

ORISSA ELECTRICITY REGULATORY COMMISSION

**BIDYUT NIYAMAK BHAWAN,
UNIT – VIII, BHUBANESWAR – 751 012**

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Present : Shri B. K. Das, Chairperson
Shri S. K. Jena, Member

CASE NO.56 OF 2006

Date of Hearing : **14.02.2007**

Date of Order : **22.03.2007**

IN THE MATTER OF : An application for approval of Annual Revenue Requirement and determination of Transmission Tariff 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 2007-08.

ORDER

M/s. Orissa Power Transmission Corporation Limited, Bhubaneswar (for short OPTCL) is a Govt. Company registered on 29th March, 2004 under the Companies Act, 1956 carrying on business on transmission of electricity within the State of Orissa. They commenced 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 Sec. 39, 1st proviso of the said Act. By virtue of a Transfer Scheme entitled 'Orissa Electricity Reform (Transfer of Transmission and Related Activities)Scheme,2005' purporting to be 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 of the Act with effect from 01.04.2005 (i.e, the date on which the same notification came in to force). By virtue 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 Condition 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 2007-08. The said application was duly scrutinised, registered as Case No.56/2006 and admitted for hearing. In the consultative process, the Commission heard the applicant, objectors, consumer counsel, representative of the State Government and orders as follows:

1 PROCEDURAL HISTORY

1.1 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 the ARR within 30th November in the prescribed formats. OPTCL as a deemed licensee submitted its ARR application for 2007-08 before the Commission on 30.11.2006. After due scrutinisation and admitting the matter, the Commission directed OPTCL to publish its ARR application in the approved format in the leading and widely circulated daily newspapers and the matter was also posted in the Commission's website in order to invite objections from the intending objectors. The Commission had also directed the applicant to file its rejoinder to the objections filed by the various objectors and to serve copy to them.

1.2 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.

1.3 In response to the aforesaid public notice of the applicant, the Commission received 12 nos. of objections/suggestions from the following persons/associations/ institutions/ organisations.

1.4 (1) State Public Interest Protection Council, Tala-Telenga Bazar, Cuttack (2) Sambalpur District Consumers Federation, Khetrajpur, Sambalpur (3) Confederation of Indian Industry (CII), Forest Park, Bhubaneswar (4) WESCO, Burla, Sambalpur (5) NESCO, Januganj, Balasore (6) SOUTHCO, Courtpetta, Berhampur (7) Mr. R P Mohapatra, Jayadev Vihar, Bhubaneswar (8) KVK Nilachal Power Pvt. Ltd, Jayadev Vihar, Bhubaneswar (9) National Aluminium Company Limited (NALCO), Nayapalli, Bhubaneswar (10) Nava Bharat Ventures Limited, Kharagprasad, Dhenkanal (11) Confederation of Captive Power Plants (CCPPO), Rasulgarh, Bhubaneswar (12) Indian Metals & Ferro Alloys Limited (IMFA), Rasulgarh, Bhubaneswar.

Later the Commission also received the opinions/suggestions from Utkal Chamber of Commerce and Industry (UCCI), Nayapalli, Bhubaneswar.

1.5 In exercise of the power u/s.94(3) of the Electricity Act, 2003, in order to protect the interest of the consumers, the Commission for the first time appointed Nabakrushna Choudhury Centre for Development Studies, Chandrasekharpur,

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

- 1.6 The date for hearing was fixed and it was duly notified in the leading newspapers mentioning the list of the objectors. The Commission conducted a public hearing in its premises and heard the applicant, objectors, consumer counsel & representative of the State Government on 14.02.2007.

2 OPTCL's ARR & TARIFF PROPOSAL FOR FY 2007-08

- 2.1 OPTCL owns EHT network for transmission of power from various generating stations within the periphery of the State and for interconnection with the neighboring regions. OPTCL transmits bulk power to DISTCOS and supplies emergency power to CGPs and wheels CGPs' power to their industries located elsewhere. Conveyance of power incidental to inter state transmission is also carried through OPTCL's network. Apart from this, it is also expected to transmit power for both long term and short term open access customers as per OERC Open Access Regulations, 2005.

2.2 Categorisation of Open Access Customers:

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

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

A Long Term Open Access Customer means a person availing or intending to avail access to the Inter-State/Intra-State Transmission System for a period of 25 years or more. Going by this, GRIDCO happens to be a long term customer of OPTCL as it uses the corridor of OPTCL for bulk power supply to DISTCOs and for transmission of the surplus power of Captive Generating Stations (CGPs) from their generating station(s) to the their plant(s) located at distance 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).

2.3 Revenue Requirement:

The OPTCL has filed its annual revenue requirement indicating that the gap between the charges which it is permitted to recover and the expected revenue to

be filled up through enhancement of tariff during the FY 07-08. OPTCL has projected annual revenue requirement of Rs. 675.33 crore in its filing of Annual Revenue Requirement and Transmission Tariff for the FY 2007-08 as against an expected revenue and the existing Transmission Tariff at Rs.359.17 crore. The summary of Transmission cost/annual revenue requirement of OPTCL for 07-08 as given in page 18 of their application is tabulated below :

Table – 1
Revenue Requirement for FY 2007-08

Item	Approval for FY 2006-07	OPTCL's Proposal for FY 2007-08
Employee Cost	115.16	182.12
A&G Cost	14.89	14.79
Repair & Maintenance Cost	36.00	54.00
Depreciation	43.51	52.95
Advance against Depreciation	48.09	84.18
Interest on Long Term Liabilities	68.03	116.38
Interest on Working Capital	-	15.13
Reasonable Return	-	8.40
a) Sub-Total	325.68	527.96
b) Pass Through Expenses		138.33
c) Additional Expenses (Contingency Reserve + GCC Expense)	12.59	12.05
d) Total ARR (a + b + c)		678.33
e) Less inter-state wheeling	5.00	3.00
f) Net Transmission Cost (ARR) = d – e	333.27	675.33

2.4 Details of Transmission Costs:

The costs of OPTCL i.e. the State Transmission Utility (STU) for the FY 2007-08 for the purpose of determining the ARR and Transmission Tariff have been categorized under the following heads:

2.4.1 (a) Fixed Charges:

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

(b) Pass through Expenses:

- Income Tax on core activities
- And any other expenses

c) Performance Based Incentive / Disincentives.

2.4.2 Details of Fixed Charges:

2.4.2.1 OPTCL proposes **O & M Expenses** of Rs.250.91 crore under the following heads:

- **Employee Cost including Terminal Benefits.**

- OPTCL has submitted that based on the provisional accounts of OPTCL for 05-06 the employee's expenses for FY 07-08 including terminal benefits will be Rs.182.12 crore (excluding capitalization)

The component-wise details include salaries, dearness allowance, other allowances, reimbursement of medical expenses and house rent, enhancement of earned leave, honorarium, payment under workmen compensation Act, Ex-gratia and misc. expenses, staff welfare expenses etc. The terminal benefits account for Rs.89.15 crore. The number of employees as on 01.04.2006 is 4598. Pending actuarial valuation OPTCL has proposed the terminal benefits based on the provisions made for FY 05-06.

- **Administrative & General Expenses**

- The A & G expenses have been projected at **Rs. 14.79 crore** for 2007-08 by taking annual escalation of 5.2 % over the provisional figures of 2005-06. The proposed A&G expenses included property related expenses, communication, professional charges, conveyance and traveling besides other expenses to the tune of 10.60 crore. Material related expenses after capitalization is proposed at 1.26 crore and OERC license fee is of Rs.0.50 crore.

- **Repairs & Maintenance Expenses**

- OPTCL proposes the Repairs and Maintenance (R&M) Expenses for FY 2007-08 at **Rs. 54.00 Crore**. OPTCL has submitted that in accordance with para 5.6.2.3 of Long Term Tariff Strategy issued by OERC vide its order dt.18.06.2003. On an asset of Rs.2098.22 crore OPTCL is entitled Rs.113.30 crore. However, OPTCL has proposed Rs.54.00 crore by planning an increase of 50% expenditure over and above the approved figure of Rs.36 crore in FY 06-07. OPTCL submits that to maintain uninterrupted quality power supply in the state progressive increase in

R&M expenses is necessary to achieve the norms prescribed by the Commission.

OPTCL has submitted in its ARR application that it has proposed the O&M expenses of Rs.250.91 crore against its entitlement of Rs.500.72 crore as per CERC norms.

2.4.2.2 Interest on Loan Capital

Interest on Loan (both for existing and new loans) for FY 2007-08 has been projected at **Rs.116.38 Crore** based on the provisional Accounts of OPTCL for FY 2005-06. Interest on loan capital has been worked out taking into consideration the interest payable on existing loans to the tune of 95.78 crore and on the proposed new loans for capital works for the Rs.20.60 crore.

2.4.2.3 (a) Depreciation

OPTCL has projected Depreciation considering the rate of depreciation prescribed by CERC for FY 2007-08 on the up-valued Assets and additions thereto. Accordingly, the transmission licensee has projected depreciation at **Rs.52.95 Crore** based on the provisional Accounts of OPTCL for FY 2005-06.

(b) Advance Against Depreciation (AAD) :

Following CERC norms, OPTCL has projected AAD at **Rs. 84.18 crore**. The one-tenth of loan balance of OPTCL is worked out as Rs.137.13 crore. After deduction of Rs. 52.95 crore applying the depreciation as per CERC norms this balance amount of Rs. 84.18 crore has been claimed as AAD.

2.4.2.4 Return on Equity

When OPTCL got bifurcated from erstwhile GRIDCO effective 1.4.2005, the equity share capital of OPTCL was stated as Rs.60 Crore. Therefore, the licensee has projected ROE @14% on the equity share capital of Rs.60 Crore, which amounts to **Rs. 8.40 crore**.

2.4.2.5 Interest on Working Capital

Based on CERC norms, OPTCL has calculated its working capital needs at **Rs. 151.32 crore** for the FY 2007-08. Taking 10% as the rate of interest, interest on working capital amounts to Rs. 15.13 crore for 2007-08. For the purpose of determination of working capital OPTCL has taken into consideration the O & M expenses for one month, maintenance of spares at the rate of 1% of the

historical cost escalated @ 6% per annum from the date of commercial operation and receivable equivalent to two months' of transmission charges calculated on target availability.

2.4.3 Pass through Expenses:

2.4.3.1 Income Tax on core activities

Fringe Benefits Tax (FBT) amounting to **Rs. 0.25 Crore** for FY 2005-06 has been claimed by OPTCL and included under Income Tax as pass through in the ARR for FY 2007-08.

2.4.3.2 Any other expenses

Under this head a sum of Rs. 138.08 crore has been claimed by OPTCL. This includes loss for 2005-06 to the tune of Rs. 9.94 crore, uncovered gap of Rs. 56.79 crore for 2006-07, gap in payment of interest on loans to the tune of Rs. 43.62 crores and another uncovered gap in repayment of principal of the order of Rs. 31.35 crore.

2.4.4 Contingency Reserve:

A sum of Rs. 10.49 Crore has been projected for Contingency Reserve for the FY 2007-08.

2.4.5 Provision for Bad & Doubtful Debts:

OPTCL does not envisage addition of any amount towards Bad and Doubtful Debts during 2007-08.

2.4.6 Grid Co-ordination Committee Expenses:

As per provisions in Orissa Grid Code Para 11, OPTCL has formed Grid Coordination Committee (GCC) under it. Expenses of the Committee has been estimated at Rs.1, 55, 52,963/- or say Rs.1.56 Crore for FY 2007-08.

2.4.7 Performance based Incentives / Dis-incentives:

OPTCL does not envisage any amount under this head for 2007-08

2.4.8 Other Income and Cost/ Miscellaneous Receipts:

OPTCL estimates that it will earn Miscellaneous Receipts of Rs. 3.00 Crore from Inter-State Wheeling of 300 MU @ 10 Paise per Unit during FY 2007-08. The same has been deducted from the gross revenue of OPTCL to arrive at the Net ARR for FY 2007-08.

2.5 Transmission Loss:

Transmission Loss for the period from April 2006 to September 2006 (FY 2006-07) has been calculated as per OERC approved Gross Method and the same works out to 4.78%. Due to increased demand for energy in the state during FY 2007-08, GRIDCO proposed to utilize its entire share from ER ISGS sources during FY 2007-08. Therefore, the transmission loss in OPTCL's transmission system will be over and above 4.78%. In view of the above, OPTCL proposes a higher Transmission Loss of 5.00% for FY 2007-08.

2.6 Expected Revenue from Transmission Charges:

The revenue receipts from various transmission charges at the existing transmission tariff of 22 P/U shall be Rs. 359.17 Crore. Revenue to be earned by OPTCL from wheeling of power to DISTCOs and other long term open access customers for FY 2007-08 at the existing rate is shown below in tabular form:

Table – 2
Sources of Revenue

Sl. No.	Customer	MU approved in 2006-07	MU proposed to be Handled (2007-08)	Rate (P/U)	% Loss	MU handled before Transmission Loss	Amount in Rs. Crore
1.	CESU	4164	5060	22	0.00	5060	111.32
2.	NESCO	4169	4110	22	0.00	4110	90.42
3.	WESCO	4600	4925	22	0.00	4925	108.35
4.	SOUTHCO	1750	1905	22	0.00	1905	41.91
	Total DISTCO	14683	16000		0.00	16000	352
5.	Emergency sale to CGP	120	10	22	0.00	10	0.22
6.	Wheeling of ICCL power	350	200	22	5.00	210.53	4.63
7.	Wheeling of NALCO power		100	22	5.00	105.26	2.32
	Total	15153	16310			16325.79	359.17

2.7 Excess or (Deficit) in the ARR:

OPTCL has submitted that with its present Transmission Tariff structure consisting of Transmission Charge @22 P/U & Transmission Losses @4.00%, it would not be able to meet its current costs as it may result in a deficit of Rs 316.16 crore as shown in table 3.

Table - 3**(Rs. Crore)**

Total Annual Revenue Requirement	678.33
Less : Revenue earned from Long Term Open Access Customers	359.17
Less : Revenue from Inter-State Wheeling of 300MU @ 10P/U	3.00
Excess or (Deficit) of ARR at the existing Wheeling Rate @ 22 P/U	(316.16)

The licensee, therefore, submitted application before the Commission with a request to approve its proposed ARR and the Transmission Tariff and Wheeling Loss for FY 2007-08.

2.8 Proposed Tariff to Meet the Revenue Requirement for FY 07-08.

2.8.1 Transmission Tariff:

The Transmission Cost less Revenue from inter-state wheeling for FY 07-08 is given in the following table for computation of Transmission Tariff.

Table - 4

Total Annual Revenue Requirement (Rs. Crore)		678.33
Less Misc. Receipts (Rs. Crore)		3.00
Net Annual Revenue Requirement to be recovered through Transmission Tariff (a)		675.33
Monthly Fixed Transmission Cost for recovery (Rs. Crore)		56.28
Total Million Units proposed for Wheeling 16310 MU (16000+10+200+100) (b)		16310
Proposed Transmission Tariff (P/U) (a/b)		41.41

OPTCL proposes to recover the **Annual Fixed Cost of Rs.675.33 Crore** in full from the Long-Term Open Access Customers like GRIDCO & CGPs on the energy drawl during FY2007-08 in two ways i.e. either through recovery of the same on monthly basis @ **Rs 56.28 Crore per Month** or @ **41.41 P/U** from 1.04.2007 considering the Transmission Loss for wheeling at **5.00%** on energy drawl.

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

The estimated energy for transmission in OPTCL's system is expected to be **16310 MU** or an average of **1861.87 MW**. The net transmission cost as

indicated in the table above is **Rs.675.33 Crore**. OPTCL, therefore, proposes, the Long Term Transmission Charge on the basis of MW flow by adopting the OERC formula at **Rs.9937.48 per MW per day** from 01.04.07 onwards which is equivalent to **41.41 P/U**. This will be in addition to other charges in accordance with OERC Open Access Regulation.

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

The revenue from Short Term Open Access Charges leviable 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. OPTCL submitted that the Short Term Open Access Charges shall be adjusted in the revenue as year-end-adjustments at the end of the year on actual basis. Therefore, OPTCL has considered Short Term Access Charges as Nil in this Application.

However, as per the OERC regulation, OPTCL proposes **Short Term Open Access Charges** as one fourth of the Long Term Open Access Charges i.e. **Rs. 2484.37 Per MW per day**. Other Open Access charges shall be levied as per regulation.

2.9 Summary of Transmission Tariff Proposed by OPTCL

The total of transmission charges are applicable for wheeling of GRIDCO power from generating points to the supply point of Distribution & Retail Supply Licensee and wheeling of power from CGP to its units at a separate location. The total charges shall be calculated by summation of following charges stated in Para (a) to (d) below as applicable:

2.9.1 (a) Transmission Charge:

2.9.1.1 Transmission Charge @ **Rs. 56.28 Crore per Month** or @ **41.41 P/U** shall be applicable for transmission of GRIDCO power at 220 kV/ 132 KV over OPTCL's EHT transmission system for the purpose of transmission of energy from generator end to the substation from where energy will be fed to DISTCOs and CGPs for the use of EHT transmission system and for the purpose of transmission of energy from a CGP to its industrial unit located at a separate place as well as for transmission of power from outside the state to an industry located inside the State. **Transmission loss** shall be considered as **5%** for the use of EHT system of OPTCL in addition to the transmission charges.

