53.52	8.28	17.16	8.40	4.08	

225. From the above table the Basic Pay + GP of the employees worked out to Rs.61.80 cr. (Rs.53.52 cr. + Rs.8.28 cr.) which is considered as the Base figure for the financial year 2010-11 for the purpose of estimation the Basic Pay + GP for the FY 2011-12.

226. In reply to query, OPTCL has mentioned the number of employees as under:

Table – 34
Status of Employees in OPTCL

As on 01.4.2010	As on 01.4.2011
3655	3672

227. The basic pay + GP for FY 2011-12 is determined after factoring in average number of employee and considering annual increment @3% on Basic Pay + Grade Pay extrapolated for 12 months for FY 2010-11 which works out to Rs.62.58 cr.

Dearness Allowance

228. As regards Dearness Allowance, the present rate approved by Govt. of India is 45% w.e.f. 01.7.2010. In the past there has been periodic rise in DA from 1st January and 1st July of each year. The rate of DA from 01.01.2009 approved by Govt. of Orissa is given below:

			% Rise
01.01.2009	-	22%	
01.07.2009	-	27%	5%
01.01.2010	-	35%	8%
01.07.2010	-	45%	10%

229. It is seen from the above table that minimum rise of one dose of DA is 5%. With the anticipated rise of 5% in each dose, the annual average DA for 2011-12 is evaluated at 55%. The Commission approves the same for the financial year 2011-12.

House Rent and Medical Allowance

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

Medical allowance	-	5% of (Basic Pay + GP)
House rent allowance	-	15% of (Basic Pay + GP)

Stipend to Management Trainee

231. OPTCL proposed to recruit 185 numbers of Asst. Managers at a consolidated pay of Rs.12,000/- PM, 104 numbers of Junior Managers at a consolidated pay of Rs.10,000/- PM and made a provision of Rs.3.91 Cr for the FY 2011-12. OPTCL submits that a significant number of posts are lying vacant in different ranks due to retirement, death, promotion etc. as a result of which the functioning of organization has been seriously affected. OPTCL plans to fill up the vacancy in a phased manner and accordingly the recruitment process is going on.

232. The Commission accepts the proposal of OPTCL and allows Rs.3.91 cr. towards stipend to management trainee under the head employee cost for the FY 2011-12.

6th Pay Arrear:

233. The Commission in line with last tariff Order allows 1/3rd of the total amount of arrear of Rs.147.13 cr. The Commission, therefore, allows Rs.49.04 crore i.e. 1/3rd of 147.13 crore during 2011-12 towards arrear dues in respect of 6th Pay Commission recommendation.

Terminal Benefits

234. For the year 2011-12, OPTCL has projected an amount of (a) Rs.630.19 cr. towards terminal liability of employees and existing pensions and (b) Rs.87.06 crore towards

payment of differential pension and pensionary benefits to the absorbed Govt. Engineers in OPTCL/GRIDCO. The total amount under two heads works out to Rs.717.25 crore.

235. Regarding terminal benefit liability of employees and existing pensions as mentioned in item (a) the estimated projected liability of Rs.630.19 crore is as per the actuarial valuation report done by OPTCL. The details are shown in the following table:

Table – 35
Details of Actuarial Valuation

(Rs. Crore)

Sl. No.	**Terminal Benefits**	**Projected Actuarial Liability as on 31.03.2008 (Approved by OERC)**	**Actuarial Valuations as on 31.03.2010**	**Projected Actuarial Liability as on 31.03.2012**	**Additional fund Requirement**
	1	**2**	**3**	**4**	**5=(4-2)**
1	Pension	241.95	448.41	509.01	267.06
2	Pension in payment	390.32	756.45	808.48	418.16
3	Gratuity	31.66	64.40	73.88	42.22
4	Leave Encashment	38.72	61.58	66.63	27.91
5	**Total**	**702.65**	**1330.84**	**1457.99**	**755.34**
6	PF				0.50
7	Pass through for FY 2009-10				29.33
8	Pass through for FY 2010-11				96.32
9	**GRAND TOTAL (5+6-7-8)**				**630.19**

236. The Commission on 08.12.2009 appointed M/s. Darashaw & Company Pvt. Ltd., Mumbai as actuary for undertaking assessment of pension, gratuity and leave encashment liability of employees of four DISCOMs and OPTCL upto 31.3.2009 with projection for the financial year 2009-10 and 2010-11.

237. M/s. Darashaw & Co. the actuary have submitted the report and the final report has been sent to the concerned licensee through e-mail. A summary of such valuation vis-à-vis the corpus availability in respect of the licensee is given in table below:

Table – 36
Acturial Valuation as given by the Actuary M/s DARASHAW, Mumbai

(Rs. Crore)

	OPTCL	**WESCO**	**NESCO**	**SOUTHCO**	**CESU**
31.03.09					
Pension	843.66	290.91	267.44	271.37	528.46
Gratuity	53.84	32.77	30.38	28.22	54.32
Leave	52.08	34.24	29.74	27.61	62.42
Total	**949.58**	**357.92**	**327.56**	**327.2**	**645.20**
31.03.10					
Pension	864.87	301.97	278.2	281.22	552.8
Gratuity	59.12	36.52	32.61	31.16	57.71
Leave	58.02	37.13	32.37	30.68	67.7
Total	**982.01**	**375.62**	**343.18**	**343.06**	**678.21**

	OPTCL	WESCO	NESCO	SOUTHCO	CESU
31.03.11					
Pension	885.10	310.17	285.88	293.18	571.63
Gratuity	66.09	38.69	36.17	34.13	61.53
Leave	64.67	40.1	35.85	33.84	73.41
Total	**1015.86**	**388.96**	**357.9**	**361.15**	**706.57**

Table – 37
Expected Corpus Availability

(Rs. Crore)

	OPTCL	WESCO	NESCO	SOUTHCO	CESU
OB As on 01.4.99/Fund transfer from GRIDCO to DISCOMs	184.07	70.77	68	67.39	138.56
Allowed by the Commission					
1999-00	11.68	6.71	5.62	7.78	0.00
2000-01	25.22	6.27	7.07	7.07	0.00
2001-02	27.74	7.92	7.00	6.63	6.09
2002-03	30.52	8.08	7.21	6.81	6.27
2003-04	33.57	8.96	7.56	7.57	6.90
2004-05	117.54	11.30	8.35	9.40	3.25
2005-06	40.62	12.06	8.92	10.03	3.51
2006-07	44.68	12.07	9.55	9.73	13.19
2007-08	55.38	16.36	15.30	13.97	18.28
2008-09	51.34	37.02	25.16	24.49	48.10
2009-10	76.94	37.04	27.19	20.53	49.68
2010-11	140.20	51.81	51.13	58.22	75.84
Sub-Total	655.43	215.6	180.06	182.23	231.11
Grand Total	**839.5**	**286.37**	**248.06**	**249.62**	**369.67**

Table – 38
Differential Funding requirement as per valuation

(Rs. Crore)

Licensee	Valuation as per Actuary (as on 31.3.2011)	Expected corpus availability	Difference to be funded
OPTCL	1015.86	839.5	176.36
WESCO	388.96	286.37	102.59
NESCO	357.9	248.06	109.84
SOUTHCO	361.15	249.62	111.53
CESU	706.57	369.67	336.90

238. It is seen from the above table that as on 31.3.2011 the differential liability to be funded works out to Rs.176.36 crore in respect of OPTCL. The Commission allows the entire differential amount of Rs.176.36 crore as a pass through in ARR for the FY 2011-12.

239. Regarding payment of differential pension and pensionary benefits liability. OPTCL in its submission stated the following:

In the proceedings of a meeting held on 16.08.2010 in the Department of Energy, Govt. of Orissa under Chairmanship of the Commissioner-cum-Secretary, *Department of Energy, it was decided for payment of differential pension and pensionary benefits to the absorbed Govt. Engineers in OPTCL/GRIDCO/OHPC and other organisations. A directive was given to the transferee organisations OPTCL / GRIDCO to move OERC for obtaining approval of the differential amount in the ARR of FY 2011-12. The differential liability in respect of pension and pensionary benefits of 348 ex-Govt. Engineers absorbed in GRIDCO/OPTCL works out to Rs.87.06 Crore as on 31.3.2010 which was submitted to the Addl. Secretary to Government, Department of Energy, Govt. of Orissa by Sr. GM (HRD) I/C, OPTCL on 13.5.2010.*

240. In this connection OPTCL in its submission enclosed a copy of the proceeding of the meeting held on 16.8.2010 under the Chairmanship of Commissioner-cum-Secretary to Energy Dept. to discuss payment of differential pension and pensionary benefit to absorbed Electrical Engineer in OPTCL/OHPC/GRIDCO and other organizations. The extract of such proceedings is reproduced as under:

> *"Initiating discussion Shri B. Mohapatra, Additional Secretary, Energy Department informed that some retired employees and the representatives of service association have represented that their pensions are getting drastically reduced due to proportionate calculation in 2 organizations i.e. at Govt. level and the transferee organizations in comparison to their counterparts who worked and retired in the Government. The file was moved to Finance Department who have observed to recalculate the pensionary benefits of such employees basing on their last pay drawn in the transferee organizations and total qualifying service rendered by them under Govt. and transferee organization and the said transferee organizations may give their consent to pay the said amount. Accordingly GRIDCO, OPTCL & OHPC have assessed the differential liability towards payment of differential amount of pension and pensionary benefits to the absorbed Electrical Engineers of GRIDCO/OPTCL and OHPC which stand in the Order of Rs.87.06 crore and Rs.21.28 Crore respectively totalling to Rs.108.34 Crore. The above transferee organizations have intimated that the said liability will be passed in their Tariff through OERC.*
>
> *The representatives of OPTCL/OHPC suggested for refund of pension in suitable instalments and waiver of interest. The Commissioner-cum-Secretary observed that since the issues arose at the request of absorbed Engineers State Govt. and Transferee organizations may not bear the entire liability. Therefore, they have to refund the amount already received by them towards pension and pansionary benefit from the State Govt. with interest (the rate to be calculated by F.D.). The refund should be made in one go.*
>
> *Commissioner-cum-Secretary further observed that refund of pension and pensionary benefits in instalments are not acceptable. The concerned employees should be asked to furnish an undertaking as well as affidavit to the effect that option exercised shall be final and it shall not be reopened in future. The representative of OHPC and OPTCL explained that they have calculated the differential amount of pension to be paid to the absorbed employees which is in the order of Rs.108.34 crore. Since, it is decided to calculate the entire financial liability in the event of payment of pension and pensionary benefits from the date of absorption for the total length of service, now the transferee organizations have to calculate the same which shall be much higher than the financial liability intimated to Government. He further*

opined that the transferee organizations should put up the matter in their respective Board Meetings and the copy of the Board resolution to that effect should be communicated to Government. The transferee organizations are also required to get the proposal approved by OERC to bear the financial liabilities.

The proposal needs to be included in the Annual Revenue Requirement (ARR) of the organization for 2011-12 and submitted to OERC by 31.03.2011 for approval. After approval of ARR only, the employees may be asked to exercise revised option and refund of pension and pensionary benefits, on receipt of clearance from the Department.

It was decided that the cases of absorbed employees may be considered who shall refund the pension and pensionary benefits received within the stipulated time period and exercise revised option. Accordingly the file will be endorsed to Finance Department for obtaining their concurrence on getting the information from the transferee organizations regarding requirement of total amount and differential amount along with their Board resolution and action taken in moving to OERC to obtain approval of the differential amount in the ARR.

