

ORISSA ELECTRICITY REGULATORY COMMISSION

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

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Present : Shri D. C. Sahoo, Chairman
Shri H. S. Sahu, Member
Shri B. C. Jena, Member

CASE No.61/2002

DATE OF HEARING : **02.04.2003**

DATE OF ORDER : **28.06.2003**

IN THE MATTER OF : An application for approval of Transmission and Bulk Supply Tariff under Section 26 of the Orissa Electricity Reform Act, 1995 for the financial year 2003-04

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for approval of Annual Revenue Requirement for financial year 2003-04 under Section 26(4) of the Orissa Electricity Reform Act, 1995 read with condition 21.1 of the Orissa Transmission and Bulk Supply License 1997 (No.2/97).

ORDER

This order of the Commission relates to the application filed by the Grid Corporation of Orissa Limited (GRIDCO), holder of The Orissa Transmission and Bulk Supply Licence, 1997, (No 2/1997) for the determination of its Annual Revenue Requirements and fixation of transmission and bulk supply tariffs for the Financial Year (FY) 2003-04.

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1 PROCEDURAL HISTORY

- 1.1 The GRIDCO submitted a proposal for determining its Annual Revenue Requirement (ARR) for FY 2003-04 on 31.12.2002 before the Orissa Electricity Regulatory Commission (hereafter referred to as the Commission). On examination of the licensee's proposal, it was noticed that certain information and analysis extremely relevant to determination of the transmission and bulk supply tariffs had not been furnished by GRIDCO. The Commission, vide its letter dated 10.01.2003 sought these information along with clarifications on a few other areas. GRIDCO filed the answers to these queries before the Commission on 18.01.2003. The Commission again asked for some additional clarifications on GRIDCO's said proposal on 28.01.2003 the replies to which were filed by GRIDCO on 31.01.2003.
- 1.2 Meanwhile, the State Government, through Department of Energy notification No. 1068/E dated 29.01.2003, accepted most of the recommendations of the Commission, as spelt out in the Tariff Order for FY 2001-'02 / FY 2002-'03.
- 1.3 The Commission formally accepted the licensee's said proposal on 01.02.2003 based on the clarifications filed by GRIDCO and a number of meetings held during this period between the licensee and the Commission staff. The licensee was formally permitted on the following day to publish its proposed Revenue Requirement and the transmission and bulk supply tariffs for FY 2003-04 through a public notice.
- 1.4 The licensee issued public notices about its proposed Annual Revenue Requirement and the proposed tariffs for FY 2003-04 in leading English and Oriya daily newspapers on two consecutive days on 05.02.2003 and 06.02.2003. Objections to GRIDCO's Annual Revenue Requirement and Tariff revision proposal from the general public and interested parties were invited within 15 days from the date of publication of the Public Notices. The copy of the original petition together with all supporting materials were made available by the licensee with Director (Commercial), GRIDCO Head Quarters, Bhubaneswar and all Superintending Engineers in charge of E.H.T. Maintenance Circles of GRIDCO at Cuttack, Burla, Berhampur and Jajpur Road for inspection/perusal of interested parties/persons.
- 1.5 In response to the above notices, objections were received from different quarters. The Commission received as many as 22 objections from the following parties/persons.
- (1) Orissa Young Entrepreneur's Association, District Chapter, Sambalpur; (2) Sambalpur Petroleum Dealers Association, HPCL Petrol Pump, Sambalpur; (3) Orissa Consumers' Association, Biswanath Lane, Cuttack; (4) Mr. R. C. Padhi, MIG A/24, Brit Colony, Nayapally, Bhubaneswar; (5) M/s. OHPC Limited, Vani Vihar Chowk, Bhubaneswar; (6) M/s. UCCI Limited, Jaydev Vihar, Bhubaneswar; (7) Mr. Jaydev Mishra, Nayapally, Jaydev Vihar, Bhubaneswar; (8) M/s. Indian Charge Chrome Limited (ICCL), Bhubaneswar; (9) M/s. National Aluminium Company Limited (NALCO), Bhubaneswar; (10) M/s. Aditya Aluminium, 333, Sahid Nagar, Bhubaneswar; (11) M/s. Neelachal Ispat Nigam Limited, IPICOL House, 1st Floor, Bhubaneswar; (12) M/s. Jayshree Chemicals Limited, Ganjam; (13) Orissa Small Scale Industries Association, Industrial Estate, Cuttack; (14) M/s. Tata Iron and Steel Company, A-4, Forest Park, Bhubaneswar; (15) Confederation of Indian Industry (CII), 8 Forest Park, Bhubaneswar; (16) Mr. R. P. Mohapatra, 775, Jaydev Vihar, Bhubaneswar; (17) M/s Ferro Alloys Corporation Limited, Randia, Bhadrak; (18) M/s. Indian Aluminium

Company (INDAL), Hirakud, Dist.-Sambalpur; (19) M/s. SOUTHCO, Berhampur; (20) M/s. Orissa Industries Association, Industrial Estate, Berhampur; (21) M/s. WESCO, At/Po: Burla, Dist. Sambalpur; and (22) M/s. NESCO, Januganj, Balasore.

All these objections were scrutinised, found valid and admitted for hearing.

- 1.6 The Commission then directed the licensee to file its replies and rejoinders to the queries raised by the objectors by 11.03.2003 and serve individual copies to each of the objectors.
- 1.7 The Commission issued public notices in leading local Oriya and English daily newspapers on 06.03.2003 fixing the date of hearing for 20.03.2003 at 11 AM in the Hearing Hall at the Commission's office. It also published the list of the 22 valid objectors directing them to appear personally or through their authorised representatives or duly constituted attorney before the Commission on the date and time mentioned for public hearing in the Public Notices.
- 1.8 In view of the Hon'ble High Court's order dated 07.03.2003 passed in Misc. Case No 414/2003 (arising out of OJC No 6751/2001), the Commission passed an order on 13.03.2003 to keep in abeyance until further notice the scheduled hearing of all tariff applications for FY 2003-04 including that of GRIDCO and the same was published in newspapers dated 14.03.2003 and 15.03.2003 for public information.
- 1.9 The Hon'ble High Court in Misc. Case No. 414/2003 and Misc. Case No. 580/2003 arising out of the High Court OJC No. 6751/2001 passed an order on 14.03.2003 that the Commission can continue the exercise of the process of determination of tariff provided that the same shall not be given effect to without leave of the Hon'ble Court. In view of the same, the Commission passed an order on 22.03.2003 to hold the public hearing on 02.04.2003 for the disposal of GRIDCO's tariff application. It was published in leading Oriya and English newspapers on 23.03.2003.
- 1.10 The public hearing on GRIDCO's proposed Annual Revenue Requirement and transmission & bulk supply tariffs for FY 2003-'04 was held in the Hearing Hall of the Commission at Bhubaneswar on 02.04.2003. The objectors or their authorised representatives and the representatives of GRIDCO participated in the said hearing. All objections were heard by the Commission.
- 1.11 The original petition allowed as Case No. 61/2002 dated 31.12.2002 is being disposed of by this order of the Commission.

2 GRIDCO'S PROPOSAL

2.1 GRIDCO holds the Bulk Supply and Transmission License for the State of Orissa and is a constituent of the Eastern Regional Electricity Board of India. It owns the EHT network for transmission of power from the various generating stations within the State as well as for interconnection with the neighbouring regions of the country. It also purchases power from the central sector generators and surplus power from some CPPs within the State for supply of bulk power to four DISTCOs within the State for retail supply to their consumers. It also allows wheeling of power to industries from their captive power plants.

2.2 Power Projections

2.2.1 The power projections by GRIDCO for the year 2001-02 to 2003-04 is given in Table:1.

Table : 1
Demand projection

(Figures in MVA)

Name of the Company	2001-02 (Actual)	2002-03 (Provisional)	2003-04 (Estimate)
CESCO	647.144	646.339	683.25
NESCO	356.023	370.578	408.00
WESCO	492.893	530.418	563.86
SOUTHCO	250.039	257.620	275.40
Total	1746.098	1804.955	1930.51

2.2.2 The energy requirement for the distribution companies for FY 2003-04 as reported by GRIDCO in the BST and RR application is given in Table : 2.

Table : 2
Energy Projection

(Figures in MU)

Name of the Company	2001-02 (Actual)	2002-03 (Provisional)	2003-04 (Estimate)
CESCO	4204.91	4055.75	4712.69
NESCO	2592.90	2395.38	2724.00
WESCO	2956.31	3353.78	3396.00
SOUTHCO	1685.46	1556.70	1682.39
Total	11439.58	11361.61	12515.08

2.3 Revenue Requirement for FY 2003-04

2.3.1 To carry out its various activities, GRIDCO is required to meet the cost of power purchase, the cost of transmission, and maintenance expenses, depreciation, interest on loan, appropriation to contingency reserve and reasonable return based on the methodology prescribed in the Sixth Schedule to the Supply Act 1948 (TRF-5). It has also to cover the cost of transmission loss in the system as well as the cost of capital to meet the requirement of new investment to improve and ensure the system reliability and quality of power supply. Further OERC may also consider making up GRIDCO's reasonable loss partly or fully due to change of mix envisaged in the power procurement for the previous year 2002-03.

2.3.2 GRIDCO earns its revenue through

- i) Bulk Supply Tariff from the four distribution companies.
- ii) Export of power outside the State
- iii) Exchange of power to some electricity operators other than DISTCOs through ancillary services.
- iv) Wheeling charges on export of power outside the state
- v) Wheeling charges for transmission of power from CPPs to Industries located at distant places inside the state.

Table : 3
Revenue Requirement For 2003-04 (as furnished by GRIDCO)

		(Rs. in Crore)
a)	Power Purchase Cost	1668.01
b)	Transmission Cost	652.18
c)	Previous loss	917.12
d)	Contribution to contingency reserve	14.12
e)	Revenue Requirement (a+b+c+d)	3251.43
f)	(-) Misc. Receipts	49.51
g)	Net Revenue Requirement (e+f)	3201.92
h)	Reasonable Return	30.69
	Revenue Requirement (g+h)	3232.61
	Net Revenue Receipt from sale of power at existing BST to DISTCOs	1600.19
	Deficit	(1632.42)

- 2.3.3 GRIDCO submits that there has been an unusual upsurge in the cost of power purchase during 2002-03. There has been abnormal fall in hydro power generation due to failure of monsoon during the year. This has forced GRIDCO to draw costlier power from Central Sector Generators (in lieu of cheap hydro power). Besides, the drawal from the CPPs was less despite GRIDCO's best efforts.
- 2.3.4 GRIDCO has considered a total Energy procurement of 13,056.71 MU by adding transmission loss of 4.11% to the energy sale of 12,520.08 MU.
- 2.3.5 GRIDCO in its BST application for FY 2003-04 has requested for acceptance of Rs.348.46 Crore on account of introduction of ABT towards payment of Capacity Charge of NTPC Stations based on GRIDCO's share allocation. In respect of TTPS, GRIDCO requests to allow recovery of additional fixed costs as a surcharge, if CERC's approval of the same costs becomes higher than Rs.229.31 Crore, as considered by GRIDCO.

- 2.3.6 GRIDCO prays the Commission to allow Rs.917.12 Crore as a pass through in the BST of 2003-04 on account of the following:
- An amount of Rs.554.84 Crore on account of losses due to excess power purchase cost for FY 02-03 arising out of change in the mix of power procurement;
 - Shortfall in export of power (Rs 36.75 Crore);
 - Shortfall in demand charge for power (Rs.8.25 Crore);
 - An amount of Rs.317.27 Crore on account of differential interest payment including securitisation during FY 2002-03.
 - Subsequently, during hearing GRIDCO stated that OHPC's claim for hydrology failure of UIHEP in 2002-03 (amounting to Rs.73.71 crore) need to be passed through as per provision of the PPA.
- 2.3.7 A summary of the proposal of GRIDCO's expected revenue for FY 2003-04 is given in Table : 4 (TRT 23-2003-04).

Table : 4
Expected Revenue From Charges 2003-04

(Rs. in Crore)

Sl. No.	NET TOTAL REVENUE (DISTCOs)	(EXPECTED REVENUE WITH ANTICIPATED SALE AT EXISTING RATES)				
		CESCO	NESCO	WESCO	SOUTHCO	TOTAL
1	Gross receipt from sale of energy	597.55	332.18	463.04	207.42	1600.19
2	Total revenue from bi-lateral sale/CPP					1.41
3	Miscellaneous receipt					48.10
	Total					1649.69

2.4 Recovery of cost through Bulk Supply Tariff for FY 2003-04

- 2.4.1 GRIDCO proposes to set the BST in such a way so as to recover the full cost of supply of Rs.3232.16 Crore based on a two-part tariff structure comprising demand charges and energy charges. It envisages that 75.93% of its total cost is fixed in nature involving dedicated stations like TTPS, OPGC, the cost of Transmission and the reasonable return aggregating Rs.2450.01 Crore which included Rs 917.12 Crs pass through on account of losses due to excess power purchase cost, shortfall in export and demand, and difference in interest payment including securitisation during the financial year 2002-03. The variable component is estimated to be 24.07% totalling to Rs.776.75 Crore to cover the cost of power purchase from the Hydro stations, the variable costs of TTPS, OPGC, Captive Power Plants and the total cost of Central Generating Stations.
- 2.4.2 For recovery of the entire cost, GRIDCO has projected two alternative options (Page 8 of BST application).

Table : 5
Tariff Structure Options

Structuring Option	Demand Charges Rs./kVA/Month	Energy Charges Paisa/unit
Structuring Demand Charges to cover full cost of transmission and all the fixed cost of power purchase. Energy Charges will cover only the variable costs of generation	1057.58	62.07
Demand Charges of Rs.250 per kVA per month. Energy Charges will cover balance fixed costs and all variable costs of generation.	250.00	211.55

- 2.4.3 In proposing the structure, GRIDCO has stated that realisation of fixed cost payable to the generators should be assured to meet its obligation to generators and maintain the system stability. This could be possible only by designing the demand charges for recovery of the entire fixed cost. However, as full cost recovery entails a steep rise, GRIDCO proposes to fix it at the level of Rs.250/- per KVA.
- 2.4.4 GRIDCO has been billing to the distribution companies the demand charge on the basis of simultaneous maximum demand for each month. It has submitted that till the contract demand is finalised with the Distribution Companies, the demand to be billed in a month will be the highest of the SMD of the month. If the total actual demand in a quarter is less than the total approved demand, the difference of the demand charges shall be billed additionally as a quarter-ending adjustment.
- 2.4.5 GRIDCO has assessed the revenue receipt from demand charges based on a total Simultaneous Maximum Demand (SMD) of 1930.51 MVA as given in Table : 6.

Table : 6
Computation of Demand Charges

Demand charges per month	Rs.250.00/KVA
Chargeable Demand in MVA per month	1930.51 MVA
Annual Revenue from Demand Charges	Rs.579.15 Crore

2.5 Energy Charges

- 2.5.1 After deduction of the revenue earnings from demand charges, the balance revenue requirement is proposed to be realised through energy charges, the computation of which is shown in Table : 7.

Table : 7
Computation of Energy Charges (2003-04)

Total Revenue Requirement from BST	Rs.3226.76 crore
Annual Revenue from Demand Charges	Rs.579.15 Crore
Balance revenue to be recovered from Energy Charges (a)	Rs.2647.60 crore
Energy Quantity to be sold (b)	12515.08MU
Energy Charges per unit (a/b)	211.55 paise

2.6 Over Drawal Charges

2.6.1 GRIDCO follows the principle of least cost procurement of power to minimise the total annual cost of generation. Any excess drawal from the procurement plan provided by the DISTCOs will force GRIDCO to procure power from the costlier sources not covered in the revenue requirement finalised by the Commission. GRIDCO has drawn the attention of the Commission to the BST order for the year 2002-03 where the Commission had approved that 'higher cost resulting from any drawal in excess of the projected requirement by DISTCOs would be charged as a year end adjustment to cover the actual cost of power purchase plus transmission charges and transmission losses.' GRIDCO has sought for approval of the same provision in a modified form viz, "Any drawal over and above the planned drawal given by the DISTCOs will be billed at the marginal cost".

2.7 Delayed payment surcharge

2.7.1 GRIDCO has proposed levy of delayed payment surcharge @ 2% per month for payments received after the period of 30 days from the date of submission of the bills.

2.8 Rebate

2.8.1 Corresponding to the delayed payment surcharge, GRIDCO has also proposed a rebate of 2% on the monthly bill, if payment is made in full within 48 hours of the presentation of the bill, 1.5% rebate, if a minimum of 85% out of billed amount is paid within 48 hours and 1% rebate on the balance amount, if paid in full within 15 days of the presentation of the bill. For full payment made within 15 days from submission of in bill, a rebate of 1% may be allowed.

2.9 Carry forward of revenue gap

2.9.1 GRIDCO has prayed that the proposed BST may be made applicable from 1st April, 2003 and any gap between the approved revenue requirement for FY 2003-04 and the revenue realised may be approved as a carry forward for adjustment during the future years.

2.10 Transmission tariff

2.10.1 GRIDCO has estimated that the full cost of transmission including reasonable return will come to Rs.658.49 Crore. On the basis of its cost estimate, the calculation of transmission tariff proposed by GRIDCO is given in Table : 8.

Table : 8
Transmission Tariff

Transmission Cost with Reasonable Return less revenue from interstate wheeling (a)	Rs.658.49 Cr.
Total Units Sold to DISTCOs, CPPs & Export (b)	12,520.08 MU
Total Units Wheeled (c)	300 MU
Transmission Tariff [a/(b+c)] per/unit	51.36 paise

2.11 Transmission Loss

2.11.1 GRIDCO projects transmission loss of 4.11% for FY 2003-04 calculated by following the Gross Method as adopted by OERC.

2.12 Summary of Tariff Filing For FY 2003-04

2.12.1 GRIDCO in its filing has sought for approval of Bulk Supply Tariff comprising :-

2.12.1.1 Demand charges @ Rs.250 per KVA/month

2.12.1.2 Energy charges @ 211.55 paise/unit on energy supplied

2.12.1.3 Charges for overdrawal in demand and energy

2.12.1.4 Delayed Payment Surcharge as proposed

2.12.1.5 Rebate as proposed

2.12.1.6 Duty and Taxes - Electricity duty levied by Government of Orissa and any other statutory levy/duty imposed under law shall be charged over and above tariff

2.12.2 Transmission tariff covering:-

2.12.2.1 Wheeling charges @ 51.36 paise/unit

2.12.2.2 Transmission loss @ 4.11%

2.12.2.3 Delayed Payment Surcharge

2.12.2.4 Duty and taxes as applicable

3 OBJECTIONS TO THE BULK SUPPLY TARIFF PROPOSAL OF GRIDCO

- 3.1 The Commission has considered all the objections raised by various objectors. Some of the objections were found to be of general nature whereas others were specific to the proposed tariff filing for the financial year 2003-04. Based on their nature and type, these objections have been categorised broadly as indicated below:-

3.2 Energy Requirement

- 3.2.1 Some objectors have sought clarification as to why GRIDCO has prepared its own estimate on power procurement when DISTCOs have submitted their projections on the same. Objectors like TISCO & Ferro Alloys Corporation have pointed out that GRIDCO's power projection is higher than those of the DISTCOs to the extent of 1054 MU. The objectors have suggested that GRIDCO's power requirement should be based on the projections submitted by DISTCOs after allowing a normative transmission loss of 3%. Shri Jayadev Mishra wanted to know whether GRIDCO discussed with DISTCOs the possibility of energy conservation, demand-side management and reduction of distribution losses so as to reduce the demand at least by 5% in the first year. Shri Mishra suggested that the Commission may stipulate the quantum of power demand in FY 2004 at par with FY 2003. Shri R.C. Padhi suggested that the Commission should take into account load growth of 3% and reduction in distribution loss by 5% so that there could be saving in terms of energy requirement for 2003-04 to the extent of Rs.300 crore.

3.3 Simultaneous Maximum Demand, Contract Demand and Billing Demand

- 3.3.1 Reacting to the GRIDCO's proposal that in the event of the total actual demand being less than the total approved demand by OERC for a quarter, the difference of the demand charges shall be billed additionally as a quarter-ending adjustment. Some DISTCOs requested the Commission not to accept GRIDCO's proposal for changing billing demand and to direct GRIDCO to implement the system of measurement of SMD by vectorial summation. They also objected to the proposed upward revision of demand charges and requested the Commission to reject it.
- 3.3.2 INDAL suggested that the SMD forecast by the DISTCOs may be taken at 1930.51 MVA as proposed by GRIDCO.

3.4 Levy of Over Drawl Charge

- 3.4.1 Some DISTCOs requested the Commission to direct GRIDCO to furnish bills for over drawl charges and certified copies of complete set of bills relating to the following:
- a) All power purchase bills of the generators,
 - b) Details of sale of power to the CPPs, OPGC, TTPS, TSTPS for back start, IMFA, NALCO and two neighbouring States,
 - c) Import and Export of Energy from ICCL, IMFA and NALCO etc.,
 - d) Details of bills in respect of income from wheeling charges.
- 3.4.2 Some objectors suggested that there should be over drawl penalty and minimum drawl guarantee for the DISTCOs. Any DISTCO overdrawing power beyond the scheduled drawl should pay for the higher cost involved instead of BST rate.

3.5 Transmission Loss

- 3.5.1 Objectors demanded to be apprised of what has been achieved on the loss front. Some objectors stated that transmission loss allowed should not be more than 3% whereas others said the proposed transmission loss by GRIDCO was on higher side and the Commission should review and revise the same. Others suggested that the transmission loss should be fixed at 3.58% for FY 2003-04. CII felt that the transmission loss should be 3.1% in 2003-04. The DISTCOs, however, stressed on the approved transmission loss figures for the purpose of calculating revenue requirement. Some objectors questioned the wisdom of Rs.700 crore of investment during the last five years in transmission network by GRIDCO. The investment on system improvement in EHT should have corresponding reduction in system losses.

3.6 Power Procurement : Least Cost Drawl

- 3.6.1 Many objectors stated that GRIDCO had projected lower hydro availability. The objectors felt that the hydro projection for 2003-04 should not be taken below 5800 MU. TISCO stated that the design hydro power availability of 6211 MU should be considered for FY 2003-04. Some objectors suggested that the PLF of TTPS should be as per CERC stipulation and OPGC should be made to achieve a PLF of 80-85%. TISCO suggested that Ib TPS should operate at 85% PLF. Some objectors stated that GRIDCO should maximise drawl from Central Sector Generating Stations and involve itself in power trading to mitigate its own financial problems and to avoid the financial burden of the fixed charge due to implementation of ABT in the Eastern Region. Advance action may be taken to contract power purchase from new thermal stations in the State, which can be traded at profit when the power plants are commissioned.
- 3.6.2 INDAL questioned the wisdom of GRIDCO and sought clarification for adopting procurement figure of 3264 MU when the design energy from the old stations of OHPC in a year of normal hydrology is 3711 MU. In case of Indravati, the design energy is 1942.38 MU. There is no sense in projecting generation as low as 1710 MU. INDAL felt that target for procurement of power from Machkund station should be fixed at 317.79 MU as against GRIDCO's projection of 262.50 MU for FY 03-04. OERC should examine the possibility of increasing the drawl from Chukha. The Commission should approve drawal of 2650 MU (@ 80% PLF) from OPGC for FY 03-04. GRIDCO should procure 292 MU from CPPs in 2003-04.

3.7 Power Procurement Costs

- 3.7.1 The DISTCOs suggested that the power procurement cost proposed by GRIDCO should be recast taking into consideration the present hydro situation and maximisation of drawl from hydro stations. They complained that GRIDCO had inflated its average rate of power purchase from 106.71 paise/unit in 2002-03 to 127.75 paise/unit in 2003-04 i.e. by 20% which needs detailed scrutiny. The power purchase cost of GRIDCO should be calculated keeping in view the estimated power purchase of DISTCOs submitted in the ARR filing for 2003-04. Shri R.C. Padhi suggested that the high variable cost of OPGC as compared to that of TTPS should be explained. Year-end charges for Central Sector stations should be limited to the rate approved by CERC. Some objectors pleaded that the extra cost due to hydrology failure should be borne by OHPC & GOO. The objectors felt that the fixed and variable costs of Central Sector stations estimated by GRIDCO were on higher side. Regarding the pass through amount of Rs.554.84 crore on account of extra power purchase cost during 2002-03, INDAL stated that the Commission should pursue with the Govt. to reimburse this amount from Calamity Relief Fund (CRF). The objectors

pointed out that the availability of power within the state shall be sufficient enough to avoid dependence on the Central Sector Generating Stations. In such a case GRIDCO should avail all the power from NTPC to be sold to other states. They stated that the year-end charges of NTPC power plants involved payment of income tax of Rs.29.40 crore, the Commission was requested to examine whether it was reasonable for the consumers to pay for such tax paid by the generating companies. Some objectors stated that the GRIDCO's proposal to increase OHPC tariff for the old generating stations should be looked into by the Commission.

3.8 Transmission Costs

- 3.8.1 The objectors felt that the cost of transmission projected is exorbitantly high and the same should be reviewed.

3.9 Employee Cost, A&G, R&M Expenses

- 3.9.1 The DISTCOs requested the Commission to scrutinize the genuineness of the inflated projections of employees cost of GRIDCO in its ARR application. They suggested to allow A&G expenses considering the present inflation rate. Some objectors stated that GRIDCO must bring down its employees cost to 3% over and above the expenses incurred in 2002-03. A&G and R&M expenses may be linked to inflation rate of 4%.
- 3.9.2 A majority of the objectors preferred to allow these expenses at a normative level.