2.9.1.2 In terms of Rs./MW/Day, Long Term Open Access Charges will be Rs.9937.48 and that for Short Term Open Access Charges will be Rs. 2484.37 plus other applicable charges and losses.

2.9.1.3 The transmission charge shall be applicable to GRIDCO on a prorated basis on quantum of energy delivered to the DISTCOs and CGPs, the Long Term Customers of GRIDCO for the respective month.

2.9.2 (b) Rebate:

2.9.2.1 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 48 hours of the presentation of the bill.

2.9.2.2 One and half percent (1.5%) of the amount of the monthly bill (excluding arrears), if a minimum of 85% of the whole amount (excluding arrears) is paid within 48 hours of the presentation of the bill and One percent (1%) on the balance amount if paid in full within 15 days from the date of the presentation of the bill.

2.9.2.3 One percent (1%) of the amount of the monthly bill (excluding arrears) if paid in full within 15 days from the date of the presentation of the bill.

2.9.3 (c) Delayed Payment Surcharge:

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).

2.9.4 (d) Duties and Taxes:

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.

3 **VIEWS OF THE OBJECTORS ON TRANSMISSION TARIFF PROPOSAL FOR 2007-08**

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 2007-08. Director (Tariff) then raised certain queries on the licensee's filing. The representative of Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar who has been appointed as consumer counsel put up certain queries and objection regarding ARR and tariff filing. Followed by him the objectors made many comments regarding the submission of the licensees.

3.1 **Nabakrushna Choudhury Centre for Development Studies (NCCDS)**

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

3.1.2 **Revenue Gap:**

OPTCL has projected revenue gap as follows:

Table - 5
Revenue Gap of OPTCL during FY 2007-08

	(Rs. Crore)
Total Revenue Requirement	678.33
Revenue from long-term open access customers	359.17
Less Misc. Receipts	3.00
Total Revenue Receipts	362.17
Revenue Gap	316.16

3.1.3 **Revenue from Tariff**

OPTCL has expected to deliver 16000 MU of energy to GRIDCO, while the actual projection submitted by DISTCOs to OERC is 17848.11 MU for the FY 2007-08. If the projected demand of the DISTCOs would be considered then the revenue receipts of OPTCL would show an increase and hence reduction in the revenue gap.

3.1.4 Revenue Requirement

3.1.4.1 The revenue requirement of OPTCL for FY 2007-08 constitutes not only fixed cost and additional expenses but also pass through cost of Rs 138.33 Crore. If the pass through cost were deducted, then the revenue gap would be Rs 177.83 Crore. Pass through of previous loss and arrear tax would certainly impose burden on the consumers and, therefore, should not be allowed.

3.1.4.2 OPTCL has projected its revenue requirement for FY 2007-08 which is twice that of FY 2006-07. The areas of concern, besides the pass through loss, include increase in employee cost (58.15%), repair and maintenance cost (50.0%), interest on loan capital (71.07%) and advance against depreciation (75.05%). For example, R & M expenses increased from Rs 6.94 Crore (actual) in 2005-06 to Rs 36 Crore approved by the Commission for 2006-07. Again, there is a projection of 50% increase in revenue requirement on R & M for the FY 2007-08, which is too high. The increase in expenses on employee and R & M should, therefore, be not more than 10%. This would reduce the revenue gap by Rs 70 Crore.

3.1.4.3 Further, there is significant increase in the interest on long-term loan amount. OPTCL should explain such significant increase in interest. Is there any delay in the completion of any ongoing projects, which has added to the interest?

3.1.4.4 Regarding the advance against depreciation, it is to be seen that whether it satisfies the CERC norm, which stipulates that advance against depreciation should be permitted only if cumulative loan repayment up to a particular year exceeds the cumulative depreciation up to that year.

3.1.5 Transmission Loss

OPTCL has proposed a transmission loss of 5% against 4% approved by OERC for 2006-07. Kanungo Committee had recommended for a stepwise reduction of transmission loss so that the same is brought to a level at par with that of Central Power Grid by 2007. But due to its inefficiency OPTCL has failed to arrest the high transmission loss. In conformity with the power sector reform, OPTCL needs to reduce the transmission loss gradually and significantly. The transmission loss, therefore, may be fixed at 3% for the FY 2007-08.

3.1.6 The Counsel summarized by saying that the higher proportion of increase in cost proposed by OPTCL should not be allowed for the best interest of the consumers. Further, OPTCL has failed to arrest the high transmission

loss in conformity with the power sector reform and needs to reduce the transmission loss gradually and significantly. A target loss of not more than 3% be allowed.

- 3.1.7 The Commission has considered all the views of various objectors on the Transmission Tariff Proposal of OPTCL. Some of these views were found to be of general nature whereas others were specific to the proposed tariff filing for the FY 2007-08. Based on their nature and type, these views have been classified subject-wise as discussed below:

3.2 Energy Handling & System Availability during 2007-08:

- 3.2.1 One objector stated that the total energy to be handled by the licensee had been calculated at 16310 MU which did not include the Inter-State sale or any sale from the surplus energy available in Orissa and sold by GRIDCO for trading out side the State. The transmission system of OPTCL was also burdened by the energy which was sold out side the State and the same should be included in the total energy handled by OPTCL.
- 3.2.2 Another objector estimated the availability of energy from different sources at 18815 MU.
- 3.2.3 Another objector contended that OPTCL should be wheeling for DISTCOs to the tune of 17848.11 MU. Wheeling for CGPs shall be 300 MU. Added together the total wheeling should be of the order of 18148.11 MU instead of 16310 MU projected by OPTCL.
- 3.2.4 One objector stated that OPTCL did not present line-wise system availability in its application. The system availability of OPTCL in most of the cases is understood to be remaining below the benchmark level of 98%. Presentation of system availability data is a requirement to adjudge the performance of OPTCL as the transmission licensee, so that OPTCL can receive 100% payment towards Annual/ Monthly Fixed Charges. As per para 7.3 of National Tariff Policy, OERC can assess necessary incentives or disincentives, as may be the case for over or below 98% of system availability.

3.3 Transmission Loss:

- 3.3.1 One objector submitted that it was revealed from the ARR filing of OPTCL that the actual transmission loss was 4.73% during 2006-07 which was a matter of concern. Based on the previously allowed loss figure of 3.58% in 2003-04 and stipulated reduction of 0.3% per year, the present allowable transmission loss for 2007-08 should be 2.38% only. However, a transmission loss of 3% may be allowed during 07-08, the objector felt.

- 3.3.2 Another objector stated that the quantum of power transmitted remained more or less same as that in the year 2006-07. Therefore, the Transmission Loss should be allowed at 3.7%.
- 3.3.3 Some argued that the transmission loss should be less than 4%, while others said that the same should not be allowed to exceed beyond 4%.
- 3.3.4 One objector pleaded that the reasons stated to enhance the “transmission losses” to 5.00%, against the target of 3.70%, was unacceptable.
- 3.3.5 Some pointed out that SOVEN KANUNGO COMMITTEE had recommended a stepwise reduction of transmission loss so that the same was brought down to a level at par with that of CTU (i.e. the POWER GRID) by 2007.
- 3.3.6 Others opined that OPTCL should be directed to reduce the transmission loss to a level below 3% in coming 3 years starting from 2007-08 with a base level loss of 4% as approved by the Commission for 2006-07.
- 3.3.7 As a matter of fact, OPTCL has not even taken any step to reduce the transmission loss in face of huge investments made by it through the World Bank Projects, the objectors pointed out.
- 3.3.8 OPTCL in its rejoinder had attempted to shrug-off its responsibility towards transmission loss reduction and its commitment to improve the system performance as stipulated in National Tariff Policy and National Electricity Policy, maintained some objectors. Further, OPTCL has tried to evade its responsibilities towards its commitment of implementing the recommendation of “SOVEN KANUNGO COMMITTEE” towards annual transmission loss reduction of 0.3% by not coming out with necessary action plans in that direction.
- 3.3.9 One objector pointed out that GRIDCO had committed in its ARR application for the year 1999 that transmission loss would be within the 4% limit. OPTCL’s present claim of 5% towards transmission loss should not be made acceptable.
- 3.3.10 One objector suggested that a comparison should be made with other states as far as transmission loss was concerned.

3.4 **Repair & Maintenance Expenses:**

- 3.4.1 Some objectors stated that OPTCL had proposed O&M cost of Rs. 250 crore based on CERC norms applicable to inter-State transmission system of Power Grid Corp of India which maintains only 220 KV/400 KV lines and sub-stations. OPTCL has conveniently chosen to use the same norms for 33 KV, 25 KV and 11 KV lines and sub-stations.

- 3.4.2 One objector argued that the licensee was not able to spend the full amount approved by the Commission under this head and the actual expenditure was about 50% of the approved figure in all the years in the past.
- 3.4.3 Another objector suggested that the R & M expenditure for the year 2007-08 should not exceed Rs. 15.00 crore.
- 3.4.4 Some computed the R&M with 6% rise over and above the ATE direction of Rs 15.00 crore.
- 3.4.5 R&M expenses should be determined based on the costs approved by the Commission for the year 2006-07 with escalation limited to annual inflation, one objector said.
- 3.4.6 Another objector pointed out that in view of poor utilization of funds under R&M, a provision of Rs 54 crore for 2007-08 should not be considered.
- 3.4.7 One objector stated that OPTCL in its rejoinder had not provided detailed information to justify its proposal of O & M expenses.

3.5 Employees Cost and A & G Expenses:

- 3.5.1 One objector suggested that an amount of Rs. 122.00 crore might be allowed for the year 2007-08 towards Employees Cost.
- 3.5.2 Another objector estimated employees cost at Rs 128.69 crore.
- 3.5.3 The employees' cost for 2007-08 should be based on the approved cost of the Commission for the year 2006-07, some opined.
- 3.5.4 Others said that in absence of the figures relating to man-power for 2006-07 & 2007-08, the projection of employees cost of Rs. 182.12 crore for 2007-08 was not at all justified.
- 3.5.5 One objector estimated employees cost at Rs 126.88 crore allowing a 10% weighted average hike towards basic pay and DA.
- 3.5.6 Regarding A & G expenses one objector maintained that the proposal of OPTCL might be allowed if the Commission felt reasonable after reviewing last few years' actual expenditure.
- 3.5.7 Some stated that A & G expenses ought to be fixed on a normative basis.

3.6 Interest Payment:

- 3.6.1 One objector stated that as the loan base was yet to be divided in to capital expenditure loan and working capital loan, no interest on loan be allowed to OPTCL in the ARR of 2007-08.

- 3.6.2 While some objectors estimated interest payment at approx Rs. 75 crore, others computed the interest on loan based on the principle adopted by OERC and put the same at Rs 41.15 crore.
- 3.6.3 The objectors suggested that REC loan should be taken at 8.5% as per GOO Notification dated 29.01.2003. PFC loan should be taken at 8.5%. The Union Bank of India loan was not taken for creation of assets and hence should be disallowed. Even assuming 7.75% interest for HUDCO loan, the interest amount comes to 15.1 crore.
- 3.6.4 Some suggested that OPTCL had calculated interest on working capital @ 10% and had arrived at an amount of Rs. 15.13 crore. This would get reduced as the O&M expenses proposed by OPTCL at Rs 250.91 crore would also be reduced to Rs 15 crore going by the objector's suggestion.

3.7 **Fixed Asset and Depreciation:**

- 3.7.1 One objector suggested that up-valuation of assets should not be taken by OERC for tariff determination.
- 3.7.2 The objector maintained that the Original Cost of Fixed Assets should not be based on the up rated value of the assets as on 01.04.1996, even if the period notified by the Government of Orissa expired by 2005-06 or the subsequent period of extension.
- 3.7.3 Another objector stated that the figures submitted by OPTCL's projection of depreciation at Rs 52.98 crore for 2007-08 needed detailed verification and might have to be trimmed.
- 3.7.4 Some objectors considered depreciation of Rs 43.51 crore to be allowed during 2007-08. In case OPTCL was supposed to repay any contractual obligations, the same might be limited to Depreciation as advance against depreciation was prohibited in National Tariff Policy.
- 3.7.5 Regarding shortfall of repayment of loan over and above the allowed depreciation, the objectors opined that OPTCL might negotiate with the Banks / FIs for a longer tenure or moratorium for repayment of Principal.

3.8 **GCC expenses:**

As far as GCC expenses are concerned, a token amount of Rs 1 crore might be allowed as Orissa GCC has not yet started functioning, said one objector.

3.9 **Contingency Reserves:**

- 3.9.1 OPTCL has proposed investment towards Contingency Reserve to the tune of Rs. 10.49 crore during 2007-08. The provision for investment towards

Contingency Reserve is not there in the OERC (Terms and Conditions for Determination of Tariff) Regulation, 2004, said one objector.

3.9.2 Another objector stated that the National Tariff Policy did not suggest inclusion of contingency reserves in transmission tariff.

3.9.3 ATE in order dated 13.12.06 has allowed Rs 5 crore towards contingency Reserve which is $1/3^{\text{rd}}$ of the R&M expenses allowed by ATE of Rs. 15 crore for FY 2006-07. Based on the above OPTCL is entitled to a sum of Rs 5.5 crore ($1/3^{\text{rd}}$ of R&M expenses) during 07-08, maintained other objectors.

3.9.4 Others said that the Commission should provide guidelines on contingencies as per National Tariff Policy.

3.10 **Return on Equity:**

3.10.1 One objector stated that the Commission did not consider any return on equity to be included in tariff calculation in line with State Government Notification dated 29.01.2003 in earlier tariff orders and hence the same be disallowed.

3.10.2 Another objector observed that as the sector had not yet turned around, zero reasonable return might be allowed along the lines of thinking adopted for the year 2006-07.

3.11 **Past Losses:**

3.11.1 Some objectors observed that the amount asked for pass through of all past losses and liabilities, which included the estimated loss and gap during 2006-07 and for earlier years, needed a detailed examination.

3.11.2 The claim made by OPTCL towards past losses had no merit as these items were already dealt in the ARR 2006-07, said others.

3.11.3 One objector stated that the past losses projected by a OPTCL should have been with the previous organization (i.e. GRIDCO) from which OPTCL has been carved out.

3.12 **Miscellaneous receipts:**

3.12.1 One objector stated that miscellaneous receipts as indicated by the licensee were on lower side.

3.12.2 Another objector maintained that the amount to be received for Intra-State wheeling for supply of power to CGPs was also on the lower side which should have been projected at higher level.

3.13 **Revenue Requirement:**

- 3.13.1 Some objectors estimated the net annual revenue requirement for the year 2007-08 at Rs. 282.50 crore.
- 3.13.2 Others estimated the same at Rs. 232.39 crore.
- 3.13.3 Still some others computed the ARR at Rs 305.67 crore with transmission tariff of 17 paisa/unit for 2007-08.
- 3.13.4 One objector pointed out that revenue earned from inter-state wheeling of power had not also been considered while determining the unit cost of transmission.

3.14 **Transmission Tariff:**

- 3.14.1 OPTCL has not followed the requirements to compute the transmission price based on factors like level of voltages and quantum of power flow in each of such voltage system separately to indicate the operational efficiency and performance of such systems, maintained some objectors.
- 3.14.2 Taking the quantum of energy handled as 16310 MU, the transmission tariff has been calculated by one objector at 17.3 P/U.
- 3.14.3 Another objector estimated transmission tariff at 13 paisa per unit.
- 3.14.4 Some objector argued that the Commission might determine transmission tariff for 2007-08 based on the approved parameters for 2006-07.
- 3.14.5 Others said that Transmission Tariff should not be permitted to be increased beyond 22 Paisa / Unit.
- 3.14.6 One objector suggested that Wheeling charges for the CGPs should be reduced as higher tariff will discourage setting up of new captive power plants.
- 3.14.7 Some objectors opined that transmission tariff should not be made applicable to the CGPs operating in the State for wheeling of their power due to the following reasons:
 - CGPs inject power at the load centers and draw power at a point where the line is lightly loaded.
 - CGPs contribute to the reduction of transmission loss.
 - The present wheeling charge is very high.
 - Income from wheeling should be considered as an incidental income of OPTCL.

3.14.8 One objector observed that the proposed STOA rate appeared to be higher. A glance at the prevailing STOA rates of various regions of the Country indicates that these rates vary between 1.50 Paisa / KWH and 2.56 Paisa / KWH. Even some States have much lower STOA (for i.e. Chhatisgarh 2.25 Paisa / KWH, West Bengal 2.38 Paisa / KWH etc).

3.14.9 Another objector said that OPTCL should be directed to reduce the STOA charge on transmission further below the current rate of 5.5 Paisa/KWH to a level of 3 paisa / KWH which should be closely nearer to the prevailing charges being levied by other transmission utilities of the Country.

3.14.10 The Commission may approve the LTOA charges at Rs 4052.79/MW/day and STOA charges at Rs 1013.20/MW/day for OPTCL for FY 2007-08 along with system loss of 3.7%, observed some objectors.

3.15 **Income from Wheeling:**

The Commission in its Order dated 23.3.2006 had considered Rs 5.00 crore towards the wheeling income for 2006-07. The DISTCOs had challenged the same before the ATE and the later directed the Commission to consider Rs 17.50 crore towards the income from wheeling for FY 2006-07. Accordingly the Commission was requested to consider the same figure while computing the wheeling income of OPTCL for the FY 2007-08.