241. As per the calculation of OPTCL it is seen that the differential liability as on 31.3.2010 determined form the date of joining in State Govt. service has been worked out along with the arrear pension. The total differential pension and the pensionary liability as on 31 .3 2010 worked out as per actuary appointed by OPTCL amounts to Rs.87.06 crore which has to be borne by State Govt. The detail calculation given below:

Table – 39

(Rs. cr)

	Liability as at 31.3.2009 determined from the date of joining in Govt. service	**Liability as at 31.3.2009 determined from the date of joining in GRIDCO w.e.f. 01.4.1997**	**Differential liability as on 31.3.2009**
Pension Liability	72.23	17.81	54.42
Gratuity Liability	10.98	5.64	5.34
Total as on 31.03.2009	83.21	23.45	59.76
Add : Interest for 2009-10 @ 10% p.a. (the GPF rate)			4.78
Total as on 31.03.2010			64.54
Add: Arrear pension payable (As on 31.03.2010			22.51
Total differential pension & Gratuity as on 31.03.2010			87.06

242. In this connection, the clarification of Finance Dept. contained in their UOR No.131-CS-III dt.02.06.2010 is relevant which is extracted below:

"The Pension of such absorbed Engineers of OPTCL who retire on or after 1.12.2008 will be calculated on the basis of last pay drawn (including Grade Pay) by the employee in the transferee organization limiting the total period of qualifying service rendered in Government and the transferer organization to 25 years. The amount of pension received by the pensioner from Government shall be deducted from the present pension calculated and the balance amount of pension may be paid by the transferee organization if the said organization is capable to pay the same".

243. Thus, from the observation and clarification of Finance Dept., it appears that in respect of the employee who retired/to retire on or after 01.12.2008, the entire service period rendered both under the State Govt. as well as under the transferee organization i.e. OPTCL, OHPC and GRIDCO shall be taken together but limiting to 25 years of qualifying service for determination of the pensionary benefit based on the last pay drawn by the absorbed engineers retiring on or after 01.12.2008. The pensionary benefit thus worked out would be reduced by the amount of pension being drawn from the State Govt. relating to the portion of service rendered under the State Govt. from the 1st April, 1997. The consequential balance higher amount of pensionary benefit accruing to the absorbed engineers retiring on or after 01.12.2008 would be borne by the transferee organization instead of being proportionately shared by the State Govt. and the transferee organization. This appears to be a conscious decision of the Finance Dept. for not casting any additional liability on the State Govt. but it does not mean that the absorbed engineers will cease to draw pension from the State Govt. in respect of the service rendered under the State Govt. upto 31.03.1997 for which they are being paid pension from the State Govt.

244. What is important to be noted that in accordance with para 12 of the Notification No.Est.(Ele.)-1/98/10661 dated 20th August, 1998 of Energy Department, such absorbed engineers have exercised their option to receive pension from the State Govt. in respect of the service rendered under State Govt. in terms of the Rule 43 of the Orissa Civil Services Pension Rules, 1992 as amended by Finance Department Resolution No.Pen-41/96-25926/F., dated 4th June, 1996 which among other things provides as under:

"2. x x x x x x x x x

(a) The existing facility of receiving capitalised value equivalent to 100 per cent commutation of pension on absorption shall stand withdrawn.

(b) The other existing facility to draw monthly pension from the date of absorption is the only alternative (with option to commute 1/3rd pension wherever admissible shall continue to exist)

3. The above decision shall take effect from the date of issue of this Resolution. The past cases since decided shall not be reopened."

245. The existing Pension being drawn from the State Govt. prior to 01.01.2006 would be revised in accordance with the para-4 & 5 of Finance Dept. Office Memorandum No.Pen-181/08-3667/F., dated 19th January, 2009 which outlines the procedure for revision of pension/family pension of Pre-2006 pensioners/family pensioners. The relevant para-4 & 5 are extracted below for ready reference:

"4. The pension/Family Pension of existing Pre-2006 Pensioners/Family Pensioners shall be consolidated with effect from 01.01.2006 by adding together –

i. Existing Pension/Family Pension by multiplying existing Basic Pension/Basic Family Pension by a factor 1.86.

ii. Fitment weightage of 40% of the existing Basic Pension/Basic Family Pension.

iii. The amount so arrived at shall be regarded as consolidated Pension/Family Pension w.e.f. 01.01.2006.

iv. Consolidated Pension/ Family Pension so arrived involving fraction of a rupee shall be rounded off to the next higher rupee.

5. Provided that the revised full pension of all Pre-2006 State Government Pensioners relating to the maximum period of qualifying service shall in no case be less than 50% of the minimum of the Pay Band plus the Grade Pay of the revised scale of pay w.e.f. 01.01.2006 for the post last held by the Pensioner on the date of retirement."

246. The revised pension payable by the State Govt. to such absorbed employees in terms of para 4 & 5 of the aforesaid Finance Dept. Office Memorandum dated 19th January, 2009 would be deducted from the final pension determined in respect of the absorbed employees retiring on or after 01.12.2008 by taking the last pay drawn on the date of retirement from the transferee organization and the service rendered both under the State Govt. and Transferee organization limiting to 25 years qualifying service in terms of Finance Deptt. Resolution No.Pen-181/08-3653/F., dt.19th January, 2009, which deals with revision of pension/family pension, gratuity, commutation of <u>Post-2006</u> pensioners/family pensioners. This is also applicable to those absorbed engineers who would retire from the transferee organization in future.

247. However, there is no mention regarding protecting the pension benefit of those absorbed engineers who have retired before 01.01.2006 and those who have retired between the period after 01.01.2006 and before 01.12.2008. Since the benefit of pension is being protected to those who have retired on or after 01.12.2008 or would retire thereafter, the similar benefit would be applicable to those who have retired from the Transferee organization before 01.01.2006 and during the period from 01.01.2006 but before 01.12.2008. This would be dealt with as under:-

(a) <u>Those who have retired from 01.4.1997 but before 01.01.2006 from the Transferee organisation:-</u>

In their case, the revised pension would be calculated in terms of Para-4&5 of the Finance Deptt. Office Memorandum No.Pen-181/08-3667/F., dated 19th January, 2009 by taking in to account the service rendered both under the State Govt. and the Transferee organization taken together limiting to the maximum period of qualifying service of 33 years then prevailing prior to 01.12.2008. The revised pension, thus, worked out shall be reduced by revised pension worked out in respect of pension being drawn from the State Govt. basing on the principle outlined in Para-4&5 of the aforesaid Finance Dept. Office Memorandum No.Pen-181/08-3667/F., dated 19th January, 2009. The balance amount of pension would be payable by the Transferee organization while the revised pension worked out in respect of pension being drawn from the State Govt. would continue to be drawn, after revising the same in terms of the said Resolution dt.19.01.2009 of Finance Department, Govt. of Orissa.

(b) Those who have retired during the period after 01.01.2006 but before 01.12.2008 from the Transferee organisation:-

(i) As a first step, their pensionary benefit would be calculated based on the revised pay and Grade pay drawn on the date of retirement from the Transferee organization by taking into account the service rendered under both the State Govt. as well as under the Transferee organization.

(ii) The next step would be to revise the pension in respect of the pension being drawn for the service rendered under the State Govt. by revising the same in accordance with the provisions of para 4&5 of the Finance Dept. Office Memorandum No.Pen-181/08-3667/F., dated 19th January, 2009.

(iii) Thereafter, the pension worked out as at (i) above would be reduced by the pension thus worked out in (ii) and this differential amount would be paid by the Transferee organization while revised pension worked out in (ii) would continue to be paid by the State Govt.

248. The arrangement suggested above in respect of the absorbed engineers retiring on or after 01.12.2008 and would retire in future or those who have retired before 01.01.2006 or who have retired after 01.01.2006 but before 01.12.2008 would be in compliance with Section 6.10(e) of the Orissa Electricity Reform (Transfer of Undertakings, Assets, Liabilities, Proceedings and Personnel) Scheme Rules, 1996 which states that the period of service of the personnel under the Board or Government, as the case may be, and under the Transferee shall be treated as continuous for the purpose of all service benefits. This would also be inconformity with Section 24(2) of the Orissa Electricity Reform Act, 1995 (OER Act, 1995) which states "The terms and conditions on the transfer shall not in any way be less favourable than those which would have been applicable to them if there had been no such vesting".

249. Thus, the Commission would like to summarize its direction and observation as under:-

(i) The Commission agrees and approves in-principle for calculating the pensionary benefits of the absorbed engineers by taking into account the last pay (including grade pay) drawn to be drawn from the transferee organization and the retirement from such organization and service rendered both under the State Govt. as well as under the Transferee organization for the limited purpose of protecting the loss of pension to those absorbed engineers.

(ii) After deducting pension/revised pension being drawn/to be drawn by the absorbed engineers from the State Govt. in respect of the service rendered under the State Govt. up to the appointed date (i.e. 31.3.1997 AN) shall be deducted from the revised pension which is to be determined by taking into account the last pay including grade pay drawn from the transferee organization on the date of retirement from such organization and the service rendered both under the State Govt. and the Transferee organization.

(iii) The revised pension for the period rendered under the State Govt. would be calculated in respect of (a) those transferred/ absorbed engineers those who have retired or due to retire on or after 01.12.2008, or would retire in future (b) transferred/absorbed engineers those who have already retired before

01.01.2006 and (c) those who have retired on or after 01.01.2006 but before 01.12.2008.

(iv) Since the pension/revised pension would continue to be drawn from the State Govt. in respect of the service rendered under the State Govt., there is no occasion for refund of pension already drawn from the State Govt. nor there would be any occasion for the State Govt. to deposit the pensionary liabilities with the Transferee organization.

(v) For determining the enhanced differential pension of those absorbed engineers from the transferee organization and the revised pension from the state from time to time the procedure outlined from para 246 to 247 would be followed keeping in view the amendment that may be made by Finance Department from time to time for revision of pension from the State Govt. employees.

250. The Transferee organizations (OPTCL/GRIDCO/OHPC) and Energy Department may take follow up action in the light of the observations and analysis made from Para-242 to 249 with due consultation with Finance Department, Govt. of Orissa.

251. Since the Commission, at present, is allowing Rs.176.36 cr. as pass through in the ARR for 2011-12 in order to meet the full requirement calculated by actuary upto 31.03.2012, there is no need to make full additional provision at this stage towards enhanced differential pension that would be paid to the pensioners under OPTCL (Transferee organization). The actual amount of pension including differential enhanced pension that would be paid during 2011-12 would be taken into account while assessing the requirement for 2012-13 and subsequent years, after making prudent check of the amount allowed by the Commission to the pension fund from year to year and the actual amount paid to the pensioners. In this connection, it may be clarified that the pensionary liabilities being calculated from time to time is being allowed by the Commission in a staggered manner so that while the retired employees should not face any difficulties to get their pension (including revision) there is no substantial rise in tariff in one year. However, pending actual additional liabilities on account of enhanced pension arising out of taking in to account the service rendered under State Govt. and the Transferee organisation together, we provisionally allow Rs.3 crore for the year 2011-12 over and above Rs.176.36 crore indicated in para 238.

252. The statement of Employees Cost for FY 2011-12 proposed by OPTCL and approved by the Commission is depicted in table below:

Table – 40
Employees Cost proposed and approved for FY 2011-12

(Rs. Cr.)

