

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

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

CASE No.144/2009

DATE OF HEARING : **09.02.2010**

DATE OF ORDER : **20.03.2010**

IN THE MATTER OF : An application for approval of Annual Revenue Requirement and determination of Bulk Supply Price by GRIDCO under Section 86(1)(b) and other applicable provisions of the Electricity Act, 2003 read with OERC (Conduct of Business) Regulations, 2004 for the year 2010-11.

O R D E R

Section 86(1)(b) of the Electricity Act, 2003 requires the Commission to determine the procurement price structure for distribution companies operating in the state of Orissa. Under the existing Bulk Supply Agreements with GRIDCO, the DISCOMs are under obligation to purchase power solely from GRIDCO. In determining the procurement price, the Commission has to hear not only the buyers (DISCOMs) but also the seller (GRIDCO). No meaningful hearing of GRIDCO is possible unless GRIDCO files its Annual Revenue Requirement and expected revenue. GRIDCO has done so. The Commission has taken the filings of GRIDCO into consideration even though GRIDCO as a deemed trading licensee under the 5th Proviso to the Section 14 of the Electricity Act, 2003 (hereinafter referred to as the Act) is outside the purview of Section 62 of the Act. The prices at which GRIDCO supplies power to the DISCOMs coincides with the procurement price fixed for DISCOMs under Section 86(1)(b) of the Act. For supply of surplus power to any other person anywhere after satisfying the requirements of DISCOMs of Orissa, the bulk supply prices fixed for DISCOMs would not be applicable. So far as DISCOMs of Orissa are concerned the prices at which GRIDCO would supply power has to be determined by reference to ARR of GRIDCO. Hence GRIDCO was called upon to file its ARR for ensuing Financial Year.

PROCEDURAL HISTORY (Para 1 to 7)

1. The Commission directed GRIDCO to publish its ARR application in the approved format in the leading and widely circulated daily newspapers and the matter was also posted on the Commission's website (www.orierc.org) in order to invite objections from the intending objectors. The said public notice was published in the leading daily newspapers, Commission's website and GRIDCO's website. The Commission directed GRIDCO to file its rejoinder to the objections filed by the various objectors before the Commission and to serve copy to them.

2. In response to the aforesaid public notice of the GRIDCO, the Commission received 11 nos. of objections/ suggestions from the following persons/ associations/ institutions/ licensees: -

(1) Orissa Consumers' Association, Debajyoti Upovokta Kalyan Bhavan, Biswanath Lane, Cuttack (2) Shri Jayadev Mishra, N-4/98, Nayapalli, Bhubaneswar (3) Sambalpur District Consumers Federation, Balaji Mandir Bhawan, Khetrajpur, Sambalpur (4) Confederation of Indian Industry, 8, Forest Park, Bhubaneswar (5) Ferro Alloys Corporation Ltd., GD 2/10, Chandrasekharpur, Bhubaneswar (6) Shri R.P. Mahapatra, Plot No.775(Pt.), Lane-3, Jayadev Vihar, Bhubaneswar (7) Sri Ramesh Chandra Satpathy, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar (8) Utkal Chamber of Commerce & Industry, N/6, IRC Village, Nayapalli, Bhubaneswar (9) WESCO, Corporate Office, Burla, Sambalpur (10) SOUTHCO, Corporate Office, Courtpetta, Berhampur (11) NESCO, Corporate Office, Januganj, Balasore. All the above named objectors were present during the hearing except objector No.1 but its written submission is taken into record for consideration of the Commission.
3. The applicant submitted its reply to issues raised by the various objectors.
4. In exercise of the power conferred u/s.94(3) of the Electricity Act, 2003, in order to protect the interest of the consumers, the Commission appointed to Dr. S. Meher of Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar, as Consumer Counsel for objective analysis of the licensee's Annual Revenue Requirement and Bulk Supply Price proposal. The Consumer Counsel presented his views on the matter in the hearing.
5. The date for hearing was fixed on 09.02.2010 and it was duly notified in the leading newspapers mentioning the list of the objectors. The Commission also issued notice to the Government of Orissa through the Department of Energy informing them about the date of hearing and requesting to send the Government's authorised representative to take part in the proceeding.
6. In its consultative process, the Commission conducted a public hearing at its premises on 09.02.2010 and heard the Applicant, Objectors, Consumer Counsel and the Representative of Dept. of Energy, Govt. of Orissa at length.
7. The Commission convened the State Advisory Committee (SAC) meeting on 18.02.2010 at 3:30PM at its premises to discuss about the ARR application and Bulk Supply Price proposal of the licensee. The Members of the SAC, Special Invitees, Secretary, Department of Energy, Govt. of Orissa actively participated in the discussion and offered their valuable suggestions and views on the matter for consideration of the Commission.