3.16 **Rebate:**

The Distcos submitted that certain difficulties were experienced in implementing the rebate structure as proposed by OPTCL. That is, if bills were presented on the last hours of a working day and the subsequent two days were holidays, the Distcos would not be able to pay the bills in time to avail the rebate. They requested the Commission to approve the rebate of 2% for them for prompt payment of BST bills within three working days excluding Sunday and holidays from the date of presentation of the BST bill.

3.17 **Some Special Issues:**

3.17.1 One objector stated that OPTCL was forcing all prospective EHT Consumers, not only to bear the entire cost of bay extension / Transmission Line / Switching Station, but was also demanding an interest bearing (6% per annum) deposit of Rs 10.00 lakhs per MW, towards augmentation charges, which was not site specific. It was also collecting identical deposits even from consumers applying for power supply at 33 KV, in spite of the OERC Orders.

3.17.2 OPTCL has not furnished firm dates to complete the ongoing transmission lines, said another objector.

- 3.17.3 Some objectors observed that OPTCL has failed in achieving the key performance indicators as stipulated in National Tariff Policy viz completion of projects during the targeted period, ensuring system availability of more than 98% and reduction of system loss. They observed that OPTCL has not completed a single line and substation as per schedule, system availability has gone down below 98% and system loss has gone upto 5% as per ARR Application.
- 3.17.4 Some of the major transmission lines which were under construction for years have not been completed so far were:
- Meramandali-Duburi 400 KV DC line
 - Duburi-Paradeep 220 KV line
 - Ib-Meramandali 400 KV line
 - Budhipadar-Bolargir 220 KV DC line
 - Chandaka-Narendrapur 220 KV DC line
 - Meramandali-Mendhasal 400 KV DC line
- 3.17.5 One objector suggested that target dates of completion of ongoing transmission schemes should be fixed and OPTCL should be directed to complete all the projects as per the target dates fixed by the Commission.
- 3.17.6 The ARR application does not throw any light on transmission planning and systematic investment required to construct the EHT lines / substations to develop the requisite evacuation system in order to meet the additional power demand of 9000 MW of Orissa Power Sector by 2010/2011, said another objector.
- 3.17.7 The objectors had questioned the preparedness of OPTCL for implementing the desired role as transmission licensee and the system operator under the environment of Intra-State ABT and Intra-State Open Access Regulations. They stated that the OPTCL's reply that the above was not related to OPTCL's Tariff application was not well taken since under these regulations the transmission of power and related charges were also a part of revenue for OPTCL.
- 3.17.8 OPTCL in its rejoinder had avoided to answer queries of the objectors relating to transmission planning which had been viewed seriously by the objectors. The objectors maintained that transmission system planning was an essential requirement and mandatory function of a transmission licensee as envisaged in the National Tariff Policy, National Electricity Policy and

under Electricity Act, 2003. The objectors requested to Commission to take the licensee's stand on a matter like transmission planning seriously.

3.17.9 One objector had criticized the OPTCL's action to engage engineers through labour contractors to perform day to day duty.

3.17.10 The same objector criticized the existence of same Board of Directors for two companies namely, GRIDCO and OPTCL which was against the spirit of the Act.

3.18 **Views of Government of Orissa:**

The Government of Orissa representative from the Department of Energy stated that the State Government had no comment on the ARR and Price Application of OPTCL for 2007-08.

4 **OPTCL'S RESPONSE TO THE OBJECTORS**

In response to the views of objectors on the ARR and Tariff Application of OPTCL for 2007-08, OPTCL had filed rejoinders for the same. The response of OPTCL has been broadly classified into the following issues.

4.1 **ARR & Tariff**

OPTCL does not agree to the calculations of ARR made by the objectors as the same is based on their own assumptions and are liable to be rejected. Hence the ARR estimation and the transmission tariff estimated by the objectors basing on their own assumptions are not accepted. Further OPTCL does not agree to the objectors' suggestion for considering transmission tariff for 2007-08 based on approved parameters for 2006-07.

4.2 **Energy Handling During 2007-08**

Energy availability from OHPC is based on generation plan submitted by OHPC during October'06. OPTCL does not agree to the proposal of drawl of 7128 MU of power from Hydro stations as the same may not be achieved. Similarly, the objectors' proposal regarding the energy drawl of 677.064 MU and 791.90 MU from KhSTPS and CGPs respectively is considered as beyond expectation. Hence, OPTCL does not agree to the objectors' projection of 18,815.172 MU availability as well as energy handling for FY07-08.

4.3 **Transmission Loss**

4.3.1 Transmission loss is purely technical loss. OPTCL has no control over the transmission loss due to several factors, which is evident from the fluctuation of transmission loss derived for different years as per the Gross Method adopted by OERC.

4.3.2 The transmission loss of each month varies basing on the export and import over the same line. At the time of submission of tariff proposal, the average transmission loss of 4.78% arrived at by adopting gross method devised by OERC, for first six months of 2006-07 was projected for consideration for FY 2007-08. Now by considering the losses for October, the average transmission loss for first seven months of 2006-07 comes to 4.62% following the same method.

4.3.3 The Licensee has attributed the following factors for the high transmission loss:

- i) In some of the new lines, the loading is very less which is a factor for adding loss.
- ii) Extension of 132 KV networks, new addition of substations and augmentation of their capacity.
- iii) Some of the lines such as 132 KV Theruvalli-Kesinga – Bolangir and 132 KV Chiplima-Baragarh-Bolangir etc have been overloaded and drawing more than 90 MW of Power which is also responsible for increase in Transmission Loss.
- iv) Further at the time of low hydro generation, there is flow of power from TTPS to Jeypore, which is also a cause for increase in transmission loss.
- v) The lines close to seacoast are also responsible for high transmission loss because of high capacitance effect. One example is Chatrapur- Rambha 132 KV traction feeder. There has been around 1/3rd extra loss due to saline effect.
- vi) It may not be out of place to mention that the transmission loss of OPTCL is one of the lowest in the country compared to other States.
- vii) Regarding some objectors' request to grant special treatment to CGPs, OPTCL stated that if the CGPs were given a special treatment, the expenditure being incurred by OPTCL in this context would have to be borne by other consumers of the State which otherwise would mean increase in Transmission Tariff of OPTCL as well as RST of DISTCOs.
- viii) Reacting to the suggestions of NALCO regarding applicability of transmission tariff, OPTCL maintained that transmission charges and transmission loss was applicable on the quantum of energy delivered to NALCO's mines and Refinery Complex at Damanjodi.

- ix) Similarly, reacting to IMFA's contention and prayer to exempt it from payment of Transmission Tariff and/or charge a concessional rate of transmission tariff, OPTCL maintained that the same was not sustainable in law and, therefore, liable to be rejected.

4.4 **O&M Expenses**

OPTCL had estimated O&M cost at Rs 500.72 Crore following the CERC norm. OPTCL proposed an alternative one which included R&M expenditure of Rs.54.00 Cr., A & G expenses of Rs 14.79 Crore and Employee cost of Rs182.12 Crore and hence the total O & M charges worked out to Rs 250.91 Crore.

4.4.1 **Employee's Cost and Administrative & General Expenses**

OPTCL's projection of Employees Costs for 2007-08 is based on audited accounts of 2004-05 and provisional accounts of 2005-06, facts and evidential documents. The actuarial valuation is not yet completed. OPTCL does not agree to the suggestion given by objectors to fix Employees Cost based on Commission's approval for 2006-07.

4.4.2 **R&M Expenses**

4.4.2.1 The projection of Rs.54.00 Cr towards R&M expenses during the FY 2007-08 is right considering the preventive and proper maintenance of lines and Grid Sub-stations in the ensuing years. Inadequate expenditure towards Repair and Maintenance is not a good sign and not in the long-term interest of OPTCL - the STU, DISTCOs, consumers of the State and the State as a whole.

4.4.2.2 OPTCL has submitted a detailed action plan for expenditure towards R&M amounting to Rs.36 crore approved by OERC for FY 2006-07.

4.4.2.3 Action plan has been initiated for procurement of equipments such as breakers, CTs, PTs and LAs of different voltage class and batteries, transformer oil, hardware fittings, SF-6 gas, nuts & bolts, surplus towers and tower members, power transformers, ground wire etc. The procurement activities for the above materials are in pipeline and the supply contracts have been awarded with financial involvement of Rs. 21.50 crore. The materials are expected to be delivered latest by end of February 2007. After receipt of materials, major expenditure will be reflected by way of utilization of the materials against various works pertaining to R&M of EHT sub-stations and transmission lines. Subsequently installation and commissioning will be taken up in phased manner either departmentally or through outsourcing.

4.4.2.4 Open tenders for painting of autotransformers and power transformers; different equipment structures of sub-stations and transmission tower have already been invited. Some of the tenders have been finalized for awarding works and few work orders have also been issued. It has been programmed to complete the works latest by middle of February 2007 so as to utilize the full R&M allocation made by OERC. The tentative expenditure for the above painting works will be around Rs.1.00 Crore.

4.4.2.5 Procurement of lighting materials for illumination of switchyards including replacement of hardware fittings, clamps and connectors are taken up by inviting open tender at different circle levels under R&M. The tentative expenditure against open tenders will be around Rs.0.3 crore.

4.4.2.6 Open tenders have already been floated for awarding AMC for cleaning of sub-stations, switchyards, A/C machines under service at different Grid sub-stations. The approximate expenditure towards 1st quarter of AMC for the above will be around Rs.0.15 crore.

4.4.2.7 Other miscellaneous expenditure such as payment of service charges to different manufacturing firms / procurement of proprietary items / petty purchases made at Division and Circle level, payment towards annual inspection fees and land cess to Govt. of Orissa and expenditure towards transportation as well as maintenance of vehicles etc. to be incurred from December 2006 to March 2007 basing on the trend of expenditure already incurred from April 2006 to November 2006 will be around Rs.4.55 crore.

4.5 **Interest on loan Capital**

4.5.1 OPTCL's projection of interest cost for 2007-08 is based on facts and evidential documents. Hence, OPTCL does not agree to the objectors' suggestions and the projection of interest cost for 2007-08.

4.5.2 OPTCL is taking care of the interest burden by way of swapping the high cost loans with low cost loans in order to reduce the tariff burden on consumers. Hence, OPTCL does not agree to the objectors' suggestion for considering allocation over Commission's approval for 2006-07.

4.5.3 **Interest on Working Capital**

OPTCL submits that fixation of Interest on Working Capital is based on CERC tariff regulation.

4.6 Fixed Assets and Depreciation

- 4.6.1 OPTCL has projected depreciation of Rs 52.95 Crore for 07-08 considering the depreciation rate prescribed by CERC on up valued Assets and additions thereto.
- 4.6.2 The licensee does not agree to the objectors' suggestion for considering allocation under this head based on Commission's approval for 2006-07.
- 4.6.3 OPTCL maintained that as per the GoO notification, pre-92 rates of depreciation notified by Government of India were taken for the years from FY 2001-02 to FY 2005-06 on the up-valued assets for calculation of depreciation. Thereafter, post-94 rates as notified by Government of India on the up-valued assets were taken for the same.
- 4.6.4 Reacting to the suggestion of the objectors to calculate depreciation based on book value of assets, OPTCL prepared an analysis wherein the impact of the consideration of the book value of assets (contrary to up-valued assets) & allowing depreciation at pre'92 rates (contrary to Post'92 rates) by OERC while approving the tariffs of GRIDCO from FY 2001-02 to 2005-06, based on the GoO Notification no 1068/29-1-2003, has created wide deficits in GRIDCO's revenue during the past years. GRIDCO has suffered a loss of revenue of Rs.433.92 Crore on this account, which is shown in tabular form:

Table - 6
Deficit on account of Depreciation
(Rs. Crore)

Year	OERC Approval	Actual	Difference
1996-97	-	132.96	(132.96)
1997-98	128.02	141.66	(13.64)
1998-99	70.03	149.91	(79.88)
1999-00	79.42	73.12	6.30
2000-01	78.00	81.26	(3.26)
2001-02	44.96	88.24	(43.28)
2002-03	61.80	93.83	(32.03)
2003-04	36.05	105.57	(69.52)
2004-05	39.89	105.54	(65.65)
Total	538.17	972.09	(433.92)

- 4.6.5 The impact of such huge losses in the past has been felt by GRIDCO / OPTCL as under:
- i) GRIDCO/OPTCL suffered Cash Deficit in its/their revenue account(s), which was financed by further borrowings.
 - ii) GRIDCO/OPTCL experienced difficulty in servicing the debt repayment obligations. When the normal depreciation allowed is not adequate, utility should be provided with advance against depreciation to meet the obligations of loan repayment.
 - iii) The Loan portfolio of GRIDCO increased over the years, which reached Rs.5145 Crore by the year 2004-05 from Rs.3251.89 Crore as on 31.03.2001.

OPTCL's/GRIDCO's deficit soared to unsustainable levels because of the implementation of the Govt. of Orissa. Notification of 29.01.2003 and such deficits could not be passed on.

4.7 **Advances against Depreciation (AAD)**

- 4.7.1 Para 5 (c) of the National Tariff Policy Dated 6.1.2006 states that there should be no need of AAD. OPTCL maintained that this was a guiding factor but not a binding factor. The Central Commission had not yet issued any order relating to Depreciation rate nor also to permit any AAD. The CERC Tariff Regulation, 2004 based on which OPTCL had submitted its ARR Application is still in force.
- 4.7.2 Further, the Commission is allowing depreciation at the pre-92 rate as per direction of the High Court of Orissa. The question of applying for AAD would not have arisen if depreciation would have been permitted at post-94 rates.
- 4.7.3 Some objectors had suggested for non-approval of AAD as per ATE order at Para 18.10. OPTCL does not agree to the suggestion of objectors as the sentence quoted by ATE in its order is not found in the National tariff policy resolution dated 6.1.2006.

4.8 **Return on Equity**

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

4.9 **Pass through Expenses**

The proposal for pass through is based on the audited accounts up to the year 2005-06. Under the provisions of the Act, any reasonable expenditure incurred by

the licensee would be allowed as a pass through and recovered through tariff. The users of electricity have to pay the charges incurred reasonably by the Licensees. Survival of OPTCL would be doubtful if past losses were not allowed to pass through.

4.10 Contingency Reserve

OPTCL does not agree to the suggestions given by the objectors.

4.11 Miscellaneous Receipt

4.11.1 OPTCL did not consider the amount to be received towards LTOA and STOA charges as these were not certain.

4.11.2 OPTCL maintained that the amount to be received through Intra-State wheeling for supply of power to CGP was not a miscellaneous receipt.

4.11.3 Income from inter-state wheeling

4.11.3.1 OPTCL has submitted the figures relating to inter-state wheeling in MU for the past years which are tabulated below:

Table – 7

Year	MU billed for Inter-state Wheeling
2001-02	2284.72
2002-03	2003.54
2003-04	1252.20
2004-05	667.899
2005-06	411.432
First nine months of 2006-07 (i.e. upto Dec'06)	195.420

4.11.3.2 The licensee projects 300MU towards inter-state wheeling considering the past two years and the current year trend. OPTCL submits its bill @ 17.5 P/U but the beneficiaries are paying @ 10P/U.

4.12 Timely Completion of Projects

4.12.1 GRIDCO/OPTCL does not agree that the failure to meet the Commissioning of the new transmission system beyond the schedule date of commissioning would bring additional burden on Tariff.

4.12.2 Further, if the projects are not completed within the scheduled time, then capitalization cost would be delayed. Accordingly, the licensee would not be entitled for reasonable return and applicable depreciation. If such projects are completed within the scheduled time then in addition to getting returns, the interest cost would be charged to revenue as current

expenditure. In such a case, the current tariff would go up, as the interest on the above loans and depreciation cost on such projects would be charged to revenue subsequent to the commissioning of the project.

4.13 Some Special Issues

- 4.13.1 Audited Accounts: OPTCL is trying its best to submit the audited accounts of 2005-06.
- 4.13.2 Guidelines relating to Intra-State ABT and Intra-State Open Access is not yet fixed by OERC.
- 4.13.3 OPTCL does not offer any comment on the point of transmission planning and systematic investment as this is not related to present ARR and Transmission Tariff Application.
- 4.13.4 The question of preparation of Monthly State Energy Account, State Account and State REA etc does not arise at this stage. SLDC is fully prepared to play the role of nodal agency for STOA Customers.
- 4.13.5 After commissioning of a number of new EHT lines and Grid Sub-stations during last few years, the voltage profile in most part of the State has improved remarkably. The interruption in supply has also been drastically reduced.
- 4.13.6 GRIDCO is planning to procure extra power from outside during 07-08 since the demand of DISTCOs is more than the Energy availability from different sources. In such a situation, the question of trading outside the State does not arise. Moreover, the quantum sold to outside states did not pass through the corridor of OPTCL for which no transmission charge was levied on GRIDCO for the purpose of trading.

4.14 Issues raised during public hearing and reply of OPTCL

In response to the issues raised in the public hearing by the Commission's staff, OPTCL replied as follows:

4.15 Employees Cost including Terminal Benefits

- 4.15.1 The employee cost proposed to be recovered from tariff during the FY 2007-08 is Rs.182.12 Crore which includes terminal benefits of Rs.89.15 Crore. The figure projected for the FY 2007-08 is based on the actual expenditure incurred up to December 2006 which is Rs.112.00 Crore. It also takes into consideration the 3% increase in salary as approved by OERC for the FY 2006-07 with 50% merger of D.A. with basic pay as Dearness Pay. It also takes into account increase in D.A. which OPTCL pays to its employees as and when the State Govt. declares revision of D.A. In addition, the revision of pay of the non-executives effective from 1st

April 2000, payment of HRA @ 20% w.e.f. 01.12.2006 have also been factored into the employee cost.