Sl. No.	Particulars	Approved for FY 10-11	Proposed for FY 11-12	Approved for FY 11-12	Assumption
1.	Salaries (Basic Pay+ Grade Pay)	62.12	98.57	62.58	
2.	Overtime		-	-	
3.	Dearness Allowance	20.50	62.10	34.42	55% of Basic Pay & GP
4.	Other Allowance	0.66	0.73	0.73	
5.	Bonus and Overtime	0.50	0.13	0.13	
6.	Sub Total (1 to 5)	83.78	161.53	97.86	

Sl. No.	Particulars	Approved for FY 10-11	Proposed for FY 11-12	Approved for FY 11-12	Assumption
	Other Staff Cost				
7.	Reimbursement of Medical Expenses	3.11	4.93	3.13	5% of the basic pay + GP
8.	Leave Travel Concession	1.00	0.73	0.73	
9.	Reimbursement of House Rent	9.32	19.71	9.39	15% of the basic pay + GP
10.	Interim Relief to Staff/ Premium under GIS	-	0.53	0.53	
11.	Encashment of Earned Leave	-	-		
12.	Stipend to Management Trainee		3.91	3.91	
13.	Honorarium		0.08		
14.	Payment under Workmen compensation Act	0.03	0.03	0.03	
15.	Ex-gratia		0.16		
16.	Miscellaneous	0.55	0.56	0.56	
17.	Sub Total (7 to 16)	14.01	30.64	18.28	
18.	Staff Welfare Expenses	3.20	3.20	3.20	
19.	Terminal Benefits	140.20	630.19	176.36	
20.	Payment of differential pension and pensionary benefit to the absorbed Govt. Engineer in OPTCL/GRIDCO		87.06	3.00	
21.	**Total (6+17+18+19+20)**	**241.19**	**912.62**	**298.70**	
22.	Less : Capitalisation	10.66	9.60	9.60	
23.	Net Total	230.53	903.02	289.10	
24.	Arrear due to 6th Pay Commission recommendation	49.03	49.04	49.04	
	Total	**279.56**	**952.06**	**338.14**	

R&M Expenses

253. OPTCL has proposed an amount of Rs.93.89 cr. towards repair and maintenance expenditure for FY 2011-12. The details of R&M expenditure are given below:

Table – 41
Break up of R&M expenses under different heads

Sl. No.	Item	Rs. cr.
1.	Operation & Maintenance	71.93
2.	Telecom R&M including ULDC	13.10
3.	Civil works	2.80
4.	Information Technology	6.06
	Total	**93.89**

254. Item-wise R&M expenditure of operation and maintenance wing proposed by OPTCL for FY 2011-12 is shown in the table as under:

Table – 42

ITEM-WISE R&M EXPENDITURE OF O&M WING PROPOSED FOR FY 2011-12

Sl. No.	Work/Equipment details	Unit Rate (in Crore)	Quantity	Total Cost (in Crore)
1	Circuit Breaker (Nos.)			
	a) 220kV	0.1841	10	1.84
	b) 132kV	0.0798	17	1.36
	c) 33kV	0.0252	22	0.55
2	Station Battery (Sets)	0.1673	10	1.67
3	Station Battery Charger (Sets)	0.1703	10	1.70
3	C.T. (Nos.)			
	a) 220kV	0.0430	40	1.72
	b) 132kV	0.0135	127	1.71
	c) 33kV	0.0031	100	0.31
4	P.T./C.V.T. (Nos.)			
	a) 220kV	0.0330	15	0.50
	b) 132kV	0.0137	20	0.27
	c) 33kV	0.0023	30	0.07
5	L.A. (Nos.)			
	a)400kV	0.0112	6	0.07
	b) 220kV	0.0057	30	0.17
	c) 132kV	0.0040	110	0.44
	d) 33kV	0.0001	125	0.01
6	a) Relays (Diff types.)	LS		1.00
	b) Bus bar protection relays in 220 kV substations	0.03	1	0.03
7	a) Testing equipment (Different types in Nos.)	LS		2.00
	b) Puncture Insulator detector kit	LS		0.20
	c) BDV Test kit (motorized)	0.0200	20	0.40
	d) On Line Filter M/C	0.2	6	1.20
8	Transformer Oil (kl)	0.0052	400	2.08
9	Control cable.(Assorted in km.)	0.0100	30	0.30
10	SF-6 Gas Cylinders (50 kg.) in Nos.	0.0056	50	0.28
11	Overhauling of CB	LS		1.00
12	Illumination of Grid Substation.	LS		0.80
13	Spare for ERS system.	LS		0.50
14	AMC on Energy Metering System.	LS		0.60
15	Repair of defective Power Transformers	LS		10.00
16	Renovation of Earthing system of EHT lines & Grid S/s.	LS		0.20
17	AC Machine (In Nos)	0.0025	100	0.25
18	Civil Works	LS		2.00
19	Billing & Audit Energy meters & accessories (Supply installation & Commissioning in Nos.)	0.0150	1000	15.00
20	Insulators (In Nos)			

Sl. No.	Work/Equipment details	Unit Rate (in Crore)	Quantity	Total Cost (in Crore)
	a) 90 KN LR for 132kV	0.0007	1000	0.70
	b) 90 KN Disc	0.00005	2000	0.10
	c) 120KN Disc	0.00007	1000	0.07
	d) 160KNDisc	0.00007	500	0.04
	e) 90KN LR for 220 kV	0.0010	700	0.70
	f) 160 KN LR for 220 kV	0.0014	200	0.28
	g) 120KN LR for 132kV	0.0008	200	0.16
21	Conductor(In KM)			
	a)ACSR Zebra	0.0208	0	0.00
	b)AAAC Panther	0.0125	0	0.00
22	GI Earth Wire(7/3.15)(KM)	0.0022	400	0.88
23	a) Vibration damper(In Nos)(conductor)	0.00006	500	0.03
	b) Vibration damper(In Nos)(Earth Wire)	0.00004	500	0.02
24	GI Angle(In MT)			
	a) 45x45x5mm	0.0055	20	0.11
	b) 50x50x6mm	0.0055	0	0.00
	c) 65x65x6mm	0.0055	0	0.00
	d) 75x75x6mm	0.0055	0	0.00
25	H/W Fitting(In Nos)	LS		0.20
26	GI flat(In MT)			
	50x6mm	0.0060	10	0.06
27	Station Transformer (250/500KVA) in Nos.	0.0373	10	0.37
28	AMC on different types of Testing equipment	LS		0.40
29	C/R Panel (Assorted)	LS		0.50
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		15.00
31	Equipment condition monitoring & diagnosis(CPRI)	LS		1.00
32	a) DG Sets(10 KVA)	0.0100	8	0.08
	b) Hydraulic Compressor M/c	0.0500	6	0.30
33	Estimated expenditure for restoration of 132 kV Burla-Chiplima tie line taken over from OHPC	LS		0.69
	TOTAL			**71.93**

255. OPTCL proposes to spend Rs.13.10 cr. towards telecom R&M including ULDC. Details of the above amount is given in table below:

Table – 43
R&M of Telecom Wing proposed in FY 2011-12

ITEM	Amount (Rs. Crore)
AMC of RTU under ULDC project	
a. Cost of AMC	0.12
b. Cost of new feeder/element integration	0.18
c. Purchase of new RTU for replacement	0.75

ITEM	Amount (Rs. Crore)
Sub-Total	**1.05**
AMC of APS package	
a. Cost of AMC	0.30
b. Cost of replacement of materials	0.10
Sub-Total	**0.40**
AMC of Wideband communication package	
a. Cost of AMC	1.17
b. Cost of spares @10% of AMC	0.13
Sub-Total	**1.30**
Procurement of out door coupling equipment (CVT, Wave Traps)	2.51
Procurement of Selective meter & Selective level oscillator	0.35
Procurement of Battery (22),Battery charger(23)	0.46
Procurement of Air-condition machines with stabilizers	0.13
Procurement of OPGW cable with H/W fittings (10Kms)	0.30
Procurement of spares for PLCC, PABX, Chargers, MCD-80,NSD-50 & NSK-5etc	1.00
Royalty charges/License fees payable to DOT for Wideband communication system under ULDC project.	1.19
Insurance charges for ULDC equipment	0.20
Revival of carrier back-up protection system (14 line in first phase)	1.50
Procurement of in circuit component tester etc.	0.20
Provision of logic earth and surge arrester at different Grid S/S (10nos.)	0.06
R&M of Telecom. Works under different Divisions	2.45
Grand Total	**13.10**

256. OPTCL also proposed an expenditure of Rs.2.80 cr. towards civil works relating to major Repair and Maintenance of office buildings, associated colonies and grid sub-stations of OPTCL during FY 2011-12.

257. A provision of Rs.6.06 cr. is made towards R&M expenses pertaining to IT works during FY 2011-12.

Table – 44
R&M of IT Wing for FY 2011-12

Sl. No.		ITEM	Rs. in Crore
A	**ERP**		
	1	Oracle Legacy (Hqrs.)	0.03
	2	ERP-Implementation (Hqrs.)	3.05
	3	ERP-Legacy Data entry (Hqrs)	0.60
B	**Other IT**		
	1	IT Consumables (Hqrs.)	0.20
C	**Web Sites**		
	1	Web Sites (Hqrs.)	0.06
D	**PDC**		

Sl. No.		ITEM	Rs. in Crore
	1	Electrical	
	a	Power Systems (Hqrs, ZITs)	0.003
	b	AC Systems (Hqrs, ZITs)	0.015
	2	Office Systems	
	a	PCs & Peri (Hqrs, Field Units)	0.078
	b	Lap Tops (Hqrs)	0.011
E	**Networking**		
	1	WAN	
	a	Leased Lines Maint (Hqrs, Field Units)	0.34
	b	Leased Lines Bandwith (Hqrs, Field Units)	1.23
	c	VSAT (Hqrs, ZITs)	0.11
	2	LAN	
	a	ISP (Hqrs, ZITs,Field Units & S/S)	0.33
Total			**6.06**

INTERRUPTIONS

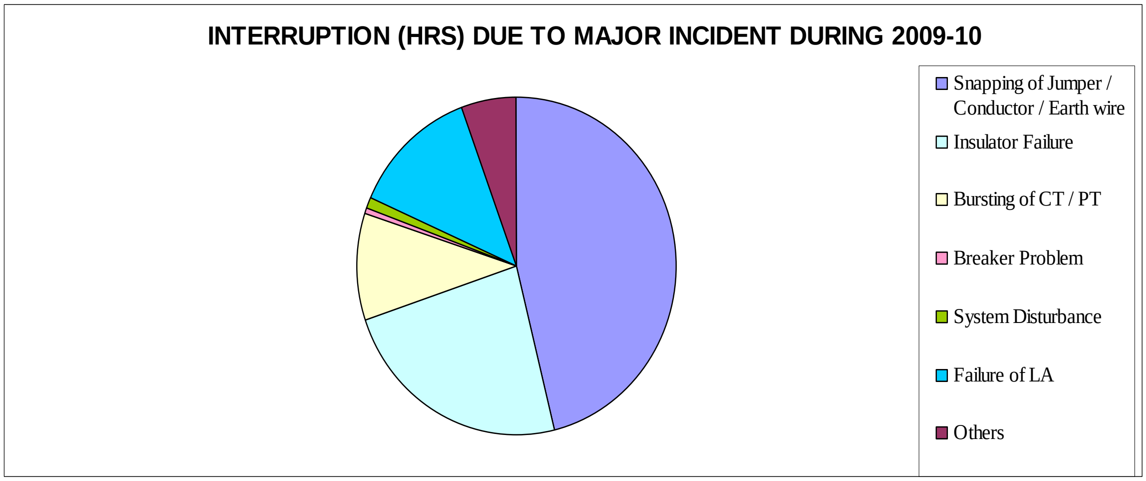
Maintenance of Transmission System

System Interruptions due to Major Incident

258. OPTCL's system has faced aggregated Annual interruptions varying from 1 hour to 121 hours at different locations on account of conductor/jumper snapping, insulator failure, bursting of Current Transformer/Potential Transformer, breaker problem, system disturbance, Lightening Arrester failures and others. However, OPTCL has claimed that it has arranged to maintain power supply (without resorting to total power failure due to non-availability of transmission capacity) from other nearby transmission facilities. The interruption details are shown below:

Table – 45

Interruption Due to Major Incident		
Incident	**Duration of Interruption**	**No. of Interruption**
Snapping of Jumper / Conductor / Earth wire	121:08:00	60
Insulator Failure	61:38:00	53
Bursting of CT / PT	27:25:00	23
Breaker Problem	0:58:00	1
System Disturbance	3:31:00	5
Failure of LA	33:09:00	17
Others	14:44:00	26
The duration 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 2009-10		



Maximum/Minimum Demand (MW) achieved excluding trading.

259. The peak demand of 3150 MW in 2009-10 is about 130 MW above the peak demand experienced during the previous year 2008-09 (of 3021 MW). But the total energy drawl is 20624 MU in FY 2009-10 against 19398 MU in 2008-09 which indicates a growth in electricity consumption of around 1226 MU in the state.

Maximum/ Minimum Voltages of Major Grid Sub-stations

260. The EHT voltage as per Rule 54 of I.E. Rule, 1956 should be between +10% and -12.5%, i.e., 132 KV level should be in the range 116-145 KV and 220 KV level should be in the range 193-242 KV. OPTCL has however experienced the voltage as detailed below in its major grid S/S of 220 & 132 KV.