3.10 Depreciation & Asset Register

- 3.10.1 A large number of objectors expressed their dissatisfaction that GRIDCO could not prepare the asset register even after passage of five and half years of reforms. They pointed out that in the absence of an asset register, it is impossible to ascertain how the assets have been depreciated. CII suggested that the asset value of GRIDCO for FYs 2002 to 2004 should be recalculated taking into account the transferred asset value as on 01.04.1996 allowing depreciation at pre-92 rates so as to avoid accelerated depreciation and its resultant impact on tariff. Shri R.C. Padhi suggested that depreciation should be allowed only after maintenance of asset register.
- 3.10.2 Shri R.P. Mohapatra has stated that the original cost of fixed asset shall be the depreciated book value as on 01.04.1996 as per the definition given in the Sixth Schedule.
- 3.10.3 The cost of assets has been indicated at Rs.2824.76 crore which needs to be recalculated based on Govt. notification.

3.11 Interest on Long Term Liabilities

- 3.11.1 The DISTCOs felt that the GRIDCO's claim of Rs.317.27 crore as difference between the interest amount approved by OERC and the interest provision of GRIDCO should not form part of ARR of the licensee. GRIDCO's claim of Rs.455.39 crore towards interest on long term loans represents an astronomical increase in the cost and it cannot be sustained by the power sector. Interest on GRIDCO bond should not form a part of revenue requirement.
- 3.11.2 UCCI stated that interest payable for securitisation of the amount due to power purchase from generators is not chargeable to revenue requirement of GRIDCO for tariff purpose. GRIDCO had collected the cost of power purchase from the DISTCOs, which in turn has been paid by the consumer. It is, therefore, improper to collect interest on outstanding power purchase dues of the generator by hiking BST.

3.11.3 INDAL felt that OERC may ask GOO to bear the liability of GRIDCO towards interest payment including securitisation of dues of generators amounting to Rs.317.27 crore as per the Deepak Parekh Committee on State Specific Reforms.

3.11.4 Outstanding dues of GRIDCO on DISTCOs are earning much more interest than interest on securitisation. In fact GRIDCO earns an annual interest of 24% on its outstanding dues on DISTCOs as DPS whereas it pays around 8.5% of interest for its dues to generator. Extra interest paid for loan to clear debt or uneconomical expenditure should not be passed on to the consumers.

3.12 Capital Base

3.12.1 The O&M charges, reasonable return and capital base should be based on the recalculated asset value based on the recent Govt. notification and High Court order dated 08.02.2003 and 14.03.2003 in Misc. Case Nos.7810 & 8953 of 2002 and 414 of 2003.

3.13 Capital Expenditure

3.13.1 The DISTCOs have expressed concern over addition of huge fixed asset to the tune of Rs.1792 crore between 1998-99 and 2003-04 as projected by GRIDCO and requested the Commission to seek clarification from the licensee regarding prudence of such huge investments without tangible benefits in terms of loss reduction and system reliability improvement. Others pointed out that GRIDCO had claimed higher transmission loss despite this huge investment and the expenditure had been rendered infructuous.

3.14 Revenue Requirement

3.14.1 A number of objectors questioned whether GRIDCO had taken into consideration the correctives accepted by the State Govt. while calculating its revenue requirement for FY 2003-04 and sought explanation from the licensee with reference to its proposal of extra cost of Rs.917.12 crore. Objectors like UCCI and Ferro Alloys Corporation provided alternative calculations of revenue requirement of GRIDCO for FY 2003-04. UCCI observed that there should be a reduction of 17% in revenue requirement for FY 2003-04 amounting to Rs.394 crore, if correctives accepted by Govt. through its notification are applied. Further, the revenue requirement can be brought down to minimum by keeping the power purchase requirements at a level of DISTCOs' projection and by increasing hydro generation. UCCI stated that the revenue requirement of GRIDCO should be reduced by Rs.690 crore on account of the following:

Table : 9

	Rs. In crore
Reduction in power procurement of the order of 1054 MU	300
Reduction due to assumption of higher rate of OHPC power	30
Reduction on account of O&M	25
Reduction in interest charges	250
Reduction due to low projection of OHPC power by 500 MU	85
TOTAL	690

- 3.14.2 Therefore the projected revenue requirement of GRIDCO shall be reduced by this amount to Rs.1630 crore. UCCI projects the total revenue receipts of GRIDCO at Rs.1525 crore which means there shall be a deficit of Rs.105 crore and the same can be made up by increasing the BST of those DISTCOs who will have huge surplus with the existing rate of BST. INDAL, however, calculates the ARR of GRIDCO at Rs.1611.97 crore.
- 3.14.3 OHPC stated that an amount of Rs.73.73 crore on account of hydrology failure of UIHEP during 2002-03 should be included in the revenue requirement of GRIDCO and necessary direction as per provisions in the PPA may be issued to GRIDCO to make this payment to OHPC immediately.
- 3.15 Additional Impact Towards Shortfall in Export and Demand in 02-03**
- 3.15.1 The DISTCOs argued that GRIDCO's loss of Rs.36.75 crore on account of shortfall in export is a business risk of the bulk supplier and therefore, the financial impact of such business loss should not be considered as part of the ARR for FY 2003-04. Similarly, GRIDCO's loss on account of shortfall in demand is a part of business risk of the licensee and the same should not be considered as part of ARR.
- 3.16 Additional Impact Towards Difference in Interest Payment Including Securitisation**
- 3.16.1 The DISTCOs stated that GRIDCO's claim of Rs.317.27 crore as difference between the interest amount approved by OERC and the interest as per provisional accounts of GRIDCO should not form part of ARR of the licensee.
- 3.17 Availability Based Tariff (ABT)**
- 3.17.1 A number of objectors including the DISTCOs suggested that GRIDCO should purchase its entire allocated share of power from the Central Sector Generating Stations for trading with the neighbouring States in the post-ABT regime. The DISTCOs stated that the profit so obtained due to power trading should be taken into consideration while approving the ARR of GRIDCO. In case the Bulk Supplier can not arrange such trading, it should surrender its share in the Central Sector Generating Stations at least temporarily to avoid the burden of payment of huge fixed costs. TISCO suggested that the financial burden due to implementation of ABT should not be made applicable to the power tariff for 2003-04.
- 3.18 Transmission Tariffs**
- 3.18.1 NALCO stated that the proposed wheeling charges at 51.36 paise/unit represented 300% rise over the last year's proposal which would discourage setting up of CPPs. The objector wanted its wheeling charges to be governed by an already existing agreement between erstwhile OSEB and NALCO. NALCO felt that wheeling charges on the energy drawn for consumption for Damanjodi plant should be levied @ 5%. The power consumption at NALCO Nagar and NALCO Bhavan should also be deducted from the export of energy that NALCO makes from its CPP at Angul.
- 3.18.2 ICCL requests the Commission not to charge any transmission tariff proposed by GRIDCO. The objector pleaded for special consideration and concessional rate on transmission/ wheeling charges as it purchases and supplies power to GRIDCO, which is mutually beneficial. It argued that the existing MOU did not provide for imposition of wheeling/transmission charges on ICCL.
- 3.18.3 Shri Jayadev Mishra proposed separation of power purchase and transmission charges while designing BST.

- 3.18.4 Nilachal Ispat Nigam Ltd. stated that while computing the wheeling charges at 51.36 paise/unit GRIDCO had not considered the power sold to the DISTCOs and CPP in the State and ignored inter-state transmission of power.
- 3.18.5 Aditya Aluminium argued that the proposed transmission loss and wheeling charges were on higher side. The objector suggested that wheeling charges including transmission loss should be fixed as per notification No.20396-E dated 23.11.92 of Govt. of India, which is as follows:

Table : 10

Upto 3 MW at 11/33KV	2% of the energy delivered.
Beyond 3 MW to 15 MW at 33 KV/132KV	8% of the energy delivered.
Beyond 15 MW at 132/220 KV	<p>The charges shall be dependent on the circuit line distance of the industry from the generating station in the following manner:</p> <p>Upto 100 Kms – 10%</p> <p>Between 100 and 200 Kms – 12%</p> <p>More than 200 Kms – 15% of the energy delivered.</p>

3.19 **Export of power**

- 3.19.1 Shri R.C. Padhi argued that GRIDCO should not supply power from Balimela or Machkund in its sale transaction with APSEB and the Commission should look into the technical and commercial aspects of this transaction. Shri Padhi proposed that since ABT is likely to come in to operation in EREB from 01.04.2003, GRIDCO may arrange to sale the surplus power to the neighbouring states at a viable tariff. Or else GRIDCO may move the Central Govt. to keep Orissa's share in some of the high cost Central Stations in abeyance.
- 3.19.2 Shri Jayadev Mishra suggested that GRIDCO should make arrangement with Power Trading Corporation to sell 300 MW on an average and 500 MW off peak power from Orissa. If GRIDCO fails to arrange this, it can surrender the share of Chukha, Farakka and Kahalgaon for two years to save payment of fixed costs. Shri Mishra proposed formation of an expert team which should examine proper scheduling of power in the post-ABT regime.
- 3.19.3 The DISTCOs also argued that GRIDCO should draw full share from NTPC stations and go for power trading with the neighbouring states so that the adverse impact of fixed charges of the order of Rs.348.46 crore would not be loaded on them. They requested the Commission to keep the fixed charges out of the revenue requirement of GRIDCO for FY 2003-04.

3.20 **Other issues**

- 3.20.1 A large number of objectors expressed utter dissatisfaction about non-submission of audited accounts by GRIDCO and requested the Commission not to rely on its provisional accounts. Some objectors pleaded strongly that the filing of revenue requirement of GRIDCO should be rejected due to non-submission of audited accounts.
- 3.20.2 A number of objectors criticized GRIDCO for its utter failure to take steps for improving efficiency/service, reduction of T&D loss and fulfil the conditions of Licence. Therefore, its application should be rejected. They contended that GRIDCO

had not demonstrated its ability to properly manage its affairs and requested the Commission to ensure that consumers should not be penalised due to infructuous cost arising out of mis-management.

- 3.20.3 Some objectors pointed out that the time provided to file the objection was very short. Besides time given for oral presentation was also being curtailed.
- 3.20.4 UCCI and other objectors from industries requested the Commission to consider fixing industrial tariffs for five years so as to allow industries to plan their operation to face domestic and international competition.
- 3.20.5 Some objectors stated that OERC may insist on sub-division-wise transmission and distribution loss and not concentrate on consolidated figures.
- 3.20.6 Shri R.C. Padhi stated that GRIDCO had earlier proposed to insulate the consumers from its inter-state-sale and should not have raised the issues relating to loss due to shortfall in export in the present filing. Shri Padhi also argued that DPS paid to NTPC should not be levied on honest consumers as GRIDCO is collecting DPS from distributing companies.
- 3.20.7 **OHPC** : In accordance with the PPA of UIHEP, OHPC claimed Rs.73.73 crore on account of shortfall in revenue due to hydrology failure which GRIDCO had excluded from the calculation of revenue requirement for 2003-04. OHPC prayed the Commission to allow Rs.73.73 crore in the revenue requirement of GRIDCO with necessary direction to the Bulk supplier to make this payment immediately. The generator stated that the deficit in revenue receipt from GRIDCO on account of power transaction with APGENCO in respect of Machkund joint scheme had to be borne by GRIDCO, as it had utilised the entire power from that source. GRIDCO should ensure payment to OHPC during 2003-04 @ 33.23 paise/unit for the old hydro power stations and @ 65.02 paise/unit for UIHEP. The tariff for Machkund joint scheme was proposed at 18.44 paise/unit by OHPC. However, GRIDCO excluded the transaction charges of 3.00 p/unit and claimed 15.44 p/unit only its revenue requirement. The transaction charges of 3.00 p/unit amounts to a meagre Rs.79 lakhs and is intended to meet the incidental expenses being incurred by OHPC. Therefore, the transaction charges as proposed by OHPC may be allowed by the Commission. Necessary direction may be issued to GRIDCO to make payment of the arrear interest of Rs.18.75 crore and also the interest for the current year. Since the ED has been levied on auxiliary consumption @ 20 p/u since October 2001 as compared to 12 p/kwh earlier, the differential amount of ED may be allowed to be reimbursed through a separate bill. The expected loss of revenue due to shortfall in generation on account of hydrology failure in respect of old stations of OHPC has been calculated at Rs.36.41 crore for 2002-03. OERC is requested to allow these claims of OHPC and direct GRIDCO for making payment. OHPC under normal hydro condition will supply 5237 MU i.e. 40% of power requirement of GRIDCO at an average tariff of 42.85 paise and requests the Commission to approve the tariff for 2003-04 and issue directions to GRIDCO for early release of payment. CII suggested that the depreciation of OHPC old power plants should be recalculated using the book value as on 31.03.1996.
- 3.20.8 Some objectors stated that the comparison of tariff with other states should not be done as 60% of cheaper power comes from hydro, pit-head thermal stations, HT and EHT sales constituting more than 41% of total sale and agricultural sale is less than 4%. They also pleaded that capacity to pay should not be considered for all categories of consumers.

- 3.20.9 Some objectors argued that with existing BST, the DISTCOs will be having surplus as indicated below:

Table : 11

	<u>Rs. in Crore</u>
WESCO	253
CESCO	131
NESCO	38
SOUTHCO	2
TOTAL	454

- 3.20.10 The above said surpluses can be adjusted towards revenue deficit of GRIDCO for FY 2003-04 and the balance can be adjusted towards extra cost of power incurred during FY 02-03.
- 3.20.11 Majority of objectors argued that BST should not be hiked. The DISTCOs submitted that any increase in BST would also require corresponding increase in the RST and the latter shall result in lower collection efficiency and increasing number of consumers moving out of the Grid and opting for CPP.
- 3.20.12 Some objectors stated that GRIDCO has never exercised prudence in expenditure while adding to the transmission infrastructure. They suggested that the Commission should have a critical view of the irregularities pointed by the CAG report so that infructuous and imprudent expenditure should not be passed on to the consumers.
- 3.20.13 CII suggested that the BST for the year 2002-03 should be first calculated as per the Govt. notification and orders of the Hon'ble High Court. The ARR and the BST application for the FY 2003-04 as submitted by GRIDCO should be first revised, keeping in view the above Govt. circular and High Court order. The Commission should hear the revised ARR and BST application to decide the matter.
- 3.20.14 Some objectors stated that the dues of GRIDCO outstanding against DISTCOs had been estimated at Rs.2616 crore by FY 2002-03.
- 3.20.15 Some objectors felt that drawl of CPP power should be maximised. They suggested that the principles of global accounting of EREB should be correctly applied to charge power sales to its constituents in merit order.
- 3.20.16 UCCI stated that there was a decline in proportionate consumption of power by industries between 2000-01 and 2003-04 due to faulty strategy in respect of tariff determination.

4 GRIDCO'S RESPONSE TO THE OBJECTIONS

In reply to the various objections raised by the consumers and the clarifications sought by the Commission against GRIDCO's application for the approval of the Revenue Requirement for FY 2003-2004 and approval of the revised tariff, GRIDCO had filed its rejoinders to these queries with the Commission. GRIDCO's replies to these queries, have been classified into the following main issues.

4.1 Contract Demand, Simultaneous Maximum Demand (SMD) and Energy Requirement

- 4.1.1 GRIDCO, in support of its proposal to bill additionally as a quarter ending adjustment the difference in demand charges between the total approved demand by the Commission and the actual demand for the quarter, submitted that there exists an arrangement for fixation of demand under contract for all the consumers of a Distribution licensee, including domestic and commercial users. Further, it added that since the entire procurement of power from generators is on account of the distribution licensees, this amount should be allowed as a pass-through in the BST.
- 4.1.2 GRIDCO, while replying to the objection that it has over-stated its requirement of energy for the FY 2003-2004 and consequently, has projected a higher cost of power purchase, stated that the energy requirement of GRIDCO is in conformity with the requirement given by the Distribution licensees. It further stated that unfortunately the distribution licensees had submitted different figures to GRIDCO and the Commission. GRIDCO adds that it was bound to procure and supply power as per their requirement. It, therefore, cannot be held accountable to any overdrawal by the distribution licensees.

4.2 Power Procurement, Merit Order Despatch and Export of Surplus Power

- 4.2.1 GRIDCO, in its reply to the objections raised by both the Commission and the objectors, had submitted that its power procurement was governed by the generation plan given by various generators, and adhered to the formula of the least cost combination of power procurement. GRIDCO submitted that it had maximised drawal from the cheaper sources like hydro and the CPPs. Further, it had specifically requested OPGC to maximise generation over and above the planned PLF. As per power procurement from NTPC-TTPS and NTPC CGS, is concerned, it is based on the CERC approvals.
- 4.2.2 Responding to some objectors demanding supply of the cheaper hydro power to the local distribution licensee, i.e., WESCO be supplied with power procured by GRIDCO from the local hydro stations of OHPC, it was stated that GRIDCO acting as the bulk supplier cannot discriminate in the supply of power.
- 4.2.3 Many objectors protested that GRIDCO was buying costlier power from the NTPC Central Generating Stations (CGS). GRIDCO clarified that this measure was perforce resorted to because of shortfall in energy available from the OHPC and relieve the consumers of power rationing. This measure had been taken in consultation with the State Government. GRIDCO also added that the power supply position of the state was much better than many other states.
- 4.2.4 On the proposal of one of the objectors pertaining to the feasibility of developing atomic power in the Western Region, it was clarified by GRIDCO that it was not within the ambit of GRIDCO's ARR. This issue would be considered separately.
- 4.2.5 GRIDCO clarified that the Commission had neither restrained GRIDCO from export of power outside the state nor had GRIDCO imposed load shedding *suo moto*. The

load shedding was primarily attributed to the unprecedented shortfall in hydel generation and had been implemented in consultation with the State Government. It also stated that it is making sincere efforts to export the surplus power to other states. GRIDCO is in process of finalising the appointment of a market representative for effectively addressing this issue, keeping in view the interests of the customers at large and after ensuring security of payment. GRIDCO could export only 41.658 MU of power in FY 2002-2003, due to shortfall in hydro generation.

4.3 Power Purchase Agreements (PPAs)

- 4.3.1 GRIDCO clarifying the status of the PPAs with the various generators, stated that the PPA between OPGC and GRIDCO for Ib TPS Units 1 & 2 was signed on 13 August 1996. This was filed by GRIDCO before the Commission for approval vide an application dated 20 February 2002, which was admitted by the Commission as Case No. 13/2002. OPGC had moved the High Court against GRIDCO's application. The Hon'ble High Court in its interim order dated 21 March 2002, had directed that though the Commission may complete the procedural formalities, it can not proceed with the case till further orders. GRIDCO also stated that the long term PPA for the Upper Indravati Hydro Electric Power Plant (UIHEP) had been approved and finalised by the Commission.
- 4.3.2 GRIDCO stated that in the absence of clear-cut norms, the PPAs for the old generating stations of Balimela, Upper Kolab, Rengali and Hirakud Power System had to be finalised based on the norms laid down by the Govt. of India and the CERC, which were jointly acceptable to both OHPC and GRIDCO. GRIDCO stated that a majority of the issues regarding the finalisation of the PPA had been resolved and the remaining issues are under active negotiation.

4.4 Transmission Losses

- 4.4.1 GRIDCO, in its reply to the objection against the application for the revision of the BST stated that it was involved in the business of transmission and bulk supply of power at higher voltages and should not be held responsible for the losses taking place in the lower voltages in the distribution network.
- 4.4.2 Many objectors had raised objections on the figures of transmission losses projected by GRIDCO. GRIDCO submitted that the entire transmission system (i.e., procurement from the various generators and subsequent supply to all distribution licensees) had been metered and the transmission loss levels submitted by GRIDCO were backed up by authentic metered data and bills. GRIDCO also submitted that though it had not filed its audited accounts, the information filed was based on accurate management accounts.
- 4.4.3 GRIDCO, in its reply on the calculation of its transmission losses, stated that the loss figure calculated as per the OERC method was 3.503%, as projected in the last column of Annexure-1.
- 4.4.4 GRIDCO also stated that the extent of losses in the transmission system depended on the transmission voltage, cross-section of the conductor, distance over which the energy is being transmitted, as well as on the generation by the different generating stations. This varies at different parts of the state. The month-wise computation of transmission losses had also been furnished. GRIDCO also added that the transmission losses proposed by it are lower as compared to other states, including that of PGCIL.

4.5 Cost of Power Purchase and Operation under Availability Based Tariff (ABT) Regime

- 4.5.1 Some of the objectors gave detailed calculation of the cost of power purchase for GRIDCO. GRIDCO submitted that the calculations submitted by M/s INDAL were based on the costs approved by the Commission for the previous year, i.e., FY 2002-2003 and would need revision based on the submissions of the generators for the financial year FY 2003-2004.
- 4.5.2 GRIDCO stated that GRIDCO had to resort to purchase of costlier power from the NTPC CGS under abnormal circumstances explained earlier. The distribution licensees had paid for such power at the average BST rate, which is significantly cheaper. The Government had been moved by OERC to reimburse this extra cost from the Calamity Relief Fund (CRF).
- 4.5.3 Replying to the issue of surrender of costlier allocations in the Eastern Region. GRIDCO stated that because of the unpredictability of the availability of power from the hydro sources as well as the CPPs, GRIDCO had not been able to surrender its share in the costlier NTPC CGS, otherwise consumers had to face massive power rationing in case of a hydro failure or in case of back down or non-availability of the power from the CPPs. It also reiterated that it has been making sincere efforts to export surplus power to other states and is in the process of finalising a market representative for this.
- 4.5.4 GRIDCO added that the necessary changes carrying out the implementation of ABT in the Eastern Region from 1 April 2003 has been incorporated in GRIDCO's application, the details of which are given by GRIDCO in DF-8, DF-9 and DF-10 in volume I of III of the ARR application. GRIDCO had brought to notice that under the ABT regime, GRIDCO would be required to pay the entire fixed costs of its share in the NTPC CGS, irrespective of the actual drawal by the licensees. As regards, variable charges of the NTPC-CGS and the objections on the high Fuel Price Adjustment (FPA), GRIDCO clarified that the variable costs proposed by GRIDCO are based on the prevailing rate and the FPA charges on formulae approved by the Govt. of India (TRT-15).

4.6 Revenue Requirement

- 4.6.1 Replying to the calculations submitted by M/s Aditya Aluminium Projects on the revenue requirement for the transmission and bulk supply business, GRIDCO stated that the objector had calculated energy and revenue requirement on lower side, taking into lower transmission loss than the actual loss level submitted by GRIDCO as well as lower cost of generation. GRIDCO also added that similar calculations submitted by M/s Ferro Alloys Corporation of Orissa Limited (FACOR) did not hold good.
- 4.6.2 **Audited Accounts**
 - 4.6.2.1 GRIDCO attributed delay in finalisation of accounts for several years to belated finalisation of the transfer scheme.
 - 4.6.2.2 GRIDCO assumed that the audited accounts for FY 2000-2001 and FY 2001-2002, duly signed by its statutory auditors, would be duly filed with the Commission by June 2003. It also informed that it had been duly filing the approved management accounts with the Commission, as and when required.
 - 4.6.2.3 GRIDCO stated that the audited accounts for FY 2002-2003 had not become due. It also stated that the information had been filed in all the prescribed

formats for FY 2003-2004 to support its proposed revenue requirement and tariff revision.

- 4.6.2.4 GRIDCO clarified that its accounts are being maintained as per the prescribed procedure and after having been duly audited, submitted to the Commission.

4.6.3 Asset Valuation, Asset Register, Inventory and Capital Investment

- 4.6.3.1 GRIDCO clarified that the matter regarding the value of the asset base is subjudice. The Hon'ble High Court, in their revised Order dated 14 March 2003, had directed that depreciation on assets would be calculated in accordance with the Department of Energy notification No. 1068/E dated 29 January 2003 and at the pre-1992 norms as notified by the Government of India.

- 4.6.3.2 In reply to the queries on the book value of the assets transferred from OSEB, GRIDCO submitted the position as on 1 April 1996, which is given below:

Table : 12

	GROSS ASSETS			NET ASSETS		
As on 1 April 1996				<i>(All Figures in Rs. Crores)</i>		
	Functional Assets	Allocation of General Assets	Total Assets	Functional Assets	Allocation of General Assets	Total Assets
Transmission	533.18	13.48	546.66	409.84	6.40	416.24
Distribution	611.37	14.53	625.90	372.84	6.90	379.74
T & D Assets	1,144.55	28.01	1,172.56	782.68	13.30	795.98
Hydro Assets	305.38	8.62	314.00	222.78	4.09	226.87
Total Assets	1,449.93	36.63	1,486.56	1,005.46	17.39	1,022.85

- 4.6.3.3 Clarifying the requirement of capital investments being made by GRIDCO, it stated that these capital investments were aimed to improve and strengthen the quality of supply and to effectively link generation sources with the load centres. It also stated that after completion of these projects, GRIDCO would be able to ensure assured quality and uninterrupted power supply, ensuring Grid stability. GRIDCO replied that it had submitted details of all the major capital works along with their progress to the Commission.

- 4.6.3.4 GRIDCO also clarified that the details of the Asset Register for FY 1999-2000 had already been furnished to the Commission. While auditing the accounts for 1999-00, the said asset register was taken into consideration.

- 4.6.3.5 GRIDCO clarified that the detailed information of inventory is under preparation and would take sometime for completion. It was also submitted that the Commission had been apprised of the progress from time to time.

4.6.4 Operations & Maintenance (O & M) Costs

- 4.6.4.1 GRIDCO stated that it had assumed a reasonable percentage of increase in its employees' costs based upon audited figure of FY 1999-00. GRIDCO also

submitted that while the Commission had approved employees' costs of Rs.67.10 crore for 1999-00, the actual cost as per the audited accounts is Rs.101.88 crore, the major contributing factor to this difference being the cost of provisioning for terminal liabilities. GRIDCO has been taking steps to carry out an actuarial valuation as on 31 March 2002 to determine the liabilities on account of the terminal benefits of its employees.

4.6.4.2 Regarding the increase in number of employees, GRIDCO replied that the increase had been only in the executive cadre because of induction of professionals in the level of graduate management trainees to be utilised mainly for the operation of the Grid S/S, which is considered critical.