4.15.2 OPTCL projected Rs. 89.15 Crore towards Terminal Benefits for FY 2007-08 based on the average of the actuarial valuation amount spent towards terminal benefits for the years FY 2002-03, FY 2003-04 and FY 2004-05.

4.15.3 In the mean time, Sri Bhudev Chatterjee, Actuary who has been appointed by the Commission for actuarial valuation for the Terminal Benefits of the employees as on 31.03.06, 31.03.07 and 31.03.08, has already submitted the report. As per the Actuarial Valuation Report, the position is as follows:

Table - 8

(Rs. Crore)

Corpus required to meet the Terminal Benefits liabilities for the employees as on 31.03.2006	643.54
Provisional Incremental Corpus required for the year 2006-07	37.53
Provisional Incremental Corpus required for the year 2007-08	40.92
Corpus required as on 31.03.2008	721.99
Less Opening Corpus as on 01.04.1999 (Annexure-II)	184.07
Less already allowed by OERC in the Tariff Order for 1999-00 to 2006-07	331.57
Less proposed for FY 2007-08 in the ARR Application	89.15
Balance to be allowed in the Tariff for FY 2007-08	117.20

4.15.4 OPTCL prays the Commission to consider the report of Independent Actuary appointed by the Commission and accordingly allow pass through of the additional Corpus requirement of Rs 117.20Cr towards Terminal Benefits in ARR for FY07-08.

4.15.5 OPTCL further, submitted that the Commission did not allow the Terminal Benefits in earlier years as claimed by GRIDCO citing the reason that the Independent Actuary has to be appointed by the Commission, in absence of which such claims could not be allowed. Now that the Independent Actuary appointed by the Commission has given its Report, GRIDCO / OPTCL may please be allowed the required funds to meet the outgo on account of payment of terminal benefits to the employees of OPTCL / GRIDCO on the basis of the Actuary Report.

4.15.6 Income from Wheeling of Power by GRIDCO towards Trading:

OPTCL has not considered any income on account of wheeling of power for Export/Trading by GRIDCO. Inter-State trading of power is effected through power flow in Inter-State Tie Lines and OPTCL's transmission system is not used for such trading.

4.15.7 New Projects, investment on New Projects & the corresponding impact of interest to the tune of Rs.20.60 Crore

4.15.7.1 OPTCL proposes to undertake the new projects worth Rs. 228.90 Crore during 2007-08, the details of which have been given in Page 10 of the ARR Application. Projects namely, 132/33kV S/S at Basta and associated line, 132/33kV S/S at Karanjia and associated line, 132/33kV S/S at Barpali and associated line and 400KV D/C line from Meramundali to Duburi involving investment of about Rs.88.00 Crore have already been submitted to the Commission for according necessary approval. The loan for new projects at Basta, Barpali & Karanjia amounting to Rs.52 Crore is already sanctioned by REC.

4.15.7.2 The proposals for other projects involving project outlay of Rs.10 Crore and above are being submitted to OERC within the stipulated time i.e. by March 2007, for necessary approval. It may be noted that these projects are going to be taken up only during FY 2007-08 beginning April 2007. Hence, it is justified to consider Rs.20.60 Crore towards interest on the investment scheduled to be made during FY 2007-08. Loans for investments on projects are incurred at competitive interest rates.

4.15.8 Completion of On-going Projects, Capitalization of CWIP & Transmission Planning

4.15.8.1 OPTCL is taking up the projects to meet future load growth. The investment is neither idle nor will have any negative impact on tariff. The projects will be remunerative after being put up into operation. Factors which render difficulties in completing the projects in time include non-availability of environmental clearance, theft of tower materials and RoW problem etc., which are beyond the control of OPTCL. OPTCL is constantly interacting with the District Administration for addressing the problems in timely execution of projects and also to curb the theft of line materials during execution of projects by engaging security guards and Home guards in addition to the support of

local police. Most of the projects will be completed during FY 2006-07 and FY 2007-08 and will be capitalized. Interest on loan amount relating to these projects is being paid which need to be passed on in the ARR for FY 2007-08.

4.15.8.2 In so far as the Transmission Planning is concerned, GRIDCO/OPTCL has already submitted the Long Term Prospective Transmission Plan for the period from 2003-04 to 2012-23 vide letter No.27027 Dated 09.12.2003 and the Long Term Demand Forecast for the period from the year 2005-06 to 2014-15 vide letter No. 3667 dated 15.05.2006 for approval of the Commission. Long Term Demand Forecast is being submitted to OERC normally by 31st March every year for the subsequent 10-year period. The projection of requirement of power is based on the submissions made by the stakeholders like the DISTCOs.

4.15.9 Repair & Maintenance

4.15.9.1 In an era of Open Access, the responsibility of OPTCL has increased a lot to make its transmission system efficient for maximizing system availability. The low level of expenditure on R&M was due to funds constraints. After OPTCL became operational, there has been no funds constraint as it is getting paid its revenue fully by GRIDCO. Therefore, OPTCL has undertaken a lot of measures to spend higher amount in these years on R & M. In fact, OPTCL has already spent Rs. 11.67 Crore from April'06 to January'07 during FY 2006-07. Purchase Orders amounting to about more than Rs. 20 Crore have been placed and the materials are expected to be delivered at destinations by February 2007. OPTCL commits that it will be able to spend Rs. 36.00 Crore approved for FY 2006-07. OPTCL has formulated a plan to augment the R&M works in order to keep its lines and Sub-stations in proper working condition to ensure uninterrupted and quality supply of power in the State.

4.15.9.2 Besides, OPTCL is eligible for an amount of Rs.113.30 Crore towards R&M expenses i.e. 5.4% of the estimated book value of Gross Fixed Assets amounting to Rs. 2098.22 Crore, as on 01.04.2007 in consonance with the provisions contained in Para 5.6.2.3 of Long Term Tariff Strategy promulgated by the OERC vide Order dated 18-06-2003 in Case No. 8 of 2003,

4.15.9.3 In order to accommodate enhanced power flow in the system to meet the demand of Open access Customers, OPTCL proposes

R&M expenses at Rs. 54 crore during 2007-08. The details of R&M expenditure of Rs. 54.00 Crore have been furnished to the Commission.

4.15.9.4 The objections raised by the three DISTCOs, WESCO, NESCO and SOUTHCO are not tenable in view of the fact that the report of the Special Officers appointed by ATE have remarked that the OPTCL Transmission System is fragile. The DISTCOs who are the real beneficiaries of the transmission system should have advocated for a robust transmission system which requires huge investment on R&M.

4.15.10 Uncovered Gap during FY 2005-06 and FY2006-07 for Pass-Through in ARR of 07-08

4.15.10.1 The audit of Annual accounts for FY 2005-06 is on the advanced stage of completion and will be submitted to the Commission in the first week of March, 2007. OPTCL expects the report of statutory auditors during March 2007. Based on the actual performance during FY 2005-06 and Apr'06 to Sep'06 of FY 2006-07, it is estimated that OPTCL will be left with an uncovered gap of Rs.138.08 Crore (Rs. 9.94 Cr +Rs.53.17 Cr.+Rs.43.62 Cr.+Rs.31.35 Cr.) during FY 2006-07 as compared to the OERC approval. This amount of Rs. 138.08 Crore has been factored into the ARR for FY 2007-08.

4.15.10.2 Regarding Interest on Loan and Repayment of Principal, the difference i.e. Rs.46.62 Crore on account of interest on loan and Rs. 31.35 Crore on account of Repayment of Principal, is mainly due to taking into account Interest and Principal repayment of Govt. Loans, which has not been allowed by OERC earlier. In this respect, details are furnished at Page 32 of the ARR Application for FY 2007-08. Hence, proposal of OPTCL for pass through of Rs.138.08 Cr is justified and may be considered.

4.15.11 Clarification regarding Miscellaneous Receipts

In TRF-6, the revenue from Inter-State Wheeling is given as Rs, 3.00 Crore which is treated as Miscellaneous Receipts. The revenue of Rs. 12.42 Crore is earned from Intra-State Wheeling of 300 MU of energy consisting of 200 MU of ICCL and 100 MU of NALCO power within the State of Orissa at the proposed Transmission Tariff of 41.41 P/U. Therefore, this earning of Rs. 12.42 Crore (300 MU x 41.41 P/U ÷1000) is not Miscellaneous Receipt and hence, is not shown as Miscellaneous Receipt in the ARR Application. Therefore, the figures given in TRF-6 are correct.

4.15.12 Audited Accounts for FY 2005-06

The Audited Accounts for FY 2005-06 is in the advanced stage of completion and will be submitted to the OERC by first week of March, 2007.

4.15.13 Clarification with regard to discrepancies in Line length in Ckt-Km in different voltage levels and the investment discrepancies

4.15.13.1 In this regard, OPTCL submits that the latest updated information on line length in ckt-km at different voltage levels in OPTCL Transmission system is being submitted separately

4.15.13.2 The difference between the project cost of Basta, Karanjia and Barapalli S/Ss and the amount of investment shown for the said S/Ss in the ARR of the FY 2007-08 is the amount which is to be spent during the FY 2008-09. The amount given in the ARR is proposed to be spent during FY 2007-08.

4.15.14 Depreciation

In line with the CERC Terms and Conditions of Tariff Regulations, 2004, OPTCL has projected Depreciation considering the depreciation rate prescribed by CERC for FY 2007-08 on the up-valued Assets and additions thereto and accordingly, projected the same at Rs.52.95 Crore based on Gross Fixed Assets of Rs. 2098.22 Crore as on 01.04.2007. The details of calculation of depreciation have been given at Page No.12 of the ARR & Transmission Application for FY 2007-08.

4.15.15 Repayment of Principal and Advance against Depreciation

4.15.15.1 Securing favorable terms for repayment of principal along with the corresponding fixation of tenure / moratorium is totally dependent upon the bargaining power of OPTCL with the respective lenders/ FIs. However, OPTCL submits that its bargaining power is too restricted due to its weak Balance Sheet where lenders do not evince much interest to advance loans. OPTCL is further handicapped in negotiating with lenders for loan on favorable terms in the absence of State Government Guarantee which was earlier available to OSEB/GRIDCO.

4.15.15.2 Regarding Advance Against Depreciation (AAD), OPTCL further puts forth that it has claimed AAD in line with the CERC (Terms and Conditions for determination of tariff) Regulations, 2004 and any disallowance under this head will be denial of justice to OPTCL as the Depreciation and AAD will

be used only to meet the repayment obligations of principal during the year in question.

- 4.15.15.3 In so far as the Judgement dated 13.12.2006 in Appeal Nos. 71,72 & 73 regarding the Transmission Tariff Order for FY 2006-07 of the Hon'ble Appellate Tribunal for Electricity (ATE) is concerned, the Hon'ble ATE dealt with the issue on AAD at para-22 and stated as follows:

It is a fact that the National Tariff Policy prescribes that advances against depreciation is not to be permitted.

The sentence quoted by ATE in its order is not found in the National Tariff Policy Resolution dated 06.01.2006.

At Para 5 (c) of the National Tariff Policy dated 06.01.2006, it is mentioned that there should be no need for any advance against depreciation.

From the above, it clearly emanates that the provisions of National Tariff Policy with regard to AAD, is not mandatory or obligatory in nature, but may not be encouraged. In fact, AAD could be allowed where the situation so warrants. Thus, the learned Tribunal have wrongly interpreted the viewpoint of the National Tariff Policy in saying that AAD is not to be allowed, whereas Tariff Policy mentions that there should be no need for any advance against depreciation.

In the above backdrop, OPTCL further submits that the Section 61 of the Act only provides that the Appropriate Commission, while determining the tariff, will be "guided" by the Tariff Policy. It does not provide that the Appropriate Commission will be "bound" by the Tariff Policy. Thus, the Tariff Policy is a guiding factor and not a binding factor.

- 4.15.15.4 Besides, the ATE has taken a different stand that policy is only to be treated as guidelines and need not be mandatory. This is evident from the ATE's Order dated 23.11.2006 in Appeal No. 228 of 2006 and 230 of 2006 involving M/s PTC India Ltd. Vs. CERC & Others and Madhya Pradesh Power Trading Company Ltd. Vs. CERC & Others, respectively wherein the ATE has ruled in Para-47 and Para-50 that,

".....the policy etc. are guidelines indicated as an object to be achieved in the power sector and being a policy or guideline, it cannot run counter to the legislative mandate nor

such a course is permissible to a delegate to over turn the legislative enactment much less as whole.”

- 4.15.15.5 It is a settled law that the statutory rule / Regulation which does not confirm to the provisions of the statute under which it is made or does not come under the scope of rule making power is void. It is equally the settled legal position that the validity of rule, regulation or notification made under the Act should be regarded as a part and parcel of the statute and should be regarded as one contained in the Act itself.
- 4.15.15.6 In the above judgment, the ATE has taken the view that policies / guidelines cannot overrule the Regulations framed under the Act. Thus, it is respectfully submitted that the Hon’ble Tribunal may not be justified in adopting two different criteria in disposing of the Appeals under its domain.
- 4.15.15.7 Besides, OPTCL has moved an appeal in the Hon’ble Supreme Court of India against the ATE’s Order dated 13.12.2006 relating to Transmission Tariff for FY 2006-07. The appeal has been admitted and registered as Civil Appeal No.417 of 2007. OPTCL does not prefer to make any comments on the issue considering that the matter is sub-judice in the Apex Court.
- 4.15.15.8 Therefore, the suggestion(s) of the objectors may not be accepted, as the matter is sub-judice.
- 4.15.15.9 Besides above, OERC, as per the prevailing Regulation, is bound by the CERC (Terms & Conditions of Tariff) Regulations, 2004, which clearly provides for Advance against Depreciation. The Central Commission had not yet issued any order relating to the Depreciation rate nor issued any order not to permit any Advance against Depreciation.
- 4.15.15.10 It is further submitted that the Depreciation and Advance against Depreciation are non-cash in nature that help the Utility to take care of the loan re-payment. The necessity of Advance against Depreciation arises in a situation where the allowable depreciation is not sufficient to meet the loan re-payment liability. In fact, CERC Tariff Regulations specifically provide for allowance of Advance against Depreciation. In the ARR Application for FY 2007-08, the need and the calculation for AAD has been clearly explained at Page 12 & 13. The principal repayment obligation of OPTCL for FY 2007-08 is Rs.156.84 Cr. against which OPTCL claims Rs.137.13 Cr.

including Rs.84.18 Cr. towards Advance against Depreciation which is in accordance with CERC Regulation.

4.15.16 Return on Equity

4.15.16.1 OPTCL has followed the CERC (Terms and condition of Tariff) Regulation, 2004 for calculation of Return on Equity. As per Regulation 56 (iii) of CERC Tariff Regulations 2004, Return on Equity (RoE) shall be computed on the equity base determined in accordance with regulation 54 and shall be @ 14% per annum.

4.15.16.2 At the time of vesting of the transmission & distribution business with GRIDCO by the State Govt. on 01.04.1996, the Equity Share Capital was Rs.327.00 Crore. During the subsequent years up to FY 2004-05, there was additional infusion of equity capital of Rs.165.98 Crore by the State Govt. raising the total equity of GRIDCO to Rs.492.98 Crore. At the time of de-merger of GRIDCO effective from 01.04.2005, the equity share capital of OPTCL was stated at Rs.60 Crore, leaving the balance equity share capital with GRIDCO. The equity share capital issued to Govt. of Orissa was both in consideration of cash and other than cash.

4.15.16.3 Therefore, the licensee is justified in claiming RoE of Rs 8.40 Crore @14% on the Equity Share Capital of Rs.60 Crore.

4.15.17 Interest on Working Capital

4.15.17.1 OPTCL has applied for Interest on Working Capital as per CERC (Terms and Conditions of Tariff) Regulations, 2004, and accordingly factored the same in to the ARR for FY 2007-08 and the same has been mentioned at Page-15 of the ARR Application.

4.15.17.2 OPTCL submits that the projection of Rs. 15.13 Crore towards Interest on Working Capital @ 10 % is an under-estimation in view of the present trend of increasing interest rates in the market. Therefore, OPTCL prays that the Commission may take cognizance of the same and accordingly fix a suitable higher interest rate as well as the interest amount.

4.15.18 Contingency Reserve

The requirement of Contingency Reserve in a natural calamity prone State like Orissa need not be over-emphasized. Even this aspect has been duly recognized by the ATE itself. 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 the specified securities. The Corpus of the reserve appropriated from Profit & Loss account till 2005-06 is Rs.53.65 Crore as against which Rs.27.06 Crore has been invested in the specified securities. Steps are being taken to invest balance of Rs.26.59 Crore during FY 2006-07. The provision for Contingency Reserve for the FY 2007-08 has been kept at **Rs. 10.49 Crore** in the ARR Application which may kindly be approved.

4.15.19 **Interest on Loan Capital**

4.15.19.1 Interest on Loan (both for existing and new loans) for FY 2007-08 has been projected as Rs.116.38 Crore at an average rate of 10.90% based on the provisional Accounts of OPTCL for FY 2005-06.