Table – 46

Maximum Voltage (220 KV)

Sl. No.	Name of the Sub-station	ANNUAL Voltage in kV	Date	Time in Hrs.
1	Jaynagar	260	11.12.09	12:00
2	Duburi	240	05.07.09	16:00
3	Joda	235	01.08.09	14:00
4	Tarkera	230	17.05.09	17:00
5	Budhipadar	240	17.04.09	24:00
6	Balasore	235	25.05.09	3:00
7	Narendrapur	260	15.05.09	7:00
8	Chandaka	235	31.01.10	14:00
9	Bhanjanagar	240	16.07.09	3:00
10	Theruvali	270	21.02.10	15:00
11	Meramundali	232	15.07.09	9:00
12	Bidanasi	234	03.07.09	5:00
13	Katapalli	227	18.11.09	2:00
14	Bhadrak	234	10.07.09	15:00
15	Paradeep	230	10.07.09	14:00

Minimum Voltage (220 KV)

Sl. No.	Name of the Sub-station	ANNUAL Voltage in kV	Date	Time in Hrs.
1	Duburi	206	12.04.09	19:00
2	Joda	182	08.04.09	17:00
3	Tarkera	212	08.04.09	20:00
4	Budhipadar	206	13.09.09	20:00
5	Balasore	185	18.04.09	19:00
6	Narendrapur	191	31.08.09	20:00
7	Chandaka	170	02.06.09	19:00
8	Bhanjanagar	192	31.08.09	18:00
9	Theruvali	209	24.03.10	18:00
10	Meramundali	194	08.04.09	16:00
11	Bidanasi	194	06.04.09	21:00
12	Katapalli	201	13.09.09	19:00
13	Bhadrak	185	02.04.09	20:00
14	Paradeep	195	13.08.09	21:00

Maximum Voltage (132 KV)

l. No.	Name of the Sub-station	ANNUAL		
		Voltage in kV	Date	Time in Hrs.
1	Paradeep	135	24.05.09	14:00
2	Cuttack	140	05.05.09	1:00
3	Puri	136	24.05.09	15:00
4	Khurda	140	24.03.10	10:00
5	Berhampur	146	15.05.09	7:00
6	Bolangir	140	15.09.09	11:00

Minimum Voltage (132 KV)

Sl. No.	Name of the Sub-station	ANNUAL		
		Voltage in kV	Date	Time in Hrs.
1	Paradeep	102	09.04.09	19:00
2	Cuttack	94	31.01.10	18:00
3	Puri	94	29.04.09	19:00
4	Khurda	95	08.03.10	20:00
5	Berhampur	90	09.03.10	10:00
6	Bolangir	90	07.03.10	20:00

Initiatives for Operation and Maintenance

261. The Commission in Para 272 of the ARR and Transmission Tariff of OPTCL for the year 2010-11 has stipulated as under:

> *"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."*

262. In line with above observation and in continuation with the earlier enquiries conducted in respect of Operation and Maintenance of OPTCL system and to ascertain the exact status of implementation of recommendations/directions, the Commission had time & again reviewed the compliances and issued appropriate orders.

263. Compliance report furnished by OPTCL has been received in respect of short term and long-term measures recommended by the enquiry teams. Although most of the short term recommendations have been attended but still a number of long term recommendations are yet to be complied. Hopefully, OPTCL shall complete the pending works for increase in overall performance of the transmission system.

264. **Summary of Recommendations made by the Enquiry Team on O&M of OPTCL**

- Provision of PLCC/SCADA in all 220 kV Grid S/s.
- Replacement of very old ABCBs, MOCBs, BOCBs available in grid S/Ss.
- Provision of 3rd Bay in the Grid S/Ss and augmentation of transformation capacity.
- 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.
- 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 professional 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 send the review report with all the problems along with the suggestion/remedial measures to the corporate office for appropriate action.
- 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.

265. The Commission will continue to take up periodical reviews of Repair and Maintenance works of the licensee and may 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 2011-12. 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.

266. It has been seen that the projects of OPTCL undertaken through World Bank/PMU/ADB schemes/funding from own sources etc. have not progressed as per the implementation plan. Though many of the projects have been completed within time or with little delay, some of the major projects have been inordinately delayed either due to backing out of the contractor or ROW problem or theft of materials etc. This has led to cost and time overrun. OPTCL should have a well structured project management group with identified responsibility. The projects under implementation should be completed within the date line as mentioned in the schedule and the cost escalation and time over-run, if any, shall not be allowed to be borne by the consumers. The progress details of the projects executed during 2009-10 and 2010-11 as submitted by OPTCL in Director's queries are placed in Para 170. Further, the Commission has already approved the investment proposals as mentioned in Para 278 for overall improvement of the transmission system. An analysis of the figures of R&M approved by Commission and actual expenditure as per audited accounts are given in table below:

Table - 47
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

Year	R&M Expenses approved by OERC	Actual R&M Expenditure
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	26.14 (As per Audited Account)
2010-11	60.00	64.74 (April, 2010 to February, 2011 as per Cash Flow)
2011-12	93.89 (Proposed)	

267. 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.

268. The transmission system of OPTCL is the life-line of the power system of Orissa. The Commission holds the view that the lines and sub-stations of OPTCL should be kept in proper conditions to ensure uninterrupted and quality power supply in the State. Unless the transmission system is maintained properly, the DISCOMs who are the real beneficiaries would be put in trouble and the entire power system would be in complete jeopardy.

269. 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.

270. Further, to ensure that the engineers of the Licensees are well versed with various provisions of Electricity Laws, Standards, Codes, Acts etc, the Commission had advised the GoO vide Letter No.1829 dt.17.10.07 to revive the conducting of professional examination for the engineers of the licensee/OHPC/OPGC. However, in view of the provisions contained in Regulation 7 of the CEA(Measures relating to safety and Electric Supply) Regulations, 2010, the licensees should take appropriate actions as regards to safety measures for operation and maintenance of transmission, distribution system. This would ensure adherence of safety parameters and minimize Electrical Accidents.

271. OPTCL has submitted the cash flow statement from April, 2010 to February, 2011in reply to Commission's query. It is found that as against the approved amount of Rs.60 Cr. for the FY 2010-11, OPTCL has spent Rs.64.74 crore during a period of eleven months. Extrapolating the above amount for a period of 12 months the R&M expenditure for the entire FY 2010-11works out to Rs.70.63 crore. Commission approves the same amount i.e.Rs.70.63 cr. towards repair and maintenance during 2011-12. Besides Rs.70.63 cr. approved for normal R&M expenses, the Commission directs OPTCL to make provision of Rs.4.37 cr. towards special repair and maintenance of staff quarters, office building, Guest House of OPTCL and other civil works. The Guest House of the OPTCL should be renovated and well maintained. **Thus total amount of Rs.75.00 cr. is allowed towards repair and maintenance for the FY 2011-12.**

Administration & General (A&G) Expenses

272. OPTCL during FY 2011-12 has proposed Rs.38.34 cr. towards A&G expenses. Break up of expenses for FY 2011-12 along with the figures for 2009-10 and 2010-11 as filed by the licensee is depicted in the table below:

Table – 48
Administration and General Expenses

(Rs. Cr.)

Sl. No.	Particulars	FY 09-10 (Prov.)	OERC Approval for FY 10-11	Estimation for FY 10-11	Estimation/ Projection for FY 11-12
1.	Property related expenses	0.15		0.18	0.22
2.	Communication	0.43		0.52	0.62
3.	Professional Charges	3.16		4.11	5.42
4.	Conveyance & Traveling	3.36		4.03	4.84
5.	Other Expenses	18.42		21.7	26.0
6.	Material related expenses	0.30		0.3	0.3
7.	OERC License Fee	1.00		1.00	1.00
8.	Sub-Total (1 to 7)	26.82		31.84	38.39
9.	Less: Expenses capitalized	0.04		0.05	0.05
	Total A&G Expenses	**26.78**	**15.14**	**31.79**	**38.34**

273. Commission in line with earlier orders, allows escalation of 9.4% (Rate of inflation as measured by W.P.I.) over the approved amount of Rs.15.14 cr. for FY 2010-11. Hence, the Commission allows Rs.16.56 cr. towards normal A&G expenses for FY 2011-12 which includes license fees of OERC amounting Re.1 cr. During FY 2009-10 OPTCL have incurred an expenditure of Rs.1.30 towards inspection fees. The forecast for the year 2011-12 is shown at 1.87 cr. Commission feels that the inspection fees have to be allowed as this is a statutory requirement. Factoring annual increase of 5% over the audited figure of 1.30 cr. Commission allows Rs1.44 cr. towards inspection fees for the FY 2011-12.Hence, Commission allows Rs.18.00 cr. under the head A&G for FY 2011-12 as against OPTCL's proposal of Rs.38.34 cr.

Interest on Loan

274. OPTCL has proposed Rs.111.30 crore towards interest on long term loan for the FY 2011-12. Loan-wise interest payment schedule as proposed by the licensee is exhibited in table below :

Table – 49
Interest on Loan Capital

Sl No	Particulars	Rate of Interest	Principal CB as on 31.3.11	Loan to be received during 2011-12	Principal repayment for 2011-12	Interest payment for 2011-12	Total payment for 2011-12
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

Sl No	Particulars	Rate of Interest	Principal CB as on 31.3.11	Loan to be received during 2011-12	Principal repayment for 2011-12	Interest payment for 2011-12	Total payment for 2011-12
	Central Govt. Loan	9.00%	11.26		0.00	1.01	1.01
	GoO Bonds	13.00%	400.00		20.00	0.00	20.00
	IBRD Loan	13.00%	0.00		0.00	0.00	0.00
	Sub Total		**428.26**		**20.12**	**1.27**	**21.39**
B	**Institutional Loans**						
	REC Loan(New)	10.90%	30.02		2.54	3.20	5.74
	REC Loan(New)	11.75%	10.59		0.70	1.21	1.91
	REC Loan(New)	12.75%	15.33		0.25	1.96	2.21
	REC Loan(New)	11.50%	24.17		0.00	2.78	2.78
	REC Loan(New)	11.00%	24.88		0.00	2.74	2.74
	PFC Loan	11.25%	0.00		0.00	0.00	0.00
	PFC Loan (New)	11.25%	16.70		2.47	1.82	4.29
	Sub Total		**121.70**		**5.96**	**13.71**	**19.67**
C	**Secured Loan**						
	Union Bank of India	8.25%	12.89		12.89	0.53	13.42
	HUDCO	8.25%	79.30		28.87	5.45	34.32
	UCO Bank	9.00%	12.39		12.39	0.26	12.65
	Oriental Bank of Commerce	8.75%	87.44		28.57	6.52	35.09
	Sub Total		**192.02**		**82.72**	**12.76**	**95.48**
D	**OPTCL Bonds**						
	Open Market Loan	11.50%	0.11		0.11	0.00	0.11
	Pension Trust Bond	9.00%	24.00		24.00	0.00	24.00
	Sub Total		**24.11**		**24.11**	**0.00**	**24.11**
E	Deposit from EHT Consumers						
	Sub Total of Infrastructure Loan		**75.84**		**0.00**	**0.00**	**0.00**
F	**Loans for New Projects (PFC/REC)**	**11.00%**	349.69	903.82	0.00	68.94	68.94
G	**Other Loans & Finance Charges**						
	Employee Housing Loans	12.00%	0.77		0.00		0.00
	Finance Charge		0.00			14.62	**14.62**
	Sub Total		**0.77**		**0.00**	**14.62**	**14.62**
H	**Grand Total**		**1,115.78**	**903.82**	**132.91**	**111.30**	**244.21**

275. It is observed from the above table that during FY 2010-11, OPTCL proposes to avail new loan of Rs.349.69 cr. and during FY 2011-12 Rs.903.82 cr. The interest impact of the above new loans at 11% is claimed at Rs.68.94 cr. Replying to the query OPTCL have submitted the project-wise loans to be availed during 2010-11. The same is submitted in the table below:

The status of loan sanctioned by Canara Bank is as under.