BULK SUPPLY PRICE (BSP) PROPOSAL OF GRIDCO FOR THE FY 2010-11 (Para 8 to 38)

8. GRIDCO Ltd. (Formerly Grid Corporation of Orissa Limited) (hereinafter called GRIDCO) is a Deemed Trading Licensee under the 5th Proviso to Section 14 of the Electricity Act, 2003 and is carrying out the business of bulk supply of electricity to the four Electricity Supply Companies (hereinafter called DISCOMs) by utilizing the transmission network of OPTCL. GRIDCO continues to procure all forms of power from different generators for the DISCOMs and supply the same to them. GRIDCO also supplies emergency power to Captive Generating plants (CGPs) and trades the surplus power available, if any, from time to time. Under the existing Bulk Supply Agreements between the DISCOMs and GRIDCO, the DISCOMs are obliged to

purchase power from GRIDCO at a price to be determined by the Commission. This Price incidentally happens to be the Bulk Supply Price at which GRIDCO supplies power to the DISCOMs. Further, as provided in the OERC (Conduct of Business) Regulations, 2004, OERC (Terms and Conditions for Determination of Tariff) Regulations, 2004 and other related Regulations and as per Section 86 (1) (b) and other applicable provisions of the Electricity Act, 2003, GRIDCO is required to submit its Annual Revenue Requirement (ARR) and Bulk Supply Price (BSP) before 30th November of each year for the ensuing year.

9. As a statutory requirement GRIDCO has filed an application for Annual Revenue Requirement and revision of Bulk Supply Price for the FY 2010-11 to enable it to carry out its functions of bulk supply to DISCOMs and emergency supply to CGPs.

Energy Availability to GRIDCO for FY 2010-11

10. GRIDCO has projected energy availability of 21,793.10 MU during FY 2010-11 from different sources. The estimation for drawal of hydel power from OHPC is 5892.86 MU including 262.50 MU from Machkund and thermal power of 2853.47 MU from OPGC, 2957.32 MU from TTPS, 1035 MU from State CGPs, 545 MU from cogeneration plants inside the State, 300 MU from Renewable Energy sources (Meenakshi and Samal Barrage Small Hydro Projects) and 6322.86 MU of Orissa share of power from Eastern Regional power stations including Tala, Chukha and Teesta. Further, GRIDCO has proposed to procure 1886.59 MU from an IPP namely M/s Sterlite Energy Ltd. during FY 2010-11 (from 1st October, 2010) The station-wise details in respect of availability of power is given in the table below:

Table-1

Summary of Energy Availability to GRIDCO for FY 2010-11

Stations	Availability (After loss and Auxiliary Consumption)	Share %	Projection for FY 10-11	Approved for 2009-10
	(MU)		(MU)	
Hirakud	997.16	100	997.16	1132.79
Rengali	688.05	100	688.05	817.74
Balimela	1172.16	100	1172.16	1171.17
Upper Kolab	828.63	100	828.63	826.65
OHPC(Old)	3,686.00	100	3,686.00	3948.35
Indravati	1,944.36	100	1,944.36	1971.09
Machhkund	262.50	100	262.50	265.00
Total State Hydro	5,892.86		5,892.86	6184.44
OPGC	2,853.47	100	2,853.47	2955.66
TTPS	2,957.32	100	2,957.32	3085.07
CGPs	1035.00		1,035.00	124.64
Co-generation Plants	545.00		545.00	-
Renewable Energy	300.00		300.00	530.00
IPPs (Sterilite Energy Ltd.)	1886.59		1,886.59	-
Total State	15,470.24	100	15,470.24	12879.81
TSTPS Stg.-I	2,128.24	31.80	2,128.24	2105.52

Stations	Availability (After loss and Auxiliary Consumption)	Share %	Projection for FY 10-11	Approved for 2009-10
TSTPS Stg.-II	1,338.52	10.00	1,338.52	1324.22
FSTPS	1,281.89	13.63	1,281.89	1443.00
KhSTPS Stg.-I	686.61	15.24	686.61	833.86
KhSTPS Stg.-II	49.60	0.60	49.60	198.63
Chukha	251.00	15.19	251.00	270.26
TALA	144.00	4.25	144.00	174.02
Teesta	443.00	20.59	443.00	490.06
Total EREB	6322.86		6322.86	6839.57
Total	21,793.10		21,793.10	19719.38

Projection of Demand and Energy for DISCOMs

11. The Simultaneous Maximum Demand (SMD) of DISCOMs for the FY 2010-11 has been projected at 3043.617 MVA per month based on the monthly highest SMD of each DISCOM during first 6 months of FY 2009-10. The average actual SMD for 2008-09, the actual SMD for first six months of 2009-10 and projection for 2010-11 as submitted by GRIDCO in the BSP and ARR application are given in Table below.

Table – 2
Simultaneous Maximum Demand Projection for FY 2010-11
(Figures in MVA)

DISCOMs	FY 08-09 (Actual)	OERC approval for FY 2009-10	Average SMD of first Six months of FY 2009-10	Projection of GRIDCO for FY 2010 –11 Considering the highest SMD of first Six months of FY 2009-10
				1 2 3 4
CESU	911.138	976.990	967.114	988.523
NESCO	682.526	679.700	696.008	708.173
WESCO	960.018	1007.670	872.526	971.181
SOUTHCO	358.087	362.240	370.344	375.740
TOTAL	2911.769	3026.600	2905.992	3043.617

12. In the absence of receipt of any data pertaining to projection of Demand for FY 2010-11 from DISCOMs, GRIDCO has projected 20846 MU as the energy consumption of DISCOMs for FY 2010-11 based on the 5-year Business Plan starting from FY 2008-09 submitted before the Commission for approval. Emergency Power Supply to Captive Generating Plants (CGPs) for FY 2010-11 is projected at 10 MU based on the approval of the Commission for FY 2009-10. The actual energy procured by DISCOMs for FY 2008-09, actuals for first six months of FY 2009-10, projection for FY 2009-10 on pro-rata basis and projection for FY 2010-11 as submitted by GRIDCO in its BSP application are indicated in Table below.

Table - 3
Energy Projection for 2010-11

(Figures in MU)

AGENCY	FY'08-09 Actual (MU)	Actual from 4/09 to 09/09 (MU)	Projection for 09-10 on pro-rata basing on first six months consumption (MU)	OERC approval for 2009-10 (MU)	Projection in the Business Plan for 2010-11 (MU)	GRIDCO Projection for FY10-11 (MU)	% Rise in Demand (FY'10-11 vs. OERC approval for FY'09-10)
CESU	5680.14	3191.77	6383.54	6045.00	6670.00	6670.00	10.34%
NESCO	4545.07	2355.45	4710.90	4285.00	5140.00	5140.00	19.95%
WESCO	6387.62	3136.74	6273.48	6430.00	6451.00	6451.00	0.33%
SOUTHCO	2175.93	1144.50	2289.00	2161.00	2585.00	2585.00	19.62%
TOTAL DISCOMS	18788.76	9828.46	19656.92	18921.00	20846.00	20846.00	10.17%
IMFA	0.33	0.06	0.10				
NALCO	144.06	177.97	200.00				
TOTAL CGPs	144.39	178.03	200.10	10.00	0.00	10.00	0.00%
TOTAL SALE	18933.15	10006.49	19857.02	18921.00		20856.00	10.23%