4.15.19.2 In the mean time it is now observed that inflation as well as the interest rates are steadily rising. Therefore, the above estimation of Rs. 116.38 Crore at an average interest rate of 10.90% by OPTCL may be considered as being very much on the lower side. OPTCL prays the Commission to kindly consider a suitable higher rate of interest based on the prevailing prime lending rate while allowing the interest on loan capital.

4.15.20 **Transmission loss**

4.15.20.1 OPTCL projected a transmission loss of 5% (against 4.78 % calculated as per OERC approved Gross Method for the period April'06 to September'06) in its ARR Application for FY 07-08 in view of the current increasing demand for power at an accelerated pace than ever before due to on-going industrialization in the State of Orissa and stoppage of trading of surplus power by GRIDCO. Due to these factors, there will be increased flow of power in the OPTCL Transmission Network including drawl from ISGS Stations during FY 2007-08 contributing to the increased transmission loss in the OPTCL System.

4.15.20.2 In fact, such apprehension has been proved to be true and the transmission loss for the period from April'06 to December'06, as per OERC Gross Method, has increased to 5.21%. against transmission loss of 4.78% arrived at as per OERC approved Gross Method i.e. "as the System Operates" on actual basis of power flow during the period from April'06 to September'06

when sale of surplus power to outside entities existed. Therefore, the projection of transmission loss at 5% by OPTCL is not at all on the higher side and is very much realistic. Besides, as submitted in the ARR Application itself, the Transmission Loss of other State Transmission Utilities approved by the respective SERCs are also well above 4%. Therefore, going by the industry standards, the performance of OPTCL with regard to the Transmission Loss is not at all on a bad footing as are being put forth by the objectors. OPTCL prays that the Commission may approve transmission loss @ 5% for FY 2007-08 as proposed.

4.15.20.3 It is worthwhile to mention that the transmission network of PGCIL and that of OPTCL are not comparable. PGCIL's system is comparatively new while OPTCL's network is an age-old system having much lower voltage base and more no. of Substations and Transformers which contribute to higher level of Transmission Loss. Therefore, objectors' contention for making a comparison between the transmission of PGCIL and that of OPTCL is not logical and hence not tenable.

4.15.20.4 Regarding fixation of technical loss, OPTCL proposes that the Commission may constitute a Technical Expert Committee who will study the existing system and suggest the technical loss which will be allowed in fixation of tariff.

4.15.21 **Miscellaneous queries on Tariff**

Reacting to some miscellaneous queries raised by objectors during the hearing, OPTCL replied that it has formulated its ARR & Transmission tariff Application for FY 2007-08 based on the prescribed CERC & OERC Tariff and other relevant Regulations. While doing so, OPTCL has also been pragmatic to adopt the lowest cost in order to keep the Transmission Tariff at its lower ebb considering the affordability of all the stake-holders via-a-vis its very own survival. Therefore, OPTCL does not agree to the assumptions made by the objectors which are Piece Meal or Cherry Picking Approaches which do not take into consideration how the deficit in the ARR of OPTCL would be met if drastically lower Transmission Tariff (lower than the optimum Transmission tariff) is fixed. OPTCL submits that even with Transmission Tariff @ 25 P/U, OPTCL has incurred loss and with a Tariff of 22 P/U during FY 2006-07, the uncovered gap is expected to mount to about Rs. 130.00 Crore. Therefore, the suggestions of the objectors to fix the Transmission Tariff much lower than what has been applied for by the OPTCL, are devoid of merit and may not be considered. In fact, OPTCL, being a nascent organization should be given a smooth going from its initial years with an optimal transmission

tariff suitable to all the stakeholders so that it becomes able to fulfill its obligations as a State Transmission Utility, as a Transmission Licensee & as a Transmission Service Provider under the prevailing License Conditions and the regime of Open Access. It may kindly be noted that OPTCL does not have any other avenues of resource mobilization except the singular source of Transmission Tariff and any reduction below the optimal point would put its survival at stake. OPTCL, therefore, prays the Commission to consider the proposal on merit by applying the prudential norms as deemed fit in greater interest of justice to all.

4.15.22 Revenue collection in terms of LTOA & STOA Charges is not shown as Miscellaneous Receipt

OPTCL in its ARR Application for FY 2007-08 has proposed that Open Access Charges, being too uncertain, can not be quantified; any estimation may have serious imbalances in the ARR of the OPTCL. OPTCL, therefore, submitted that such charges would be duly accounted for in the subsequent ARR as Year-End-Adjustments so that the interest of none of the stakeholders is affected in any manner.

4.15.23 OPTCL has been compelled to engage Engineers and Finance personnel through service providers as State Govt. has not yet permitted OPTCL to fill-up the base-level vacant posts. OPTCL is finding it difficult to engage best talents in all the disciplines in the absence of permission from State Govt. to fill up posts as per its own recruitment policy.

4.15.24 It is a fact that OPTCL has signed 13 MoUs with IPPs for setting up thermal power plants in Orissa. OPTCL is aware of its obligation towards commission of transmission lines for evacuation of power of the IPPs. However, so far none of the IPPs have come out with any proposal with details of location etc.

4.15.25 Some of the objectors have proposed that there should be no transmission tariff incase there is no physical flow of electricity. OPTCL does not agree to this proposition. In electricity sector, flow of power is generally through displacement and the beneficiary has obligation to pay transmission charges and loss if it intends to wheel power from one place to another. It should also be kept in mind that OPTCL has made huge investments for commissioning the transmission network and any one who advocates for no transmission tariff should also take into consideration the opportunity cost of putting up the transmission lines and compare the same with the transmission charges allowed by the Commission.

- 4.15.26 OPTCL executed the 400 kV Ib-Meramundali DC line for evacuation of power from the Units III & IV of OPGC. State Govt. is taking steps to expedite commissioning of Units III & IV.
- 4.15.27 OPTCL has maintained the fixed assets register as required under the Companies Act, 1956 and this has been updated up to FY 2005-06.
- 4.15.28 The submissions made by the consultants of WESCO, NESCO & SOUTHCO in their presentation is beyond the scope of the hearing of tariff proposal for the FY 2007-08 as their submissions relate to ATE Order for the FY 2006-07. The ATE order on transmission tariff has been challenged by OPTCL in the Supreme Court of India and the appeal has been admitted. Application for stay of the ATE order is listed for hearing on 12.03.2007.

5 COMMISSION'S OBSERVATION

5.1 Introduction to OPTCL's transmission tariff order for FY 2007-08

- 5.1.1 The Commission, for the determination and approval of the ARR for OPTCL for FY 2007-08, continues to follow the same principles as laid down in its terms and conditions of tariff as well as the LTTS order, and continues to be guided by the provisions of the National Tariff Policy as well other statutory notifications and directives, while giving due considerations to the complexities of the Orissa Power Sector.
- 5.1.2 The Commission has been constantly following the same principle for the computation of transmission losses for the transmission ARR. As in all other components of ARR determination, transmission losses are also projected as part of the ARR approval process, and would need to be trued-up based on the availability of the audited accounts of the licensee. The Commission has followed the same basis for the computation of transmission losses for FY 2007-08. Variations from the approved figures for the past year have been trued up on the basis of actual audited annual accounts.
- 5.1.3 OPTCL has inherited from GRIDCO a considerable ageing network. Constant up-gradation and regular repairs and maintenance are required to keep the network in a safe and operational condition, as well as to meet the growing requirements in terms of Distco demand in terms of energy, as well as to meet the Commission's and consumers' expectations on supply quality, 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 compared to the proposals of the licensees, encouraging the licensees to undertake regular and adequate maintenance. The same principle has been followed by the

Commission for this ARR determination as well. However, the Commission has also observed that the licensees have not been able to spend the amount approved by the Commission under this head. The Commission has considered this un-spent surplus as a part of truing-up for all the licensees.

- 5.1.4 The Commission takes a pragmatic view of the provisions of the National Tariff Policy in the case of allowing for depreciation in the ARR. It is evidently clear that the depreciation available on a Straight Line Method based on the rates notified by the Govt. of India in 1994 falls short in meeting principal repayment obligations in the later years of the term of the loan. It is in this instance that Advance Against Depreciation (AAD) is required by the licensees to meet principal obligations. This has been amply demonstrated in the section of this tariff order dealing with depreciation. The Commission has continued to allow AAD in this order as well to ensure that OPTCL is allowed to meet all its external principal repayment obligations.
- 5.1.5 Contingency Reserves are essential to meet unforeseen requirements in future, and hence licensees should ideally provide for contingency reserves on a regular basis to build up a corpus to meet future unforeseen eventualities. However, the Commission has in the past sought information and proof from the licensees on whether the amount approved in past tariff orders as contingency reserves have actually been invested in the corpus. This has been trued-up on the basis of audited annual accounts made available to the Commission.
- 5.1.6 These principles forming the basis of this ARR determination exercise are dealt in greater detail in the main text of this order under the relevant components of the ARR.

5.2 **Truing-Up for OPTCL**

- 5.2.1 Keeping in line with the provisions of the E Act 2003, Govt. of Orissa, vide notification no. 6892 dated June 09, 2005, vested the transmission function, along with related assets, liabilities and personnel, in a new entity, the Orissa Power Transmission Corporation Limited.
- 5.2.2 OPTCL has submitted its provisional annual accounts for its first year of operations (FY 2005-06). The Commission, as part of this comprehensive truing-up exercise, has also taken the FY 2005-06 accounts of OPTCL for truing-up.

5.3 Computation of Transmission Loss

- 5.3.1 The transmission system of OPTCL operates as an integral part the Eastern Regional Grid to serve the internal demand of the State as well as to carry out import and export of power depending upon the system demand under the overall supervision of the Eastern Regional Load Dispatch Centre in accordance with the GRID CODE. Transmission loss therefore has been determined on the basis of 'As the system operates'. During the months from April'06 to January'07 of the current FY the total unit lost in transmission was 823.90 MU.
- 5.3.2 Some of the objectors had pointed that addition of transmission assets during the last few years should have resulted in reduced level of transmission loss than what is being reported now. The Commission also takes into consideration the submission of OPTCL with regard to the existing level of transmission loss as indicated in this order. In fact, OPTCL had reported that the transmission loss upto October of the current financial year was 4.62% and by end of January'07 it was 5.27%. This kind of loss variation is on account of the nature and quantum of power flow in the system particularly due to complete stoppage of export of power since December, 2006 leading to higher utilisation within the State and consequential higher load flow.
- 5.3.3 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 plan of OPTCL system can be a factor in reducing the transmission loss.
- 5.3.4 The allocation of loss to all the users of OPTCL's transmission system based on the consumption figures of first ten months of 2006-07 is furnished in the table below:

Table – 9

CALCULATION OF TRANSMISSION LOSS IN OPTCL EHT SYSTEM					
ACTUAL TRANSMISSION LOSS FROM APRIL, 2006 TO JANUARY, 2007					
SL. NO	SOURCE	GROSS INPUT (MU)	GROSS OUTPUT (MU)	Proportionate Loss sharing (MU)	Proportionate Loss sharing (%)
1	STATE DEDICATED STATIONS				
I	HIRAKUD	757.50			
ii	BALIMELA	1,365.53			
iii	RENGALI	603.06			
iv	UPPER KOLAB	876.07			
v	INDRAVATI	1,405.43			
A	OHPC	5,007.59			
B	MACHHKUND	277.80			
C	OPGC	1,470.13			
D	TTPS	2,700.90			
	Total State Generation Input	9,456.42			
2	CPPS				
I	ICCL	312.01	285.36	15.89	0.10%
ii	NALCO	484.41	166.75	9.28	0.06%
iii	INDAL	24.21	-	-	0.00%
iv	RSP	29.08	-	-	0.00%
v	NINL	62.74	-	-	0.00%
vi	NBFA	115.15	-	-	0.00%
vii	BHUSAN, THELKOLAI	284.57			
	ARATI STEEL	73.05			
	MESCO	0.75			
	TOTAL CPP	1,385.97	452.11	25.17	0.16%
3	EREB			-	0.00%
i	Meramundali-TSTPS / Duburi-Kaniha	1,258.37	-	-	0.00%
ii	Rengali-TSTPS	3.53	329.52	18.34	0.12%
iii	TTPS-TSTPS	328.42	6.73	0.37	0.00%
iv	Rourkela-Tarkera	174.53	250.47	13.94	0.09%
v	Rengali(SY)-Regali (PG)	823.30	-	-	0.00%
vi	Jeypore-Jayanagar	90.14	1,086.96	60.51	0.39%
vii	Rengali-Kolaghat	-	-	-	0.00%
viii	Rengali-Rengali (PG)	-	-	-	0.00%
ix	Indravati PH-Indravati (PG)	-	-	-	0.00%

x	Joda-Jamshedpur	123.36	74.59	4.15	0.03%
xi	Joda-Ramchandrapur	165.47	32.04	1.78	0.01%
xii	Joda-Kenduposi-Joda	0.03	19.70	1.10	0.01%
xiii	Rourkela-Goelkera	-	-	-	0.00%
	Balimela-U.Sileru				
xiv	Budhipadar-Korba	-	-	-	0.00%
xv	132 kV Kalabadia- Rairangpur	80.66	44.94	2.50	0.02%
xvi	132 kV Kalabadia- Baripada	221.61		-	0.00%
xvii	Meramundali ICT Loading	1,512.44	-		
	Total EREB	4,781.86	1,844.95	102.70	0.66%
	Balimela-U. Silleru	-	-	-	
4	Export to APTRANSCO		-	-	0.00%
5	DISTCOs		12,503.29	696.03	4.45%
	GRAND TOTAL	15,624.25	14,800.35	823.90	5.27%
	LOSS (MU)	823.90			
	LOSS (%) OF GROSS INPUT		5.27%		

5.3.5 It is observed that there is variation of loss from month to month in the current year and after stoppage of export of power in the month of December it has increased to the level of more than 5%. The transmission loss is dependent on system configuration and power flow requirements at different load centres. It is hoped that with installation of high accuracy CTs & PTs in various grid s/s an accurate level of loss can be determined. Looking at the available figures we accept a figure of 5% for the FY 2007-08 as transmission loss for wheeling.

5.4 Operation and Maintenance (O&M) Expenses

The O&M expenses for OPTCL may be considered under the following heads:-

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

5.4.1 Employees' Cost

5.4.1.1 OPTCL has projected employee expenses of Rs.187.04 crore for the FY 2007-08. Major components of the expenses are as follows:

Table - 10**(Rs. Crore)**

Basic Pay	58.53
DA	21.66
HRA	11.71
Others	5.99
Terminal benefit (Pension & Gratuity)	89.15
Total	187.04
Less : capitalisation	4.91
Net	182.12

5.4.1.2 The figures in respect of employees' cost based on provisional accounts for 2005-06 as submitted by OPTCL in its filing is given as under:

Table - 11**(Rs. Crore)**

	As per provisional accounts FY 2005-06
Basic Pay	35.84
DA	23.98
HRA	3.80
Others	4.29
Terminal Benefits	89.15
Total	157.06
Less capitalisation	4.13
Net	152.93

5.4.1.3 On the basis of provisional accounts for FY 2005-06 submitted by OPTCL, the Commission allows escalation @ 3% on the basic pay towards normal annual increment on year to year basis. This is in line with Commission's order of the previous years.

5.4.1.4 As regards DA, the State Govt. Notification on DA rate from time to time is given below.

Table - 12

With effect from	DA (%)	Notified by GoO	Notified by GoI
01.01.2005	67% (As per GoO order dtd. 15.09.2006 the DA equivalent to 50% of Basic Pay has been merge with Basic Pay w.e.f 01.04.2006)	17%	17%
01.07.2005	-	21%	21%
01.01.2006	-	-	24%
01.07.2006	-	-	29%
01.01.2007	DA rise anticipated	-	32%*
01.07.2007	DA rise anticipated	-	35%*

() Anticipated by the Commission.*

5.4.1.5 The Government of Orissa notified the merger of 50% of DA to the Basic Pay as Dearness Pay (DP) w.e.f. 01.04.2006. The DA rate at the time of merger was 67% which was reduced to 17% after the merger. The Government of Orissa notified another dose of DA @ of 4% raising it to 21%. The DA of 21% is to be calculated on the Basic Pay plus Dearness Pay. The Government of Orissa has not revised the DA since 01.07.2005. However, Government of India as has released two more doses of DA as on 1.1.2006 and 01.07.2006 raising it to 24% and 29% respectively. With an anticipated half yearly rise in DA @ 3% the annual average DA rate may reach 35% as emerges from the figures in the table above given in asterisks. The Commission calculates D.A. @35% over the Basic pay + Dearness Pay for the FY 2007-08.

5.4.1.6 In respect of expenditures such as medical reimbursement, house rent allowance and encashment of earned leave, the principle adopted in the last year has been followed mutatis mutandis. Medical reimbursement has been allowed @ 3% on the basic pay. House rent has been allowed proportionately based on provisional figure for 2005-06.

5.4.1.7 Terminal Benefits: For the year 2007-08, OPTCL has claimed a sum of Rs.89.15 crore towards terminal benefits based on average of last three years of actuals shown in audited accounts viz. 2002-03, 2003-04, and 2004-05.