Table – 50

(Rs. in Cr)

Sl. No	Name of the Project	Estimated cost of Project	Loan to be Availed during 2010-11
1.	220x132 KV 132/33 Grid S/s at Kuarmunda	62.12	
2.	220x132 KV 132/33 Grid S/s at Cuttack	30.38	
3.	220x132 KV 132/33 Grid S/s at Udala	29.92	
4.	220x132 KV 132/33 Grid S/s at Sarasmal, Jharsuguda	13.13	
5.	SCADA Expansion at all 220 Grid S/S of OPTCL	67.48	15.00
6.	132/33 KV Grid S/s at Lapanga, Sambalpur	70.19	
7.	ULDC up gradation integration of 30 Nos of Grid S/s of OPTCL for SCADA	35.86	
8.	220x132 KV 132/33 Grid S/s at Gopinathpur	29.68	
9.	220x132 KV 132/33 Grid S/s at Dhamara	74.95	
10.	220x132 KV 132/33 Grid S/s at Luna, Kendrapara	19.60	
11.	132/33 KV Grid S/s at Barbil	17.40	
12.	Installation of 4 Nos. of Auto Transformer and 22 Nos. of Power Transformer	152.75	130.00
13.	Installation of Capacitor Bank in existing grid S/s of OPTCL	18.59	15.80
14.	**Total**	**Rs.622.05 Cr.**	**Rs.160.80 Cr.**

276. Besides, the REC & PFC have already sanctioned loan in respect of most of the proposed Transmission Projects.

277. The status of loan sanctioned by REC and PFC is as under:

Table – 51

(Rs Cr.)

Sl. No	Name of the Project	Estimated cost	Loan to be Availed during 2010-11
1.	132/33 KV Grid S/s at Chandpur	16.81	13.00
2.	132/33 KV Grid S/s at Banki	21.16	16.50
3.	132/33 KV Grid S/s at Kalunga	17.93	12.34
4.	132/33 KV Grid S/s at Bonai	28.74	15.68
5.	132 KV S.C.Line from paradeep to Jagatsingpur	16.02	11.22
6.	220 KV D.C.Line from Bidanasi to Cuttack	15.02	13.00
7.	132/33 KV S/s at Dabugaon	25.97	20.87
8.	132/33 KV Grid S/s at Nuapada	25.96	12.00
9.	132/33 KV Grid S/s at Bhawanipatna	19.59	15.67
10.	132/33 KV Grid S/s at Boudh	29.87	14.10
11.	132/33 KV Grid S/s at Kuchinda	34.84	18.00
12.	132/33 KV Grid S/s at Padampur	27.57	12.30
13.	132/33 KV Grid S/s at Purusottampur	15.99	14.60
14.	Total	**Rs. 295.47 Cr.**	**Rs.189.28 Cr.**

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

Table – 52

Sl. No.	Name of the Project	Case No.	Date of Order	Estimated Amount (Rs. in Cr.)	Schedule date of completion
1	400 KV Meramundali – Duburi D.C. line	01/2007	Dt.02.05.07	131.47	June-09
2	220/132 KV S/S at Bhadrak alongwith associated transmission line	01/2007	Dt.02.05.07	27.64	June-09
3	132/33 KV S/S at Basta along with associated transmission line	01/2007	Dt.02.05.07	16.98	June-09
4	132/33 KV S/S at Karanjia along with associated transmission line	01/2007	Dt.02.05.07	24.20	June-09
5	132/33 KV S/S Barapalli along with associated transmission line	01/2007	Dt.02.05.07	15.86	June-09
6	132/33 KV S/S at Anandpur along with associated transmission line	58/2007	Dt.26.12.07	23.68	June-10
7	132/33 KV S/S at Purushottampur along with associated transmission line	04/2007	Dt.04.04.08	15.99	Sep,09
8	132 KV Paradeep-Jagatsinghpur S.C. line with feeder bay extension at both ends.	04/2007	Dt.04.04.08	18.19	24 months from the date of award.
9	* 132/33 KV S/S at Nuapada along with associated transmission line	15/2008	Dt.05.08.08	34.84	June, 2010
10	* 132/33 KV S/S at Dabugaon along with associated transmission line	15/2008	Dt.05.08.08	25.97	Dec,09
11	132/33 KV S/S at Chandpur along with associated transmission line.	15/2008	Dt.05.08.08	16.81	Dec, 09
12	* 132/33 KV S/S at Padampur along with associated transmission line	19/2008	Dt.05.08.08	27.57	24 months from the date of award.
13	* 132/33 KV S/S at Kuchinda along with associated transmission line	19/2008	Dt.05.08.08	25.96	24 months from the date of award.
14	* 132/33 KV S/S at Bhawanipatna along with associated transmission line	20/2008	Dt.05.08.08	19.59	24 months from the date of award.
15	* 132/33 KV S/S at Boudh along with associated transmission line	20/2008	Dt.05.08.08	29.87	24 months from the date of award.
16	132/33 KV S/S at Banki along with associated transmission line	24/2008	Dt.18.05.09	21.16	24 months from the date of award.
17	220/132 KV S/S & 132/33 KV S/S at Karadagadia along with associated transmission line	31/2008	Dt.18.05.09	80.94	24 months from the date of award.
18	132/33 KV S/S at Kalunga along with associated transmission line.	74/2008	Dt.27.08.09	17.93	Dec, 2010
19	132/33 KV S/S at Barbil along with associated transmission line	74/2008	Dt.27.08.09	17.40	Dec,2010
20	220/33 KV S/S at Bonai along with associated transmission line	74/2008	Dt.27.08.09	28.74	Dec,2010
21	220 KV Bidanasi – Cuttack D.C.line	74/2008	Dt.27.08.09	9.43	Oct,2010
22	Restoration of 220 KV Budhipadar-Burla-Bolangir D.C. line	74/2008	Dt.27.08.09	28.88	July,09
23	Provision of 3rd transformer bays with capacity up-	39/2008	Dt.30.12.08	152.30	2008-09

Sl. No.	Name of the Project	Case No.	Date of Order	Estimated Amount (Rs. in Cr.)	Schedule date of completion
	gradation in different S/Ss.		(interim order)	125.82	2009-10
24	2X12.5 MVA, 132/33 kV substation at Udala along with associated Transmission line	86/2009	Dt.15.09.09	29.92	June-11
25	2X40 MVA, 220/33 kV S/S at Gopinathpur, Keonjhar along with associated Transmission line	86/2009	Dt.15.09.09	25.68	April-11
26	2X160 MVA, 220/132 kV & 2X20MVA, 132/33 kV S/S at Lapanga along with associated Transmission line	86/2009	Dt.15.09.09	70.19	December-11
27	Conversion of existing 32.5 (20 +12.5) MVA, 132/11 KV S/s to 2 x 40 MVA, 132/33 KV S/s at Sarasmal, Jharsuguda.	22/2010	Dt.30.09.10	13.14	Mar-12
28	2 x 100 MVA, 220/132 KV and 2 x 40 MVA, 132/33 KV S/s at Kuanramunda alongwith associted transmission line.	22/2010	Dt.30.09.10	62.12	Mar-13
29	2 x 100 MVA S/s at Cuttack alongwith associated transmission line.	22/2010	Dt.30.09.10	30.39	Mar-13
30	2 x 40 MVA, 132/33 KV s/s at Luna in Kendrapada alongwith associated transmission line.	78/2010	Dt.05.08.10	19.59	Mar-13
31	Installation of Capacitor Banks(275 MVAr) in 23 nos. of Grid S/S.	23/2010	Dt.20.05.10	18.59	31.03.11
32	2 x 100 MVA, 220/132 KV and 2 x 40 MVA, 132/33 KV S/s at Dhamara in Bhadrak alongwith associted transmission line.	78/2010	Dt.5.08.10	74.96	Mar-13
33	Implementation of Enterprise Resources Planning(ERP) system, Wide Area Network(WAN) and Data Center.(Capital Expend. 17.796 Cr. and R&M-10.377 Cr.)	33/2009	Dt.13.11.09	28.17	2012-13
34	Integration of 30 existing grid S/S under ULDC expansion scheme.	124/2009	Dt.16.07.10	36.00	2012-13
35	Provision of SCADA interface points at all 220 kV Grid S/S of OPTCL.	20/2010	Dt. 02.11.10	67.48	Progressively 24 to 36 months from the date of release of advance payment by OPTCL.
36	Restoration of Ib-Meramundali	127/2010	Order reserved	138.28	
37	Replacement of ACSR Conductor by ACSR in 132 KV Chandaka-Ransingpur Procurement of transformers by OPTCL	130/2010	18.12.2010	30.30	Chandaka - Mancheswar by 31.03.2011 & Chandaka - Ranasinghpur by 30.09.2011
38	Procurement of Transformers by OPTCL	20/2010	27.06.09	151.00	
				1733.03	

279. The Commission finds that all the projects for which OPTCL is going to avail loan during FY 2010-11 has been approved by the Commission. But the present status of drawal of loan as verified from the Cash flow Statement upto end of February, 2011 for the above projects is nil during FY 2010-11 against an amount of Rs.349.69 cr. proposed by OPTCL during FY 2010-11.

280. In the Tariff Order for FY 2010-11, the Commission had allowed interest on new loan, on the basis of actual receipts by OPTCL. However, the OPTCL has filed that loan for the above purpose has been sanctioned by Canara Bank and REC & PFC. The Commission feels that drawal of loan for the approved project is necessary for system improvement. Hence Commission allows interest on the loan amount of Rs.349.69 cr. proposed to be availed during FY 2010-11, which works out to Rs.19.23 cr. on an average.

281. Regarding proposed loan of Rs.903.82 cr. to be drawn during FY 2011-12 the Commission feels that it is uncertain as projects to be undertaken during 2011-12 utilizing the above loan have not been approved by the Commission. Hence, Commission disallows the interest impact on the new loan.

282. Therefore, as against the claim of Rs.68.98 cr. towards interest on new long term loan of Rs.903.82 cr. to be availed during FY 2010-11 and 2011-12 Commission allows only Rs.19.23 cr. on the loan amount of Rs.349.69 cr. availed / to be availed during FY 2011-12. Anyway, if actual loan incurred during 2011-12 is more than the estimated amount now considered the differential amount would be duly considered in the ARR of 2012-13.

283. During the FY 2008-09 and FY 2009-10 OPTCL had availed the following loans for capital works after demerger of OPTCL from GRIDCO in 2005. The loan-wise details is given as per table below:

Table – 53

	Date	**Amount (Rs. Cr.)**
Amount of loan availed during FY 2008-09 & 2009-10	28.3.2008	30.53
	06.8.2008	10.59
	17.3.2009	15.33
	12.8.2009	24.17
	31.03.2010	24.88
	31.03.2010	17.93
	Total :	**123.43**

Except the loans availed on 31.03.2010 i.e.Rs.24.88 cr. and Rs.17.93 cr. as indicated in the table above, the interest impact on all the loans were allowed in the ARR for the FY 2010-11. Hence Commission allows Rs.13.71 cr. during FY 2011-12 towards interest on the above amount of loan of Rs.123.43 cr. The loan wise interest is given in table below:

Table – 54

(Rs. Cr.)

Date	**Loan Amount**	**Interest during 2011-12**
28.3.2008	30.53	3.20
06.8.2008	10.59	1.21
17.3.2009	15.33	1.96
12.8.2009	24.17	2.78
31.03.2010	24.88	2.74
31.03.2010	17.93	1.82
Total	**123.43**	**13.71**

284. 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

285. OPTCL reports that loan from State Govt. (Cash loan) and CRF stands at Rs.2.00 crore and Rs.15 cr. respectively as on 31.3.2011. The Commission in para 299-306 have dealt extensively on moratorium on debt service of State Govt. loan and keeping in abeyance of up valuation of assets etc. In line with the observation of the Commission mentioned in para 306 the interest impact on State Govt. loan is not allowed as a pass through in the ARR for the FY 2011-12.

Central Govt. Loan

286. This is a loan availed by erstwhile OSEB for construction of transmission lines which was ultimately transferred to OPTCL. The loan balance as on 31.03.2011 is shown at Rs.11.26 cr. Every year the Commission in the annual revenue requirement considers the interest impact on the above loan. The Commission therefore allows Rs.1.01 crore towards interest for the FY 2011-12 as proposed by the licensee.

GoO Bonds

287. 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. OPTCL has claimed an amount of Rs.20 cr. towards interest on the above loan for the FY 2011-12. 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 Orissa. As such, no interest shall be allowed on the zero coupon bond for FY 2011-12.