4.6.5 Interest & Financing Charges

4.6.5.1 GRIDCO clarified that for the purpose of calculation no interest had been considered in respect of State Govt. loans.

4.6.5.2 GRIDCO clarified that despite its best efforts to negotiate with PFC, REC, etc. they had not agreed to convert their costlier debt at the interest rate of 8.5%.

4.6.5.3 GRIDCO also stated that it has been taking steps to raise cheaper debt from the market and other sources in an effort to swap the old costlier debt. In this regard, GRIDCO had been able to manage Rs.125 crore from banks at a coupon rate of 11.25%, to replace the costlier debt bearing coupon rates of 15 – 15.25%. Because of its precarious financial position, GRIDCO had not been able to raise enough cheaper debt to completely swap the old high cost borrowings, due to lack of confidence of prospective lenders in GRIDCO's network. However, in spite of this, GRIDCO proposed to raise another Rs.175 crore on similar terms in FY 2003-2004 for swapping with an equivalent amount of high cost debt.

4.6.5.4 Replying to objections on the costs of securitisation, GRIDCO replied that it had taken all possible steps to recover its dues from the Distribution licensees and prayed that it should not be held responsible for the inefficiency of the Distribution licensees.

4.6.5.5 GRIDCO also submitted that it had to incur an additional interest cost of Rs.317.27 crore during FYs 2000-01, 2001-02 and 2002-03 due to the non-materialisation of some of the Commission's orders, as under:

- ❑ Failure of securitising existing REC/PFC dues at 8.5% tax-free bonds in spite of the best efforts of the licensee,
- ❑ Retention of Rs.1,192 crore of losses up to FY 1998-99 as part of the transfer scheme dated 28 November 1998, which are mainly attributable to the distribution business.

4.6.6 Depreciation

4.6.6.1 GRIDCO, in its replies, also clarified that, as per the Govt. of Orissa's notification, the licensee had calculated its depreciation based on the pre-1992 norms notified by the Govt. of India.

4.6.7 Delayed Payment Surcharge (DPS)

4.6.7.1 GRIDCO cited the inability of the Distribution licensees to meet their BST bill in full. It also added that because of the hydrology failure and the

subsequent purchase of costlier power from NTPC CGS, the situation had become more acute. GRIDCO stated that it had already approached the Power Finance Corporation (PFC) to raise a loan of Rs.1,200 crore with a State Government guarantee to bridge the revenue gap and to ensure full payment of future power purchase costs. PFC had not sanctioned the aforesaid loan yet.

4.6.7.2 GRIDCO submitted that no business could survive without recovering its cash requirement year after year. It also stated that it required paying DPS to its generators at rates varying between 18% and 24%.

4.6.8 Past Losses

4.6.8.1 GRIDCO had filed for recovery of Rs.917.12 crore under Special Appropriations to be approved as part of its revenue requirement for FY 2003-2004.

Table : 13

Sl. No.	Item	(Rs. in crores)	
1	Additional Impact towards excess power procurement cost due to change in generation mix for FY 2002-2003		554.84
2	Additional Impact towards shortfall in export during FY 2002-2003, as per the Commission's tariff order for FY 2002-2003		36.75
3	Additional Impact towards shortfall in demand in DISTCOs during FY 2002-2003		8.25
4	Additional Impact towards difference in interest payment including securitisation on:		
	a) On differential interest	236.70	
	b) Stamp Duty & Guarantee Commission on new Loans and Bonds	51.22	
	c) DPS to be recognised while issuing bonds to the generators	29.35	317.27
	TOTAL		917.12

4.6.8.2 GRIDCO also added that as this was a genuine revenue expenditure and within the purview of Schedule VI requirements of the Electricity Supply Act, 1948, the same should be allowed as a recovery through the tariffs.

4.7 Tariff and other Regulatory Issues

4.7.1 Proposal for Revision of Tariffs

4.7.1.1 GRIDCO stated that it was required to operate on a commercial basis and was entitled to recover its legitimate and prudent costs through tariffs as provided under Schedule-VI of the Electricity Supply Act, 1948.

4.7.1.2 Any proposal by the licensees' for the revision in tariffs is based entirely on the Annual Revenue Requirement (ARR) of the licensees and calculated on

the basis of provisions under Chapter VIII of the Reform Act and the OERC's Conduct of Business Regulations 1996.

4.7.2 Wheeling Tariffs

4.7.2.1 In reply to objections raised by M/S Indian Charge Chrome Limited (ICCL) M/S Nalco against the high wheeling tariffs being charged by GRIDCO, GRIDCO clarified that the present wheeling tariffs being charged by GRIDCO were based on postage stamp basis, taking into consideration the cost of transmission and the volume of energy handled by GRIDCO on account of the Distribution licensees and the CPPs for which the Commission's approval exists.

4.8 Performance Improvement, Quality of Supply and Customer Service

4.8.1 Some objectors took exception to the inability of the licensee to raise its standard of service, quality of supply, and reduction in losses on account of mal-administration, mismanagement, and inefficiency. GRIDCO stated that as no specific instances had been brought out, it preferred not to respond to such query.

4.8.2 GRIDCO also clarified that apart from the determination of tariffs, the Commission had also been involved in a bi-monthly review of the performance of the licensees in respect of its quality of service, efficiency, collection of dues, preparation of bills, metering, etc.

4.9 Metering Arrangements and Meters

4.9.1 GRIDCO stated that all the metering points between GRIDCO and the generators and the inter-connection points for supply to the distribution licensees have 100% metering with electronic meters of 0.2 accuracy, and all power purchases and sales are duly accounted for and metered. Hence, the objections as to the reliability of the data and the consequent demand forecast of GRIDCO were baseless.

4.10 Other Issues

4.10.1 Acceptance of the Recommendations by the Govt. of Orissa

4.10.1.1 GRIDCO submitted that it had filed its Annual Revenue Requirement (ARR) with the Commission for FY 2003-2004 on 31 December 2002, as mandated by the statute of law. The acceptance by the State Govt. was notified on 29 January 2003, after GRIDCO's filing of its ARR, and hence, these recommendations have not been reflected in GRIDCO's proposed ARR. However, GRIDCO stated that it had no objections if the Commission takes into consideration these recommendations while approving the ARR for FY 2003-2004.

4.10.2 Business Plans

4.10.2.1 GRIDCO pleaded that its Business Plan is contingent upon the plans of the Distribution licensees. In spite of repeated efforts on part of GRIDCO, it had not been able to agree to and finalise the plans of the Distribution licensees as a result of which, GRIDCO is not in a position to finalise its own plans. GRIDCO also stated that it had brought this lapse to the attention of the Commission time and again.

4.10.3 Load Shedding and Power Rationing

4.10.3.1 Many objectors sought clarification on the amount of energy saved and the proportionate and the corresponding reduction in cost of power purchase. Though GRIDCO was successful in managing the peak demand, the total energy requirement remained more or less same. To ensure this, GRIDCO had to purchase costlier extra power from the NTPC CGS.

4.10.4 GRIDCO's Control over the Distribution Licensees

4.10.4.1 Replying to Sri R P Mohapatra's objection to GRIDCO not exercising management control over the distribution licensees, GRIDCO clarified that under the share-holding agreement, it owns 39% of the shares in each of the distribution licensee, which does not lend any significant control of management to GRIDCO. Though distribution licensees, has opened escrow accounts with GRIDCO this has not solved the financial problem of GRIDCO so far as power purchase payment by DISTCOs is concerned.

4.10.5 Other General Objections

4.10.5.1 On submission by some objectors to publish the notices in the local language, GRIDCO submits that the Commission, vide its regulation, Orissa Electricity Regulatory Commission (Conduct of Business) Regulations, 1996 had notified English as the official language of the Commission, and this is being scrupulously followed by GRIDCO.

4.11 OBSERVATION OF COMMISSION ADVISORY COMMITTEE

4.11.1 As part of its consultative process on tariff fixation, the Commission convened its Commission Advisory Committee (CAC) meeting on 9th April, 2003 and its constituent members rendered valuable input regarding the proposed tariff and revenue requirement of the licensees.

4.11.2 Cutting across the board, members representing varied interest groups expressed concern about the persistent high transmission and distribution losses of GRIDCO and the DISTCOs. They suggested that the operational efficiency of the licensees should be streamlined and monitored more rigorously. They were of the view that inability of the license holders to bring down T & D loss in a phased manner and to achieve the benchmarks set by the Commission in its previous tariff orders, was the primary reason why they were not financially viable even after seven years of reform. They emphasized that T&D loss should come down from 35% in 2000-2001 to 32% in the current year.

4.11.3 Members were unanimous that indifference of the state government to issues such as revenue subsidy for rural electrification works, clearance of government energy arrear dues and enactment of anti theft law have contributed in large measure towards downsliding of power sector reform in the State. They called for greater political will in dealing with the problems of the energy sector.

4.11.4 The CAC was also critical of the un-audited accounts and unauthenticated figures dished out by the GRIDCO and DISTCOs in their tariff proposals. They pointed out that cross check of figures in respect of valuation of assets, T & D loss and other expenditures presented to the Commission in different occasions by these companies revealed gross discrepancies. Members suggested that all figures submitted by the licensee in tariff, should be subjected to thorough scrutiny before allowing them to pass through.

- 4.11.5 The Commission's decision to allow securitisation of arrear dues in last year tariff reversing its own previous order was opposed by the members who were of the opinion that this would penalise consumers who had already paid for the cost of energy in the relevant year.
- 4.11.6 Members also suggested that to avoid any needless burden on consumers, both hydro and thermal generators should make short-term power projection with 5% margin for emergencies and costly power from central power stations should be surrendered. The CAC stressed on aggressive bi-lateral trading as an effective means to offset high power purchase costs.
- 4.11.7 With regard to the current additional expenditure on power due to failure of the monsoon, CAC members urged the government to make every effort to secure grant from the National Calamity Fund by the State Government. They demanded that the recommendations of the Parekh Committee should be implemented without delay.

5 COMMISSION'S OBSERVATION AND ANALYSIS OF LICENSEE'S PROPOSAL

On detailed scrutiny and examination of the Annual Revenue Requirement and Bulk Supply Tariff Application for the FY 2003-04 along with clarifications submitted by the licensee before the Commission, the written and oral submissions of the objectors and the views of the Members of the Commission Advisory Committee, the Commission has passed the order, as detailed below.

5.1 Scenario of the Power Sector Reform in Orissa

5.1.1 The State of Orissa was the first to initiate the reforms in the power sector in the country. The Orissa Electricity Reform Act, 1995 was put into the statute with a view to restructure the electricity industry in the state and rationalize the generation, transmission, distribution and supply of electricity and to create avenues for participation of private sector entrepreneurs and create infrastructure for development and management of electricity industry in an efficient, economic and competitive manner. Orissa Electricity Regulatory Commission has been constituted under the Act for overseeing and regulating the affairs of electricity industry in the State including rationalisation/setting of tariff.

5.2 Restructuring of the Power Sector

5.2.1 Prior to coming into force of the OER Act, 1995 on 01.4.96, the Thermal Station at Talcher of 460 MW capacity owned by OSEB was sold to NTPC in June, 1995 at a consideration of Rs.356.00 Crore.

5.2.2 The OSEB was dissolved and unbundled with the take over of hydro stations owned by the OSEB and the Government by the Orissa Hydro Power Corporation and its transmission and distribution business was taken over by GRIDCO with effect from 1st April 1996. Thereafter, the distribution and retail supply of electricity was vested in four distribution companies initially as wholly owned subsidiary companies of GRIDCO. Three of these distribution companies were privatised on 1st April 1999 and the fourth one on 1st September 1999 after disinvestment of its 51% share. The state owned Orissa Power Generation Corporation created in 1984 continued to operate as a separate entity and managed the Ib Thermal Power Station having capacity of 420 MW near Jharsuguda.

5.2.3 The assets of the erstwhile OSEB including those of the hydro generating stations were taken over by the State Government, revalued and transferred to GRIDCO and OHPC. The upvalued amount was adjusted in favour of the State Government through grant of equity share and issue of bonds bearing no interest with a moratorium period of five years with provision of subsequent conversion in phases into equity and issue of debentures bearing interest. Revaluation of assets was considered to enable the Government of Orissa to realise more realistic value for its past investment at the time of privatization and also enhance the creditworthiness of the utilities. The revaluation was based on the revenue earning potential and was intended as a means of raising revenue through higher level of depreciation, higher operation and maintenance cost, higher return on equity for smooth functioning of the power sector. To sum up the revaluation was also done with the objective of eliminating GRIDCO's and OHPC's dependence on budgetary support from Government of Orissa.

5.2.4 The process of reform and restructuring paved the way for commitment of World Bank loan of 350 million US dollars for long term capital investment in the power sector in Orissa along with 65 million sterling pound funding from the DFID to meet urgent needs of repair & maintenance expenses and consultancy support. The World

Bank also prepared a report known as the Staff Appraisal Report in April 1996 on the Orissa Power Sector Restructuring Project and made financial projections based on certain assumptions of power purchase, power sale, level of transmission and distribution loss, collection efficiency and operating expenses which envisaged that GRIDCO after meeting all costs will turn around from FY 1997-98 onwards. There was no provision of transitional support whatsoever during this period. On the contrary, State Government adjusted a sum of Rs.340.2 Crore payable to GRIDCO against the upvaluation. All the liabilities of erstwhile OSEB were also passed on to GRIDCO based on the above financial analysis and projections.

- 5.2.5 In reality, the projections did not materialize. The financial health of GRIDCO is far from satisfactory as the accumulated losses of GRIDCO has increased to Rs.1193 Crore by the year FY 1998-99 and is likely to mount to Rs.2149.68 Crore by 2002-03. It faces acute liquidity problem as the DISTCOs have paid to GRIDCO towards purchase of power only about 62.75% of BST bills during FY 2001-02. However, with continuous monitoring by the Commission, the collection from DISTCOs has gone up to 89.75% by the end of January, 2003.
- 5.2.6 In the post-reform period from 1 April, 1996 to 31 March, 2001, the state generators, namely, OPGC and OHPC have earned book profit of Rs.768 Crore which should have made them financially viable but in reality, OHPC is faced with cash crunch due to non-payment of its energy dues by GRIDCO.
- 5.2.7 Private capital has been infused in the form of dis-investment of 49% of equity shares of OPGC (Rs.603 Crore), sale of 51% share of distribution business of GRIDCO (Rs.159 Crore).
- 5.2.8 In OSEB days, the State Government was required to provide necessary subvention under Section 59 of the Supply Act 1948 so as to leave a surplus of not less than 3% on net fixed assets to OSEB after meeting all expenses properly chargeable to revenue including O&M and management expenses, taxes, depreciation and interest etc. for sustenance of the power sector to meet its socio-economic obligations of giving power supply to the vulnerable sections of the society. But in the post-reform era, the Government of Orissa has totally divested itself from the burden of such payment which on a rough estimate would have come to Rs.4430 Crore from 01.09.1996 till 31st March 2003, had the OSEB continued as an entity.
- 5.2.9 As reflected in earlier orders, the Commission believes that payment of subsidies are not in consonance with the spirit of the Reform Act, 1995 but the State Government's financial back-up in the form of subvention or subsidy during the transitional period could have substantially eased the situation as has been realised and is being implemented in many reforming States like Andhra Pradesh (Rs.1585 crore), Gujarat (Rs.1260 crore), Uttar Pradesh (Rs.790 crore), Haryana (Rs.769.3 crore for one year) and Rajasthan (Rs.3496.6 crore in four years), Delhi (@ Rs.500 crore per annum for five years). This was necessary because the social policies, such as, Rural Electrification, Lift Irrigation, Kutir Jyoti carried out at the behest of the State as a matter of state policy for the benefit of a larger section of the state's population was continued in the post-reform period and also tariff can not be made cost reflective in one go, as it would administer a severe price shock to consumers.
- 5.2.10 The single most important factor that raised the revenue requirement of all the licensees in the post-reform era was the substantial rise in the cost of hydro power as well as in the cost of transmission and distribution on account of revaluation of assets as on 01.4.96 and also providing an accelerated rate of depreciation. Further, in the pre-reform era, power requirement of the state was met mostly from sources within

the State and limited procurement from Central Generating Stations and CPPs. However, with the passage of time, the State became more dependent on drawal of power from the Central Generating Station due to delayed commissioning of the Upper Indravati Hydro Electric Project. On the revenue side, the single most important factor has been the lack of growth in EHT and HT loads as envisaged.

- 5.2.11 The forecast of consistent reduction in transmission and distribution loss from an estimated level of 39.5% for the FY 1996-97 to 22.7% by the FY 2000-01 has not been achieved. Even the initial assessment of loss as 39.5% for the FY 1996-97 turned out to be 49.4% as revealed from the audit report for the corresponding year.
- 5.2.12 The transmission and distribution sector continued to bear further financial liabilities due to interest burden on account of debt servicing of past loans & liabilities and large scale investment in transmission and distribution for improvement of quality of power supply without corresponding rise in sale of power.
- 5.2.13 The anticipation that the impact of revaluation of assets would be offset with the growth of EHT and HT loads has not borne fruit as the expected load growth like installation of steel plant at Gopalpur, Duburi projected in pre-1996 era did not materialize coupled with recession in the industrial sector severely jolting the anticipated growth in HT & EHT. Further, to make the matters worse, the loads in the subsidised categories have increased. This has adversely affected the revenues of the utilities.
- 5.2.14 The actual sale of 2760 MU to the industrial HT & EHT bulk supply and railway in 2000-01 was far below the load projection of 7009 MU for these categories made in the Staff Appraisal Report which has seriously affected the revenue earning potential of the licensees, widened the gap between the cost of supply and revenue realisation and reduced the scope of cross-subsidy to low voltage classes of consumers.
- 5.2.15 Had the load projection contemplated in the Staff Appraisal Report materialized, the revenue position of the utilities would have been much better and it would have contributed to an overall reduction in T&D loss figure.
- 5.2.16 Some HT/EHT consumers preferred generation of power from their own Captive Power Plants rather than availed power from DISTCOs on cost consideration though the Eastern Zone continues to be surplus in generation.
- 5.2.17 Though collection efficiency is around 98% to 99% in privately managed utilities like CESC, Calcutta and BSES, Bombay, the DISTCOs in Orissa have achieved only 75% for 1999-00 and 76% for the year 2000-01. Their failure to collect the revenue at the tariff permitted by the Commission from year to year and to convert the lost units by regularizing unauthorized connection and reducing load have magnified the liquidity problem. However, due to continuous review by the Commission the collection efficiency of the DISTCOs has gone up to 81% during 10 months period of the FY 2002-03.
- 5.2.18 The affordability of a large section of consumers mostly from domestic, irrigation, small industrial segments, etc. constituting more than 90% of the total consumers strength happened to be the weakest link in attaining a cost based tariff structure, which in effect would result in reduction of Industrial Tariff and substantial increase in LT Tariff.
- 5.2.19 To sum up, the asset revaluation, absence of subvention from the Government, high level of transmission and distribution loss, non-maturing of HT & EHT loads,

coupled with poor billing and collection of the distribution companies are the causes of imbalancing factors leading to the losses in the GRIDCO and distribution utilities.

5.2.20 While deciding the tariff for FY 2002-03, the Commission suggested a mid course correction of the Power Sector Reform in Orissa to strengthen the power sector in the interest of the consumers, investors and the state's economy.

5.2.21 With this scenario in view, the committee of independent experts (hereafter called the Kanungo Committee) appointed by the Government of Orissa have very aptly recommended, as a mid-course correction, certain measures setting aside the revaluation of assets of OHPC, payment of interest to the State Government on the loans imposed on the licensees due to revaluation to provide requisite support to the power sector for its resuscitation and among other things have made the following significant recommendations :

- Revaluation of GRIDCO and OHPC assets to be kept in abeyance till the system is brought to balance.
- State Government to agree to allow moratorium on debt servicing to the State except the amounts in respect of loans from the World Bank.
- **An interim financial package amounting to Rs.3240 Crore (estimated) to be availed from World Bank and the DFID to bridge the cash gap in order to keep the tariff at the same level for the period from 2001-02 to 2004-05.**
- Instituting regular systems of monitoring of consumer grievances and services supplemented by test checks.
- Setting up of Rural Engineering Planning Organisation (REPO) and Rural Electrification Planning Units (REPU) under Government of Orissa to monitor RE and LI works.
- At this point of crisis, all agencies such as State Government, the Central Government, the World Bank and DFID should get together to rescue the reform process.
- Reduction of distribution loss @ 5% p.a. with a base level of 42.2% in the year 2001-02.
- Collection efficiency of DISTCOs to increase from 76% to 85% by 2004-05.

5.2.22 The inescapable conclusion emerges from the aforesaid observation is that support for sectoral revival can be possible with reduction in input cost to the distribution companies, which has occurred on account of exponential rise in (a) cost of power (b) cost of transmission (c) cost of distribution. The rise in power purchase cost has been more steep in respect of Orissa Hydro Power Corporation (old stations) where the per unit cost of power purchase went up from 22 paise/unit as on 31 March, 1996 to 38 paise/unit as on 1 April, 1996 and 49 paise/unit between 1997-98 to 2000-01.

5.3 Strategies for Improvement of Power Sector

5.3.1 With this background, the Commission deems it fit to have a review of the various policy options being followed in the post reform era in the best interest of the power sector in the state within the frame work of existing Act, Rules and Regulations. The Central Govt. as well as State Govt. have taken various steps to bring out improvements in the power sector.

5.4 Recommendations of Deepak S. Parekh Committee

5.4.1 Expert committee constituted by Govt. of India under the Chairmanship of Shri Deepak S. Parekh in their report recommended that the State Govt. as the sole owner of the SEBs and as the primary driver of the reform process, should consolidate these liabilities, take them over and transfer them to a Power Sector Reform Fund (PSRF). The next step would be for the State to write off its own loans to the SEB. The

committee considers that these steps are not only necessary in order to enhance the credibility of the restructuring process but would also enhance the sale value at the time of privatisation.

- 5.4.2 In order to enhance the credibility and mitigate the risk of policy reversals, the committee recommends that the State Govt. should ring-fence both the liabilities and the inflows earmarked for the sector restructuring into a PSRF. All existing liabilities of the sector should be transferred to the PSRF and, concomitantly, existing receivables, privatisation proceeds, grants from the Government of India and other donor agencies and a portion of the surplus from future operations (say, in the form of a PSRF surcharge) should be transferred to the PSRF to defray these liabilities.
- 5.4.3 In the line of the recommendations of the Deepak S. Parekh Committee, the Commission advised Govt. of Orissa u/s 11 (a) of the OER Act, 1995 for taking over the loans and liabilities of GRIDCO upto 31st March 1999 i.e. prior to privatisation of distribution business vide D.O. No.CHM/2003/378 dated 21.02.2003. The Commission is of the opinion that once the amount of old outstanding loans are transferred to PSRF, its realisation can be addressed as per the methods mentioned in para 5.3.1.2 of the committee report.

5.5 **Decision of Govt. of Orissa on recommendations of Expert committee and suggestions of OERC**

- 5.5.1 The Govt. of Orissa took following decisions vide notification No.R&R-I-2/2002/1068 dt.29.01.2003 on the recommendations of Committee of Independent Experts to review Power Sector Reform in Orissa and corrective suggested by the Commission.
 - 5.5.1.1 The effect of upvaluation of assets of OHPC and GRIDCO indicated in Notification No.5210 dated 01.04.1996 and No.5207 dated 01.04.1996 would be kept in abeyance from the Financial year 2001-02 prospectively till 2005-06 or the sector turns around whichever is earlier to avoid redetermination of tariff for past years and also redetermination of assets of various DISTCOs. For this purpose, depreciation would be calculated at pre-1992 norms notified by Govt. of India.
 - 5.5.1.2 Moratorium on debt servicing by GRIDCO and OHPC to the State Govt. would be allowed from the financial year 2001-02 till 2005-06 except the amount in respect of loan from the World Bank to the extent the State Govt. required to pay to the Govt. of India.
 - 5.5.1.3 The outstanding dues payable to OHPC by GRIDCO till 31.03.2001 on account of power purchase would be securitised through issue of power bond by GRIDCO to OHPC.
 - 5.5.1.4 GRIDCO and OHPC shall not be entitled to any Return on Equity (ROE) till the sector becomes viable on cash basis or 2005-06 whichever is earlier.
 - 5.5.1.5 Under conditions of normal hydro availability the State becoming surplus in power availability, GRIDCO may take steps for export of power. GRIDCO would take steps to procure cheap power from CPPs like NALCO & ICCL. OHPC & OPGC may be allowed to undertake 3rd party sale outside the State subject to permission from appropriate authorities.

- 5.5.1.6 OERC would consider multi-year tariff schedule, which would help the utility like Generator, GRIDCO and DISTCOs to embark upon long term business plan.
- 5.5.1.7 World Bank loan would be passed on by State Govt. to GRIDCO and DISTCOs as 70% loan @ 13% interest per annum and balance 30% would be as grant.
- 5.5.1.8 Tax-free bonds @ 8.5% interest would be guaranteed by Govt. of Orissa for PFC and REC loan.
- 5.5.1.9 There shall be 5% overall reduction of distribution losses every year from financial year 2002-03 till 2005-06 bench-marking the starting distribution loss of 42.21% in financial year 2001-02.
- 5.5.1.10 Collection efficiency of revenue to be calculated as 85% for the financial year 2001-02 reaching to 95% in 2005-06.
- 5.5.1.11 Aggressive feeder metering in LV side of distribution transformers should be made within 12-18 months to identify loss prone area. OERC would be requested for compliance from DISTCOs.
- 5.5.1.12 Swapping of Govt. dues from GRIDCO against dues of GRIDCO from Govt. and balance receivables if any be settled.
- 5.5.1.13 Suitable budgetary provisions be made after actual verification for payment in full of electricity dues of GRIDCO/DISTCOs against various Departments of the State Govt. Such dues could be paid directly to the OHPC Ltd. and the books of accounts of the concerned DISTCOs and GRIDCO adjusted as paid and received.
- 5.5.1.14 Govt. would exempt water cess on the volume of water used by OHPC for generation of electricity.
- 5.5.1.15 GRIDCO should refrain from purchasing materials, which are not required for minimum utilisation. GRIDCO is also advised not to initiate new contracts unless the position is reviewed by their Board of Directors and approved by Energy Department.
- 5.5.1.16 GRIDCO should take prompt and effective action for payment of interest towards World Bank loan. In case of default, this should be adjusted out of any release to GRIDCO.
- 5.5.1.17 A year-wise target of reduction of cash loss should be fixed and monitored.