5.4.1.8 The Commission is of the view that the provision of terminal liabilities like pension, gratuity, and leave salary contribution should be based on periodic actuarial valuation in line with the accounting standard 15 issued by ICAI. As mentioned in the last tariff order, the Commission, vide order No.1761 dt.20.10.2006, awarded the contract of valuation of the terminal liabilities of the employees and pensioners of OPTCL, WESCO, NESCO, SOUTHCO and CESU to an independent actuary. The actuary has sent the final report in February, 2007 in respect of all the companies. The valuation of pension payment of retired employees in respect of SOUTHCO could not be obtained due to non-submission of necessary information to the actuary. Similarly, the liability on account of unutilized leave for CESU was not valued by the independent actuary due to non-submission of required information by CESU. A table showing the liabilities ascertained by the actuary as on 31.3.2006 is furnished below:-

Table – 13

	OPTCL	WESCO	NESCO	SOUTHCO	CESU	Total
No. of Existing Employees	4,586	4,654	4,134	3,600	6,547	23,521
No. of Existing Pensioners	6,116	1,020	1,096	NA	1482	9714
Total	10,702	5,674	5,230	3,600	8,029	33,235
Pension Liability of existing employees (Rs. Cr.)	207.65	155.21	121.82	124.66	247.75	857.09
Gratuity Liability of Existing Employees (Rs. Cr.)	27.15	31.96	17.81	22.82	32.34	132.08
Leave (Rs. Cr.)	31.51	27.67	20.56	21.60	NA	101.34
Pension in Payment (Rs. Cr.)	377.23	78.59	52.51	NA	96.68	605.01
Total	643.54	293.43	212.70	169.08	376.77	1,795.52

5.4.1.9 In the year 1998-99, GRIDCO carried out an actuarial valuation for quantification of the terminal liabilities of employees of its transmission as well as its distribution business as on 31.3.1999 as mandated by the transfer notification dt.28.11.1998 by an independent actuary. Although the valuation was disputed by DISTCOs, the Commission in principle accepted the audited figures of

GRIDCO. According to the report of the actuary, the total terminal liabilities as on 31.3.1999 are given as under:-

Table – 14

(Rs. in crore)

		OPTCL	WESCO	NESCO	SOUTHCO	CESU	Total
No. of Employees	Existing	5,974	5,562	4,599	4,674	8,608	29,417
	Retired	4,493	Nil	Nil	Nil	Nil	4,493
	Total	10,467	5,562	4,599	4,674	8,608	33,910
Pension of the existing employees		74.28	44.85	42.83	42.63	83.02	287.61
Gratuity		23.74	16.20	15.42	14.85	29.37	99.58
Leave		6.01	4.10	3.90	3.76	7.43	25.20
Pension in Payment		80.04	-	-	-	-	80.04
Total		184.07	65.15	62.15	61.24	119.82	492.43

5.4.1.10 From the above tables it is observed that the fund requirement has gone up by more than three times over a period of 7 years which is surprising, given the fact that there has been a constant reduction of number of employees as a result of superannuation and subsequent abolition of posts. The Commission has no expertise to dis-agree with the results of this actuarial valuation. The Commission agrees with the principle that pension, gratuity liability should be met from the earning of corpus fund only in full and the corpus fund should be created by the companies by regular contributions to the fund based on actuarial valuation. The Commission, in its previous order, has allowed terminal benefits to the licensees which the companies are supposed to pass on to the trust for the trusts to invest as per the guidelines issued by Govt of India. But the Commission has no information regarding the investment position of the corpus of the trusts of different companies. Only OPTCL in its filing has submitted the investment position as on 28.2.2007. Further, the licensees have failed to submit the information regarding the reduction in the number of employees, induction of new employees and their impact on employees cost etc. In view of above, the Commission is not convinced of the terminal benefit liability based on the valuation of actuary, unless detailed information regarding the corpus of the trust fund up to 31.3.2006 and the details of

the employees are finally ascertained and submitted to the Commission. Further, the Commission needs to verify the official receipts from the trust duly acknowledging the contribution from the licensees towards the trust fund from time to time. Till such time, the Commission provisionally allows an amount towards payment of terminal liabilities in proportion of the total of basic pay and DA, similar to the proportion allowed in the previous tariff order for FY 2006-07. The Commission directs the licensees to submit the up-to-date investment position of the trust in different bond or securities and the year-wise cash outgo towards payment of pension and gratuity made by the licensees towards retiring employees by 30.6.2007.

5.4.1.11 The Commission in the year 2006-07 has allowed certain amount towards terminal benefit (pension + gratuity + leave salary) on pay & DA base. The same proportion is applied to the approved pay and DA of the licensees to determine the terminal benefit for the FY 2007-08.

Table – 15

(Rs. Crore)

	Basic Pay + DP	DA	Total	Terminal Benefits 2007-08 (Approval)	2006-07 (Approval)
OPTCL	57.04	19.68	76.70	55.38	47.42
WESCO	44.56	15.60	60.16	16.36	14.25
NESCO	43.66	15.28	58.94	15.30	11.38
SOUTHCO	37.93	13.28	51.28	13.97	11.49
CESU	65.07	22.77	87.84	18.28	16.49

5.4.1.12 The summary of employee's cost proposed by OPTCL and approved by the Commission is shown in the table below:

**Table - 16
Employee's Cost**

(Rs. Crore)

Sl No.	Particulars	FY 06-07 (Appr.)	FY 07-08 (Prop.)	FY 07-08 (Appr.)	Assumption
1.	Salaries(Basic Pay)	37.10	39.52	38.03	3% increase as approved by the Commission in 2006-07 with 50% merger of DA with basic pay as DP.
2.	Salaries (Dearness Pay)	Nil	19.01	19.01	
3	Dearness Allowance	28.57	21.66	19.96	
4	Other Allowance	0.37	0.56	0.56	
5	Bonus		-	-	
6	Sub Total (1 to 5)	66.03	80.75	77.56	
	OTHER STAFF COST				
7	Reimbursement of Medical Expenses	1.11	2.34	1.71	3% of the basic pay + DP
8	Leave Travel Concession	-	1.00	1.00	
9	Reimbursement of House Rent	3.87	11.71	5.95	Pro-rated
10	Interim Relief to Staff		-	-	
11	Encashment of Earned Leave	2.74	0.12	-	
12	Honorarium	0.01	0.01	0.01	
13	Payment under Workmen compensation Act	-	0.06	0.06	
14	Ex-gratia	-	1.15	-	
15	Miscellaneous	0.27	0.30	0.30	
16	Sub Total (7 to 15)	8.00	16.59	9.03	
17	Staff Welfare Expenses	0.59	0.55	0.55	
18	Terminal Benefits	44.68	89.25	55.38	
19	Total (6+16+17+18)	119.30	187.04	142.52	
	Less :Capitalisation	2.39	4.91	3.74	
	Net Total	116.91	182.12	138.78	

5.4.2 Repair & Maintenance Expenses

5.4.2.1 OPTCL has proposed an amount of Rs.54.00 crore towards repair and maintenance expenses for 2007-08. While projecting the figure, the licensee has taken into consideration the approved figure of the Commission for 2006-07 and applied the escalation of

50% over it to arrive at the proposed figure for the year 2007-08. OPTCL has submitted that it was formulating a plan to augment the R&M works in order to keep its lines and sub-stations in a proper working condition to maintain uninterrupted and quality power supply in the State and with this aim in view, it intended to increase the R&M expenses progressively to achieve the relevant norm prescribed by this Commission. The details of R&M expenditure of Rs.54 crore subsequently furnished by OPTCL in its written submission is furnished below:-

Table - 17
R&M Action Plan During 2007-08

(Rs. in crore)

1. Circuit Breaker :-			
	a) 220 KV	6 No	1.70
	b) 132 KV	45 No	4.23
	c) 33 KV	45 No	1.40
2. C.T.			
	a) 400 KV	5 No	0.43
	b) 220 KV	20 No	0.75
	c) 132 KV	50 No	0.75
	d) 33 KV	70 No	0.22
3. L.A.			
	a) 4000 KV	6 No	0.08
	b) 220 KV	15 No	0.11
	c) 132 KV	25 No	0.16
	d) 33 KV	35 No	0.06
4. P.T.			
	a) 220 KV	6 No	0.19
	b) 132 KV	12 No	0.16
	c) 33 KV	15 No	0.03
5. CVT	a) 400 KV	6 No	0.54
6. SF ₆ gas		2000Kg	0.50
7. Transformer Oil		400 KL	2.00
8. D.P. Relay		30 No	0.90
9. Other Relay		L.S.	2.00
10. Battery & Battery charger		12 Set	1.80
11. 40 MVA Transformers		5 No	15.00
12. Station Transformers		12 No	0.30
13. Telecom Equipments		L.S.	5.00
14. Tower Structure		L.S.	1.10
15. Re Conductor of 132 KV			
Theruvalli – Kesinga Line		106 Km	6.20

16. Spares for ERS		L.S.	2.00
17. Over hauling of Breakers		L.S.	1.20
18. Engagement of Security Personnel		L.S.	3.50
19. Other Miscellaneous		L.S.	2.00
		Total :	54.00

5.4.2.2 These details were submitted in the public hearing by the CMD, OPTCL. The DISTCOs did not raise any objection to the scope of work presented by OPTCL. The Commission observed that desegregated GRIDCO has not taken effective steps to take-up required R&M works of transmission lines and sub-stations by spending money approved by the Commission in past years. An analysis of the figures approved by the Commission for past 6 years and actuals as per audited accounts is given in the table below:

Table – 18

(Rs. in Crore)

Year	Approved	Actual
1999-00	19.84	9.51
2000-01	14.67	9.90
2001-02	15.99	8.81
2002-03	17.43	9.35
2003-04	13.35	7.03
2004-05	14.07	4.59
2005-06	14.80	6.94 (Prov. A/c)
2006-07	36.00	11.67 (Upto Jan.'07)
2007-08	-	54.00 (Proposed)

5.4.2.3 It is revealed from the table that the actual expenditure for each year is always less than the approved figure. In reply to the query raised during hearing, OPTCL in its written submission stated that the low level of expenditure on R&M was due to fund constraints. After OPTCL became operational, there have been no fund constraints as it is getting paid its revenue fully by GRIDCO on demand. Therefore, OPTCL has undertaken a lot of measures to spend higher amount on R&M. During April, 2006 and January, 2007 of the FY 2006-07, OPTCL has already spent

Rs.11.67 crore. Purchase orders amounting to more than Rs.20 crore have been placed and materials are expected to be delivered by February, 2007. OPTCL commits that it will be able to spend Rs.36 crore for the FY 2006-07 as approved by the Commission.

5.4.2.4 The transmission system of OPTCL is the back bone 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 DISTCOs who are the real beneficiary would be put in trouble and the entire power system would be in complete jeopardy.

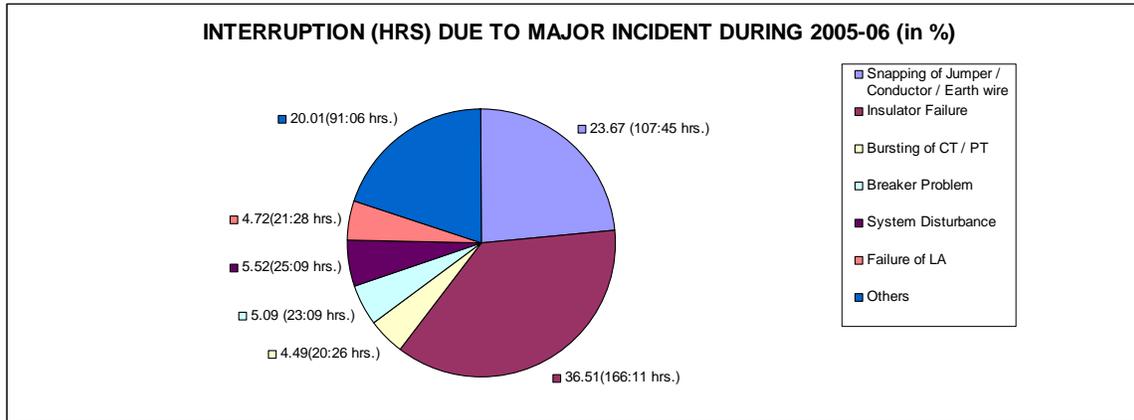
5.4.2.5 Instead of asking for a healthy transmission system through proper and adequate maintenance, it is strange that WESCO, NESCO & SOUTHCO want a reduction in maintenance cost of OPTCL.

5.4.2.6 The Commission also desires that the operation and maintenance standards of OPTCL should be suitably brought at par with the lines and sub-stations being maintained by entities like the Power Grid Corporation of India. A table and a pie chart indicating the duration and nature of interruption of transmission system of OPTCL during 2005-06 is depicted below:

Table – 19

INTERRUPTION DUE TO MAJOR INCIDENTS DURING 2005-06

Incident	Duration of Interruption (in hrs.)	No. of Interruptions	% of Interruption
Snapping of Jumper / Conductor / Earth wire	107:45:00	23	23.67
Insulator Failure	166:11:00	24	36.51
Bursting of CT / PT	20:26:00	9	4.49
Breaker Problem	23:09:00	14	5.09
System Disturbance	25:09:00	10	5.52
Failure of LA	21:28:00	6	4.72
Others	91:06:00	23	20.01
Total:	455:14:00	109	100.00



5.4.2.7 The Commission expresses grave concern about the interruptions occurring in the EHT transmission system due to snapping of conductors, burning of jumpers, damage to transmission towers, failure of equipment at various sub-stations causing dislocation of power supply which can hardly be tolerated in view of growing importance for maintaining continuity and quality of power supply in the developing industrial economy of the State. Theft of tower members and conductors have almost reached a menacing proportion that requires serious attention of not only of OPTCL but also the law and order authorities of the Govt. of Orissa. The Commission directs that OPTCL should have in place an appropriate security mechanism for continuous monitoring of various transmission lines to prevent failure of such lines. The OPTCL was also directed in course of the tariff hearing to prepare a master plan for renovation and modernization of their existing transmission network and submit the same to the Commission for completion of such maintenance in a definite time frame.

5.4.2.8 The Commission takes note of the fact that OPTCL may be able to spend around Rs.31.67 crore out of Rs.36 crore permitted by the Commission towards R&M works during 2006-07 as its pace of procurement of materials slowed down after the orders of the Appellate Tribunal of Electricity limiting its maintenance expenses to Rs.15 crore during 2006-07 as reported by them. It is on record that the aforesaid order of the ATE is under appeal in the Supreme Court of India.

5.4.2.9 After having said this we would like to say that Orissa has entered a phase of industrial resurgence which requires quality power supply of international standards if industrial units are to utilize their capacity to the fullest extent.

5.4.2.10 There has been phenomenal growth of railway traction which obviously requires uninterrupted power supply for 24 hours for 365 days in a year. This also is the case of many other sophisticated industries. In view of that, OPTCL shall have to gear up its maintenance to supply uninterrupted power of proper quality. In view of this, we disagree with the contention of some of the objectors that the R&M projection is on the higher side considering that there has been persistent failure on the part of the licensee to maintain the system upto the desired level for which it requires more money for R&M works. This is besides that the DISTCOs have not objected during public hearing to the proposed expenditure of Rs. 54 crore stated by OPTCL. In view of that we are permitting OPTCL to incur expenditure on R&M work to the tune of Rs.54 crore less Rs.7 crore i.e. 150% of the unspent amount of 2006-07.

5.4.2.11 It was raised by some of the objectors that the expenditure on R&M should be capitalized and not be charged to revenue for a particular year. If the R&M expenses have to be capitalized, the company has to go for a loan capital which is again to be recovered over a period of time. As on 31st March, 2008 the loan liability of OPTCL will be around Rs.1319 crore. We do not intend to add further loan capital for this utility. The proposed expenditure now allowed should be recovered in one year as it will have a small impact on the tariff at consumer end. In view of that, we have decided to allow the R&M expenses of Rs.47 crore for the year 2007-08 as a pass through in the revenue requirement of the year 2007-08.

5.4.3 Administration and General Expenses

5.4.3.1 Administration and General Expenses include property related expenses like license fee, rent, taxes, insurance, communication charges, professional charges, consultancy charges, conveyance charges, travel expenses and other sundry expenditures. OPTCL had proposed Rs.14.79 crore under this head for 2007-08. The Commission had approved an amount of Rs.14.89 crore towards A&G expenses for 2006-07. The provisional figure of OPTCL for the year 2005-06 reveals that the expenditure is Rs.13.41 crore towards A&G expenses.

5.4.3.2 As such, the Commission, in accordance with its earlier orders, allows escalation of 5.5% (average of WPI & CPI) over the approved figure of 2006-07 and approves an amount of Rs.15.71 crore to be passed on to tariff.