Loan from UBI

288. 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 31.3.2011 stands at Rs.12.89 cr. OPTCL proposes to repay an amount of Rs.12.89 cr. during FY 2011-12 leaving nil. The interest impact of the above loan during FY 2011-12 as proposed by OPTCL is 0.53 cr. The Commission allows the same as a pass through in the revenue requirement for the FY 2011-12.

Loan from HUDCO

289. 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 to OPTCL. After repayment, the same loan as at the end of 31.03.2011 is projected at Rs.79.30 cr. During 2011-12, OPTCL proposes to repay Rs.28.87 crore towards principal leaving a balance of Rs.50.43 cr. as on 31.03.2012. The interest impact of the above loan has been calculated at Rs.5.45 cr. for the FY 2011-12. The Commission hereby approves the interest amount of Rs.5.45 cr. for FY 2011-12 as claimed by the licensee.

Loan from UCO Bank

290. 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 31.03.2011 is projected at Rs.12.39 crore. During FY 2011-12, OPTCL has projected an amount of Rs.12.39 crore towards repayment of principal leaving a balance of nil as on 31.03.2012. The interest impact of the above loan is calculated at Rs.0.26 cr. The Commission approves the same as pass through in the ARR for the FY 2011-12.

Loan from Oriental Bank of Commerce

291. 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 31.03.2011 stands at Rs.87.44 crore. During 2011-12, OPTCL estimated an amount of Rs.28.57 crore towards repayment of principal leaving a balance of Rs.58.87 crore as on 31.03.2012. The interest impact of the above loan is estimated at Rs.6.52 cr. for the FY 2011-12. The Commission hereby approves the same and allows the interest of Rs.6.52 crore as a pass through in the revenue requirement for FY 2011-12.

Finance Charges

292. For the FY 2011-12, OPTCL claimed an amount of Rs.14.62 crore towards finance charges. Finance charges include Guarantee Commission, Stamp Duty, Service fee, Commitment charges, Audit fees, bank charges for demand draft, etc.

293. The Commission in the last tariff order had allowed an amount of Rs.15.26 crore under this head. For the FY 2011-12, the amount of Rs.14.62 cr. claimed by OPTCL is allowed by the Commission.

294. Based on the above, the total interest liability has been worked out at Rs.61.33 crore as summarized in the table below:

Table – 55
Total Interest Liability

(Rs. cr.)

Sl No	Particulars	Rate of Interest	Principal CB as on 31.03.11	Loan to be received during 2011-12	Principal repayment for 2011-12 Proposed by Licensee	Interest payment for 2011-12 Proposed by Licensee	Total Interest for 2011-12 Approved by Commission
A	**Govt. Loans**						
	State Govt.(Cash Loan)	13.00%	2.00		0.12	0.26	0.00
	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	0.00	0.00
	IBRD Loan	13.00%	0.00		0.00	0.00	0.00
	Sub Total		**428.26**		**20.12**	**1.27**	**1.01**
B	**Institutional Loans**						
	REC Loan(New)	10.90%	30.02		2.54	3.20	3.20
	REC Loan(New)	11.75%	10.59		0.70	1.21	1.21
	REC Loan(New)	12.75%	15.33		0.25	1.96	1.96
	REC Loan(New)	11.50%	24.17		0.00	2.78	2.78
	REC Loan(New)	11.00%	24.88		0.00	2.74	2.74

Sl No	Particulars	Rate of Interest	Principal CB as on 31.03.11	Loan to be received during 2011-12	Principal repayment for 2011-12 Proposed by Licensee	Interest payment for 2011-12 Proposed by Licensee	Total Interest for 2011-12 Approved by Commission
	PFC Loan	11.25%	0.00		0.00	0.00	0.00
	PFC Loan (New)	11.25%	16.70		2.47	1.82	1.82
	Sub Total		**121.70**		**5.96**	**13.71**	**13.71**
C	**Secured Loan**						
	Union Bank of India	8.25%	12.89		12.89	0.53	0.53
	HUDCO	8.25%	79.30		28.87	5.45	5.45
	UCO Bank	9.00%	12.39		12.39	0.26	0.26
	Oriental Bank of Commerce	8.75%	87.44		28.57	6.52	6.52
	Sub Total		**192.02**		**82.72**	**12.76**	**12.76**
D	**OPTCL Bonds**						
	Open Market Loan	11.50%	0.11		0.11	0.00	0.00
	Pension Trust Bond	9.00%	24.00		24.00	0.00	0.00
	Sub Total		**24.11**		**24.11**	**0.00**	**0.00**
E	Deposit from EHT Consumers						
	Sub Total of Infrastructure Loan		**75.84**		**0.00**	**0.00**	**0.00**
F	**Loans for New Projects (PFC/REC)**	**11.00%**	349.69	903.82	0.00	68.94	19.23
G	**Other Loans & Finance Charges**						
	Employee Housing Loans	12.00%	0.77		0.00		0.00
	Finance Charge		0.00			14.62	**14.62**
	Sub Total		**0.77**		**0.00**	**14.62**	**14.62**
H	**Grand Total**		**1,115.78**	**903.82**	**132.91**	**111.30**	**61.33**

295. The Commission, therefore, allows an amount of Rs.61.33 crore on account of interest payment for the FY 2011-12 as against claim of OPTCL for Rs.111.30 cr.

Depreciation

296. 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 – 56
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 (01.04.10) (Provn.)	Gross Block (01.04.11) (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%	34.75	40.87	-	-
Buildings	3.34%	1.80%	73.16	86.03	2.87	1.55

Particulars	Deprcn. rate prescribed by CERC Regul'n,2009	Deprcn. @ Pre-92 rate as per GoI Notification	Gross Block (01.04.10) (Provn.)	Gross Block (01.04.11) (Proj.)	Deprcn. for FY 2010-11 as per CERC Regul'n	Deprcn. for FY 2010-11 @ Pre-92 rate
Plant & Machinery (Other Civil Works)	3.34%	1.80%	4.31	5.06	0.17	0.09
Plant & Machinery	5.28%	3.80%	1153.31	1356.21	71.61	51.54
Plant & Machinery (Lines, Cables & Network Assets)	5.28%	2.57%	1302.56	1531.72	80.87	39.37
Vehicles	9.50%	12.86%	1.43	1.69	0.16	0.22
Furniture, Fixture	6.33%	4.55%	2.22	2.62	0.17	0.12
Office Equipment	6.33%	9.00%	7.35	8.64	0.55	0.78
TOTAL			**2579.10**	**3032.84**	**156.40**	**93.65**

297. 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.156.40 crore towards depreciation in the ARR of FY 2010-11 to enable OPTCL to repay the loan availed for CAPEX in time.

298. It is revealed from the above table that Gross Fixed Asset as on 31.3.2011 would be at Rs.3032.84 crore as against the actual figure of Rs.2579.10 crore as on 31.3.2010 Thus, as per OPTCL projection there is an addition of asset of Rs.453.74 crore during 2010-11. In the balance sheet of OPTCL for the year 2009-10, work-in-progress of old projects was Rs.576.07 crore. Therefore, the addition of fixed assets of Rs.453.74 crore for the year 2010-11 appears to be reasonable and the Commission approves the same.

Upvaluation of Asset

299. 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.

300. 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. Based on the recommendation of the Commission, Govt. vide its Notification No.R&R-I-15/2009/81, Dtd.06.01.2010, have extended the concession and stipulation as indicated below:

"(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".

301. Since there was some omissions and commissions and addition of new stipulations n the notification dtd.06.01.2010, in deviation of the notification dt.29.01.2003 read with notification dt.06.05.2003, the Commission in their letter no.3235 dtd.27.01.2010 has suggested for amendment of the notification dt.06.01.2010 of the State Govt.

302. Since the Kanungo Committee had recommended keeping in abeyance the up-valuation of assets, moratorium on debt servicing etc. till the sector as a whole turn-around and since the benefits of proposed investment by State Govt. and DISCOMs would be felt only after few years, the Commission have already advised the State Govt. to take the following steps vide their letter No.DIR(T)-344 / 2008 (Vol-III) - 4440 dated 19.7.2010.:

(i) GRIDCO/OPTCL and OHPC would be entitled to depreciation on the assets prior to revaluation, calculated at pre-92 norms notified by Govt. of India, as per the direction of Hon'ble High Court of Orissa.

(ii) Moratorium on debt servicing by GRIDCO and OHPC to the State Govt. would be allowed till the power sector turns-around except the amount in respect of loan from the World Bank to the extent the State Govt. is required to pay to the Govt. of India.

(iii) GRIDCO & OHPC shall not be entitled to any RoE till the sector becomes viable on cash basis. The State Govt. investment actually made in Upper Indravati Project, excluding the normative equity, should yield return to the State Govt. 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. Return on Equity on the old Hydro Power Plants may be allowed to OHPC, in respect of new projects commissioned after 01.04.1996.

303. The above concessions/Govt. support, indicated above are subject to the following stipulations:

i) The State owned utilities viz. OHPC, GRIDCO and OPTCL earning accounting/book profit are made to utilize the same for capital investment, servicing of Govt. loan and payment of dividend.

ii) The Private Distribution Companies are to service the State Govt. loan relating to World Bank and APDRP assistance passed on to them through an enforceable mechanism approved by OERC.

304. The Commission vide letter No.JT(FN)-175/5678 dtd.27.12.2010 requested the State Govt. to issue the amended notification as suggested above so that this would appropriately be reflected while determining the Annual Revenue Requirement of the distribution licensees for the year 2011-12. In the said letter it was also mentioned that in the absence of specific communication in this regard by 31.01.2011 the Commission would assume the extension of the benefit notified on 29.01.2003 and 06.5.2003 till the sector as a whole turns around.

305. In the meantime, the Department of Energy, Govt. of Orissa vide letter No.R&R-II-1/2011/1728 dtd.28.02.2011 endorsed the views of the Govt. on this aspect which is reproduced below:

Keeping in Abeyance the Upvaluation of Assets, Moratorium of Debt Services, etc.

The suggestions of the Hon'ble Commission to keep the support of Govt. in the matter of keeping the effect of upvaluation of assets of GRIDCO/OPTCL and OHPC, allowing the moratorium and debt services to the State Govt. till the sector turns around and not allowing ROE to GRIDCO/OPTCL and OHPC till the sector becomes viable on cash basis has not been agreed to by the Govt. in Finance Department. However, steps have been taken on the other recommendations of the Hon'ble Commission and will be placed before the cabinet for approval.

306. The Commission on this issue would like to observe that the entire power sector has not yet come out of the deficit situation on cash basis, on account of exorbitant rise in power purchase cost due to increase in fuel price and other statutory expense such as employee cost. Further, the Commission feels that the effect of upvaluation has a cascading effect in increase in price of energy which ultimately would have to be borne by consumers through higher tariff. This issue has also been referred to Inter-Ministerial Committee formed by the State Govt. In view of above and in view of Kanungo Committee recommendation Commission again advise Govt. of Orissa to reconsider keeping in abeyance the effect of upvaluation till the sector is viable on cash basis.

307. 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.

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

309. 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 23.6.2003 and treated transmission asset base of undivided GRIDCO at Rs.514.32 crore as on 01.4.1996.

310. A Table showing gross fixed assets as on 01.4.96 and year-wise asset addition thereafter till 2008-09 is depicted below.

Table – 57 (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	142.72
2009-10	188.49
Asset addition approved during 2010-11	453.74
Asset on 01.4.2011	2566.09

311. 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.79.42 crore towards depreciation for the FY 2011-12 as per the details shown in Table below:

Table – 58

(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 01.04.2011**	**Depreciation for the year 2011-12**
Land and Rights		8.07	36.13	0.00
Building	1.80%	13.09	75.02	1.35
Plant & Machinery (other civil works)	1.80%	-	4.47	0.08
Plant & Machinery	3.80%	-	1169.82	44.45
Plant & Machinery (line, cables and network)	2.57%	492.71	1270.41	32.65
Vehicles	12.86%	0.02	1.52	0.20
Furniture, Fixture	4.55%	0.19	2.13	0.10
Office equipment	9.00%	0.25	6.59	0.59
Grand Total		**514.32**	**2566.09**	**79.42**

312. 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.