5.6 **Implementation of multi-year tariff strategy**

- 5.6.1 In course of the hearings, the utilities as well as some of the objectors spoke about the element of uncertainty and risk inherent in an annual tariff setting exercise and they pleaded for introduction of a multi-year tariff regime, which would reduce such uncertainty. The Commission is conscious of the need for greater certainty in the regulatory treatment of a host of issues having direct impact on tariff setting. Section 26 of the OER Act, 1995 does not permit for multi-year tariff fixation but there is no bar for determination of long-term tariff strategy. Government of Orissa vide notification referred above is of the view that OERC would consider multi-year tariff schedule, which would help the utilities like GRIDCO and DISTCOs to embark upon long-term business plan.

- 5.6.2 The Commission also is in favour of setting out principles of long term tariff strategies so that rules of the game can be known to each and every player of the power sector. The long term tariff strategy aims to promote sustainable and meaningful efficiency improvements, help the licensees and the power sector in Orissa to achieve financial stability and safeguard the consumers interest through better quality service and competitive tariffs. The Annual Revenue Requirement of the licensees shall be determined during control period on the basis of the pre-determined principles. The control period covers four financial years starting from 1.4.2003 and ending on 31.03.2007. The first year of the control period i.e. FY 2003-04 shall be treated as the transition period. During the first control period the performance targets shall relate to the system losses and collection efficiency for different consumers category. The performance targets shall also include the quality of supply and customer service standard. The cost can be segregated into two parts viz. controllable cost and non-controllable cost. In case of controllable cost, any deviation from the benchmark fixed by the Commission shall not be allowed as a pass through. The cost arising from factors that are not under control of the licensee shall be subject to adjustment of forecast value and actual values so as to protect the licensee from such variations. The Commission intends to conduct a detailed review of the performance during the control period in October 2006 and come out with a review consultation paper in January 2007 on the performance of licensees during the control period vis-à-vis performance targets as well as the LTTS principles for the next control period. Order on LTTS principle have been issued separately.

5.7 Implementation of Availability Based Tariff (ABT)

- 5.7.1 The Availability Based Tariff has been implemented in the Eastern Region w.e.f. 1st April 2003. The principle of ABT aims at enforcing grid discipline with an objective to maintain consistency in frequency and efficient use of available energy resources. It has three part tariff structure.

5.7.1.1 Availability Charge for allocated Capacity (Fixed Charge).

5.7.1.2 Energy Charge for Scheduled drawal (Variable Charge).

5.7.1.3 Unscheduled interchange (**U I Charge**)

- 5.7.2 The special feature of the above commercial mechanism is UI Charge. Under this scheme, any deviation from the scheduled drawal shall be liable to UI charges Payable/Receivable to the utility concerned. This UI is to be worked out for each 15 minutes blocks period and there shall be 96 Blocks period in each day of operation. The charges for unscheduled drawal shall be based on average frequency of the relevant block period. The UI rate varies with maximum 420 paise/KWH at 49.0HZ and minimum of 0 Paise/KWH at 50.5HZ. The UI Charge at different frequency is linear in the step size of 0.02HZ. During under frequency condition overdrawal beyond schedule will attract disincentive in the form of a higher charge which can go up to 420 p/u at a 49 HZ and incentive for underdrawal will be available during low frequency condition. Alternatively during high frequency underdrawal beyond schedule will attract dis-incentive in the form of higher charge and incentive will be available for overdrawal at the aforesaid rate. This being the principle during ABT regime, no separate charge need to be specified for overdrawal or underdrawal during ABT operation, a DISTCO overdrawing during under frequency condition will be liable to pay UI charges as per rule. There may be a situation when one DISTCO is overdrawing and another is underdrawing so that net effect of GRIDCO's drawal is nullified. In that case cost recovery of UI charges from overdrawing DISTCOs will not be appropriated by GRIDCO and will be kept in a separate account. Such cases

need to be referred to the Commission for direction on appropriation of funds. The DISTCOs in turn need to bring to the notice of the consumers particularly industrial consumers of EHT and HT category about the impact of the overdrawal during under-frequency condition and have a back to back arrangement for passing on the extra burden due to UI charges. The meters in the consumer premises should be capable of recording the 15 minutes interval load drawal with a memory retention of at least 60 days.

5.8 Quantum of Power Purchase

- 5.8.1 GRIDCO has proposed an annual sale of 12,515.08 MU of power to the different DISTCOs going by the latter's annual energy requirement estimate for 2003-04. The transmission loss has been estimated at 536.63 MU (4.11%). The total purchase from the generators, as proposed by GRIDCO is 13056.71 MU. GRIDCO's projected requirement did not include the expected sale to outside states but included a quantum of only 5 MU to CPPs for their emergency need.
- 5.8.2 GRIDCO had purchased 12013.50 MU (based on the bills served on GRIDCO by the generators) during the FY 2002-03, to meet the demand within the State and for the purpose of export (47.36 MU). The DISTCOs had purchased 11361.61 MU during the corresponding period from GRIDCO as per the BST bills.
- 5.8.3 The power purchase by the DISTCOs are metered at various grid sub-station's end and the DISTCOs are billed according to the meter reading at these points. The DISTCOs have estimated their anticipated power purchase from GRIDCO as indicated in their tariff filing. As far as the FY 2003-04 is concerned, the Commission will go by the growth rate projected for the various classes of consumers by the DISTCOs at different voltage levels viz. LT, HT & EHT and calculate the incremental power requirement over and above the actual consumption in FY 2002-03. WESCO in its submission dtd. 25.01.2003 and 05.02.2003 through affidavits has indicated an additional sale of 270 MU to M/S INDAL, Hirakud, Rourkela Steel Plant and some HT Industries.
- 5.8.4 Further, in case of NESCO and CESCO additional sale of 258 MU and 22 MU respectively has been considered based on the percentage rise in the actual consumption in the year 2002-03 by the Ferro Alloys Industries at EHT with reference to the proposed consumption for the said year indicated in the ARR Proposal for the year 2002-03. The total quantum of power purchase for the year 2003-04 has been arrived at as given in the table below:

Table : 14

(Figures in MU)

	GRIDCO's Proposal in ARR	Based on DISTCOs' Estimate in RST	Commission's Approval
CESCO	4712.69	3960.00	3981.64
NESCO	2724.00	2464.00	2721.96
WESCO	3396.00	3500.00	3773.58*
SOUTHCO	1682.39	1580.00	1580.00
TOTAL	12515.08	11504.00	12057.18

*Considering additional sale at EHT/HT as proposed inclusive of loss at HT

5.9 Export of Power

- 5.9.1 GRIDCO's overall financial burden of power purchase cost would be reduced if export potential under a normal monsoon year is exploited properly. The licensee had exported around 873.75 MU of power outside the State during FY 2001-02. The scope for export of power become very much restricted due to unprecedented hydrology failure resulting in large scale load shedding during 2002-03. Though the Commission had approved 1400 MU of power for export in the Bulk Supply Tariff order dated 19.04.2002, it was not possible for GRIDCO to carry out the approved quantum for such export and could export hardly 47.36 MU during 2002-03. GRIDCO has an allocated share of around 3924.15 MU of power from the Central Sector generating stations excluding Chukka for which the licensee has to pay a fixed cost of Rs.352.70 crore per annum considering revised allocation of central sector share irrespective of the quantum of drawl, with the implementation of ABT in the Eastern Region with effect from 1st April, 2003. In this connection the Commission has already written to GRIDCO in February, 2003 to make early arrangement for trading of the surplus power after meeting the state demand through agencies like PTC and others. The Commission directed the licensee to work out the details of arrangement for export of power, the rate for such sale, period of sale and security mechanism for settlement of dues towards export and submit the same at the earliest.
- 5.9.2 GRIDCO in its reply dated 16.04.2003 has stated that the surplus power would be 2164 MU after meeting the state demand of 13,140 MU during FY 2003-04. The negotiated rate of Rs.2.12/kwh payable to GRIDCO towards supply of its surplus power had been mutually agreed by GRIDCO and KERPL (Koyala Energy Resources Private Limited). The transmission and wheeling charges and losses of PGCIL and other intermediary agencies shall not be borne by GRIDCO and the same has been excluded from the above minimum contract price of Rs.2.12/kwh. KERPL will initially sale 100 MW in Northern Region which would be enhanced depending upon availability of power.
- 5.9.3 In the course of the hearing process, some objectors also emphasised higher export of power to reduce the burden on the consumers by earning additional export revenue. The Commission feels that there is ample opportunity for trading of surplus power of GRIDCO and thereby earning additional revenue so as to reduce the power purchase cost of the licensee. However, in view of a 'below normal' monsoon forecast for the ensuing year, the Commission approves a conservative estimate of hydro power availability so that GRIDCO's financial burden does not worsen as it was in 2002-03 on account of purchase of costlier power against cheap hydro power. For the ensuing year after meeting the state demand the net surplus power available comes to 2571.05 MU. But the Commission recognises the difficulties in materialising the total export of surplus power outside the State. Hence, the Commission approves 90% of the total surplus power i.e. 2313.95 MU to be exported and the revenue earned on account of this to be adjusted in the ARR. In case GRIDCO is able to sale the balance 10% (i.e. 257.10 MU) of its export potentials the revenue generated out of such transaction shall be utilised to set aside the losses incurred by GRIDCO towards excess power purchase cost due to hydrology failure during FY 2002-03.

Table : 15

Availability of Energy from State and Central Sectors (MU)	15075.90
DISTCOs' Requirement of Energy (MU)	12057.18
Transmission Loss (MU)	447.67
Surplus Power Available for Export (MU)	2571.05
Commission's approval for export of Power (MU) i.e. 90% of the total available surplus power.	2313.95

5.9.4 With the above observations, the total requirement of power for the year 2003-04 is approved as indicated in the Table below.

Table : 16
Power Purchase Requirement

(Figures in MU)

Name of the Company	2000-01 (Actual)	2001-02 (Actual)	2002-03 (Actual)	2003-04 (GRIDCO proposal)	2003-04 (Comm. approval)
CESCO	4028.20	4186.82	4055.75	4712.69	3981.64
NESCO	2439.78	2302.64	2395.38	2724.00	2721.96
WESCO	2872.12	2980.96	3353.78	3396.00	3773.58
SOUTHCO	1523.58	1522.01	1556.70	1682.39	1580.00
TOTAL DISTCOS	10863.68	10992.43	11361.61	12515.08	12057.18
Export & sale to CPPs	894.76	874.21	47.36	5.00	2313.95
Transmission Loss	569.22	568.50	483.00	536.63	447.67
Total	12327.66	12435.14	11891.97	13056.71	14818.80

5.10 Demand Estimation for DISTCOs

5.10.1 In the Format DF-4 of the RR application for FY 2003-04, GRIDCO has projected a demand of 1931 MVA for all the DISTCOs assuming 7.69% rise in demand for NESCO, 0% rise for CESCO and 12.03% for WESCO and 0% rise for SOUTHCO over the corresponding approved figures for FY 2002-03.

5.10.2 The average simultaneous maximum demand for the year 2002-03 comes to 1804.95 MVA and the corresponding approved figure was 1840.83 MVA. Therefore, there is a shortfall in demand on an average to the tune of 35.87 MVA. The shortfall in demand was partly due to low load growth and partly due to imposition of load shedding. However, the simultaneous maximum demand of the State rose to 1905.38 MVA during March 2003 due to lifting of load shedding. The Commission feels that the projection made by GRIDCO at 1931 MVA is unrealistic and accordingly approves the simultaneous maximum demand of 1905.38 MVA for FY 2003-04 based on the actual demand for the month of March, 2003 and the same is presented in the Table below.

Table : 17
Maximum Demand

(Figures in MVA)

	FY 2000-01	FY 2001-02	FY 2003-04 (projection by GRIDCO)	FY 2002-03 (Average)	March 2003 (Actual)
CESCO	653.94	663.91	683	646.34	670.76
NESCO	381.45	365.35	408	370.58	394.48
WESCO	477.78	504.45	564	530.42	563.99
SOUTHCO	261.78	265.21	275	257.62	276.15
TOTAL	1774.94	1798.92	1931	1804.96	1905.38

5.11 Sources of Power Purchase

- 5.11.1 GRIDCO in its tariff application for the year 2003-04 has stated that the procurement plan is developed on a monthly forecast of demand and supply to reflect the actual load dispatch and demonstrate monthly merit order procurement from the generating stations. With the implementation of ABT, GRIDCO is required to pay about Rs.352.70 crore as capacity charge (Fixed charge) towards NTPC share for availing 3924.15 MU at 80% availability after considering 3.18% Central Sector loss. The amount is to be paid to NTPC irrespective of GRIDCO's annual drawl from these stations during 2003-04 and GRIDCO has considered ABT in its tariff application w.e.f. 01.04.2003.
- 5.11.2 The Commission while allowing procurement of power to meet the state demand in earlier years under pre-ABT scenario was considering the State's requirement, power availability from various generating stations based on existing PPAs and most economic merit order despatch.
- 5.11.3 Under post-ABT scenario the situation has undergone a change since fixed costs of Central Generating Stations (CGS) are already sunk. As such, only variable cost will be the material fact for assessment of tariff. Full allocated share need to be drawn to keep the cost of generation of CGS low.
- 5.11.4 The Commission shall be projecting the drawl schedule from different Generating Stations on the basis of the existing PPAs and schedule of generation given by the generators.

5.12 Computation of Transmission Loss

- 5.12.1 GRIDCO has submitted that adopting the Gross Method followed by the Commission, the Transmission Loss for FY 01-02 and for the first six months of FY 02-03 works out to 4.31% and 4.11% respectively (DF-2&3). The licensee has proposed a Transmission loss of 4.11% on the gross method for the FY 2003-04.
- 5.12.2 Subsequently in its supplementary submission dt.31.03.2003 to OERC's query on GRIDCO's BST filing, the licensee has furnished calculation of Transmission Loss for the FY 02-03 which works out to 3.76% (DF-3) following the gross method.
- 5.12.3 GRIDCO suffers no loss due to acceptance of gross method of calculation of transmission loss. The loss is being determined on the basis of "as the system operates" and the total loss computed in the transmission system of GRIDCO is apportioned to all users as stated by GRIDCO in its application i.e. the users inside the state as well as the users connected to the system for the purpose of export.
- 5.12.4 The apportionment of loss to all the system users based on the consumption figures for the year 2002-03 is furnished in Table below.

Table : 18

ACTUAL TRANSMISSION LOSS FROM APRIL, 02 TO MARCH, 03					
	Source	Gross Input (MU)	*Gross Output (MU)	Proportionate Loss sharing (MU)	Proportionate Loss sharing (%)
1	EREB	6840.91	1056.51	41.31	0.31%
	State dedicated Stations				
I	Hirakud	615.81			
ii	Balimela	484.49			
iii	Rengali	620.97			
iv	Upper Kolab	472.63			
v	Indravati	741.73			
A	OHPC	2935.63			
B	Machhkund	265.39			
C	OPGC	324.40			
D	TTPS	1997.43			
	Total State Generation Input	5522.85			
2	CPPs				
I	ICCL	524.93	408.61	15.98	0.12%
ii	NALCO	568.57	156.00	6.10	0.05%
iii	INDAL	7.88			
iv	RSP	9.18			
v	NINL	16.00			
	Total CPP	1126.56	564.61	22.07	0.16%
3	DISTCOs		11361.61	444.20	3.29%
	Grand Total	13490.32	12982.74	507.58	3.76%
	Loss (MU)	507.58			
	Loss (%)	3.76%			

(*) The energy exported to EREB is treated both as an input as well as an output for the purpose of calculation of transmission loss

5.12.5 The Commission in its tariff order dtd.19.04.2002 had approved a transmission loss level of 3.88 % for the year 2002-03. Assuming a level of reduction of loss of 0.3% as suggested by Kanungo Committee, the Commission approves loss figure of 3.58% for the year 2003-04.

5.13 Purchase of Power from the Different Generating Stations

5.14 State Hydro

5.14.1 The installed capacity of various Hydro Stations owned by Orissa Hydro Power Corporation (OHPC) is 1896 MW as on 1st of April 2003 including Orissa share of

Machkund. The details of drawl during the current year ending March 2003 and the projections made by OHPC for FY 2003-04 are presented in the following table.

Table : 19

Sl. No.	Name of the HE Project	Installed Capacity (MW)	Annual Energy after aux. (MU)	Actual Drawal for 2002-03 (Provisional) (MU)	OHPC Projection for 2003-04 (MU)	OHPC projection after Auxiliary during 03-04 (MU)
1	Hirakud (Burla & Chiplima)	331.5	1162.26	615.81 (52.99%)	965	955.35
2.	Balimela	360	1171.17	526.14 (44.92%)	921	911.79
3.	Rengali	250	519.75	620.97 (119.47%)	852	843.48
4.	Upper Kolab	320	823.68	472.63 (57.38%)	559	553.41
	Total		3676.86	2235.55 (60.80%)	3297 (89.67%)	3264.03
5.	UIHEP	600	1942.38	790.46 (40.70%)	1728 (88.97%)	1710.72
6.	Machakund	34.5	306.90	265.40 (86.48%)	262.50	262.50
	Total Hydro	3070.180	5926.14	3291.40	5287.50	5237.25

5.14.2 As indicated in the above Table, the annual energy of OHPC old stations in a year of normal hydrology is 3676.86 MU. This has been approved by the Commission in its order dated 09.07.2001 in Case No.15/2000. In case of UIHEP the annual energy is 1942.38 MU. The Commission had approved the same quantity as the design energy for the year 2002-03. However, GRIDCO could avail only 2235.55 MU from old Hydro stations and 790.46 MU from UIHEP during FY 2002-03 due to hydrology failure. The Commission feels that OHPC has understated the projections for the FY 2003-04 at 3264.03 MU for its old stations as against energy potential of 3676.86 MU on account of the forecast of below normal monsoon by the Meteorological Department. However, the deviation from the design energy takes place only once in ten years due to hydrology failure. Thus the Commission feels that minimum 3500 MU of power could be drawn from OHPC old stations even after taking a conservative estimate. The annual energy available under normal hydrological conditions comes to 5619.24 MU (excluding Machkund) whereas the projections for the year 2003-04 by OHPC which is also accepted by GRIDCO is put at 4974.75 MU. This leads to a shortfall of around 634.49 MUA conservative estimate of 3500 MU from OHPC's old Hydro Station and 1710.72 MU from UIHEP has been accepted by the Commission. In case the year 2003-04 gets normal rainfall, then additional energy shall be considered to be included in the export basket of GRIDCO

and the revenue realised there from shall be adjusted towards excess power procurement cost due to change in mix of generation for the FY 2002-03.

- 5.14.3 Accordingly, the Commission approves 3500 MU from old hydro stations and 1710.72 MU from Indravati for the ensuing year 2003-04.
- 5.14.4 **Machkund** : This hydro power station is a joint venture of Government of Orissa and Andhra Pradesh with an installed capacity of 114.5 MW. GRIDCO has projected a drawl of 262.5 MU corresponding to 34.2 MW of firm power for the FY 2003-04.
- 5.14.5 GRIDCO has been able to draw 265.40 MU during 2002-03 which is less than the approved figure of 315.29 MU for the said year. Considering the actual drawl for the FY 2002-03, the Commission approves 265 MU to be drawn from this station during 2003-04.
- 5.14.6 GRIDCO's proposal and the Commission's approval for FY 2003-04 for various stations of OHPC are given in the Table below.

Table : 20

Source of Generation	GRIDCO Proposal	Commission's Approval
OHPC (Old stations)	3264.03	3500.00
Upper Indravati	1710.72	1710.72
Machkund	262.50	265.00
Total Hydro	5237.25	5475.72

- 5.14.7 **Talcher Thermal Power Station (TTPS)** : This 460 MW generating station is owned and operated by NTPC but is fully dedicated to the State. GRIDCO has submitted in the ARR application that the CERC in its order dtd.18.06.02 has approved PLF at 75% and auxiliary consumption at 11% for 2003-04. Thus, with the above assumptions and with one (60 MW) unit under R&M, the annual energy sale works out to 2338.92 MU. Accordingly, GRIDCO has proposed the net drawl as 2339 MU for the ensuing year. Based on the CERC order dtd.18.06.02, the Commission approves net drawl of 2338.92 MU for the year 2003-04.
- 5.14.8 **Ib Thermal (OPGC)**: Orissa Power Generation Corporation owns the thermal generating stations at Ib with an installed capacity of 2x210 MW.
- 5.14.9 OPGC in its generation plan of October 2002 had projected a target generation of 2602.26 MU with auxiliary consumption of 265.45 MU thereby showing net availability of 2337.17 MU at GRIDCO bus. Now GRIDCO proposes to draw 2342.36 MU from OPGC during the year considering 10% auxiliary consumption.
- 5.14.10 The Commission has observed from the past trend that OPGC had attained the PLF above 80% in the previous years i.e. prior to 2000-01. In this connection, the Commission has already directed GRIDCO to negotiate with OPGC to maximise their generation to meet the state demand. Hence, the Commission approves a net drawl of 2663.74 MU considering 80% PLF of the station for the year 2003-04.

5.15 Power Purchase from Central Generating Stations

5.15.1 **Central Generating Stations:** Orissa has been allocated shares in all the NTPC stations located in the eastern region as well as from the Chukha Hydro Electric Project of Bhutan. The entitlement from these stations is based on the basis of share allocation made by the CEA from time to time as mentioned below. The energy accounting from these stations is done on a monthly basis as per the global account prepared by the Eastern Regional Electricity Board. Since ABT has been implemented from 01.04.2003 in the Eastern Region, GRIDCO projects that it may not be able to draw its full share from NTPC ER Stations. GRIDCO proposes to draw power from ER stations from NTPC as given in the Table below for FY 2003-04.

Table : 21
Energy sent out and drawal

Central Thermal Stations	Net Availability at 80% PLF including central loss @ 3.44% (MU)	Net Availability at 80% PLF excluding Central loss @3.44% (MU)	Share of GRID CO (%)	Net Availability to GRIDCO at 80% PLF excluding Central loss 3.44% (MU)	GRIDCO proposed drawal (MU)	Surplus Left (MU)
TSTPS	6,422.00	6,200.85	26.20	1,626.20	1,373.28	251.34
FSTPS	10,265.00	9,911.51	14.69	1,456.00	92384	532.16
KhSTPS	5,287.00	5,104.94	16.07	820.36	265.06	555.36
TOTAL	21,974.00	21,217.30		3,900.99	2,562.18	1,338.86

5.15.2 The availability from the Central Sector Thermal Generating Stations will be at 80% PLF with the implementation of ABT. Recognising the ABT scenario, the Commission approves the availability and drawl by GRIDCO from the above stations at 80% PLF based on CERC order. The Commission considered the Central Sector transmission loss @ 3.18% for the above drawl, based on the actual for the year 2002-03 instead of 3.44% as indicated by GRIDCO. Further CEA has revised the share allocation of power from Central Generating Stations in the Eastern Region and Chukka Hydro Electric Power which was effective from 28th April 2003. With the above consideration the details of the GRIDCO drawl from central generating stations as approved by the Commission are given in the table below.