5.4.4 Interest on Loan

5.4.4.1 OPTCL has proposed gross interest expenses of Rs.116.38 crore for the FY 2007-08. The loan-wise interest payment schedule is given in the table below:

Table – 20

	Particulars	Rate of Interest	Principal as on 01.4.07	Interest for 2007-08
A	Govt. Loans			
	State Govt. (Cash Loan)	13.00%	2.00	0.26
	Central Govt. Loan	9.25%	11.26	1.01
	GoO Bonds	13.00%	400.00	26.00
	Sub Total		428.26	27.27
B	Institutional Loans			
	REC Loan	12.15%	20.34	1.44
	PFC Loan	16.05%	40.56	5.91
	Sub Total		60.90	7.35
C	Secured Loan			
	Union Bank of India	8.25%	70.14	5.25
	HUDCO	7.75%	194.89	18.17
	UCO Bank	8.25%	147.17	10.22
	Oriental bank of Commerce	8.25%	200.00	15.51
	Sub Total		612.20	49.15
D.	GRIDCO Bonds			
	Open Market Loan	11.50%	24.03	2.75
	Pension Trust Bond	9.00%	96.00	7.90
	Sub Total		120.03	10.65
E	Deposit from EHT Consumers		25.51	1.36
F	Grand Total		1246.91	95.78
G	New Projects in 2007-08		228.90	20.60
	Total			116.38

5.4.4.2 The details of loans are indicated below for the period beginning 01.4.05. **(Rs. in crore)**

Loan Transfer to OPTCL as per audited account	Rs.1397.14
Receipt during 2005-06	Rs. 216.13
Repayment	Rs. 220.82
Receipt during 2006-07	Rs. 6.96
Repayment	Rs. 152.50
Closing balance of loan as on 31.3.2007	Rs.1246.91
Anticipated receipt during 2007-08	Rs. 228.90
Proposed repayment	Rs. 156.84
Balance as on 31.3.2008	Rs.1318.98

5.4.4.3 It is observed from the above that excepting Rs.228.90 crore which is proposed to be availed of for new projects, all other loans are old and are approved by the Commission. Regarding the new loan of Rs.228.90 crore, OPTCL has submitted the project-wise details which are given in the table below :-

Table - 21

(Rs. in Crore)

Sl. No.	New Projects	2007-08
1	132/33 kV S/S at Basta and associated line	15.00
2	132/33 kV S/S at Karanjia and associated line	23.00
3	132/33 kV S/S at Barpali and associated line	14.00
4	400 kV D/C line from Meramundali to Duburi	36.00
5	220 kV Kailash Chandrapur-Padmanavpur DC Line	4.97
6	220 kV Padmanavpur-Balasore DC Line	4.16
7	2 nos. 220 kV bay extension at Balasore	2.12
8	Installation of 2 nd 20 MVA transformer at Barkote S/S with Bay Extension	1.66
9	Installation of 3 rd 40 MVA transformer at Chhend S/S with Bay Extension	1.54
10	Installation of 2x12.5 MVA 132/33 kV at Akhusingh	3.00
11	132/33 kV S/S at Anandpur and associated line	10.00
12	132/33 kV S/S at Nuapada and associated line	15.00
13	132/33 kV S/S at Bhawanipatna and associated line	7.50
14	132/33 kV S/S at Kuchinda and associated line	12.50
15	400/220 kV S/S at Bolangir with LILO line	30.00
16	220/33 kV S/S at Keonjhar with associated 220 kV and 132 kV lines	11.00
17	220 kV D/C line from Budhipadar to Bolangir	25.00
18	132 kV Bidanasi-Cuttack D/C line	11.00
19	400/220 kV S/S at Duburi	1.44
	Grand Total	228.90

5.4.4.4 The impact of interest on the above loan of Rs.228.90 crore amounts to Rs.20.60 crore claimed for the year 2007-08. The Commission observes that prior approval for such an investment required under Section 52(1) of Conduct of Business Regulation, 2004 has not been obtained by OPTCL. As such, the Commission does not find any justification to allow the amount of interest to be passed on to tariff.

5.4.4.5 **State Govt. Loan:** OPTCL has reported that loan from State Govt. (Cash loan) stands at Rs.2.00 crore as on 31.03.2007. Since debt servicing of State Govt. loan has been kept in abeyance vide notification dtd. 29.01.2003 of GoO, the Commission does not consider the interest impact on the above loan to be passed on to tariff.

5.4.4.6 **Central Govt. Loan:** As far as the remaining loan amount of Rs.11.26 crore of Central Govt. as on 31.03.2007 availed by the erstwhile OSEB for construction of transmission lines at an average rate of interest of 9.25% is concerned, OPTCL has not proposed any repayment for 2005-06 and 2006-07. The Commission, therefore, allows interest on a loan balance of Rs.11.26 crore to be passed on to tariff for the year 2007-08.

5.4.4.7 **GoO Bonds:** The amount of Rs.400.00 crore in the form of zero coupon bond issued to State Govt. by GRIDCO, is now transferred to OPTCL. The Commission, in its earlier tariff orders, had decided not to take into account the effect of up-valuation of asset for the purpose of determination of tariff as it was not a real out go by the Govt. of Orissa. As such, no interest shall be allowed on the bond for FY 2007-08.

5.4.4.8 **IBRD Loan:** GRIDCO in its annual account for 2004-05 has shown a balance of Rs.242.45 crore on account of this loan as on 31.03.2005. Out of this, an amount of Rs.129.24 crore was assigned to OPTCL leaving a balance of Rs.113.21 crore with GRIDCO. The position of IBRD loan is indicated in the table below:

Table – 22**(Rs. Crore)**

Loan availed of upto 31.03.04 (Net of 30% Grant)	441.12
Received during 2004-05	2.03
Total Loan	443.15
Repayment during 2004-05 (Through swapping by taking Rs.200 crore loan from UCO Bank @ 8.25%)	200.71
Balance of loan as on 31.03.2005 as per desegregated accounts of 2004-05	242.44
Assigned to OPTCL in the provisional transfer notification	129.24
Retained with GRIDCO to be transferred to DISTCOs	113.20

5.4.4.9 OPTCL, in its filing, proposed repayment of entire loan of Rs.129.24 crore along with outstanding interest of Rs.71.22 crore during 2005-06 and 2006-07 by availing of a fresh loan of Rs.200.00 crore from Oriental Bank of Commerce at a lower rate of 8.25% per annum.

5.4.4.10 As regards the loan of Rs.113.20 crore assigned to GRIDCO, the impact of interest has not been considered in the revenue requirement by GRIDCO, since the same will be transferred to DISTCOs. Therefore, neither OPTCL nor GRIDCO has assumed interest impact on IBRD loan during 2007-08. The Commission approves the same.

5.4.4.11 **REC Loan:** The loan from REC is project related which GRIDCO had availed at different rates of interest from time to time. This was availed for transmission as well as distribution networks. The average rate of interest of the above loan is shown at 12.15%. The total loan balance as on 31.3.2005 amounts to Rs.45.95 crore which now stands reduced to Rs.20.34 crore as on 31.3.2007 after repayment. Further, during 2007-08 the licensee proposed to repay an amount of Rs.14.98 crore leaving a balance of Rs.5.36 crore as at the end of 31.3.2008. The Commission approves the same and allows the interest to be calculated @8.5% (Tax free) as per Govt. notification dated 29.01.2003, on the average loan outstanding at the beginning and end of the year.

5.4.4.12 **PFC Loan:** The loan balance as on 01.4.05 based on the segregated audited account amounts to Rs.70.46 crore. This was also a project related loan. The loan now stands reduced to Rs.40.56 crore as on 31.3.2007 after repayment. Further during

2007-08, the licensee has proposed to repay an amount of Rs.14.95 crore leaving a balance of Rs.25.61 crore as at the end of 31.3.2008. The Commission approves the same and allows the interest to be calculated @8.5% (Tax free) as per Govt. notification dated 29.01.2003, on average loan outstanding at the beginning and end of the year as against 16.05% proposed by OPTCL.

5.4.4.13 **Loan from Union Bank of India:** GRIDCO during 2004-05 availed of 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 a repayment of Rs.1.20 crore during 2004-05, transferred the loan balance of Rs.98.80 crore to OPTCL. During 2005-06, 2006-07 and 2007-08, OPTCL assumed repayment of Rs.42.95 crore leaving a balance of Rs.55.85 crore as on 31.03.2008.

5.4.4.14 The Commission in its order for FY 2006-07, allowed the interest to be passed on to the tariff to OPTCL. Based on the same principle, the Commission now considers to allow the interest impact to be passed on to tariff for the FY 2007-08.

5.4.4.15 **Loan from HUDCO:** GRIDCO had availed of a loan of Rs.300.00 crore from HUDCO @7.75% to discharge the old loan from LIC, ICICI (project related loan) and a portion of power bonds during 2003-04. The loan balance after repayment has been worked out to Rs.252.63 core and was transferred to OPTCL. During 2005-06, 2006-07 and 2007-08, OPTCL has assumed the repayment of Rs.86.61 crore leaving a balance of Rs.166.02 crore as on 31.03.2008. The Commission allows the interest impact to be passed on to tariff calculated on the basis of average loan balance during the year.

5.4.4.16 **Loan from UCO Bank:** As discussed earlier, GRIDCO had availed of an amount of Rs.200 crore from UCO Bank at an average rate of 8.25% to swap IBRD loan during 2004-05. During 2005-06, 2006-07 and 2007-08, OPTCL assumed repayment of Rs.19.47 crore, Rs.33.36 crore and Rs.33.36 crore respectively leaving a balance of Rs.113.81 crore as at the end of 31.03.2007. The Commission approves the same and allows the interest to be passed on to tariff.

- 5.4.4.17 **Loan from Oriental Bank of Commerce:** During 2005-06, GRIDCO had availed of an amount of Rs.200.00 crore as loan from Oriental Bank of Commerce to swap principal of IBRD loan along with outstanding interest which has been assigned to OPTCL. During FY 2007-08, an amount of Rs 26.19 crore has been proposed towards repayment of principal leaving a balance of Rs 173.81 crore as on 31.3.2008. The Commission approves the same and allows the interest to be passed on to tariff.
- 5.4.4.18 **Open Market Loan:** GRIDCO had inherited a loan from OSEB period at an average rate of interest of 11.5% which works out to Rs.24.03 crore as on 01.04.2005 and the same has been allocated to OPTCL. The Commission allows the interest to be passed on to tariff for the year 2007-08, based on the principle adopted in the last year's tariff.
- 5.4.4.19 **Pension Trust Bond:** The Commission, in line with previous order, approves the pension trust bond of Rs.150.00 crore and its interest impact thereof at an average rate of 9% as proposed by the licensee.
- 5.4.4.20 **Deposit from EHT consumers:** Besides the above, the licensee has considered interest on deposit of EHT consumers viz. NEPAZ, Jindal Steel, Rohit Ferro Tech etc. at an average rate of 6% amounting to Rs.1.36 crore. The utilization of this fund has not been explained for which the Commission disallows the interest.
- 5.4.4.21 Based on the above factors, the interest liability of OPTCL has been calculated and the same works out to Rs.60.86 Crore.

Table – 23

(Rs. Crore)

		Rate of Interest	Commission's Approval 2006-07	OPTCL's Proposal 2007-08	Commission's Approval 2007-08
A	Govt. Loans				
	State Govt.(Cash Loan)	13.00%		0.26	-
	State Govt.(CRF)	0.00%		-	-
	Central Govt. Loan	9.25%	1.04	1.01	1.01
	GoO Bonds		-	26.00	-
	IBRD Loan	13.00%		-	-
	Sub Total		1.04	27.27	1.01
B	Institutional Loans				
	REC Loan	8.50%	2.30	1.44	1.09
	PFC Loan	8.50%	4.08	5.91	2.81
	SPA loan		0.04		
	Sub Total		6.38	7.35	3.90
C	Secured Loan				
	Union Bank of India	8.25%	6.38	5.25	5.20
	HUDCO	7.75%	16.23	18.17	13.99
	U Co Bank	8.25%	13.75	10.22	10.77
	Oriental Bank of Commerce	8.25%	16.50	15.51	15.42
	Sub Total		52.86	49.15	45.37
D	GRIDCO Bonds				
	Open Market Loan	11.50%	2.76	2.75	2.75
	Pension Trust Bond	9.00%	9.99	7.90	7.83
	Sub Total		12.75	10.65	10.58
E	Deposit from EHT Consumers	6.00%	-	1.36	-
F	Sub Total		73.03	95.78	60.86
G	New project in 2007-08			20.60	-
	Less interest capitalization		5.00		
H	Grand Total		68.03	116.38	60.86

5.5 Depreciation

5.5.1 OPTCL has claimed Rs.52.95 crore towards depreciation, considering the rate prescribed by the CERC for the FY 2007-08 on the up-valued assets and additions thereto as transferred to GRIDCO from erstwhile OSEB which was subsequently transferred by GRIDCO to OPTCL. The detailed Statement of Fixed Assets and block-wise computation of depreciation is given as under:

Table – 24

Particulars	Depreciation Rate prescribed by CERC	Gross Block (01-04-2005) (As per GoO Transfer Notification)	Depreciation (2005-06) (Provisional) (Rate as per Companies Act)	Gross Block (01-04-2006) (Provisional)	Depreciation (2006-07) (Rate as per CERC)	Gross Block (01-04-07)	Depreciation (2007-08) (Rate as per CERC)
Land and Rights		33.40	-	33.40	-	33.40	-
Buildings	1.80%	64.58	1.95	64.58	1.16	64.58	1.16
Plant and Machinery (Other Civil works)	1.80%	4.13	0.12	4.13	0.07	4.13	0.07
Plant and Machinery	2.57%	730.14	50.24	730.14	18.76	730.14	18.76
Plant and Machinery (Lines, Cables & Network Assets)	2.57%	923.36	42.34	1082.25	27.81	1258.29	32.34
Vehicles	18.00%	1.23	0.01	1.23	0.22	1.23	0.22
Furniture, Fixture	6.00%	1.67	0.12	1.67	0.10	1.67	0.10
Office Equipment	6.00%	4.77	0.49	4.77	0.29	4.77	0.29
Total		1763.29	95.27	1922.18	48.42	2098.22	52.95

5.5.2 Up-valuation of Assets

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

5.5.2.1 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. Till date, the Govt.'s decision has not been received.

- 5.5.2.2 The CERC (Terms and Conditions of Tariff) Regulations, 2004 notified on 26th March, 2004 at para 56(II)(a)(I) stipulates that the value base for the purpose of depreciation shall be the historical cost of the asset. In OERC regulation, it has also been prescribed for the purpose of tariff determination and the rate of depreciation could be linked to the useful life of the asset, calculated on straight line method. This is in line with the CERC Regulation also. In view of this, the Commission has approved calculation of depreciation on the basis of historical cost.
- 5.5.3 The Commission has extensively dealt with the valuation of assets and calculation of depreciation in para 5.36.1 to 5.37.5 of tariff order dated 23.06.2003 and treated transmission asset base of undivided GRIDCO at Rs.514.32 crore as on 01.04.1996.
- 5.5.4 The year wise asset addition from 1996-97 to 2005-06 is as per the annual accounts and provisional accounts submitted by undivided GRIDCO and OPTCL. For the year 2006-07, OPTCL had proposed an addition of asset to the tune of Rs.176.04 crore. The Commission scrutinized the figure given in TRF-2 of the filing made by OPTCL. It is found that as on 31.3.2006, the work in progress of OPTCL amounts to Rs.859.92 crore which is of a very tall order. As long as the same are not transferred to the assets in use, the benefit is not passed on to consumers. The delay in completion of the ongoing projects has added to interest during construction which has raised project cost. Further, OPTCL does not make cost benefit analysis of delaying a project and also the revenue earning thereof. Therefore, the Commission directs OPTCL to furnish its plan of action for capitalization of this work in progress. Considering the huge amount blocked under this head, an amount of Rs.176.04 crore towards asset addition proposed by OPTCL for FY 2007-08 is approved by the Commission.
- 5.5.5 A table showing gross fixed assets as on 1.4.96 and year-wise asset addition thereafter till 2006-07 is depicted below:-

Table – 25**(Rs. in crore)**

Year	OPTCL
GFA as on 1.4.1996	514.32
1996-97	514.32
1997-98	49.46
1998-99	62.5
1999-00	111.79
2000-01	134.1
2001-02	86.44
2002-03	132.17
2003-04	69.46
2004-05	71.72
2005-06	158.89
2006-07	176.04
Asset on 1.4.2007	1606.83

5.5.6 The Commission has calculated depreciation on the approved asset based at Pre-92 rate. The classification of assets has been done proportionately based on statutory audited accounts submitted by GRIDCO. Accordingly the Commission approves an amount of Rs.48.09 crore towards depreciation for the FY 2007-08. The detailed calculation is shown in the table below:

Table - 26**(Rs. Crore)**

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 01.04.2007	Depreciation for the year 2007-08
Land and Rights		8.07	27.92	0.00
Building	1.80%	13.09	53.99	0.97
Plant & Machinery (other civil works)	1.80%	-	-	-
Plant & Machinery	3.80%	-	613.81	23.32
Plant & Machinery (line, cables and network)	2.57%	492.71	904.70	23.25
Vehicles	12.86%	0.02	1.03	0.13
Furniture, Fixture	4.55%	0.19	1.40	0.06
Office equipment	9.00%	0.25	3.98	0.36
Grand Total		514.32	1606.83	48.09

5.6 Advance against Depreciation

5.6.1 The OPTCL has claimed an amount of Rs.84.18 crore towards advance against depreciation as per Regulation 56(ii) of CERC (Terms & Conditions of Tariff) Regulations 2004. The amount claimed is limited to the difference between 1/10th of the loan amount and depreciation. The loan amount considered by OPTCL for calculation of advance against depreciation is Rs.1371.34 crore. 1/10th of the loan amount works out to Rs.137.13 crore. Setting aside the depreciation amount of Rs.52.95 crore claimed by OPTCL, the balance amount of Rs.84.18 crore is claimed towards advance against depreciation. The Appellate Tribunal in its verdict stated that the amount allowed as advance against depreciation for the FY 2006-07 is illegal on the sole reasoning that such an allowance runs counter to National Tariff Policy published by the Central Govt. on 06.01.2006 under Section 3 of the Electricity Act, 2003.