313. 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.

314. However, in view of the directives and orders of the High Court of Orissa, the Commission is bound to compute depreciation, for the purpose of determination of ARR and tariff, on the basis of pre-92 rates on the original book value of assets (i.e., after rolling back the effect of re-valuation of 1996 from the value of the assets). Depreciation computed on this basis falls short of the principal repayment obligations of the licensee which makes it necessary to allow advance against depreciation to ensure financial viability of the licensee and to ensure that the licensee meets its principal repayment obligations, otherwise financial institutions would not like to sanction loan to OPTCL.

315. 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.

316. 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 tenure 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 – 59

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
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

317. 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.

318. 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.

319. 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.

320. 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.132.20 crore. In earlier paragraph, Commission had allowed Rs.79.42 crore towards depreciation based on Pre-92 rates. The balance amount of Rs.52.78 crore (Rs.132.20 cr. – Rs.79.42 cr.) is allowed by the Commission as a special appropriation for meeting debt obligation.

321. During FY 2010-11, the Commission had allowed depreciation to OPTCL on an asset base of Rs.2478.16 crore as on 31.3.2010. After the actual figure for 2009-10 is

available, the asset base stands reduced to Rs.2112.35 crore. This has been worked out as under:

Approval of Gross Fixed Asset as on 01.4.2010 (2010-11 Tariff Order)	Rs.2478.16 crore
Less allowed for 2008-09 (Provisional)	Rs.143.34 crore
Less allowed for 2009-10 (Projection)	Rs.553.68 crore
Add the audited figure of 2008-09	Rs.142.72 crore
Add the provisional figure of 2009-10 as per actuals	Rs.188.49 crore
Actual Gross Fixed Assets as on 01.4.2010	Rs.2112.35 crore

322. Based on the actual figures available, the depreciation for the year 2010-11 is re-computed and the depreciation amount for 2010-11 works out to Rs.108.82 crore as against an amount of Rs.127.67 crore approved by the Commission for the year 2010-11. Hence, an excess amount of Rs.18.85 crore (127.67 – 108.82) has to be adjusted against the approved depreciation for 2011-12. 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 – 60

(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 01.4.2011**	**Depreciation for the year 2011-12 as per Pre-92 rate**	**Depreciation for the year 2011-12 as per CERC Regn.**
Land and Rights			36.13	0.00	0.00
Building	1.80%	3.34%	75.02	1.35	2.51
Plant & Machinery (other civil works	1.80%	3.34%	4.47	0.08	0.15
Plant & Machinery	3.80%	5.28%	1169.82	44.45	61.77
Plant & Machinery (line, cables and network)	2.57%	5.28%	1270.41	32.65	67.08
Vehicles	12.86%	9.50%	1.52	0.20	0.14
Furniture, Fixture	4.55%	6.33%	2.13	0.10	0.13
Office equipment	9.00%	6.33%	6.59	0.59	0.42
Grand Total			**2566.09**	**79.42**	**132.20**

323. The Commission approves the following for FY 2011-12.

Table – 61

Depreciation for FY 2011-12	Rs.79.42. crore
Special appropriation for FY 2011-12	Rs.52.78 crore
Total	**Rs.132.20 crore**
Less excess allowed during FY 2010-11	Rs.18.85 crore
Balance to be considered in the ARR for FY 2011-12	Rs.113.35 crore

OPTCL in its filing in TRF-3 projected a repayment liability of 132.91 cr. which includes repayment of 20 cr. towards zero coupon bond of the State Govt. i.e. Rs.400 cr. Commission in above para disallowed the interest on State Govt. loan transferred to OPTCL due to up valuation of the assets. Hence, the repayment liability of Rs.20 cr. shown by OPTCL is not acceptable. Excluding an amount of Rs.20 cr. GRIDCO has to discharge Rs.112.91 cr. (Rs.132.91 cr.-20 cr.) towards repayment liability which is nearer to the figure of Rs.113.35 cr. approved by the Commission.

Return on Equity

324. OPTCL has claimed an amount of Rs.24.81 crore towards return on equity on a share capital of Rs.160.07 crore. OPTCL in its filing had stated that at the time of de-merger of GRIDCO effective from 01.04.2005, the equity share capital of OPTCL was Rs.60.07 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.48.06 crore from State Govt. and balance amount of Rs.51.94 cr. as communicated by the State Govt. in DoE vide letter No.IV-BT-7/2011/309 dtd.14.01.2011 will be made available for equity share investment by the State in OPTCL during the FY 2010-11. The details of receipt of equity share capital as mentioned by OPTCL is given below:

Table – 62

Sl. No.	Date of Receipt	Sanction Order No. and Date	DD No. and date	Amount (Rs. in cr.)
1	31.03.09	R&R-I-01/2009-3560 dt.25.03.09	160298 dt.30.03.09	23.04
2	31.03.09	R&R-I-01/2009-2003 dt.24.02.09	313714 dt.30.03.09	0.01
3	09.10.09	R&R-I-01/2009-9464 dt.11.09.09	387299 dt.07.10.09	5.0
4	01.07.10	R&R-I-01/2009-4826 dt.01.06.10	153892 dt.28.06.10	20.0
		Total		**48.05**

325. Commission feels that OPTCL is entitled to get return on equity value of Rs.48.05 cr. being infused by State Govt. to be utilized for the transmission project being set up in remote areas. For the balance amount of 51.95 cr. the return on equity will be allowed as and when it is actually received.

326. Regarding equity of Rs.60.07 cr. which is inherited by OPTCL at the time of de-merger of GRIDCO into GRIDCO and OPTCL, Commission in their reasoned order vide Para 292 of the tariff order for FY 2009-10 disallowed Return on Equity on the above amount. In line with earlier order, the Commission also disallows Return on Equity on above amount of Rs.60.07 crore for the year 2010-11.

327. The Commission, therefore, allows return @ 15.5% on the equity value of Rs.48.50 cr. as stated above. Thus, the Commission approves Return on Equity for an amount of Rs.7.45 cr. during FY 2011-12 as against OPTCL’s claim of Rs.24.81 cr.

Interest on Working Capital

328. OPTCL has proposed an amount of Rs.59.08 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 2011-12. There may not be any need for working capital in case of OPTCL as OPTCL has sufficient fund available with it at any point of time to take up day to day repair and maintenance work.

Contingency Reserve

329. For the year 2011-12, OPTCL has proposed Rs.15.16 crore towards contribution to contingency reserve to be passed on to tariff. OPTCL has stated that requirement of contingency reserve in a natural calamity-prone state like Orissa need 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 2009-10. From Schedule-2 of the Balance-sheet, it is found that OPTCL has invested Rs.108.77 crore in contingency reserve fund. On a query regarding utilization of contingency reserve OPTCL has stated that as per audited account of 2008-09 an investment of Rs.27.055 cr. has been made by OPTCL against utilization of contingency reserve fund. Commission in line with the orders of the last year do not allow the claim of OPTCL towards contingency reserve.

Provision for Bad & Doubtful Debt

330. OPTCL claimed an amount of Rs.0.10 crore towards bad and doubtful debt during 2011-12. 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

331. OPTCL claimed an amount of Rs.0.30 crore towards Grid Coordination Committee expenses for FY 2011-12. The Commission hereby approves the same.

Payment of SLDC Charges

332. Based on CERC (Fees and Charges of Regional Load Despatch and Other related matters) Regulations, 2009 and OERC (Fees and Charges of SLDC and other Matters) Regulation, 2010, the Commission has approved the ARR for SLDC for FY 2011-12 wherein it has been computed that OPTCL has to Pay 10% of SOC to SLDC. Accordingly, OPTCL will pay an amount of Rs.0.7042 cr. per annum to SLDC towards System Operation Charges for FY 2011-12. The details of SOC are available in the ARR of SLDC approved in Case No.150/2010.The said amount of Rs.0.7042 cr. is allowed in the ARR of OPTCL to be recovered through in its Transmission Tariff.

Pass Through Expenses

333. OPTCL for the FY 2011-12 claimed an amount of Rs.127.25 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 2008-09 works out to Rs.127.25 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 2009-10 which is depicted in the table below.

Table – 63

(Rs. cr.)

Particulars	2006-07				2007-08				2008-09				2009-10			
	Oerc App	Adited	True up	Diff.	Oerc App	Adited	True up	Diff.	Oerc App	Adited	True up	Diff.	Oerc App	Adited	True up	Diff.
Expenditure																
Employees cost	115.16	113.71	113.71	1.45	138.78	210.66	163.23	-24.45	125.25	492.61	149.02	-23.77	173.11	297.02	196.70	-23.59
R&M Cost	36.00	11.31	11.31	24.69	47.00	16.51	16.51	30.49	53.88	16.92	16.92	36.96	47.00	26.14	26.14	20.86
A&G Cost	14.89	17.30	14.89	0	15.71	12.82	12.82	2.89	16.57	18.25	16.57	0.0	14.35	26.68	14.35	0.00
Gross Interest	68.03	119.09	93.09	-25.06	60.86	111.23	85.23	-24.37	79.43	101.29	75.29	4.14	70.53	59.35	59.35	11.18
Less: capitalised		2.86	2.86	-2.86	0	0.58	0.58	-0.58	0	4.04	4.04	-4.04	0	5.19	5.19	-5.19
Net Interest	68.03	116.23	90.23	-22.20	60.86	110.65	84.65	-23.79	79.43	97.25	71.25	8.18	70.53	54.16	54.16	16.37
Depreciation	43.51	98.64	43.51	0	48.10	108.54	48.10	0	61.62	109.82	61.62	0.00	66.07	108.03	66.07	0
Advance against depreciation	48.09	0	48.09	0	31.22	0	31.22	0	12.59	0	12.59	0	44.36	0	44.36	0.00
Other expenses(GCC Expenses)	0	0	0	0	1.56	0	0	1.56	0.13	0	0	0.13	0.15	0	0	0.15
Bad debts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total expenditure	**325.68**	**357.19**	**321.74**	**3.94**	**343.23**	**459.18**	**356.53**	**-13.30**	**349.47**	**734.85**	**327.97**	**21.50**	**415.57**	**512.03**	**401.78**	**13.79**
Prior period Adjustment	0	15.60	0	0	0	-27.58	0	0	0	-0.76	0	0	0	1.12	0	0
Special appropriation	0	0	0	0	23.01	0	23.01	0	15.00	0	15.00	0	0	0	0	0
Contigency reserve	12.59	8.25	8.25	4.34	10.49	11.36	10.49	0	13.10	9.99	9.99	3.11	9.08	10.94	9.08	0
Reasonable Return	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Provision for fringe benefit tax	0	0.23	0.23	-0.23	0	0.22	0.22	-0.22	0	0.24	0	0	0	0	0	0
Interest on working capital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rebate 2% on ARR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL COST	**338.27**	**381.27**	**330.22**	**8.05**	**376.73**	**443.18**	**390.25**	**-13.52**	**377.57**	**744.32**	**352.96**	**24.61**	**424.65**	**524.09**	**410.86**	**13.79**
Less: misc receipt	5.00	16.86	16.86	-11.86	3.00	28.21	28.21	-25.21	1.00	36.84	36.84	-35.84	30.50	136.62	32.61	-2.11
Net transmission cost	**333.27**	**364.41**	**313.36**	**19.91**	**373.73**	**414.97**	**362.04**	**11.69**	**376.57**	**707.48**	**316.12**	**60.45**	**394.15**	**387.47**	**378.25**	**15.90**
Transmission revenue	**333.27**	**355.35**	**355.35**	**22.08**	**373.73**	**399.76**	**399.76**	**26.03**	**376.57**	**413.15**	**413.15**	**36.58**	**394.15**	**438.1**	**438.1**	**43.90**
Total Gap(+/-) for the year				**41.99**				**37.72**				**97.03**				**59.80**
Cumulative Gap				**41.99**				**79.71**				**176.74**				**236.54**

334. **Principles for Truing up**

(i) The truing up exercise of OPTCL is undertaken from the year 2006-07 to 2009-10 based on the audited data available to the Commission.

(ii) The past losses for FY 2005-06 based on audited data has been taken into consideration in the transmission tariff order for the year 2007-08 & 2008-09 vide para 5.11.1 and 342 respectively.