Table : 22

Central Thermal Stations	Installed Capacity (MW)	Auxiliary Consumption (%)	Net Availability at 80% PLF including Central Loss	Net Availability at 80% PLF excluding Central Loss @3.18% (MU)	GRIDCO Share (%)	GRIDCO share (MU)	Commission Approval for 2003-04 (MU)
TSTPS	1000	8.20	6433.34	6228.76	31.80	1980.75	1980.74
FSTPS	1600	8.23	10289.99	9962.76	14.69	1463.53	1463.53
KhSTPS	840	10.43	5272.74	5105.06	9.4	479.88	222.77
TOTAL			21996.07	21296.58		3924.15	3667.04

- 5.15.3 **Chukha:** Orissa has got share of 17.4% in installed capacity of 350 MW Chukha Hydro Power Station in Bhutan from where power is received through the Eastern Regional network by the process of displacement. This works out to 30 MW on an average on daily basis. Share of GRIDCO from Chukha is projected at 218.42 MU for 2003-04 in DF-11 of the ARR application. GRIDCO has submitted that during July & August'03, it may not be able to draw full share from this station due to availability of Hydro power in the state. Thus GRIDCO proposes to draw 192.00 MU for FY 03-04 from Chukha.
- 5.15.4 Load Generation Balance Report (LGBR) of the Eastern Region for the year 2003-04 has been circulated by EREB, Calcutta. Projection of monthly energy availability and constituent share from the Chukha Hydro Power Station for the period April 2003 to March 2004 is available in the said document. GRIDCO's share based on the LGBR for the year 2003-04 works out to 262 MU. In the GRIDCO's submission it is noticed that the drawl from the station during April 2002 to March 2003 has come to 225.15 MU. The Commission sticks to the LGBR projection and approves 253.37 MU after deducting the Central Sector transmission loss @ 3.18%.
- 5.15.5 **Captive Power Plants (CPPs) :** GRIDCO has submitted in its application that power purchased from the captive power plants is not firm in nature and is supplied to the system, as and when needed. The actual availability from the CPPs varies widely from the quantum approved by the Commission in the past years. NALCO and ICCL have submitted their generation programme for FY 03-04 which indicates lower injection of power to Orissa Grid. Considering this, the total drawl from CPP as proposed by GRIDCO is 292 MU for FY 2003-04. However, GRIDCO has drawn 542.88 MU from the CPPs during FY 2002-03.
- 5.15.6 Considering the past trend and also the relatively low cost of power, GRIDCO should maximise the drawl from the CPPs. Thus the Commission approves 420 MU of power from CPPs for the ensuing year.
- 5.15.7 A summary of GRIDCO's proposal for purchase of power from different generating stations and the Commission's approved quantum of purchase for FY 2003-04 is given in the Table below:

Table : 23

Quantum of Power Purchase for FY 2003-04 from Various Sources
(Figures in MU)

Sources of Purchase	GRIDCO's Proposal	Commission's approval
OHPC (HIRAKUD, BALIMELA, UPPER KOLAB & RENGALI)	3264.03	3500.00
Machhkund	262.50	265.00
Indravati	1710.72	1710.72
TTPS	2338.92	2338.92
OPGC	2342.36	2663.74
CPP	292	420.00
TOTAL ORISSA	10210.53	10898.38
Chukha	192	253.37
TSTPS	1,373.28	1980.74
FSTPS	923.84	1463.53
KSTPS	265.06	222.77
TOTAL EREB	2754.18	3920.41
TOTAL GRIDCO PURCHASE	13056.71	14818.80

5.16 Power Procurement Cost

- 5.16.1 **OHPC:** GRIDCO has submitted that the pooled tariff calculated by OHPC for old stations namely Balimela, Upper Kolab, Rengali and Hirakud is 33.23 paise/unit (ED-9) with pass through of electricity duty on auxiliary consumption.
- 5.16.2 Despite repeated reminders/ directions to both GRIDCO and OHPC, the station-wise long term PPAs have not been entered into so far. In the absence of any PPA in force, the Commission has been relying on the order dated 09.07.2001 in Case No.15 of 2000. Further, OHPC has taken up the issue of reestablishment of design energy afresh by the CEA which would take some time.
- 5.16.3 The tariff calculations in respect of these stations have been done by OHPC taking into consideration the design energy as approved in the order of the Commission dt.15.7.2000 and the same has been submitted by GRIDCO for the purpose of tariff determination. Pending a decision on establishment of design energy and finalization of two-part tariff, the Commission has been determining provisional tariff for the purpose of determination of revenue requirement for FY 2003-04.
- 5.16.4 The rate of 33.23 paise/unit as proposed by GRIDCO for the year 2003-04 has been duly examined by the Commission. In accordance with the correctives suggested by the Commission in the order dated 19.4.2002, the Govt. of Orissa has issued in their notification on 29.01.2003 wherein the following parameters have been mentioned.
- (i) For the purpose of calculation of depreciation, pre-92 norms as notified by the Govt. of India has to be adopted.
 - (ii) GRIDCO and OHPC shall not be entitled to any return on equity (ROE) till the sector becomes viable on cash basis or 2005-06 whichever is earlier.
 - (iii) The outstanding dues payable to OHPC by GRIDCO till 31.03.2001 on account of power purchase would be securitised through issue of power bond by GRIDCO to OHPC.

5.16.5 The Commission takes the above parameters as notified by the Govt. of Orissa into consideration for the purpose of calculation of tariff for the year 2003-04.

- (i) O&M Expenses are taken as per actuals for the year 2001-02 as submitted by OHPC vide their letter No.AC/179/2234 dated 04.03.2003.
- (ii) Depreciation is linked to loan repayment.
- (iii) ROE taken @ 12% for new projects commissioned after 01.04.1996 (as per Govt. of Orissa notification).

5.16.6 On the basis of the above parameters the total annual operating cost for the year 2003-04 in respect of old OHPC stations comes to an average of Rs.100.57 crore computed with reference to 27.35 paise/unit. This is based on the approved quantum of energy mentioned at para 5.14.2.

5.17 Upper Indravati Hydro Electric Project

5.17.1 GRIDCO has proposed a rate of 65.02 paise/unit with pass through of ED on auxiliary consumption of power from UIHEP. The detailed calculation of 65.02 paise/unit has been furnished in form TRT-11 of ARR 2003-04 by GRIDCO.

5.17.2 The calculation submitted by GRIDCO for the year 2003-04 was examined and found that the rate of 65.02 paise/unit needs certain modification. The Commission has adopted the following parameters for calculation of tariff of UIHEP.

- (i) O&M expenses taken as per actuals submitted by OHPC vide their letter as mentioned in para 5.16.5 which comes to Rs.30 crore.
- (ii) Depreciation has been linked to loan repayment as per the provisions in the PPA.
- (iii) ROE taken @ 12% for new projects commissioned after 01.04.1996 (as per Govt. of Orissa notification).

With the above stipulations, the total fixed cost taking annual generation of 1942.38 MU comes to Rs.126.18 crore for the year 2003-04. Thus, the unit rate comes to 64.96 paise/kwh.

5.17.3 On the other hand in the event of occurrence of a normal monsoon, if OHPC generates the designed level of annual energy or more, the additional revenue generated on this account will be passed on to GRIDCO and be adjusted against the past losses of GRIDCO.

5.18 Machhkund

5.18.1 OHPC furnished the Machhkund rate @ 22 paise/unit for 2003-04 which includes the arrear O&M charges and handling charges of 3 paise/unit with energy drawl of 315.29 MU. As the unit rate of 22 paise includes handling charges of 3 paise/unit and arrear O&M charges, GRIDCO had recomputed the same excluding handling charges and arrear O&M charges with projected energy of 262.5 MU. The same works out to 15.44 paise/unit for 2003-04.

5.18.2 The Commission has taken into consideration the net share payable by Orissa towards O&M expenses for the year 2001-02 (actual) to the tune of Rs.2.82 crore. Allowing an escalation of 4% per annum for the years 2002-03 and 2003-04, the rate per unit comes to 13.25 paise/unit for the year 2003-04. Accordingly, the procurement cost comes to Rs.3.51 crore for an approved energy drawl of 265 MU.

5.19 Talcher Thermal Power Station (TTPS)

- 5.19.1 **Fixed cost** : GRIDCO has submitted that NTPC has filed a petition before the CERC to approve TTPS tariff for FY 2001 to 2005. CERC has approved the TTPS tariff for FY 01 to FY 04 in which the total fixed cost of TTPS comes to Rs.158.86 crore for the year 2003-2004.
- 5.19.2 Both NTPC and GRIDCO have filed their review appeal petitions before CERC, Hon'ble High Court of Orissa and Delhi. The petitions are yet to be taken up for hearing. In accordance with the order of CERC, GRIDCO proposes TTPS fixed cost at Rs.229.31 crore which includes additional capitalised expenditure of Rs.70.45 crore towards R&M expenditure for FY 04.
- 5.19.3 In the CERC order it has been stated that for the purpose of computation of PLF, the period of unit under R&M shall not be reckoned and related fixed charges for the unit under R&M shall not be paid for and method of computation of fixed charges and incentive shall be in terms of CERC notification dated 26.03.2001. Based on the CERC order, the Commission approves the fixed charges of Rs.138.14 crore for the year 2003-04 while considering one unit under R&M.
- 5.19.4 In the absence of the details of R&M expenditure the Commission had allowed Rs.126.35 crore towards R&M expenditure in the tariff order dated 19.04.2002 for the year 2000-01 and 2001-02. As per the existing MOU, GRIDCO is liable to pay additional fixed cost due to R&M @ Rs.1.7 lakh/month/crore of investment. Taking an amount of Rs.126.35 crore as R&M capitalisation, the Commission approves Rs.25.78 crore of additional capital cost over the fixed cost of Rs.138.14 crore. The total fixed cost for TTPS for the year 2003-04 thus comes to Rs.163.91 crore. However, the actual expenditure on account of R&M would be considered after due approval from CERC.

5.20 Variable Charges

- 5.20.1 As per CERC's approval, variable charge per unit comes to 48.37 paise/unit for the year 2003-04. At present, TTPS has claimed on an average 3.47 paise/unit towards FPA through their bills from April to March, 2003. The Commission has allowed escalation for the FPA @10% on the above rate, which comes to 3.81 paise/unit for 2003-04.

5.21 Year End Charges

- 5.21.1 GRIDCO has submitted that the year end charges of TTPS include cess on water, water charges, electricity duty and income tax. Considering 2001-02 as the base year for such claims, GRIDCO in its BST application estimates the year end charges aggregating Rs.32.89 crore for FY 2003-04. The Commission on examination of the claims has approved the following projections as year end adjustment for the FY 2003-04 : (i) Water cess and water charges of Rs.0.37 Crore, (ii) Electricity duty calculated @ 20 paise/unit on auxiliary consumption on normative level of generation at Rs.5.78 Crore and (iii) Income tax of Rs.17.42 crore based on advance income tax bill raised by NTPC for 2002-2003. The year end charges approved for 2003-04 come to Rs.23.57 Crore as against Rs.32.89 Crore proposed by GRIDCO in its application.

5.22 Orissa Power Generation Corporation (OPGC)

- 5.22.1 **Fixed cost** : GRIDCO has submitted the fixed cost of Rs.244.875 crore for OPGC. After scrutiny of the tariff calculation, the Commission approves the fixed cost at Rs.239.19 Crore for the year 2003-04 based on the revised filing .

- 5.22.2 **Variable charges** : The variable charges as proposed by GRIDCO is 54.46 paise/unit for 2003-04. This figure on examination at our end has been accepted.
- 5.22.3 **FPA** : The FPA has been claimed @4.49 paise/unit for the FY 2003-04 assuming an escalation of 4% on the average cost of fuel and its calorific value for the year 2002-03.
- 5.22.4 Based on the actual coal and oil price and GCV of coal and oil for the year 2002-03, the average FPA rate comes to 0.30 paise/unit. Since the parameters for calculation of variable charges have been modified as per the tariff calculation submitted by OPGC and the FPA charge for the year 2002-2003 is in the lower side, the Commission feels that escalation of the order of 10% is necessary at this point of time. So the Commission approves the FPA of 0.33 paise/unit for the year 2003-04.
- 5.22.5 **Year end charges**: GRIDCO has proposed year end charges of Rs.13.25 Crore on account of land tax, water cess, electricity duty, income tax and incentive based on actual bills of OPGC for FY 2001-2002. After due scrutiny at our end income tax has been approved at Rs.10.29 Crore as per amount admitted by GRIDCO in letter No.PP-1-65/96 dt.24.01.03 and electricity duty at Rs.5.30 Crore calculated @20 paise/unit on the auxiliary consumption for the year 2003-04. Since generation is accepted at 80% PLF, an incentive of Rs.12.81 crore has been given over the normative fixed cost for the year 2003-04. Considering all the factors mentioned above, the total year end charges as approved for 2003-04 by the Commission come to Rs.28.40 Crore.
- 5.22.6 **Captive Power Plants (CPP)** : GRIDCO in its application for FY 2003-04 has stated that the procurement cost for energy receipt from CPP is Rs.96.63 paise/unit comprising 77 paise/unit as the base rate and 19.63 paise/unit towards escalation on account of increase in fuel cost. The Commission has endorsed this rate for determining the cost of power purchase from the CPPs.

5.23 Central Power Stations

- 5.23.1 **Transmission Loss** : The constituents of the eastern region share the losses occurring in the central transmission system. For the year 2002-03 the Central Sector Transmission Loss works out to 3.18% based on the figure of the global account. This rate has been considered for determination of loss for the FY 2003-04.
- 5.23.2 **Transmission Charge for PGCIL Lines**: GRIDCO has stated that the Government of India Notifications dated 4th December, 1998, May 11, 1999 and May 14, 1999 together notify tariffs for Farakka, Kahalgaon, Talcher and Chukha transmission systems as well as Rangit-Melli and Rangit-Raman lines. The CERC has passed interim orders for payment of 88%, 80% and 95% of the fixed cost indicated by PGCIL in its application for Jeypore-Gazuwaka, Budhipadar-Korba and Bihar Sarif – Sasaram – Sarnath transmission lines respectively.
- 5.23.3 GRIDCO has considered the annual fixed charges of Rs.253.15 crore for all the above lines in place of Rs.278.48 crore. Further GRIDCO in its filing dated 31.03.2003 has submitted that PGCIL has claimed for additional fixed cost for the following two lines and stations which GRIDCO has to pay as a constituent of ER.
- i) 500 MW back to back Sasaram HVDC station for which 50% cost is chargeable to ER constituents of 18.51 crore per annum.
 - ii) 400 KV Rourkela-Raipur DC line for which ER constituents have to pay 1/3rd of the total cost i.e. Rs.17.41 crore per annum.

- 5.23.4 As ascertained from the monthly bill for February 2003 prepared by PGCIL for Rs.23.18 crore, GRIDCO has clarified the above for payment of fixed charges. Hence the total PGCIL charges per month shall be Rs.26.177 crore which comes to Rs.314.13 crore annually and considering 4% towards escalation the per unit central transmission charges payable by GRIDCO shall be of the order of 16.90 paise/Kwh excluding year end adjustment charges in FY 2004.
- 5.23.5 Taking the CERC order into consideration and also in view of implementation of ABT with effect from 01.04.2003, the Commission feels that it is reasonable to take the estimate of Rs.289.07 Crore as fixed cost of PGCIL transmission charges for the FY 2003-04.
- 5.23.6 The year end charges claimed by PGCIL for 2000-01 was Rs.36.21 crore which comprises income tax of Rs.8.14 crore, incentive of Rs.23.21 crore, FERV of Rs.4.80 crore and AMC for special meter of Rs.0.05 crore. GRIDCO has considered the same amount of Rs.36.21 crore as year end charge for PGCIL in the tariff application for FY 2003-04.
- 5.23.7 The observation of the Commission on year end charges claimed by GRIDCO are given below.
- 5.23.7.1 PGCIL is eligible for incentive for availability above 95% GRIDCO has considered an amount of Rs.23.218 crore towards incentive to be paid by ER constituents as per petition filed by PGCIL with CERC for the year 2000-01. But, CERC has approved an amount of Rs.18.57 crore i.e. 80% provisional amount payable by ER constituents to PGCIL vide order dated 07.05.2002 for the year 2000-01. Thus, the Commission approves the same amount i.e. Rs.18.57 crore towards incentive for 2003-04.
- 5.23.7.2 The amount of income tax for the ensuing year is based on the actual advance income tax paid by PGCIL in FY 2001 i.e. Rs.8.14 crore.
- 5.23.7.3 PGCIL has raised an additional charge to recover annual maintenance cost (AMC) of the special type of energy meters installed at interface point for the ensuing year Rs.5.00 lakhs is taken, which is as per actual bill of FY 2001.
- 5.23.7.4 PGCIL has billed separately towards foreign exchange rate variation (FERV) of Rs.4.8 crore backed by a Govt. of India notification in FY 2001. The same amount is considered for FY 2003-04.
- 5.23.7.5 Thus the Commission approves total year end charges of Rs.31.56 crore for the FY 2003-04.
- 5.23.8 The energy billed in the EREB system has been taken as 24070.07 MU based on the projected energy sent out from the Central Generating Thermal Stations operating at 80% PLF and hydro generation as per LGBR for 2003-04. As such, it is estimated that the transmission charge comes to 13.32 paise/unit and after including central transmission loss @ 3.18%, the same comes to 13.76 paise/unit for the year 2003-04.
- 5.23.9 The calculation furnished by GRIDCO in form DF18 and the subsequent filing dated 31.03.2003 has been checked up at the Commission's end and the findings of the Commission are summarised in the Table below.

Table : 24

Rs. In Crore

	GRIDCO Proposal	Commission Approval
Transmission charges/annum as per February, 2003 bill	278.21	253.15
Fixed cost for 500 MW Back to Back Sasaram HVDC station vide CERC order dt.28.01.2003	18.51	18.51
Fixed cost for 400 KV Rourkela-Raipur D.C. line	17.41	17.41
Total Annual fixed cost	314.13	289.07
Energy handled (MU)	19331.35 (*)	24070.07
Transmission charges P/U	16.25	12.01
Transmission charges with 4% escalation (P/U)	16.90	12.01
Year end charges	36.21	31.56
Total Transmission charges including Yr.end	350.34	320.63
Total transmission charges including year end charges P/U	18.12	13.32

(*) Central Sector Energy Drawal during February 2003 i.e. 1610.946 MU x 12 = 19331.35.

5.23.10 **Chukka** : GRIDCO in its application of FY 04 has stated that the procurement cost from Chukka is taken as per the Government of India notification dated 26.08.99 as per the details below.

- 150 paise/unit for balance period (April to May and October to March)
- 100 paise/unit for the period June to September

5.23.11 Further a handling charge has to be added @ 5 paise/unit to the above rates based on PGCIL letter dated 19 November, 1999 to the Eastern Region beneficiaries. In addition, GRIDCO has to pay for the transmission charges as well as bear the Central Transmission losses on the PGCIL network. GRIDCO has proposed a rate of 143.18 paise/unit for 2003-04.

5.23.12 Based on the projection made by EREB in the LGBR, the Commission approves the average rate per unit of this power station at 144.63 paise/unit inclusive of central transmission loss and transmission charges.

5.23.13 **Central Thermal Power Station** : Under ERC Act, the tariff in respect of the Central Power Stations will be determined by the Central Electricity Regulatory Commission from 15.5.99 onwards.

5.23.14 The Ministry of Power, Government of India has notified the tariff in respect of the Talcher Super Thermal Power Station Kaniha (Orissa), Farakka Super Thermal Power Station (West Bengal), Kahalgaon Super Thermal Power Station (Bihar) under Section 43(A) of the Act, 1948 prior to 15.5.99. This tariff is subsequently vetted/redetermined by CERC.

5.23.15 The Commission has analysed the various parameters for calculation of tariff payable by GRIDCO for drawl of power from Central Thermal Stations.

5.23.16 The forecast of energy to be sent out from the various Central Thermal Stations are based on 80% availability as per CERC order with effect from 01.04.2003.

5.23.17 **Fixed Cost**: The fixed cost of various central thermal stations based on CERC Order is given in Table below.

Table : 25
Fixed Cost

Central Thermal Stations	Date of Order	Fixed cost for FY 03-04 (Rs. in Crore)	% share of GRIDCO	Share of fixed cost for GRIDCO (Rs. in Crore)
Talcher STPS	24.06.2002	644.99	31.80	205.11
Farakka STPS	19.06.2002	698.952	14.69	102.68
Kahalgaon STPS	18.06.2002	477.88	9.40	44.92
Total		1821.82		352.70

5.23.18 The proposal of GRIDCO was examined and the Commission calculated the fixed cost as per the existing CERC order and Revised allocation made by CEA and accordingly approved the capital cost at Rs.352.70 crore per year as indicated in the table above.

5.23.19 **Variable Charges:** GRIDCO in para 1.5.8.2 of the BST application for FY 2003-04 has furnished the calculation of variable charges prepared in accordance with the GoI notification. The Commission has accepted the rates as provided in Government of India notification and the details of the variable charges for the year 2003-04 are given in Table below.

Table : 26

Central Thermal Stations	Variable charge (Paise/unit)	As estimated by GRIDCO including Central Sector Transmission Loss of 3.4%	Approved by the Commission including C.S. Tr. Loss of 3.18%
Talcher STPS	32.72	33.887	33.79
Farakka STPS	46.16	47.806	47.68
Kahalgaon STPS	50.86	52.674	52.53

5.23.20 **Fuel Price Adjustment:** FPA has been calculated by GRIDCO on the basis of actual bills for the period from April to August, 2002 with an escalation of 4% and including Central Sector Transmission Loss @ 3.44%. GRIDCO estimates the FPA for FY 2004 including Central line losses at 8.64 paise/unit for TSTPS, 48.91 paise/unit for FSTPS and 57.58 paise for KhSTPS in para 1.5.8.3 of the BST application for the FY 2003-04.

5.23.21 Further, GRIDCO in its submission dated 31st March 2003 has stated that the FPA claimed by NTPC for the different stations for February, 2003 are high than what GRIDCO had applied in its annual revenue requirement at Para 1.5.8.3, P.12 of 25. GRIDCO requested to consider the rates given in Feb 03 bill for calculating the FPA rate of NTPC stations for 03-04. The computation of FPA of TSTPS, FSTPS and KhSTPS for February 2003 with 4% annual escalation for FY 04 is shown in Table below.

5.23.22 The Commission took into consideration the cost of fuel and calorific value on the basis of the data available for the period from April 2002 to March 2003. Since the calculation is being done on the billing figure for the previous year i.e. 2002-03, the Commission feels it necessary to give an escalation @10% on the average rate of

2002-03 while considering the FPA for the year 2003-04 as the price of coal and oil has shown consisting increases trend.

5.23.23 The rates of FPA as proposed by GRIDCO and as estimated by the Commission inclusive of central transmission loss for the year 2003-04 is given in Table below.

Table : 27 **(Paise/unit)**

	2003-04		
Central Thermal Stations	GRIDCO's Proposal in ARR during Dec.'02	GRIDCO's filing during 31 st March '03	Commission's Approval including Tr. loss @3.18%
Talcher STPS	8.64	12.56	10.53
Farakka STPS	48.91	65.50	58.02
Kahalgaon STPS	57.58	75.36	63.84

5.23.24 **Miscellaneous Charges (Income Tax, Incentive, Water Cess and Water Charges):** GRIDCO has projected the year-end charges for FY 2003-04 at par with the OERC approval for the year 2002-03.

5.23.25 The Commission has checked the proposal and adopted the following parameters for the purpose of calculation of the year-end charges for the year 2003-04.

- i) Income Tax has been calculated on the basis of advance income tax bill claimed by NTPC for the months of April, 2002 to March, 2003.
- ii) Water cess is based on bills raised from April to September, 2002 on GRIDCO and prorated for the whole year.
- iii) Electricity duty for TSTPS is based on the auxiliary consumption for 2003-04 and has been calculated @ 20 paise/unit.
- iv) Incentive has been given as per CERC order over the PLF of 77% achieved by the Central Generating Stations for year 2003-04.

5.23.26 Accordingly, the year end adjustment approved by the Commission inclusive of central transmission loss is given in the Table below.

Table : 28
Year End Charges (FY 2003-04)
(Paise/unit)

Central Thermal Stations	GRIDCO's Proposal	Commission's Approval
Talcher STPS	16.24	8.87
Farakka STPS	18.09	7.15
Kahalgaon STPS	18.20	7.17

5.23.27 GRIDCO's proposed cost of power from various generating stations and the Commission's approval thereof is given in the table below.

Table : 29
GRIDCO's Proposal

Source	Total availability (MU)	Fixed Cost P/U	Variable Cost P/U	FPA P/U	Misc. (Yr. end) P/U	PGCIL Tr. Charge P/U	Total Cost P/U	Total Cost (Rs.in Crs.)
OHPC	3,264.03	-	33.23	-	-	-	33.23	108.45
MACHAKUND	262.50	-	15.44	-	-	-	15.44	4.05
INDRAVATI *	1,710.72	-	65.02	-	-	-	65.02	111.23
TTPS	2,338.92	98.04	48.37	2.43	14.06	-	162.90	381.01
IB TPS	2,342.36	104.54	54.46	4.49	5.66	-	169.15	396.22
CPPs	384.00	-	77.00	19.63	-	-	96.63	37.11
TOTAL STATE	10,302.53	46.03	47.95	2.30	4.48	-	100.76	1,038.07
FSTPS	923.84	111.14	47.81	48.91	18.09	13.07	239.02	220.82
KHSTPS	265.06	289.72	52.67	57.58	18.20	13.06	431.23	114.30
TSTPS	1,373.28	123.05	33.89	8.64	16.24	12.84	194.66	267.32
CHUKKA	192.00	-	130.86	-	-	12.33	143.18	27.49
TOTAL C.S.	2,754.18	126.52	47.12	26.26	15.92	12.90	228.72	629.93
TOTAL	13,056.71	63.00	47.78	7.36	6.89	2.72	127.75	1,668.00

Note : (Central transmission loss of 3.44% for central stations included)

Table : 30
Commission's Approval

Source	Availability	Fixed Cost P/U	Variable Cost P/U	FPA P/U	Misc (Yr.end) P/U	PGCIL Tr. Charge P/U	Total Cost P/U	Total Cost (Rs.in Crs.)
OHPC	3,500.00	27.35					27.35	95.73
MACHAKUND	265.00	13.25					13.25	3.51
INDRAVATI	1,710.72	64.96					64.96	111.13
TOTAL HYDRO	5,475.72						38.42	210.38
TTPS	2,338.92	70.08	48.37	3.81	10.08		132.34	309.53
IB TPS	2,663.74	94.60	54.46	0.33	5.85		155.24	413.53
CPPs	420.00		77.00	19.63			96.63	40.58
TOTAL STATE	10,898.38						89.37	974.02
FSTPS	1,463.53	70.16	47.68	58.02	7.15	13.76	196.77	287.97
KHSTPS	222.77	93.61	52.53	63.84	7.17	13.76	230.91	75.51
TSTPS	1,980.74	103.55	33.79	10.53	8.87	13.76	170.50	337.73
CHUKKA	253.37		130.87			13.76	144.63	36.65
TOTAL C.S.	3,920.42						188.21	737.85
TOTAL	14,818.80						115.52	1,711.87

Note : (Central transmission loss of 3.18% for central stations included)

5.24 Rebate for Prompt Payment from the Generators

5.24.1 The PPA between the generators and GRIDCO provides for a rebate of 2.5% on the gross power bill, if payment is made through Letter of Credit. 1% rebate on the billed amount is allowed when payment is made within 30 days. In case of payment beyond the due date, delayed payment surcharge @ 2% per month on the billed amount is payable by GRIDCO to the generators.