5.6.2 The Commission, in its tariff order for FY-02, had linked the computation of depreciation to the life of the assets, by adopting the depreciation rates notified by the Govt. of India in 1992 on the gross fixed assets of the licensee. However, the Commission also recognized that in reality the actual debt service obligation of the licensee could be higher than the

depreciation computed on the above basis. Keeping this in mind, the Commission, in Para 5 (G) of its Terms and Conditions for determination of Tariff Regulations 2004, has clearly laid down the following:

- 5.6.2.1 The depreciation allowed by the Commission will be linked to the useful life of the asset and shall be calculated on a Straight Line method;
- 5.6.2.2 A higher rate of depreciation will be permitted in case of any inadequacy of cash for debt repayment;
- 5.6.2.3 The Commission can consider AAD in special cases, provided AAD and depreciation together for the year do not exceed 1/12th of the loan amount, and the total depreciation allowed does not exceed 90% of the original loan amount.
- 5.6.3 The National Tariff Policy, notified by the Ministry of Power, Govt. of India, in para 5.3 (c) lays down that “there should be no need for any advance against depreciation”.
- 5.6.4 As per the National Tariff Policy, the depreciation rates are to be notified by the CERC. Under normal circumstances, these rates should ideally meet the debt service coverage for those assets.
- 5.6.5 However, in case of Orissa, the ground reality is different. Because of the directives and orders of the Hon’ble 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 of depreciation 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.
- 5.6.6 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 much shorter period.
- 5.6.7 The National Tariff Policy has left the CERC with the task of notifying rates for depreciation for the generation and transmission business, with suitable modifications to make it applicable to the Distribution business. Current norms laid down by CERC link the depreciation rates to the life of the asset.

5.6.8 Even in case of depreciation rates notified in 1994 by the Govt. of India, it can be clearly demonstrated that for a particular asset financed by a 70:30 Debt Equity Ratio on a loan with a tenor of say, 11.5% payable over a 12-year period, there is a shortfall in the coverage of debt servicing from the 10th year onwards.

Table - 27
Comparison of Principal Servicing obligations vis-à-vis Depreciation available

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

5.6.9 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.

5.6.10 For an utility like that of OPTCL inheriting massive ageing transmission network, it is very evident that the depreciation would fall short of the principal servicing obligation, as is evident from the table in the preceding paragraph.

5.6.11 Based on this, the Commission feels it necessary to allow advance against depreciation for the licensee so that it meets its debt repayment obligations.

5.6.12 In line with the earlier order the Commission allows the advance against depreciation to be passed into the tariff, but re-assess the loan balance as on 31.3.2007. A comparative table showing the loan amount proposed by the OPTCL for calculation of Advance Against Depreciation, the loan balance as on 1.4.2007 after repayment of the principal and the loan amount approved by the Commission as on 31.3.2007 is shown below:-

Table – 28

(Rs. in crore)

	Particulars	Gross Loan considered for calculating AAD	Principal as on 01.4.07 after Repayment	Approval
A	Govt. Loans			
	State Govt. (Cash Loan)		2.00	Nil
	Central Govt. Loan		11.26	Nil
	GoO Bonds		400.00	Nil
	Sub Total		428.26	Nil
B	Institutional Loans			
	REC Loan	45.95	20.34	20.34
	PFC Loan	70.46	40.56	40.56
	Sub Total		60.90	60.90
C	Secured Loan			
	Union Bank of India	100.00	70.14	70.14
	HUDCO	300.00	194.89	194.89
	UCO Bank	200.00	147.17	147.17
	Oriental bank of Commerce	200.00	200.00	200.00
	Sub Total		612.20	612.20
D.	GRIDCO Bonds			
	Open Market Loan	24.03	24.03	24.03
	Pension Trust Bond	150.00	96.00	96.00
	Sub Total		120.03	120.03
E	Deposit from EHT Consumers		25.51	Nil
F	Grand Total		1246.91	793.13
G	New Projects in 2007-08	228.90	228.90	Nil
	Total	1371.34	1675.81	793.13

5.6.13 Commission thus approves an amount of Rs.793.13 crore as loan balance for the purpose of calculation of advance against depreciation. 1/10th of

such amount works out to Rs.79.31 crore. Setting aside the depreciation allowed by the Commission for an amount of Rs.48.09 crore, the balance amount of Rs.31.22 crore is allowed towards advance against depreciation.

5.7 Asset Register

OPTCL has furnished the fixed asset register upto the FY 2004-05.

5.8 Contribution to Contingency Reserve

5.8.1 For the year 2007-08, OPTCL has proposed Rs.10.49 crore towards Contribution to Contingency Reserve to be passed on to tariff. In justification towards the claim the OPTCL has stated that the requirement of contingency reserve in a natural calamity prone state like Orissa need not be over emphasized. Investment towards contingency reserve relates to maintaining an emergency fund to meet expenses towards unforeseen calamities. Contingency reserve is being kept in a separate reserve fund and invested in the specified securities. The corpus of the reserve appropriated from profit and loss account till 2005-06 is Rs.53.65 crore as against which Rs.27.06 crore have been invested in the specified securities. As submitted OPTCL is taking step to invest the balance amount during 2006-07. The Commission, after due deliberation and review, had allowed a total of Rs. 12.59 crore on account of provision towards contingency reserve in the ARR for OPTCL.

5.8.2 The Commission is still awaiting the audited accounts of OPTCL for FY-'06, based on which it can confirm whether any investments have been made by OPTCL against the provisions for contingency reserve. Once the audited accounts are available, the Commission shall take necessary steps for verification and would make suitable adjustments for truing up on the basis of actual investments made in the next ARR determination exercise for FY-'09. Therefore, the Commission in line with the earlier order allowed Rs.10.49 crore towards contingency reserve for the year 2007-08.

5.9 Return on Equity

OPTCL has claimed an amount of Rs.8.40 crore towards Return on Equity on its share capital of Rs.60 crore @ 14% per annum. In application, OPTCL has stated that at the time of vesting of the transmission & distribution business with GRIDCO by the State Govt. on 01.04.1996, the Equity Share Capital was Rs.327.00 Crore. During the subsequent year's upto FY 2004-05, there were additional infusions of equity capital of Rs.165.98 Crore by the State Govt. raising the total equity of GRIDCO to Rs.492.98 Crore. At the time of de-merger of GRIDCO effective from 01.04.2005, the equity share capital of OPTCL was

stated at Rs.60 Crore, leaving the balance equity share capital with GRIDCO. The equity share capital issued to Govt. of Orissa was both in consideration of cash & other than cash. Therefore, the licensee is entitled to ROE @14% on the equity share capital of Rs.60 Crore. The commission in earlier orders referred to the GoO notification of 29.1.2003, where in it has been stated that GRIDCO & OHPC shall not be entitled to any return in equity till the sector becomes viable or FY 2005-06 whichever is earlier. Further, in a partial modification earlier notification the Govt. of Orissa in its letter no. 5302 dtd. 6.5.2003 stated the following “GRIDCO and OHPC shall not be entitled to any Return on Equity (ROE) **except in respect of the new projects Commissioned after 01.04.2006 till the sector become viable or and of 2005-06 whichever is earlier.** The Commission would like to clarify that letters have been written to Govt. of Orissa to clarify the status of the letter dtd. 29.1.2003, as it has great impact on Tariff. But the Govt. of Orissa has not responded yet. As regards infusion of capital for the new project, the Commission verified audited accounts of GRIDCO upto 2004-05. It is found that the addition of share capital shown in the balance sheet after 96-97 is only the grants received from DFID towards R&M expenditure and rehabilitation assistance. As per Project Memorandum signed between Govt. of India and Govt of Orissa and DFID, the above amount has sown under share deposit account pending allotment of shares for non-receipt of approval from GoO.

Keeping in view of the above fact, the Commission does not consider it proper to allow return on equity to OPTCL for the Year 2007-08.

5.10 **Interest on Working Capital**

OPTCL has proposed an amount of Rs.15.13 crore towards interest on working capital for financial year 2007-08 as per CERC (Terms and Conditions of Tariff) Regulations-2004. The Commission does not feel it justified to allow the same in the revenue requirement since the transmission charge is the first charge to be recovered from BSP Bills of DISTCOs. Moreover, OPTCL has not compiled its first year annual audited account. As such, the Commission disapproves the claim towards interest on working capital for the year 2007-08.

5.11 **Pass Through of Previous Losses and Truing Up Exercise**

OPTCL for the financial year 2007-08 claimed an amount of Rs.138.08 crore to be passed on to tariff towards loss for the financial year 2005-06 (Based on provisional account) and expected uncovered gap during FY 2006-07. The details of loss and the estimated uncovered gap are shown in table below:

Table – 29

Summary of uncovered expenses		Amount (Rs. in Cr.)	
Sl.No	Items		Uncovered Gap
1.	Loss for FY 2005-06 (Based on Provisional Accounts for FY 2005-06)		9.94
2.	Expected Uncovered Gap during FY 2006-07		
	Employees Cost including Terminal Benefits for 2006-07 (Prorated based on Apr'06 to Sept'06)	168.33	
	OERC Approval	115.16	53.17
3.	Interest on Loans		
	As per Repayment Schedule	111.65	
	OERC Approval	68.03	43.62
4.	Repayment of Principal		
	As per Repayment Schedule	122.95	
	OERC Approval for Depreciation & Advance Against Depreciation	91.60	31.35
			138.08

5.11.1 The Commission analyzed the provisional accounts of OPTCL for the FY 2005-06 submitted in Annexure –VI of the clarification to queries. It is found that the loss shown in the profit and loss account is of the order of Rs.9.94 crore for the FY 2005-06 on accrual basis, which the Commission accepts and allows the same provisionally as a pass through in the revenue requirement. The Commission is also aware that during the FY 2006-07 the demand on account of employee cost would have gone up because of merger of 50% DA in the pay, which has not been considered while approving the employee cost for FY 2006-07. Considering the impact of merger of DA to Dearness pay, the employee cost of 2006-07 is reassessed again and given in the following table:

Table - 30
Employee's Cost

(Rs. Crore)			
Sl No.	Particulars	FY 06-07 (Appr.)	FY 06-07 (Revised Appr.)
1.	Salaries(Basic Pay)	37.10	36.91
2.	Salaries (Dearness Pay)	Nil	18.46
3	Dearness Allowance	28.57	16.06
4	Other Allowance	0.37	0.37
5	Bonus		
6	Sub Total (1 to 5)	66.03	71.80
	OTHER STAFF COST		
7	Reimbursement of Medical Expenses	1.11	1.66
8	Leave Travel Concession	-	
9	Reimbursement of House Rent	3.87	5.78
10	Interim Relief to Staff		
11	Encashment of Earned Leave	2.74	
12	Honorarium	0.01	0.01
13	Payment under Workmen compensation Act	-	
14	Ex-gratia	-	
15	Miscellaneous	0.27	0.27
16	Sub Total (7 to 15)	8.00	7.72
17	Staff Welfare Expenses	0.59	0.59
18	Terminal Benefits	44.68	51.58
19	Total (6+16+17+18)	119.30	131.69
	Less :Capitalisation	2.39	3.46
	Net Total	116.91	128.23

5.11.2 The Commission during 2006-07 had approved an amount of Rs.116.91 crore for the disaggregated GRIDCO and OPTCL. Out of this, Rs.115.16 crore was allocated to OPTCL leaving a balance of Rs.1.75 crore to GRIDCO. The Commission, therefore, approves the additional amounts of Rs.13.07 crore (Rs.128.23 crore – Rs.115.16 crore) to be passed on to tariff for FY 2007-08 as a part of truing up exercise.

5.11.3 As regards, other expenditure on interest, the Commission approved an amount of Rs. 68.03 crore against the proposed amount of Rs.132.98 crore for 2006-07. While reassessing the proposal of OPTCL, Commission had not considered the interest on state govt. loan claimed on account of up-valuation of asset to the tune of Rs.26 crore in line with Govt. order dated 29.01.2003. There is no justification for making the same claim again. Hence this claim of Rs 26 crore is disallowed. Further, the licensee has calculated the rate of interest on REC and PFC loan at 12.15%, 16.05% as against the approved rate of 8.5%. The Commission continues to follow the same policy for calculation of interest for the FY 2007-08. Therefore,

there is no justification to reconsider the decision of the Commission again for passing the extra burden towards interest on loan.

5.11.4 Regarding repayment of principal the Commission allowed it through Advance Against Depreciation considering the loan balance as on 31.3.2006 in line with the CERC Regulation dated 26th March, 2004. As such, the Commission does not think it proper to reconsider its decision to allow repayment of principal beyond 10% of the approved loan balance.

5.11.5 The Commission, therefore allows an amount of Rs.23.01 crore (Rs.9.94 crore + Rs.13.07 crore) towards truing up exercise as against an amount of Rs.138.08 crore proposed by OPTCL subject to verification of final audit report.

5.12 Grid Co-ordination Committee Expenses:

OPTCL has claimed an amount of Rs. 1.56 crore under the above head as pass through during FY 2007-08. The Commission approves the same.

5.13 Miscellaneous Receipts:

OPTCL had proposed to earn Rs.3.00 crore from inter-state wheeling during FY 2007-08. OPTCL, in its written submission to the clarification regarding miscellaneous receipts has stated that over and above an amount of Rs. 3.00 crore an amount of Rs. 12.42 crore will be earned from the Intra-State wheeling which according to OPTCL is not miscellaneous receipt. The Commission approves an amount of Rs.3.00 crore and allows it to be adjusted against total revenue requirement for the FY 2007-08.

5.14 Transmission Cost

5.14.1 The total energy to be transmitted in the OPTCL system is estimated at 16963 MU the details of which are presented in the table below:

Table – 31

(Rs. Crore)

Transmission Details	Proposed MU by OPTCL	Approved MU by OERC
Sale to DISTCOs	16000	16653
Wheeling to industries from CGP	300	300
Sale to CGP by GRIDCO	10	10
Total	16310	16963

5.14.2 The details of expenses proposed by OPTCL and approved by the Commission for FY 2007-08 towards transmission charges are depicted in the table below:

Table - 32**(Rs. Crore)**

Transmission Cost	Proposed by OPTCL	Approved by Commission
Employee Cost	187.04	142.52
R&M Cost	54.00	47.00
A&G Cost	14.79	15.71
Interest on loan	131.51	60.86
Depreciation	52.95	48.10
Advance against depreciation	84.18	31.22
GRID Co-ordination Committee Expenses	1.56	1.56
Sub-total	526.03	346.97
Less Expenses capitalised	4.91	3.74
Total	521.12	343.23
Special Appropriation	138.33	23.01
Return on Equity	8.4	0.00
Contingency Reserve	10.49	10.49
Grand Total	678.34	376.73
Less Inter-state wheeling	3.00	3.00
Net Transmission Cost	675.34	373.72
Total transmission in MU		16963
Transmission Tariff (p/u)		22.03
Transmission Tariff (p/u) rounded to		22.00

5.14.3 Transmission Charges

5.14.3.1 Transmission Charges worked out to 22.03 paise per unit which rounded of to 22 paise per unit, shall be applicable for transmission of power at 220 KV/ 132KV over OPTCL's EHT transmission lines and sub-stations and shall be payable by the DISTCOs 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.

5.14.3.2 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 estimated energy for transmission in OPTCL's system is 16,963 MU with an average demand of 1936.40 MW. The net transmission cost as indicated in the table above is Rs.373.72 crore. This works out to a sum of Rs.5287.50/MW/day. The long term open access customer

availing Open Access under relevant Regulations of OERC shall pay Rs.5200/MW/Day towards transmission charges. In accordance with our Regulation the short term open access customer shall pay at the 25% of the long-term open access charges. Accordingly the Commission approves rate of Rs.1300/MW/day. This will be in addition to other charges in accordance with Open Access Regulation.

5.14.4 GRIDCO shall purchase power from the generator end and at inter-state points from outside sources while OPTCL will bill the customers at the delivery points. There would be a gap between the units treated as lost on account of delivery to the customers on the normative basis approved by the Commission and the actual figure, since part of this is to be assigned for export of power outside the state taking place in the intra-state system due to power exchange. It will be desirable that existing practice of actual loss shall be followed and final adjustment shall be carried out at the end of FY 2007-08 between GRIDCO and OPTCL. GRIDCO shall give credit to OPTCL for the units deemed to have been lost on account of export of power, if any.

5.14.5 **Transmission Loss for Wheeling**

OPTCL has proposed that out of the energy supplied to transmission licensee, 5% shall be deducted towards transmission loss. And balance is liable to be delivered at delivery point at 220/132 kV. The Commission directs that the transmission loss shall be calculated at the rate of 5% for the FY 07-08. Therefore, the purpose of billing, the transmission loss for wheeling shall be 5%.

5.14.6 **Transmission Charge Payment Mechanism**

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 DISTCOs and other Open Access Customers in favour of OPTCL.

5.14.7 **Rebate**

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

5.14.7.2 **Late Payment Surcharge:** 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.

5.14.8 The transmission tariff in respect of OPTCL will become effective from 1st April, 2007 and shall continue until further order.

The application of M/s OPTCL is disposed off accordingly.

Sd/-
(S.K. JENA)
MEMBER

Sd/-
(B.K. DAS)
CHAIRPERSON