(iii) Employees cost is allowed on the basis of audited actuals except terminal benefit. Terminal benefit is allowed as approved by the Commission in tariff order of the respective years or actuals whichever is less.

(iv) Repair and maintenance cost is allowed as per audited actuals.

(v) A&G cost is allowed as per audited actuals or approved by the Commission whichever is less.

(vi) Interest on loan is allowed as per audited actuals except interest on loan for Govt. Bond value (zero coupon bond).

(vii) Depreciation is allowed as approved by the Commission in respective years.

(viii) Provision towards contingency reserve is allowed as per audited actuals.

(ix) Miscellaneous receipt is allowed as per audited actuals.

335. It is clear from the above table that OPTCL posted a cumulative surplus of Rs.236 54 cr. at the end of FY 2009-10. Hence, OPTCL need not require any amount towards special appropriation on past losses. The Commission hereby disallows the claim of Rs.127.75 crore towards pass through expenses.

Incentive to OPTCL for System Availability

336. In its additional submission on dated 18.01.2011 ,OPTCL has claimed for an incentive of Rs. 7.64 Cr. to be passed on the ARR of FY 2011-12 as the system availability of OPTCL Transmission Network for FY 2009-10 was 99.86% ,which is more than Normative Annual Transmission System Availability Factor (NATAF) of 98%. The OPTCL Incentive Claim of Rs.7.64 Cr. has been certified by SLDC and counter signed by Member Secretary, GCC.

337. The Commission examined the provision of Section-61 of the Act where it is mentioned that the appropriate Commission shall be guided by the following:

Regulation 61 (a). The principles and methodologies specified by the Central Commission for determination of the Tariff applicable to generating companies and transmission licensees.
Regulation 61 (e). The principle rewarding efficiency in performance.

338. The Regulation 25 (1) & Regulation 28 of CERC (Terms and Conditions of Tariff) Regulations 2009 stipulate as under:

Regulation 25 (1). Recovery of capacity charge, energy charge, transmission charge and incentive by the generating company and the transmission licensee shall be based on the achievement of the operational norms specified in this Chapter.
Regulation 28. Normative Annual Transmission System Availability Factor (NATAF) as under:
(1) AC System; 98%

339. As OPTCL has attained the System Availability of 99.86% during FY 2009-10 and is expected to maintain NATAF more than 98% during FY 2010-11,pending the verification, the Commission approves an amount of Rs.2.00 Cr. as an incentive in the ARR of OPTCL for FY 2011-12 with a rider that this incentive amount approved by the Commission should be spent in the Grid sub-stations where the EHT voltage is not within (-) 12.5% of the normative voltage level at 220 KV /132 KV and continuously suffer from low voltage . The Commission desires that this incentive amount of Rs.2.00 Cr. should be spent in such a way that its secondary side 33 KV supply to DISCOMs should be at (+) 33 KV.

Miscellaneous Receipts

340. OPTCL has proposed Rs.5 crore towards miscellaneous receipt from inter-state wheeling of 210 MU during FY 2011-12. The Commission examined the cash flow of 2010-11 (upto Feb., 2011) submitted by OPTCL. It is revealed that OPTCL had earned Rs.46.80 crore from wheeling charges, supervision charges and other receipts. Prorating for the whole year the figure works out to Rs.51.05 crore. The Commission in FY 2010-11 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.7.28 crore (310x23.5). Excluding the above amount of Rs.7.28 crore the miscellaneous receipt works out to Rs.43.77crore (Rs.51.05 cr. – Rs.7.28 cr.) which is approved by the Commission for the FY 2011.12 to be adjusted from the total revenue requirement.

Transmission Cost

341. The total energy to be transmitted in the OPTCL system is estimated at 22877 MU for FY 2011-12, the details of which are mentioned in the Table below:

Table – 64

Details of Energy for Transmission	Proposed by OPTCL (MU)	Approved by OERC (MU)
Sale to DISCOMs	22755	22477
Wheeling to industries from CGPs	150	300
Sale to CGPs by GRIDCO	10	100
Total	**22915**	**22877**

342. The details of expenses proposed by OPTCL and approved by the Commission for FY 2011-12 towards transmission charges are depicted in the Table below:

Table – 65
ARR Proposed and Approved for OPTCL for FY 2011-12 (Rs. in cr.)

ITEMS	Approved for 2010-11	Proposed for 2011-12	Approved for 2011-12
Employees Cost including Terminal Benefits	279.56	952.06	338.14
R&M Cost	60.00	93.89	75.00
A&G Cost	15.14	38.34	18.00
Interest on Loan Capital	53.39	111.30	61.33
Depreciation	76.60	156.40	79.42
Repayment obligation	-		
Return on Equity	4.35	24.81	7.45
Interest on Working Capital	-	59.08	-
Sub-Total	**489.04**	**1435.88**	**579.34**
Special Appropriation	39.37		**33.93**
Pass Through Expenses	-	127.25	-
Contingency Reserve	-	15.16	-
Bad & doubtful debt Debts	-	0.10	-
GCC Expense including SLDC charges	0.82	0.30	1.00
Incentive for system availability			2.00
Total	**529.23**	**1578.69**	**616.27**

ITEMS	Approved for 2010-11	Proposed for 2011-12	Approved for 2011-12
Less Misc. Receipts	**48.30**	**5.00**	**43.77**
Annual Revenue Requirement to be recovered from LTOA Consumers (i.e. DISCOMs and CGPs)	**480.93**	**1573.69**	**572.50**
Transmission Charges (Paise/Unit) (Rounded)	**23.50**	**68.68**	**25.02 Rounded to 25 paise**

Transmission Charges

343. OPTCL in its ARR Application for FY 2011-12 has proposed Transmission charges @ 68.68 P/Kwh for transmission of power at 400/220/132 KV only over OPTCL's EHT transmission system. 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 25.00 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.

344. 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 22877 MU with an average demand of 2612 MW. The net transmission cost as indicated in the table above is Rs.572.50 crore. The LTOA charges, therefore, work out to a sum of Rs.6005.00/MW/day rounded to Rs.6000.00/MW/day. The long term open access customer availing Open Access under relevant Regulations of OERC shall pay Rs.6000.00/MW/Day (Rs.250.00/MWh) 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.1500.00/MW/day (Rs.62.5 / MWh) for STOA customers. This will be in addition to other charges in accordance with Open Access Regulations.

Transmission Loss for Wheeling

345. OPTCL had proposed that out of the energy supplied to transmission licensee, 3.9% shall be deducted towards transmission loss and balance is liable to be delivered at delivery point at 400KV/220KV/132KV. The Commission hereby approves same transmission loss of 3.9% for wheeling for FY 2011-12

Implementation of Intra-State ABT

346. OERC (Intra-State ABT) Regulation, 2007 was published in Orissa 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.

347. 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:

348. OPTCL in its ARR application for FY 2011-12 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 and the Open Access Customers shall pay the same.

349. 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 2011-12 subject to system study report after installation of 1st phase 150 MVAR compensation.

350. 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. Further, the Commission in order dated.20.03.2010 had approved Reactive energy charges provisionally @ 6.00 Paise /KVArh as per Clause 1.7 of OGC for FY 2010-11 and directs OPTCL to file the calculation of Reactive Energy Charges afresh with full justification thereof at earliest. OPTCL has filed the same before the Commission which is pending with the commission for further hearing after receipt of the replies from the Objector.

351. The Commission had directed OPTCL to install 275 MVAR 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.

352. In reply to the query, OPTCL submitted that the Commission in consideration of the Investment proposal of OPTCL for Rs.18.594 cr. towards installation of Capacitor Banks (total 275MVAR) at 23 nos. existing grid sub-stations was accorded in-principle approval vide order dated 20.5.2010 in Case No. 23/2010. The details of the status report of the installation of Capacitor Bank are enumerated in Para 184 of this order and OPTCL prayed the Commission to

a) Kindly approve the revised proposal for installation of 275 MVAR Shunt Capacitors at 20 nos. grid sub-stations at an aggregate estimated cost of Rs.12.71 Crore.

b) Allow OPTCL to go ahead with the works keeping mandatory 10-year AMC Clause for the bidders in the tender specification instead of doing it on leased basis.

c) Allow time to OPTCL up to 31.3.2012 to complete installation of Shunt Capacitors at 20 nos. grid sub-stations.

353. In view of above orders and observations on Reactive Energy Charges, the Commission approves such charges @ 6.25 paise / KVArh for FY 2011-12 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 escalated at 0.25 paise / KVArh per year and directs the licensee to file the calculation of Reactive Energy Charges afresh with full justification thereof at the earliest.

Meter rent

354. OPTCL in its ARR for FY 2011-12 has proposed to levy of Meter Rent @ Rs.2000 per Month. In reply to commission's queries, OPTCL had stated that the DISCOMs have been charging meter rent to their consumers as allowed in their tariff orders. On the same analogy, OPTCL has proposed for charging of meter rent on its LTOA customers.

355. Since presently such type of situation does not arise in OPTCL system, the Commission did not accept the proposal of OPTCL for levy of meter Rent from LTOA Consumers for FY 2011-12.

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

356. During the hearing, some objectors had expressed their concern that OPTCL had not outlined any action plan as yet for evacuation of power from 30 nos. of Mega Thermal Power Plants coming up in Orissa for which 13 nos. IPPs and 17 nos. MPPs have signed MoUs with Govt. of Orissa for installation of about 39000MW.

357. In the reply to the query, OPTCL submitted that to evacuate Orissa State share power from the upcoming IPPs, OPTCL has identified certain individual IPPs & pooling their entire power by connecting the IPPs to the pooling stations in the near vicinity rather than through pooling network for each individual IPP. M/s PRDC, Bangalore was assigned the System Study work for Power System Studies on proposed 400 kV Ring system in transmission network of OPTCL The firm has submitted the final report wherein it has recommended 8 nos. new 400 kV Grid Sub-Stations and 20 nos. of 400 kV transmission lines to be commissioned in three phases.

358. The details of the evacuation of power from IPPs and Mega Thermal Plants are enumerated in Para 181-183 of this order.

359. 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.

360. The Commission directs OPTCL to plan and execute its pooling station and connectivity with proposed IPPs, so that, in no case consumers of the State are burdened on CTU charge for availing State's quota of share of power from IPPs. Rather, the Commission desires that OPTCL should plan and execute the connectivity of IPPs in such a way that the beneficiary of the outside State /IPPs are required to pay wheeling charges to OPTCL for sustained revenue generation for the State. The Commission is aware that most of the IPPs, though applied to CTU for Long Term Transmission Agreement (LTTA), they are yet to finalise their connectivity with OPTCL. The glaring example is that in case of M/s Sterlite Energy Ltd. (M/s SEL) where two nos. of 600 MW units (out of 4 nos.) have since been synchronized, but the 400 KV connectivity with OPTCL is yet to be established, for which the State is not able to draw its full quota of power. The Commission directs OPTCL to have proactive dialogue /correspondence with the proposed IPPs/MPPs for connectivity arrangement and LTTA and plan the system accordingly. The Commission also

directs OPTCL to finalize their agreement with M/s. SEL immediately for revival of Ib-Meramundali 400 KV double circuit line with LILO at 400 KV generating bus of M/s SEL, to evacuate M/s/ SEL's State quota power.

361. The Commission, therefore, directs OPTCL - the STU to file before 30th April, 2011 the perspective action plan for drawal of Orissa share as well as the evacuation of surplus power from these Mega Thermal Power Plants.

Transmission Charge Payment Mechanism

362. Commission in Transmission Tariff order 2010-11 have stated the following:

" 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. 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"

The above principle followed for the Year 2010-11 for payment of Transmission charge bill to OPTCL is also to be followed for the Year 2011-12.

Rebate

363. 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

364. 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.

365. The transmission tariff approved as above in respect of OPTCL will become effective from 1st April, 2011 and shall continue until further order.

The application of OPTCL in Case No.145 of 2010 is disposed of accordingly.

Sd/-	**Sd/-**	**Sd/-**
(B.K.MISRA)	**(K.C. BADU)**	**(B.K. DAS)**
MEMBER	**MEMBER**	**CHIRPERSON**