5.24.2 GRIDCO has proposed interest on working capital to meet the expenses in connection with payment of dues of the power bill to the generators. The Sixth Schedule to the Act, 1948, allows an amount of working capital on items other than the cost of generation and purchase of energy. The Commission is of the view that unless a reasonable amount of working capital is allowed to the licensee, it may be difficult on its part to meet the interest expenses on short term borrowings made to pay for the cost of power in time to avail the rebate and avoid delayed payment surcharge.

5.24.3 While the DISTCOs are not liable to pay any interest to its consumers on the security deposit collected by them, they correspondingly do not pay any security deposit to

GRIDCO for their power purchase. GRIDCO, therefore, does not have any resources to clear its dues in time if the DISTCOs do not make payment to GRIDCO in time. Considering the above, the Commission has decided that for the purpose of calculation of revenue requirement, the cost of power should be calculated at its gross value without excluding rebate. This will offset the shortfall on account of interest on working capital utilized to pay power dues which is not permitted under the Sixth Schedule of the Act, 1948.

5.24.4 GRIDCO in its FY 2004 application has requested for a pass through of an arrear due relating to power procurement of the past period as under.

5.25 Credit Bill of TTPS of Rs.87.65 crore due to revision of fixed cost as per CERC order

5.25.1 NTPC has served credit bill of Rs.87.65 towards fixed cost of TTPS station to GRIDCO for the period April 2000 to August 2002 as per the CERC order dated 19.06.2002. The details are given below.

Table : 31

Period	Bill date	Amount (Rs. in crore)
2000-01	07.10.2002	(-) 39.453
2001-02	08.10.2002	(-) 36.369
2002-03 (Up to August)	28.10.2002	(-) 11.697
FPA Bill (2001-02)	24.09.2002	(-) 0.130
Total		(-) 87.650

5.25.2 Thus, the Commission adjusts this amount in the annual revenue requirement of GRIDCO for the year 2003-04.

5.26 Additional impact towards excess power procurement cost due to change in mix of generation for FY 02-03

5.26.1 GRIDCO has submitted that the excess power purchase cost of Rs.554.84 crore beyond the normative level of purchase approved by the Commission for FY 2002-03 (due to variation of drawl from different sources) to be allowed as pass through for recovery in the tariff of FY 2003-04.

5.26.2 It may be further stated that the Commission had written to the State Govt. vide letter dated 03.08.2002 to meet this extra unforeseen expenditure incurred by GRIDCO due to hydrology failure from Calamity Relief Fund (CRF) or from National Calamity Relief Fund (NCRF). Commission had also written to GRIDCO that in the event, the first option of the Commission is not translated into action NTPC/GOO may be approached for securitisation of the amount, so that the interest can be passed through the tariff. But no reply has been received either from GOO or GRIDCO. It is also not possible to pass on the entire amount through tariff, which will increase the BST by 46 paise/unit and consequential RST by 68 paise/unit.

5.27 Additional impact towards shortfall in non-export during 02-03

5.27.1 The Commission feels the shortfall in export of power to the tune of Rs.36.75 crore during 2002-03 as claimed by GRIDCO is attributable to managerial inefficiency of GRIDCO to handle the power basket available. Hence, the consumers of the State should not be burdened with this additional cost.

5.28 Additional impact towards shortfall in demand during 2002-03

5.28.1 GRIDCO has claimed a revenue loss of nearly Rs.8.25 crore (Rs.200.00 x 34.41 MVA x 12 months) due to shortfall in demand i.e. the average demand 1806.84 MVA/month as against the OERC approval of average demand of 1840.83 MVA per month, to be pass through in tariff of FY 203-04.

5.28.2 The Commission feels that the demand as approved by the Commission could not be achieved by GRIDCO as it resorted to load shedding imposed by GRIDCO in consultation with Govt. of Orissa as per the provisions under section 22(b) for which the consumers of the State should not bear the burden as they had to remain in darkness and they had to perforce pay extra money for power-cut. Thus, the Commission does not approve the pass through of Rs.8.25 crore due to shortfall in demand. It may be revealing to note that as per Section 26(b) no formal notification imposing power cut had been issued by the GOO.

5.29 Pass through of Rs.73.73 crore of OHPC dues due to hydrology failure

5.29.1 GRIDCO in its supplementary submission dated April 2, 2003 has stated that in accordance with the PPA of UIHEP, OHPC had claimed Rs.73.73 crore on account of shortfall in revenue due to hydrology failure which was not included in the revenue requirement of GRIDCO for FY 2003-04. Hence, it prays before the Commission to include this amount in the revenue requirement as a pass through.

5.29.2 As per provisions of PPA, hydrology failure if any, within seven years of commercial operation would be borne by GRIDCO provided it has achieved normative availability

5.29.3 The Commission examined the provisions of the PPA signed between GRIDCO and OHPC and approves an amount of Rs.73.51 crore payable to OHPC by GRIDCO due to hydrology failure during the FY 2002-03. The Commission directs GRIDCO to make payment on monthly basis to OHPC over a period of three years. Accordingly the Commission approves Rs.24.50 crore in the ARR of FY 2003-04 for this purpose.

5.30 Transmission Cost

5.30.1 The expenditure for bulk supply and transmission of energy excluding the cost of power purchase by GRIDCO is grouped under the head transmission cost.

5.30.2 The expenditure for the FY 2003-04 as projected by GRIDCO has been carefully examined with the objective of determining expenditure that shall be considered as properly incurred as a pass through in the revenue requirement. GRIDCO has submitted their audited accounts upto 1999-2000 and the audited accounts upto FY 2001-02 has already been due. Answering the query raised by the Commission on tariff filing, GRIDCO stated that the accounts for the year 2000-01 would be available by 31.03.2003 with the report of Statutory Auditors and that for FY 2001-02 by 30.06.2003. These dates are subject to receipt of CAG report. For the purpose of the determination of the prudence of expenditure, the Commission has considered the audited accounts of 1999-2000 and provisional accounts for the year 2001-02 and 2002-03 filed by GRIDCO while calculating various expenditures under the head Transmission Cost.

5.31 Employees Cost

5.31.1 GRIDCO has submitted various components covered under employees cost for the FY 1999-2000 on the basis of audited accounts and have made projections upto the FY 2003-04. The actual expenditure under the head of Employees Cost chargeable to

revenue was Rs.91.28 crore as per the audited account for the FY 1999-2000 which has been projected to go up to Rs.118.28 Crore by the end of the financial year 2003-04. During the course of the public hearing, many objectors raised the issue of increasing expenditure on employees head and opined that the licensee should control the expenditure by reducing man power by restricting fresh recruitment and implementing Voluntary Retirement Scheme.

5.31.2 In absence of the Audited Accounts for the year 2002-03 the Commission accepts a rise of 3% per annum over the approved figure of the FY 2002-03 in respect of basic pay.

5.31.3 GRIDCO has projected a DA rise at the rate of 10% on account of inflationary effect, which is without any valid reason.

5.31.4 As regards DA, Commission is aware of the fact that the rate of DA allowed by Govt. of Orissa is 49% with effect from 01.01.2002. In the last tariff order, the Commission has allowed DA of 41% on the basic pay stating that any increase in rate of DA in future will be allowed to be recovered through tariff with retrospective effect.

5.31.5 Rate of DA revised from time to time by Govt. of Orissa is given below :-

01.7.2000	41%
01.01.2001	43%
01.07.2001	45%
01.01.2002	49%

5.31.6 After analysis of the DA rate revised from time to time, it is found that average rate of DA for the year 2001-02 and 2002-03 should have been 45% and 49% respectively. Therefore, the Commission feels it prudent to allow arrear DA of 4% of the basic pay of 2001-02 and arrear DA of 8% of basic pay of 2002-03.

5.31.7 **Terminal benefit:** GRIDCO has claimed a sum of Rs.50 Crore towards discharge of its terminal obligation in the BST application for the year 2003-04 as against Rs.30.52 Crore allowed in the tariff for the year 2002-03. Objectors in general raised questions on increase in O&M expenses particularly on salary and wages. GRIDCO in its rejoinder dtd.11.3.2003 has submitted that GRIDCO is required to pay pension benefit to more than 5000 employees who had retired by 31st March, 1999. The employees cost shown by GRIDCO is most reasonable and based on audited report of 1999-00.

5.31.8 The terminal benefits due to the employees of GRIDCO are required to be paid out of the fund created for the purpose by regular contribution from GRIDCO's revenue account and the interest earned from that fund is meant to service the terminal benefits due to the employees. There has been decline in the interest rate which calls for a higher contribution for which the terminal benefits calculated for the year is required to be increased to meet the terminal benefits and pensionary benefits out of the fund created for the purpose.

5.31.9 The actuarial valuation has not been done after 1998-99 which could have been considered as base for approving terminal benefits. In absence of any authenticated proof regarding provision of terminal benefits, the Commission is of the opinion that 10% over the approved figure of 2002-03 should be allowed which can be adjusted

after obtaining reports from acturaries and valuers. Hence the Commission approves an amount of Rs.33.57 crore towards terminal benefits.

Table : 32
Statement of Employees Cost

(Rs. in Crore)

Sl No	Particulars	FY 1999-00	Approved by Commission 2002-03	Prop. By Licensee 2003-04	Approved by Commission 2003-04	Assumptions (% increase over last FY)
1	Salaries	37.28	39.56	45.15	40.75	3% increase
2	Over time	0.01	0.01	0.01	0.01	
3	Dearness Allowance	15.39	16.22	20.48	24.67	49% of basic+arrears
	SUB TOTAL	52.68	55.79	65.64	65.43	
4	Other Allowance	0.53	0.58	0.59	0.60	3% increase
5	Bonus	0.22	0.27	0.28	0.28	3% increase
6	Total Emoluments (1 to 5)	53.42	56.64	66.50	66.31	
	Other Staff Cost					
7	Reimbursement of Medical Expenses	1.52	1.75	1.85	1.81	3% increase
8	Leave Travel Concession	0.97	1.29	1.42	0.00	
9	Reimbursement of HR	4.06	4.70	4.94	4.94	As proposed
10	Interim Relief of Staff	0.33	0.44	0.48	0.48	As proposed
11	Encashment of earned leave	-	-	1.00	1.00	As proposed
12	Honorarium	0.08	0.09	0.09	0.09	As proposed
13	Payments under Workmen Compensation Act	0.02	0.03	0.03	0.03	As proposed
14	Ex-gratia	1.21	1.61	1.77	1.77	As proposed
15	Other Staff Cost	0.50	0.50	0.50	0.50	As proposed
16	Total Other Staff Cost (7 to 15)	8.70	10.42	12.09	10.62	
17	Staff Welfare Expenses	0.76	1.01	1.11	1.11	As proposed
18	Terminal Benefits	39.00	30.52	50.00	33.57	10% rise over 2002-03 (App.)
19	Total (6+16+17+18)	101.88	98.59	131.93	111.61	
	Less : Employees Expenses Capitalised	10.61	12.42	13.65	11.55	Proportionately
	Net Employee Cost	91.28	86.17	118.28	100.06	

5.32 Repair & Maintenance Expenses

5.32.1 GRIDCO has proposed an expenditure of Rs.13.35 Crore in their BST application for the FY 2003-04 towards repair and maintenance expenses after capitalisation of Rs.1.53 crore.

5.32.2 As per the audited accounts of the year 1999-00, the total R&M expenses was Rs.8.53 crore and provisional figure for the year 2000-01, 2001-02 and 2002-03 were Rs.9.53 crore, Rs.10.65 crore and Rs.11.91 crore respectively. The Commission had approved Rs.15.99 crore for the FY 2001-02 and Rs.17.43 crore for FY 2002-03 towards R&M expenses. It shows that GRIDCO has not taken proper care to maintain the system which is essential to prevent major break down ensuring uninterrupted power supply. The amount of Rs.13.35 crore chargeable to revenue requirement towards repair and maintenance expenses is found to be reasonable and accepted.

Table : 33

(Rs. in Crore)

2001-02		2002-03		2003-04	
GRIDCO's Proposal	Commission's Approval	GRIDCO's Proposal	Commission's Approval	GRIDCO's Proposal	Commission's Approval
27.16	15.99	28.73	17.43	13.35	13.35

5.33 Administration and General Expenses

5.33.1 Administration and General Expenses include property related expenses like license fee, rent, taxes, insurance, communication charges, professional charges like legal expenses, consultancy charges, conveyance, travel expenses and other expenses on account of advertisement, printing, stationery and material related expenses like demurrage and wharfage expense, clearing and forwarding charges, etc. for the year 2003-04. GRIDCO proposes an amount of Rs.21.03 Crore for the FY 2003-04 excluding capitalization expenses of Rs.2.44 Crore. The Commission had approved an amount of Rs.13.51 Crore towards A&G expenses excluding capitalization of Rs.12.86 Crore for 2001-02 and Rs.13.51 crore for the FY 2002-03 chargeable to revenue on the basis of annual escalation of 5% over the approved figure of FY 2001. In absence of audited accounts for the year 2002-03 the Commission follows the same logic and approves an amount of Rs.14.19 crore for FY 2003-04 which is 5% more than the approved figure of Rs.13.51 crore for the previous year.

Table : 34

(Rs. in Crore)

2001-02		2002-03		2003-04	
GRIDCO's Proposal	Commission's Approval	GRIDCO's Proposal	Commission's Approval	GRIDCO's Proposal	Commission's Approval
21.74	12.86	27.65	13.51	21.03	14.19

5.34 Interest on Loan

5.34.1 In para 2.1.5 of the ARR application for the FY 2003-04, GRIDCO has proposed an interest expense of Rs.455.39 Crore. A loan-wise interest payment proposed for the year 2003-04 is reproduced below.

Table : 35
Loan-wise Interest Payment of RR application

	Average Interest Rate	As on 31.03.2003	Addition	Repay- ment	Interest	As on 31.03.2004
GRIDCO Bonds including Securitisation						
Power Bond-I	15%	-		-	-	-
Power Bond-II	15.25%					
OPGC-I	15%					
OPGC-II	10.95%	150.00			16.43	150.00
OHPC-I	10.95%	50.00			5.48	50.00
OHPC-II	10.95%	250.00		25.00	27.38	225.00
Nalco-I	15%	-			-	-
Nalco-II	10.95%	150.00			16.43	150.00
NTPC-I	15%	-			-	-
NTPC-II	12.50%					
NTPC-III (GoO Bonds)	8.50%	1,156.72			98.32	1,156.72
NTPC-IV	10.50%	560.00			58.80	560.00
Loan Syndication	11.40%	300.00			34.20	300.00
Unrated New Bonds	11.50%	100.00			11.50	100.00
Sub Total		2,716.72	-	25.00	268.52	2,691.72
Pension Trust Bonds	12.00%	150.00			18.00	150.00
GoO Bonds	0.00%					
Total Bonds		2,866.72	-	25.00	286.52	2,841.72
Other Loans						
PFC Loan		235.41		76.20	30.98	159.21
PFC WCL	10.50%	575.00	375.00		80.06	950.00
IBRD Loan		790.82	150.00	8.57	78.40	932.25
REC Loan		365.75		1.29	43.37	364.46
LIC Loan		140.66		26.28	19.69	114.38
State Govt. Loan		33.71			5.02	33.71
Central Govt. Loan		11.26		3.41	1.01	7.85
Open Market Loan		24.04			2.75	24.04
Commercial Banks	15.00%	13.96	25.66		4.02	39.62
SPA Loan		0.00			-	0.00
ICICI		42.43		14.61	4.76	27.82
Short term Borrowings	15.00%	150.00	50.00		26.25	200.00
Other Loan Total of B		2,383.05	600.66	130.36	296.30	2,853.35
Grand Total(A+B)		5,249.77	600.66	155.36	582.82	5,695.07
Interest O/s		442.24				669.94
Total Loan		5,692.00				6,365.01
Less: Int.on Loan receivable from DISTCOs					24.92	
Less: Interest Capitalisation					127.44	
Interest Chargeable					455.39	

5.34.2 The interest chargeable to revenue would be Rs.430.46 crore after deducting interest of back to back loan for Rs.24.92 crore and interest capitalised for Rs.127.44 crore from the gross interest for Rs.582.82 crore, as against Rs.455.39 crore shown by GRIDCO.

5.34.3 Govt. of Orissa, vide their notification No.1068 dt.29.01.2003 have decided certain corrective measures based on the recommendations of Committee of Independent Experts. The abstract the relevant portion of the notification is reproduced below:

- i) The outstanding dues payable to OHPC by GRIDCO till 31.03.2001 on account of power purchase would be securitised through issue of power bond by GRIDCO to OHPC.
- ii) World Bank loan would be passed on by State Govt. to GRIDCO and DISTCOs as 70% loan @ 13% interest per annum and balance 30% would be as grant.
- iii) Tax-free bonds @ 8.5% interest would be guaranteed by Govt. of Orissa for PFC & REC loan.
- iv) Swapping of Govt. dues from GRIDCO against dues of GRIDCO from Govt. and balance receivables, if any be settled.

5.35 **Recommendations of Expert Committee under the Chairmanship of Shri Deepak S Parekh**

5.35.1 Government of India had set up an Expert Committee on State Specific Reform under the Chairmanship of Shri D.S. Parekh, Chairman, Infrastructure Development Finance Corporation Ltd. in March, 2002. The Expert Committee have submitted the first part of its Report on structuring of APDRP, Reform Framework and Principle of Financial Restructuring of State Electricity Board in September, 2002 which has been accepted by the Government of India in toto.

5.35.2 The Committee classified the deficit of the SEBs into two types i.e. deficit from the past and deficits pertaining to the future. The Committee is convinced that the past liabilities can only be serviced with the help of surpluses from the sector in the future and additional Govt. (both Central and State) support from the budget. At the same time the Committee also felt that, given the precarious financial condition of the sector, servicing past liabilities solely from the sector's return in the future appears well nigh impossible. Hence, while evolving broad principles of financial restructuring, the Committee recommended combination of pruning the liabilities and refinancing at concessional terms in addition to ploughing back a portion of both future profits and proceeds from future divestments. The extract of the committees report are reproduced as below.

“5.3.1 Liabilities from the Past

5.3.1.1 The role of the State Govt.

As a first step towards resolving the crisis, the State Govt., as the sole owner of SEB and as the primary driver of the reform process, should consolidate these liabilities, take them over and transfer them to a Power Sector Reform Fund. The next step would be for the State to write off its own loans to the SEB. The committee considers that these steps are not only necessary in order to enhance the credibility of the restructuring process but would also enhance the sale value at the time of privatisation.

5.3.1.2 Power Sector Reform Fund

In order to enhance the credibility and mitigate the risk of policy reversals, the committee recommends that the state government should ring-fence both

the liabilities and the inflows earmarked for the sector restructuring into a Power Sector Reform Fund (PSRF). All existing liabilities of the sector should be transferred to the PSRF and, concomitantly, existing receivables, privatisation proceeds, grants from the Government of India and other donor agencies and portion of the surplus from future operations (say, in the form of a PSRF surcharge) should be transferred to the PSRF to defray these liabilities.

5.5.3.2 **Deficits pertaining to the future**

The committee regards that the extent of deficit on account of the losses during transition, i.e. until the sector turns around, could be reduced through the following contributions from various stakeholders.

5.3.2.4 **State Government**

In mitigating deficits pertaining to the future, the committee envisages three primary contributions from the State Govt. First, it should expedite the process of distribution privatisation beginning with the concentrated zones, so as to enable the achievement of substantial efficiency gains, quickly. Second, during the transition period, the government should extend subsidy support at least at a level equivalent to its current transfers to the power sector and also provide assurance of such support by quantifying the same and committing it ex-ante. Finally, the state government should foster commercial discipline by ensuring prompt payment of electricity bills by its own undertakings and also by providing law and order support to the utilities to check theft and pilferage.”

5.35.3 Though recommendation of Deepak S Parekh Committee, prima facie, applicable to existing State Electricity Boards opting for reform, the Commission is of the opinion that the principles of financial restructuring as recommended by the committee are applicable mutatis mutandis to Orissa as our state had implemented reform in power sector in 1996-97. As such, the State of Orissa cannot be debarred from the benefits of recommendations of the Deepak S Parekh Committee due to the reasons that the Board has already been unbundled and the various functions of the Board have been corporatised and privatised. The Commission considers it appropriate and justifiable to transfer the loan liabilities of GRIDCO as on 31.03.2003 to the extent of Rs.1583 crore to Power Sector Reform Fund for making the sector financially viable.

5.35.4 The Govt. of India intimated State Govt. to take further action on the recommendations of the Commission particularly those contained in paragraph 5.2, 5.3 of the report under intimation to the Ministry of Power. On receiving a letter from the Govt. of Orissa for suggestion on the recommendation of the Expert Committee, the Commission vide letter No.378 dated 21.02.2003 advised the Govt. as per Section 11(a) of the OER Act, 1995 for taking over the liabilities and loan of GRIDCO upto 31.3.99 to the extent of Rs.3249 crore i.e. prior to privatisation of distribution business. The Commission also suggested that GRIDCO may be liable to service the World Bank Loan and the loan bond issued to NTPC, OHPC, OPGC and NALCO at 8.5% interest rate against securitisation of power procurement dues after 01.4.99 onwards. The Commission opined in its letter to Govt. that GRIDCO's financial revival is only possible if the above mentioned steps in consonance with recommendation of Deepak Parekh Committee are taken by the State Govt. A reminder was also issued by the Commission in this regard.

5.35.5 But the Commission has not received the reaction of the Govt. of Orissa in this regard. The Commission has analysed the liability position of GRIDCO as on 31.3.99 which is as follows.

Table : 36
Loan outstanding as on 31.3.1999

(Rs. in Crore)

Type of loan	Amount Outstanding
State Govt.	156.57
Central Govt.	22.65
Open Market	52.02
LIC	213.01
IDBI	1.45
Power Bond	695.41
IBRD	95.40
REC	405.03
PFC	285.74
SPA	20.79
Pension Trust	150.00
Zero Coupon Bond	400.00
Commercial Bank	10.35
ICICI/HIW Bonds	5.01
Other	71.60
Sub-Total	2585.03
Power purchase liability	759.22
Current Liabilities	101.68
Total	3445.93

5.35.6 Out of the loans and bonds stated above, the amount of borrowings from the agencies like the World Bank, PFC and REC were taken for asset creation. As the assets cannot be transferred from GRIDCO and GRIDCO is using those assets for transmission of electricity the Commission, by modifying its earlier suggestion slightly, recommends that the asset-building loan should be retained by GRIDCO. In order to make the balance sheet of the GRIDCO healthy, the Commission also recommends that Rs.400 crore of bonds issued to Govt. of Orissa on account of upvaluation of assets should be converted into equity so that the licensee need not service them till the sectors turns around and simultaneously GRIDCO can have a better debt equity ratio for availing loans from the financial institutions. This is in line with the Govt. notification dated 29.01.2003 as per which the effect of the bond amount need not be considered till sectoral turn around. The power purchase liability to the extent of two months bill is retained in the books of GRIDCO which works out to Rs.206.22 crore and balance Rs.553.00 crore may be transferred to Power Sector Reform Fund. 50% of the debtors of GRIDCO as on 31.3.99 may be transferred to PSRF. With the aforesaid assumptions, the loans and bonds to be retained in the balance sheet of GRIDCO as on 31.3.99 are as follows:-

Table : 37
Loan outstanding as on 31.3.1999

(Rs. in Crore)

Type of loan	Amount Outstanding	Amount retained by GRIDCO	Amount to be transferred to PSRF
State Govt.	156.57		156.57
Central Govt.	22.65		22.65
Open Market	52.02		52.02
LIC	213.01		213.01
IDBI	1.45		1.45
Power Bond with NTPC Bond	695.41	300.00	395.41
IBRD	95.40	95.40	
REC	405.03	405.03	
PFC	285.74	285.74	
SPA	20.79	20.79	
Pension Trust	150.00	150.00	
Zero Coupon Bond	400.00	400.00	
Commercial Bank	10.35		10.35
ICICI/HIW Bonds	5.01		5.01
Other	71.60		71.60
Current Liabilities			
Power purchase liability	759.22	206.22	553.00
Current Liabilities	101.68		101.68
Total	3445.93	1863.18	1582.75

5.35.7 On transfer of loans and liabilities to the Power Sector Reform Fund, the balance sheet of the Fund would look as follows :-

Table : 38
Balance Sheet of Power Sector Reform Fund

(Rs. in Crore)

Liabilities transferred to the Fund		Assets transferred to the Fund	
Power Bonds & Pvt. Placement	395	Accumulated loss	1193
Loans from Central Govt.	23	Amount receivable from DISTCOs	66
Loans from State Govt.	157	Govt. receivables adjusted	227
Public Bonds	52		
Pension Trust Bonds		Subsidy Adjusted	88
LIC	213	Preliminary Expenses	9
Other Loans	78		
Commercial Bank Loan	10		
Liability for power purchase	553		
Terminal benefit liability	102		
Total	1583	Total	1583

5.35.8 In view of the recommendation of Expert Committee on States Specific Reforms under the chairmanship of Deepak S Parekh Committee the Commission advised to the Govt. on dtd.21.2.2003 the interest burden of the loans and bonds and power purchase liabilities proposed to be transferred to Power Sector Reform Fund has not been considered in calculating revenue requirement of GRIDCO for the year 2003-04.

5.35.9 Keeping in view the above recommendations and Govt. of Orissa notification the Commission proceeds with the analysis of loans source-wise.

5.35.10 **Back to back loan:** The Distribution Business was with GRIDCO till 25-11-98. Loans taken by GRIDCO from financial institutions like Power Finance Corporation and Rural Electrification Corporation for Distribution Business were transferred to DISTCOs on the date transfer, though servicing liabilities of aforesaid loans remained with GRIDCO. These loans are regarded as back to back loan. The Commission, in their order dated 19.04.2002 directed all the licensee to reconcile the figures of back to back loan and report to the Commission by the end of June 2002.

5.35.11 GRIDCO in its BST filing of 2003-04 did not submit any report on reconciliation of back to back loan only it had estimated an amount of Rs.24.92 crore towards interest receivable from DISTCOs. Answering the query raised by the Commission, GRIDCO intimated that they had informed DISTCOs regarding reconciliation of back to back loan for FY 1999-00. Only WESCO had replied to GRIDCO and others have not furnished by any reply in this regard yet. As such, GRIDCO presumed that they have accepted the balance upto 1999-00. GRIDCO, further reported that reconciliation for the FY 2000-01 and FY 2001-02 is in progress.

5.35.12 At the time of hearing, GRIDCO filed details of loans transferred to DISTCOs as per their audited accounts of 1998-99. Extracts of the same are reproduced below:

Table : 39**Rs. in crore**

Sl. No.	Name of loan	WESCO	NESCO	SOUTHCO	CESCO	TOTAL
	Opening balance as on 1.4.99					
1.	IDBI loan related project	0.14	-	0.12	0.61	0.87
2.	REC loan related project	73.44	75.87	88.17	75.60	313.08
3.	PFC loan related project	19.50	7.36	7.29	32.86	67.01
4.	Public loan related project	6.08	6.38	5.62	7.44	25.52
5.	SPA loan related project	1.86	3.14	1.72	2.72	9.44
6.	IBRD loan related project	9.85	6.51	7.49	37.55	61.40
7.	Pension trust	26.90	23.42	23.22	46.21	119.75
8.	DFID					
9.	LIC					
10.	CPA adjustment					
11.	Own funding (Cap)					
12.	Own funding					
13.	Adjustment to euqalisation of current asset and liability	5.39	-17.61	-2.03	39.58	25.32
14.	Total	143.16	105.08	131.60	242.55	622.39
15.	Less IBRD loan (shown by DISTCOs separately)	9.85	6.51	7.49	37.55	61.40
16.	Total loan covered under subsidiary loan agreement	133.31	98.57	124.11	205.00	560.99

5.35.13 Besides the above loan, GRIDCO during the years 1999-00 and 2000-01, transferred the following amount to DISTCOs excluding IBRD loan and cash support to CESCO.

Table : 40

	WESCO	NESCO	SOUTHCO	CESCO	TOTAL
1999-00	12.92	10.08	17.49	94.49	143.98
2000-01	0.43	0.71	1.04	8.83	11.01
	13.35	10.79	18.53	102.32	145.99

5.35.14 Regarding repayment of loan WESCO, NESCO and SOUTHCO has made repayment during 2000-01 the following amount by issue of long term bonds.

Table : 41

WESCO	NESCO	SOUTHCO	CESCO	TOTAL
19.96	18.14	16.32	NIL	54.42

5.35.15 Reports from four DISTCOs were called for to reconcile the figure with DISTCOs. Except CESCO all the three BSES managed company agreed to the figure of GRIDCO as on 31.03.1999. CESCO reported loan an amount of Rs.185 crore as on 31.03.1999 as against Rs.205 crore by GRIDCO. Since the audited accounts of CESCO for 1998-99 and 1999-00 are not available, Commission considers the figure reported by GRIDCO upto 31.03.1999 for the purpose of calculation of interest.

5.35.16 Regarding transfer of loan during 1999-00 and 2000-01 minor difference have been noticed while comparing the figures of GRIDCO with those of DISTCOs.

5.35.17 The Commission, therefore, directs all five companies to reconcile these figures by August 2003 and submit report to the Commission. However, for the purpose of calculation of interest, figure reported by GRIDCO are taken into account on provisional basis. The rate of interest for such calculation has been taken at 8.5%, in consonance with the Govt. of Orissa notification dated 29.01.2003 as major portion of the back to back loan pertains to PFC and REC loan taken by GRIDCO.

5.35.18 Accordingly, the interest on back to back loan has been calculated for the year 2003-04 which works out to Rs.55.47 crore. Company-wise break up of interest on back to back loan is given below.

Table : 42

	Rs.in crore				
	WESCO	NESCO	SOUTHCO	CESCO	TOTAL
Interest for 2003-04	10.77	7.75	10.74	26.21	55.47

5.35.19 **GRIDCO Bond** : GRIDCO has issued bonds of Rs.667.56 crore during 1998-99 and Rs.113.81 crore during 2000-01 to meet liabilities on account of power purchase as well as to meet other working capital requirement. As reported by GRIDCO in its clarification to queries outstanding dues of NTPC upto 30.09.2001 was Rs.1156.72 crore. As per the terms and conditions of the tripartite agreement GRIDCO has issued tax free bond worth Rs.1156.72 crore at 8.5% to NTPC towards securitisation of dues on account of power purchase upto 30th September, 2001 backed by State Govt. guarantee. This includes an amount of Rs.200 crore and Rs.113.81 crore worth of bonds issued by GRIDCO earlier at higher rate of interest which have been swapped and merged with the above tax free bond. Since Govt. of Orissa has already signed the tripartite agreement under the scheme for one time settlement of outstanding dues of NTPC upto 30.09.2001, as per the recommendation of Ahluwalia Committee, Commission approves the same amount of bond and interest to the extent of the power purchase liability pertaining to the period from 01.04.1999 to 30.09.2001. As stated earlier, power purchase liability upto to 31.03.1999 to the extent of Rs.553 crore is assumed to be transferred to Power Sector Reform Fund (PSRF).

5.35.20 Of Rs.667.56 crore issued during 1998-99, leaving aside Rs.200 crore of NTPC bond, the balance Rs.467.56 crore comprises bonds issued for the following purposes.

Table : 43

Particulars	Purpose	ROI (%)	Amount (Rs.in Cr.)
Power Bond-I	Working capital	15%	109.48
Power Bond-II	Working capital	15.25%	198.08
OPGC-I	Power purchase dues	15%	60.00
NALCO-I	Power purchase dues	15%	50.00
OHPC-I	Power purchase dues	10.95%	50.00

- 5.35.21 GRIDCO in its clarification to queries proposed to swap power bond-I, power bond-II, OPGC-I, NALCO-I by issuing unrated bond and through loan syndication at a lower rate of interest i.e. 11.50%.
- 5.35.22 The Commission approves the loan figures to the extent of Rs.300 crore pertaining to bonds raised from the open market and interest of the same amounting Rs.34.20 crore is to taken into account for the purpose of calculation of revenue requirement for the FY 2003-04. The interest impact of balance amount of bond of Rs.367.56 crore has been considered nil, as these bonds proposed to be swapped pertains to the period prior to 31.03.1999 and these bonds are assumed to be transferred to PSRF.
- 5.35.23 As regards interest on bond to OHPC-I, the Commission does not consider the impact of interest to be passed on to the tariff as the bonds of Rs.50 crore were issued on the power purchase liability prior to 31.03.1999.
- 5.35.24 As reported by GRIDCO at the time of hearing, outstanding power purchase dues of NTPC from 01.10.2001 to 30.09.2002 amounts to Rs.560 crore. Govt. of Orissa has given their consent to provide guarantee for issue of bonds worth Rs.560 crore to NTPC. Accordingly, CMD, GRIDCO on 29.01.2003 has taken up the matter with the CMD, NTPC to securitise the said amount. The Commission accepts the securitisation of above amount at a interest rate of 10.5%, proposed by GRIDCO.
- 5.35.25 Besides above, GRIDCO proposes to issue the following fresh bonds for securitising power purchase dues.

Table : 44

Bond	Purpose	Amount (Rs. in Crore)
OPGC-II	Securitisation of power purchase dues	150.00
OHPC-II	-do-	250.00
NALCO-II	-do-	150.00

- 5.35.26 The Commission accepts the above proposal excepting proposed bond to be issued to OHPC and approves the interest on bond to be passed on to tariff at a rate of 10.95%.
- 5.35.27 **PFC Loan** : GRIDCO has estimated the balance loan of Rs.159.21 crore as on 31.03.2004 for the purpose of construction of EHT lines at a interest rate of 16.5% which the Commission accepts and approves the interest to be passed on to tariff at 8.5% (tax free) as per Govt. of Orissa notification discussed in earlier paragraph. Further, GRIDCO has estimated at Rs.950 crore as on 31.03.2004 its working capital requirement at a interest rate of 10.5%. GRIDCO in its clarification regarding utilisation of loan to be borrowed from PFC has submitted the following at the time of hearing.

“Due to hydrology failure, GRIDCO has been constrained to draw high cost power from NTPC. The situation is beyond the control of GRIDCO and tariff fixed by OERC does not envisage this aspect. It has been proposed to avail a loan from PFC to meet the cash deficit during the current financial year as well as next two financial years for an aggregate amount of loan of Rs.1200 crore”. The year-wise break up has been worked out as follows:

Table : 45

FY 2002-03	575 crore
FY 2003-04	375 crore
FY 2004-05	250 crore

5.35.28 The loan has not been sanctioned till date. However, PFC has sanctioned a short-term loan of Rs.200 crore which has been fully drawn during the month of February 2003 and March 2003.

5.35.29 There is a revenue short-fall for the FYs 2002-03 and 2003-04 as the collection from DISTCOs is far below the billing amount. On the other hand, outstanding dues to NTPC has been securitised upto 30.09.2002 and LC has been opened to pay their future dues. Therefore, GRIDCO has to pay 100% bill outstanding from 01.10.2002 onwards in cash. For 100% payment to NTPC for the period October 2002 to March 2003 and April 2003 to March 2004, additional requirement of funds ranges between Rs.70 to Rs.80 crore per month. It is expected that this amount may decrease considering the better hydro power during the coming year. The interest being not fully pass through in the last tariff, Rs.236.71 crore as an additional payment has to be made in FYs 2002-03 and 2003-04.

5.35.30 The Commission has taken note of the submission and allow interest impact on Rs.200 crore of loan sanctioned by PFC and Rs.375 crore proposed to be sanctioned during 2003-04 are to be passed on to tariff at a interest rate of 9.5%.

5.35.31 **Loan from REC** : The REC loans of Rs.364.46 crore as on 31.03.2004 at an average interest rate of 14.66% will remain outstanding against GRIDCO. The Commission accepts the balance loan and approves the interest to be passed on to tariff at 8.5% (tax free) as per Govt. notification dated 29.01.2003.

5.35.32 **Loan from LIC** : LIC loans of Rs.140.66 crore drawn during the period from 1981 to 1996 bear an interest rate of 14% per annum. GRIDCO has estimated repayment of Rs.26.28 crore during 2003-04. Since LIC loan pertains to OSEB period, the Commission assumes it to be transferred to PSRF. As such, interest impact on the above loan has not been considered.

5.35.33 **World Bank loan** : GRIDCO estimates loan balance of Rs.932.25 crore as on 31.03.2004 to be availed from World Bank meant for construction of EHT lines and sub-stations. The interest impact on such loan has been calculated at an average rate of 9.1% i.e. considering the interest impact on 70% of the loan amount at an average rate of 13% as per Govt. of Orissa notification. The Commission approves the same as the interest calculation made by GRIDCO is in accordance with the Govt. notification dated 29.01.2003.

5.35.34 **State Govt. Loan** : GRIDCO has reported that loan from State Govt. as on 31.03.2001 amounts to Rs.168.71 crore. It has estimated repayment of Rs.135 crore during 2002-03 and the balance amount of Rs.33.71 crore has been reflected for the year ended 2003 & 2004. The interest impact has been calculated at an average rate of 13% per annum. Since the Govt. loan is to be transferred to PSRF, interest impact has not been considered while calculating the revenue requirement of GRIDCO.

5.35.35 **Central Govt. Loan** : GRIDCO has proposed payment of Rs.1.01 crore on this loan. As this loan was taken in the year 1987-88 during OSEB period, the Commission

considers the loan to be passed on to PSRF. As such, no interest is allowed on Central Govt. loan.

5.35.36 **Open Market Loan** : GRIDCO has inherited Rs.52.02 crore on this account from OSEB for meeting working capital expenses. As these loans were drawn by OSEB during 1981 to 1989. The Commission considers the loan to be passed on to PSRF. As such, no interest is allowed on this score.

5.35.37 **ICICI Loan** : These loans were taken by GRIDCO for construction of 400 KV lines from Meramundali to Mendhasal and 220 KV line S/s at Cuttack. The loan has been estimated at an average rate of 14%. The Commission approves the loan amount as well as rate of interest projected by GRIDCO.

5.35.38 **Commercial Bank** : GRIDCO has estimated payment of Rs.4.02 crore towards interest at an average rate of 15% on principal of Rs.39.62 crore as on 31.03.2004. The Commission approves loan amount. Regarding interest the Commission estimates the interest at 12%.

5.35.39 **Short Term Borrowing** : As on 31.03.2004, GRIDCO has estimated a short-term borrowing of Rs.200 crore and proposed an amount of Rs.28.25 crore to be passed on to tariff. In reply to the queries made by the Commission, GRIDCO has submitted that short term borrowing amounting to Rs.150 crore and Rs.50 crore are proposed to be drawn during 2002-03 and 2003-04 to meet shortfall in cash flow requirement. The cash flow during these two years is as follows:

Table : 46

Rs. in Crore

Particulars	2002-03	2003-04
Opening balance	24.19	19.46
(a)DISTCOs (b)interstate sale & (c)wheeling	1202.00	1612.80
Instalments from DISTCOs	141.33	36.90
Loan from World Bank & other agencies	753.45	225.66
PFC Working capital loan	575.00	375.00
Short term borrowing	150.00	50.00
Outstanding grants from GOO	88.36	-
DFID	-	-
Total receipts	2910.14	2300.36
Repayment		
Payment to generators	1229.15	1418.01
Employee cost, R&M & A&G	163.63	141.18
Capital works	312.11	171.64
Loan principal repayment	700.40	205.36
Loan interest repayment	509.58	355.12
Total expenditure	2914.87	2291.31
Closing balance	19.46	28.51

5.35.40 The Commission is aware of the liquidity problem faced by GRIDCO due to non-payment of BST bill by DISTCOs in time. The Commission like previous years approves the loan amount but calculates the interest at 12% as against 15% proposed by GRIDCO.

- 5.35.41 **Pension Trust Bond** : GRIDCO has proposed Rs.18 crore of interest to be recovered through tariff. The Commission like previous years approves the pension trust bond and its interest impact.
- 5.35.42 **Capitalisation of interest** : GRIDCO in its application has projected a sum of Rs.127.44 crore as interest during construction. However, the figure has been subsequently revised to Rs.123.48 crore.
- 5.35.43 As mentioned in earlier paragraph, the Commission considers the interest rate of 8.5% on PFC, REC loan and 9.1% on World Bank loan utilised for capital works. Applying the above rate of interest, the Commission has assessed the interest and approves an amount of Rs.101.37 core towards interest during construction.
- 5.35.44 As discussed in para 6.36.6 above, liability for power purchase amounting to Rs.553 crore is to be transferred to power sector reform fund. The total power purchase liability as per the audited accounts of GRIDCO was Rs.759.22 crore. The break up of Rs.759.22 crore is given in the table below.

Table : 47
Power Purchase Liability

Sl. No.	Name of Agency	Balance as on 31.03.1999
1.	NTPC	399.72
2.	OPGC	112.63
3.	NALCO	109.76
4.	OHPC (including Machkund)	114.80
5.	Others	22.31

- 5.35.45 As discussed earlier in para 6.36.5, Rs.206.22 crore equivalent to two months bill is written in the books of GRIDCO as current liability, thereby transferring an amount of Rs.553 crore to PSRF. To discharge this liability GRIDCO issued and propose to issue bonds at different times. The Commission therefore considers it prudent to reduce the quantum of bond already approved in para above proportionately to bring it to a total of Rs.553 crore.
- 5.35.46 Therefore, without considering interest on State Govt. loans, Public bonds, LIC, Other loans, Commercial Bank loan, liability for power purchase and terminal benefit liability, the interest liability of GRIDCO for the year 2003-04 has been estimated as Rs.218 crore assuming that Govt. of Orissa will accept the suggestions of the Commission in the line with recommendation of Deepak Parekh Committee and subsequent acceptance by the Govt. of India in full measure. If the Govt. of Orissa does not accept or accepts partially, the interest burden will change accordingly with a corresponding change in revenue requirements of GRIDCO. This will contribute an additional burden on BST and consequential RSTs.

Table : 48

Source	2003-04		
	GRIDCO's proposal	Commission's estimate (With Parekh Committee)	Commission's estimate (Without Parekh Committee)
Power Bond-I	-		
Power Bond-II	-		
OPGC-I	-		
OPGC-II	16.43	7.44	16.43
OHPC-I	5.48	-	4.25
OHPC-II	27.38	-	-
Nalco-I	-		
Nalco-II	16.43	7.67	16.43
NTPC-I	-		
NTPC-II	-		
NTPC-III (GoO Bonds)	98.32	56.57	98.32
NTPC-IV	58.80	58.80	58.80
Loan Syndication	34.20	34.20	34.20
Unrated New Bonds	11.50	-	11.50
Sub Total	268.52	164.69	239.92
Pension Trust Bonds	18.00	18.00	18.00
GoO Bonds	-		
Total Bonds	286.52	182.69	257.92
Other Loans			
PFC Loan	30.98	16.77	16.77
PFC WCL	80.06	36.81	36.81
IBRD Loan	78.40	78.40	78.40
REC Loan	43.37	31.03	31.03
LIC Loan	19.69	-	17.85
State Govt. Loan	5.02	-	-
Central Govt. Loan	1.01	-	0.88
Open Market Loan	2.75	-	2.52
Commercial Banks	4.02	3.21	3.21
SPA Loan	-	-	-
ICICI	4.76	4.92	4.92
Short term Borrowings	26.25	21.00	21.00
Other Loan Total of B	296.30	192.15	213.41
Grand Total(A+B)	582.82	374.84	471.33
Interest O/s			
Total Loan			
Less: Int.on Loan receivable from DISTCOs	24.92	55.47	55.47
Less: Interest Capitalisation	127.44	101.37	101.37
Interest Chargeable to revenue	455.39	218.00	314.49

5.36 Depreciation

- 5.36.1 GRIDCO has claimed Rs.42.78 crore towards depreciation. GRIDCO has calculated depreciation at pre-92 rate prescribed by Govt. of India and as recommended by the Commission in para 6.6.1 to para 6.6.2 of the Tariff Order dt.19.4.2002.
- 5.36.2 The depreciation was being calculated at post-94 rate as prescribed by Govt. of India on asset base that was revalued on 01.4.96. The Commission, in order to neutralize the impact of revalued cost on the tariff, had directed in the tariff order dtd.19.4.2002 to calculate depreciation at pre-92 rate which is substantially low as compared to post-94 rate linked to the life of the assets. The intention was to balance the interest of the consumers as well as the licensees. This would avoid front loading of the tariff but at the same time would ensure necessary cash flow for the licensee for loan repayment and funds for asset replacement.
- 5.36.3 The Hon'ble High Court while deciding Misc. Case No. 7410 and 8953 of 2002 directed the Commission to make necessary calculation as per the Govt. Notification and depreciation shall be calculated on the pre-upvalued cost of assets as on 1.04 1996 at pre-92 rate.
- 5.36.4 The assets of OSEB taken over by the Govt. of Orissa were revalued and vested with OHPC and GRIDCO vide SRO No.256/96 and SRO No.257/96 dtd.01.4.96, respectively. The assets have been vested with the aforesaid PSUs at upvalued cost to which subsequent additions of assets have been made at actual cost basis. The Original cost of the assets before upvaluation as per Staff Appraisal Report(SAR) prepared by the World Bank dtd.19.04.96 and value of the asset transferred to OHPC and GRIDCO as per Transfer Notification No.5210 dtd.01.04.1996 are presented in the table below :

Table : 49

Rs. In crore

	Gross Fixed Asset	Add : Interest and expenses capitalised	Less : Accumulated depreciation	Net fixed asset	Asset Value as per Transfer Notification
OSEB assets transferred	1375.80	105.30	444.90	1036.30	
GRIDCO	1103.20	97.50	363.00	837.80	1957.80
OHPC	272.60	7.80	81.90	198.50	
Add GoO to OHPC	199.4	0	41.30	158.10	
Total OHPC Asset	472.00	7.80	123.20	356.60	1196.80

- 5.36.5 The Balance Sheet of OSEB for the Financial Year 1995-96 has been prepared subsequently which shows different values of assets pertaining to Generation, Transmission and Distribution Business as compared to SAR.

Table : 50

**Asset Position as per Balance Sheet of OSEB for the Year 1995-96
(As reported by GRIDCO/OHPC)**

	Gross Fixed Assets	Net Fixed Assets
Generation(OHPC)	314.00	226.87
Transmission(GRIDCO)	546.66	416.24
Distribution(DISTCOs)	625.90	379.74
Total	1486.56	1022.85

5.36.6 The Transfer Notification has been made on the basis of the SAR and the value of the assets of OHPC and GRIDCO has not been changed subsequently in accordance with the audited accounts for the year 1995-96. Further, as per the provision of the Section 25(1) and (2) of the OER Act, 1995 GRIDCO and OHPC had the option to alter, vary, modify, add or otherwise change the terms in such a manner as the State Govt. consider appropriate within a period of one year from the date of notification. Since neither GRIDCO nor OHPC has exercised their option, the Commission considers it proper to accept the value of the assets mentioned in SAR for the purpose of calculation of depreciation.

5.36.7 GRIDCO, again divested its distribution business to four DISTCOs on 26.11.98 and transferred Distribution Assets to them on aforesaid date. The crux of the problem is that OSEB and GRIDCO did not maintain the assets registers for segregating assets created on or before 01.4.1996 i.e. before upvaluation and assets created thereafter. In the absence of asset registers, it is very difficult to ascertain the share of the Transmission and Distribution assets pertaining to GRIDCO and DISTCOs respectively, which have been acquired prior to 01.4.96 and their corresponding pre-upvaluation cost to be considered for the purpose of depreciation calculation as per the directive of the Hon'ble High Court.

5.37 Assumption adopted to comply with the orders of the Hon'ble High Court

5.37.1 SAR also does not contain any statement of desegregation of assets between Transmission and Distribution Businesses, though figures of pre-upvalued cost of the assets allocated to GRIDCO as a whole including both Transmission and Distribution are available. Under these circumstances, pre-upvalued cost of the assets allocated to GRIDCO as per SAR can be bifurcated between Transmission and Distribution Business on the basis of the proportion of the assets as reported in the Balance Sheet of OSEB on 31.03.1996. Similarly, in the absence of proper asset register, the Commission decided to apportion the Distribution Assets between DISTCOs on the basis of their proportion of assets as notified in the Transfer Scheme Notification dtd.26.11.98. The distribution and transmission assets, as reported in the balance sheet of OSEB as on 31.3.96 can be a reference for the purpose of segregating the assets of GRIDCO as reported by SAR.

5.37.2 Apportionment of pre-upvalued cost of the Assets transferred to GRIDCO on 01.04.1996, between Transmission and Distribution Business are as below:

Table : 51

	Gross Fixed Assets As per Balance Sheet (in Crore)	Pre-Upvalued Cost of the Gross Fixed Assets as per SAR bifurcated (in Crore)
GRIDCO	546.66	514.32
DISTCOs	625.90	588.88
Total	1172.56	1103.20

5.37.3 Apportionment of pre-upvalued cost of the Assets transferred to Distribution Business as on 01-04-96, between DISTCOs is as under:

Table : 52

DISTCOs	Gross Fixed Assets transfer to DISTCOs as per Transfer Notification	Amount of Gross Fixed Assets apportioned
WESCO	267.16	139.88
NESCO	263.39	137.89
SOUTHCO	233.82	122.42
CESCO	360.43	188.68
TOTAL	1124.80	588.88

5.37.4 Accordingly, transmission and distribution assets as on 01.4.96 before upvaluation have been apportioned amongst GRIDCO and DISTCOs and depreciation has been calculated on the pre-upvalued cost of assets at pre-92 rate as per the order of the Hon'ble High Court. The total depreciation chargeable to Annual Revenue Requirement of GRIDCO and DISTCOs is as follows:-

Table : 53
Depreciation for the Year 2003-04

Name of the company	Gross Fixed Asset as on 1.4.96	Average rate of Depreciation (pre-92) (%)	Depreciated on as on 01.04.1996	Asset added from 1996-1997 to 2003	Average rate of Depreciation (pre-92) (%)	Depreciation on asset added after 01.04.1996	Total depreciation for the year 2003-04
GRIDCO	514.32	3.13	16.10	637.36	3.13	19.95	36.05
WESCO	139.87	3.76	5.26	172.86	3.76	6.50	11.76
NESCO	137.89	3.76	5.18	187.93	3.76	7.07	12.25
SOUTHCO	122.41	3.76	4.60	180.99	3.76	6.81	11.41
CESCO	188.70	3.76	7.10	258.00	3.76	9.70	16.80
TOTAL DISTCOs	588.88		22.14	799.78		30.07	52.21
GRAND TOTAL	1103.20		38.24	1437.14		50.02	88.26

5.37.5 The weighted average rates of depreciation based on pre-92 rates and asset base of the 2002-03 as approved by the Commission have been adopted to find out Depreciation Expenses of GRIDCO and DISTCOs for the year 2003-04.

5.38 Special Appropriation to meet the Debt Redemption Obligation

5.38.1 GRIDCO has estimated to repay Rs.155.36 crore of loans during FY 2003-04 as envisaged in the format TRF-3 of the tariff filing, the details of which are given here under:-

Table : 54

Description of Loan	Amount of Repayment (Rs. in crore)
OHPC BOND II	25
PFC LOAN	76.20
WORLD BANK LOAN	8.57
REC LOAN	1.29
LIC	26.28
CENTRAL GOVT. LOAN	3.41
ICICI BOND	14.61
TOTAL	155.36

5.38.2 Loan repayment can only be made out of the non-cash expenses like depreciation and retained surplus. As per the decision of the Government GRIDCO has not been allowed any return during the year 2003-04. Further, as per the decision of the Govt.

and order of the Hon'ble High Court GRIDCO has been provided with depreciation of Rs.36.05 crore which is not sufficient to redeem the loan liabilities to the extent of Rs.155.36 crore. The Licensee has already been burdened with a loan liability of Rs.5250 crore as on 31.03.2003 (TRF-3). If the loan liabilities are not redeemed in time the situation will aggravate further and GRIDCO would be in debt trap. As there is no scope in the revenue requirement to allow loan redemption towards expenditure properly incurred, the Commission considers it proper to allow a portion of the debt redemption liabilities of the Licensee under special appropriation so that the burden of the loan can be relaxed to a certain extent.

5.38.3 GRIDCO has to redeem PFC loan amounting to Rs.76.20 crore and World Bank loan amounting to Rs.8.57 crore during FY 2003-04 which works out to Rs.84.77 crore in total. As per the provisions of the Para-XVII(2) (c)(vb) of the Schedule Six to the Supply Act, 1948. Debt redemption obligation of the Licensee forms a part of the revenue requirement taking into account the requirements of debt redemption and resource generation of the Licensee through depreciation and retained surplus. After taking into account depreciation already provided for GRIDCO requires an additional fund of Rs.48.72 crore to be allowed as a pass through for redemption of debt obligations. The Commission considers it proper to allow Rs.48.72 crore under special appropriation to cover the debt redemption obligation of the Licensee.

5.38.4 **Special appropriation to cover previous losses** : GRIDCO has proposed special appropriation of Rs.917.12 crore to cover losses on account of power purchase cost, shortfall in demand and difference in interest payment, the details of which are given below.

Table : 55

Losses on account of	Rs. in Crore
Excess power purchase cost due to hydrological failure	554.84
Shortfall in export	36.75
Shortfall in demand	8.25
Difference in interest payment	317.27
Total	917.12

5.38.5 GRIDCO in its supplementary submission dated April 2, 2003 has stated that in accordance with the PPA of UIHEP, OHPC had claimed Rs.73.73 crore on account of shortfall in revenue due to hydrology failure which was not included in the revenue requirement of GRIDCO for FY 2003-04. Hence, it prays before the Commission to include this amount in the revenue requirement as a pass through.

5.38.6 In clarification to queries raised by the Commission, GRIDCO has submitted the detailed particulars of the differential of interest actually incurred by them and approved by the Commission to the tune of Rs.317.27 crore as depicted in the table below.

Table : 56

		2001-02			2002-03			
		Provisional	Commission's approval	Difference	Real Estimate	Commission's approval	Difference	Total Difference
1	2	3	4	5=3-4	6	7	8=6-7	9=5+8
A	GRIDCO Bonds including Securitisation							
	Power Bond-I	15.67			15.66			
	Power Bond-II	30.21			22.66			
	OPGC-I	9.00			8.99			
	OPGC-II				16.43			
	OHPC-I	7.50			7.50			
	OHPC-II	27.38			27.38			
	Nalco-I	7.50			7.50			
	Nalco-II				12.32			
	NTPC-I	15.00			-			
	NTPC-II	7.11			-			
	NTPC-III (GoO Bonds)	49.16			98.32			
	NTPC-IV				29.40			
	Loan Syndication				8.55			
	Unrated New Bonds				0.96			
	Sub Total	168.53	120.45	48.08	255.66	120.24	135.42	
	Pension Trust Bonds	18.00	18.00	-	18.00	18.00	-	
	GoO Bonds						-	
	Total Bonds	186.53	138.45	48.08	273.66	138.24	135.42	
		2001-02			2002-03			
		Provisional	Commission's approval	Difference	Real Estimate	Commission's approval	Difference	Total Difference
1	2	3	4	5=3-4	6	7	8=6-7	9=5+8
B	Other Loans						-	
	PFC Loan	61.52	49.44	12.08	45.77	25.60	20.17	
	PFC WCL			-	30.19		30.19	
	IBRD Loan	37.49	45.57	(8.08)	64.40	64.07	0.33	
	REC Loan	75.75	56.18	19.57	49.41	31.49	17.92	
	LIC Loan	19.69	19.69	-	19.69	19.69	-	
	State Govt. Loan	20.63	21.84	(1.21)	5.02	-	5.02	
	Central Govt. Loan	1.01	1.01	(0.00)	1.01	0.52	0.49	
	Open Market Loan	4.20	4.10	0.10	3.41	4.12	(0.71)	
	Commercial Banks	2.85		2.85	2.93		2.93	
	SPA Loan	0.54	0.63	(0.09)	0.17	0.38	(0.21)	
	ICICI	8.41	8.50	(0.09)	6.61	6.30	0.31	
	Short term Borrowings		5.47	(5.47)	11.25	4.86	6.39	
	Other Loan Total of B	232.08	212.43	19.65	239.86	157.03	82.83	
C	Grand Total(A+B)	418.61	350.88	67.73	513.51	295.27	218.24	
E	Less: Int. on Loan receivable from Distco	46.67	71.03	(24.36)	33.90	63.71	(29.80)	
F	Less: Interest Capitalisation	99.14	63.58	35.56	109.59	41.72	67.87	
G	Interest Chargeable	272.80	216.27	56.53	370.02	189.84	180.18	236.71

(II) Stamp duty and Guarantee commission on new Bonds and Loans

		Upto FY 2002-03		<i>Rs. in Crore</i>	
	Bonds	Bond amount	Stamp duty	Guarantee Commission	Total
			@ 2.20%	@ 1%	
1	OHPC	250.00	5.50	2.50	
2	OPGC	150.00	3.30	1.50	
3	NALCO	150.00	3.30	1.50	
4	NTPC	560.00	12.32	5.60	
5	Loan Syndication	300.00	-	3.00	
6	Unrated Bonds	100.00	2.20	1.00	
7	PFC Loan in 2002-03	575.00	-	5.75	
8	PFC Loan in 2003-04	375.00	-	3.75	
	Total		26.62	24.60	51.22

(III) DPS to be recognized while issuing Bonds to generator **29.35**

Total of (I), (II) & (III) (Rs. Crore) 317.28

5.38.7 The Commission examined the claim of GRIDCO under the special appropriation. The loss sustained by GRIDCO due to hydrology failure during the year 2002-03 has already been recognised by the Commission and the Commission vide its letter No.JD(FIN)-175/2002/1200 dated 03.08.2003 advised Govt. of Orissa for obtaining fund from the Calamity Relief Fund to compensate for the loss so incurred. Though reminders have already been sent no response of the Govt. of Orissa in this regard has yet been received. As the impact of this loss will trigger the average tariff to the extent of Re.1/-, it is not possible to pass on this amount to consumers through tariff. The Commission can only take any suitable decision in this regard after receiving the decision of the Govt. of Orissa.

5.38.8 In regard to shortfall of revenue due to fall in export and fall in demand for the year 2002-03, the Commission is of the view that the figures submitted by the licensee are not based on audited accounts. The actual amount of shortfall beyond the benchmark fixed by the Commission can only be authenticated when annual audited accounts for the year 2002-03 is available to the Commission.

5.38.9 The Commission had calculated the interest on the basis of the suggestions made to the Govt. and subsequently approved by the Govt. As such, it is the responsibility of GRIDCO to take up the issue with the Govt. of Orissa for reduction in interest rates of the loans availed from PFC and REC and also to securitise power bond at 8.5% (tax-free bond) having obtained Govt. of Orissa guarantee. Hence, the claim of Rs.317.28 crore towards differential interest is not acceptable to the Commission.

5.38.10 Regarding supplementary claim made by GRIDCO to the extent of Rs.73.51 crore payable to UIHEP, OHPC, the same has already been dealt in para 5.29.

5.39 Contribution to Contingency Reserve

5.39.1 GRIDCO has proposed Rs.14.12 crore towards contribution to contingency reserve for the year 2003-04 under Para-IV of Sixth Schedule of the Act, 1948. As per provision of Para-IV of the Sixth Schedule, such contingency reserve amount should not be less than one quarter of 1% not more than one-half of 1% of the original cost

of fixed assets of the year. GRIDCO has computed the contingency reserve at 0.5% of the opening balance of gross fixed assets which is within the prescribed limit. Hence, the Commission approves an amount of Rs.14.12 crore for the year 2003-04 towards contribution to contingency reserve.

5.40 **Capital Base**

5.40.1 The purpose for calculation of capital base is to ascertain the amount of Revenue Requirement and clear profit admissible to the licensee in accordance with the provision of Sixth Schedule of Electricity (Supply) Act, 1948. GRIDCO has proposed a reasonable return of Rs.30.69 Crore for the FY 2003-04 in their Annual Revenue Requirement application. However, Govt. of Orissa in their notification No. 1068 dtd.29.01.2003 has decided that GRIDCO shall not be entitled to get any return on equity till the sector become viable on cash basis or 2005-06, whichever is earlier. Thus, GRIDCO's claim for return of Rs.30.69 Crore becomes infructuous and further the Commission considers that there is no need for calculation of capital base.

5.41 **Miscellaneous Receipt**

5.42 The Licensee had proposed an amount of Rs.55.36 crore as miscellaneous receipt for the year 2003-04 at transmission tariff of 51.36 paise/unit, as indicated below.

Table : 57
Miscellaneous Return (GRIDCO's proposal 2003-04)

	Quantity In MU	Rate Paise/unit	Amount Rs. Crore
Wheeling to CPPs	300	51.36	15.41
Wheeling to other States	2200	17.50	38.50
Sale to CPPs	5	289.89	1.45
Total			55.36

5.42.1 The estimated Miscellaneous Receipt based on the transmission cost arrived taking into account the recommendation as per the Deepak Parekh Committee is recalculated by the Commission and produced in the table below.

Table : 58

	Quantity In MU	Rate Paise/unit	Amount Rs. Crore
Wheeling to CPPs	300.00	32.00	9.60
Wheeling to other States	2,200.00	17.50	38.50
Sale to CPPs	5.00	289.89	1.45
Total			49.55

5.43 Bulk Supply Tariff for FY 2003-04

- 5.43.1 Zonal variations like difference in load factor, unequal volume of energy consumption, difference in the time of occurrence of the peak demand from utility to utility, wide variation in HT and EHT loads across the four distribution utilities are endemic to the power system of Orissa.
- 5.43.2 Condition 8.2 of the Bulk Supply and Transmission (2/97) licensee as amended by OERC order dated 31.03.1999 in Case No.21/98 issued to GRIDCO provides for use of system services to any user on price or other terms which materially differ from those offered to other users, where such differences reflect different circumstances of service including load factor, power factor, level and timing of peak demand and any other relevant factors.
- 5.43.3 It is also a fact that some amount of cross-subsidy through a higher BST will be available from one utility to the consumers of other utility with lower BST to maintain uniform retail tariff through out the State.
- 5.43.4 Based on the aforesaid considerations the Commission deems it desirable to continue with differential Bulk Supply Tariff for the four distribution companies and uniform retail tariff through out the State.

5.44 Determination of Demand and Energy Charge

- 5.44.1 Demand Charge is levied in consonance with the philosophy of realisation of cost in proportion to the capacity requirement of the utilities. Energy charge is recovered in proportion to the actual quantum of energy consumed by the utilities.
- 5.44.2 After taking into consideration the revenue requirement for the FY 2003-04, the Commission does not consider it necessary to revise the existing rate of demand charge upwards to Rs.250/KVA/month as proposed by GRIDCO. Therefore, the demand charge for 2003-04 is approved at Rs.200/KVA/month which is the prevailing rate. The expected revenue from the demand charge based on the maximum demand for the various distribution companies approved by the Commission for the FY 2003-04 is given in Table below.

Table : 59
Annual Demand Charges (Estimated)

	FY 2002-03 (MVA)	Demand Charge (Rs./KVA/month)	Expected annual Revenue from Demand charges (Rs. Crs.)
CESCO	670.76	200	160.98
NESCO	394.48	200	94.67
WESCO	563.99	200	135.36
SOUTHCO	276.15	200	66.28
TOTAL	1905.38		457.29

5.44.3 Taking into account the facts presented to the Commission, it now approves the following energy charges applicable to various distribution licensees **after expiry of seven days of the publication by the licensee under section 26(5) of the OER Act, 1995.**

CESCO Demand charge: Rs.200/KVA/month
 Energy charge : 92 paise/unit

WESCO Demand charge: Rs.200/KVA/month
 Energy charge : 96.50 paise/unit

NESCO Demand charge: Rs.200/KVA/month
 Energy charge : 86.00 paise/unit

SOUTHCO Demand charge: Rs.200/KVA/month
 Energy charge : 84.00 paise/unit

5.44.4 Based on the aforesaid rates the revenue as estimated from the energy charges determined on the quantum of energy approved for the different distribution companies is given in Table below.

Table : 60
Energy Charges

Name of the Company	Estimated 2003-04 (MU)	Energy Charge (In p/u)	Revenue from energy charges (Rs. in Cr.)
CESCO	3981.64	92.00	366.35
NESCO	2721.97	86.00	234.00
WESCO	3773.58	96.50	364.15
SOUTHCO	1580.00	84.00	132.67
Total	12,057.18		1097.17

5.44.5 As against GRIDCO's total revenue requirement of Rs.1554.46crore, it will recover Rs.457.29 crore through demand charge and Rs.1097.17 crore from energy charge meeting its revenue requirement of Rs.1554.46 crore for the year 2003-04 from the DISTCOs and the company will earn an amount of Rs.490.56crore on account of export of power outside the State and sale to Captive Power Plants.

5.45 **Rebate**

5.45.1 The proposal submitted by GRIDCO was examined at the Commission's end. The Commission approves that on payment of the monthly bill, the Retail and Distribution Licensees 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.
- 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.
- One percent (1%) on the amount of the monthly bill (excluding arrears), if full payment is made within 15 days from the date of the presentation of the bill.

5.46 **Delayed Payment Surcharge**

5.46.1 GRIDCO in para 7 of its BST application for 2001-02 has submitted that the surcharge for delayed payment for bulk supply bills i.e. payment after the period of 30 days from the date of submission of bill may be retained at 2% per month.

5.46.2 The Commission directs that monthly charges as calculated with other charges and surcharge on account of delayed payments, if any, shall be payable by the Retail and Distribution Licensee 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).

5.47 **Transmission Tariff**

5.47.1 GRIDCO has estimated that the full cost of transmission including reasonable return will come to Rs.658.49 crore. On the basis of its cost estimate, the calculation of transmission tariff proposed by GRIDCO is given below:

Table : 61
Transmission Tariff

Transmission Cost with Reasonable Return less revenue from interstate wheeling (a)	Rs.658.49 crore
Total Units Sold to DISTCOs (b)	12,520.08 MU
Total Units Wheeled (c)	300 MU
Transmission Tariff (a/(b+c)) per/ Unit	51.36 paise

5.47.2 After detailed examination of facts and figures, the Commission approves a total transmission cost of Rs. 396.29 crore for the year 2003-04.

5.47.3 The Commission has approved the sale figure of 12,357.18 MU for the DISTCOs and wheeling of 300 MU to CPPs for the year 2003-04. Applying the principle of

embedded cost, the transmission tariff per unit works out to 32.07 paise/unit which is rounded to 32 paise per unit. When a CPP is located away from an industrial unit the energy utilised by the industrial unit is deemed to have been transmitted over GRIDCO's transmission system from the CPP wherever agreement exists. This rate shall be applicable on the quantum of energy consumed by such industrial units. This rate shall also be applicable for transmission of power from outside the State to an industry located inside the State through the use of GRIDCO's EHT transmission system.

5.48 Transmission loss for wheeling

5.48.1 GRIDCO has proposed that out of the energy supplied to transmission and bulk supply licensee, 4.11% shall be deducted towards transmission loss and balance is liable to be delivered at delivery point at 220/132 kV. Based on the facts and figures submitted to the Commission, it is observed that the transmission loss for the FY 2003-04 works out to 3.78%.

5.48.2 For the year 2003-04, the loss is fixed at a level of 3.58% by reducing 0.3% over the previous year i.e.2002-03 as recommended by Kanungo Committee. It is, therefore, decided by the Commission that the energy consumed by an industry supplied by a CPP situated at a distant location or wheeling of power from outside the State to an industry within the State, 3.58% of the energy will be deemed to have been lost in transmission on which also transmission charges shall be levied for 2003-04.

5.49 Delayed Payment Surcharge (For transmission charges)

5.49.1 GRIDCO has proposed delayed payment surcharge for delay in payment of transmission charges. The Commission approves that the monthly charges as calculated 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).

5.50 Duty and Taxes

5.50.1 The Commission approves that 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.

5.51 In calculating the expected aggregate revenue for 2003-04, the revenue earning by GRIDCO from export of power has also been taken into account. The rate at which this power has been sold being higher than the procurement cost of GRIDCO, this will benefit the consumers of the State in the form of reduction of Bulk Supply Tariff. It is needless to emphasize that the extra revenue earned due to export of power will reduce the burden of the consumers of the State.

5.52 Finally, the Commission orders as follows with reference to the prayers of the applicant. The Commission does not approve the Revenue Requirement for the FY 2003-04 and also the Bulk Supply Tariff as proposed by GRIDCO for 2003-04 and rejects the Tariff Revision Proposal.

5.53 **The Commission has approved GRIDCO's revenue requirement for 2003-04 at Rs. 2045.00 crore (applying correctives) which GRIDCO is allowed to recover at an approved tariff in accordance with Deptt. of Energy, Govt. of Orissa notification**

No.1068/E dtd.29.01.03 and Parekh Committee recommendations duly accepted by Govt. of India. In case Govt. of Orissa does not accept the Parekh Committee recommendations, as advised by the Commission, the revenue requirement of GRIDCO for FY 2003-04 would increase by Rs. 94.10 crore and thereby BST would rise by 7.81 p/u over a period of 12 months, with consequential RST rise w.e.f 01.11.2003. It is made clear that the tariff hereby made effective from 01.11.2003 shall not be construed as an amendment of this tariff order and there shall be no fresh proceeding u/s 26 (6) of the OER Act. However, in the event of such non-acceptance by the State Govt. on or before 22.10.2003, tariff as given below shall be applicable and be published for giving effect thereto after 7 days from the date of publication. The amount left unrecovered due to shorter tenure of recovery or partial acceptance of the Parekh Committee recommendation, would be carried forward to 2004-2005 for adjustment.

CESCO	Demand charge:	Rs.200/KVA/month
	Energy charge :	100.00 paise/unit
WESCO	Demand charge:	Rs.200/KVA/month
	Energy charge :	103.85 paise/unit
NESCO	Demand charge:	Rs.200/KVA/month
	Energy charge :	94.00 paise/unit
SOUTHCO	Demand charge:	Rs.200/KVA/month
	Energy charge :	92.00 paise/unit

Transmission charge: 40.00 paise/unit

- 5.54 In line with the Commission's order on its LTTS, the Commission expects the utilities to file their Aggregate Revenue Requirements for the period from 1 April 2004 to 31 March 2007 (i.e., for the financial years FY 2004-'05, FY 2005-'06 and FY 2006-'07) by December 2003 in order to enable the Commission finalise and operationalise its Long Term Tariff Framework for Orissa. Though the first Control Period is from 1 April 2003 to 31 March 2007 covering four financial years (FY 2003-'04, FY 2004-'05, FY 2005-'06 and FY 2006-'07), the Commission decides that the first year (i.e., FY 2003-'04) will be treated as the Transition Period, during which the LTTS will be introduced.
- 5.55 The Commission directs the licensee to implement the Bulk Supply Tariff and Transmission Charges as determined by the Commission in this order to become effective after expiry of seven days of the publication under section 26(5) of the OER Act 1995.
- 5.56 Pursuant to order dated 14.03.2003 of the Hon'ble High Court of Orissa, the order is not being notified to GRIDCO in terms of section 26(6) but is submitted to the Hon'ble High Court of Orissa in sealed cover. The same shall not be given effect to without leave of the Hon'ble High Court of Orissa.

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

(B.C. JENA)
M E M B E R

(H. SAHU)
M E M B E R

(D. C. SAHOO)
C H A I R M A N

ANNEXURES

		Licensee:- Grid Corporation of Orissa Limited. REVENUE REQUIREMENT FOR 2003-04 Expenditure			Rs. in crores	
		Para XVII Clause-2 (b) of Schedule VI of Elec. (Supply) Act 1948			ANNEX-A	
			Comission approval 2002- 03(with correctives)	2003-04 (Gridco Proposal)	2003-04 (Approval With Parekh comitte)	2003-04 (Aproval Without Parekh Comitte)
SL NO	Description					
I.	Cost of Purchase of Energy	1,420.60		1,668.01	1,648.72	1,648.72
II.	Transmission Cost (O/M)					
	(a) Employees cost	86.17		118.28	100.06	100.06
	(b) Material cost	17.43		13.35	13.35	13.35
	(c) Admn. & General Expenses	13.51		20.09	14.19	14.19
	(d) Amortisation of approved investment for restoring damages due to cyclone.	4.42		-		
III.	Rent, rates and taxes other than all					
	taxed on income & profits					
IV.	Interest on loans, advanced by Gridco					
	(a) Interest on loan borrowed from organisation	189.85		455.38	218.00	314.49
	(b) Interest on debenture issued by licensee					
V.	Interest on security deposit					
VI.	Legal charges (shown separately from A&G Expenses)			0.82		
VII.	Provision for Bad debt			-		
VIII.	Auditor's fees (shown separately from A&G Expense)			0.12		
IX.	Management including managing agents remuneration					
X.	Depreciation	61.80		42.78	36.05	36.05
XI.	Other expenses (ERLDC	1.35		1.35	1.35	1.35

		Fees)				
XII.		Contribution to P.F., Staff pension, Gratuity (Included in Employee Cost)			-	
	(a)	Expenses on training & other training scheme				
		Bonus				
A		(Total expenses I to XIII)	1,795.13	2,320.18	2,031.71	2,128.20

Special appropriation to cover

Para XVII Clause 2(c)

					Estimates for ensuing Year 03-04	
SL NO		Description				
I.		Previous loss		917.12	0.00	0.00
II.		All taxes on income & profits				
III.		Installments of written down account				
		in respect of intangible assets and				
		new capital issue expenses				
IV.		Contribution to contingency reserve	9.92	14.12	14.12	14.12
V.		Contribution towards arrear depreciation				
	(a)	Contribution to development reserve				
	(b)	Debt redemption and obligation				
VI.		Other special appropriation permitted			48.72	48.72
		by Appropriate Authority				
B		Total of (I to VI)	9.92	931.24	62.84	62.84
C		Total (A+B)	1,805.05	3,251.42	2,094.55	2,191.05
D		Reasonable Return	16.54	30.69		
E		Rebate to Consumers				
F		Miscellaneous Receipts	24.60	55.36	49.55	51.95
		Total (C+D+E-F)	1,796.99	3,226.75	2,045.00	2,139.10

		Licensee:- Grid Corporation of Orissa Limited.			ANNEX-B
		CALCULATION OF CLEAR PROFIT FOR THE ENSUING FINANCIAL YEAR			
		FY 03-04			
		AS PER THE SCHEDULE VI OF ELECTRICITY SUPPLY ACT, 1948			
		PARA - XVII (2)			Rs. in Crs
			Estimate.	Approved (With Parekh Comitte)	Approved (Without Parekh Comitte)
(A)		Income derived from :	2003-04	2003-04	2003-04
i)		Gross receipt from Sale of energy	1600.19	1,554.46	1,648.55
		less: discounts applicable thereto			
		Net receipt from Sale of energy to DISTCOS	1600.19	1554.46	1648.55
		Gross receipt from direct Sale of energy to other than DISTCOS less discounts applicable thereto.	0.00		
ii)		Rental of meters and other apparatus hired to customer	0.00		
iii)		****			
iv)		Rents less out goings otherwise provided for			
v)		Transfer fees			
vi)		Investment fixed & call deposits & bank balance			
vii)		Other general receipts accountable for income tax and arising from and ancillary or incidental to business of electricity supply.	55.36	540.10	542.51
		Total of (A) (i to vii)	1655.55	2094.56	2191.06
(B)		Expenditure properly incurred on :			
i)		Cost of Purchase of Energy	1668.01	1648.72	1,648.72
ii)		Transmission Cost (O/M)			
		a) Employees cost	118.28	100.06	100.06
		b) Material	13.35	13.35	13.35
		c) A&G expenses	20.09	14.19	14.19
		d) Amortisation of approved investment for restoring damages due to cyclone.	0.00		
iii)		Rents, rates & taxes, other than all taxed on income and profit			
iv)		Interest on loan advanced by Board	455.38	218.00	314.49
iv.a)		Interest on loan borrowed from			

		Organisation			
	iv.b)	Interest on debenture issued by licensee			
	v)	Interest on security deposit			
	vi)	Legal charges	0.82		
	vii)	Bad debts	0.00		
	viii)	Auditors fees	0.12		
	ix)	Management including managing agents remuneration			
	x)	Depreciation	42.78	36.05	36.05
	xi)	Other expenses (ERLDC Fees)	1.35	1.35	1.35
	xii)	Contribution to P.F., staff pension and gratuity			
	xii.a)	Expenses on apprentice & other training scheme			
	xiii)	Bonus			
	Total expenditure i.e. total of (B) (i to xiii)		2320.18	2031.71	2128.20
(C)		Special appropriation to cover :			
	i)	Previous losses	917.12		
	ii)	All tax on income and profits			
	iii)	Instalments of written down amounts in respect of intangible asset and new capital issue expenses			
	iv)	Contribution to contingency reserve	14.12	14.12	14.12
	v)	Contribution towards arrear depreciation			
	v.a)	Contribution to Development Reserve, referred to in para			
	v.b)	Debt redemption obligation			
	vi)	Other special appropriation permitted by the State Govt.		48.72	48.72
		Total of (C) (i to vi)	931.24	62.84	62.84
		CLEAR PROFIT (A-B-C)	(1,595.87)	0.01	0.01
		Reasonable Return	30.69	0.00	0.00
		Excess or deficit of clear profit over reasonable return	(1,626.56)	0.00	0.00