Power Procurement Projected by GRIDCO

13. GRIDCO projected the total power availability of 21793.10 MU and considered OPTCL's transmission loss of 4.30% for 2010-11. In order to meet the demand of DISCOMs and CGPs and make necessary allowance for transmission loss, GRIDCO has proposed as under:

Table – 4
Demand and Energy Projection for FY 2010-11

Item	Projection for FY 2010-11
SMD for DISCOMs (MVA)	3043.617
Sale of Energy to DISCOMs (MU)	20846.00
Emergency Power to CGPs (MU)	10.00
Total Sale of Energy (MU)	20856.00
Transmission loss @ 4.30% (MU) in OPTCL system	937.10
Total Energy Requirement (MU)	21793.10
Total Energy Availability (MU)	21793.10

Revenue Requirement Projected for 2010-11

14. In its application for FY 2010-11, GRIDCO has projected to procure hydel power of 5892.86 MU from OHPC including the power from Machkund and provisionally assumed the OERC approved rates of different OHPC Power Stations for FY 2009-10 towards procurement of such energy. But the rate of energy from Machkund Joint Project has been calculated at 19.98 P/U considering Orissa share at 50%. Accordingly GRIDCO has proposed to procure the total energy of 5892.86 MU from OHPC at a

- cost of Rs.354.92 crore with an average rate of 60.23 P/U against average rate of 57.67 P/U approved for 2009-10.
15. The power purchase cost of 2853.47 MU from OPGC @ 157.73 P/U comes to Rs. 450.08 crore for FY 2010-11. The proposed power purchase cost is based on the statement of tariff calculation furnished by OPGC as per the settlement principle approved by the Govt. of Orissa and accepted by the Board of Directors of GRIDCO, which is subject to the approval of the Commission. The power purchase cost of 2955.66 MU from OPGC @ 193.70 P/U approved by the Commission for 2009-10 was Rs.572.51 crore.
 16. As per recent NTPC filing before CERC in respect of Talcher Thermal Power Station (TTPS) in line with CERC Tariff Regulation, 2009, GRIDCO has projected to procure 2957.32 MU from TTPS with the procurement cost of Rs. 624.92 Cr. @ 211.31 P/U against 152.80 P/U approved for 2009-10.
 17. The Commission vide its Interim Order dated 28.10.2009 in Case No. 06/09 to 20/09 has revised the procurement price to Rs. 3.10 / 3.40 / 3.70 / 4.05 / Unit for CGP power and Rs. 3.20 / 3.40 / 3.70 / 4.05 / Unit for the power from Co-generating Plants for different slabs of quantum of power supply w.e.f. 1st November, 2009 to 31st March, 2010. In the absence of approved tariff for FY 2010-11, an average price based on the existing approved rate, has been considered subject to the approval by the Commission. Considering the quantum of power procured from various CGPs during the first six months of FY 2009-10 (either below 5 MW or within 50 MW), GRIDCO has worked out an average price of Rs. 3.25 / Unit (avg. of Rs. 3.10 & Rs.3.40 / Unit). Accordingly, GRIDCO proposes to procure 1035 MU from CGPs at a cost of Rs. 336.38 Cr. during FY 2010-11. Similarly, GRIDCO proposes to procure 545 MU from Co-generating Plants at a cost of Rs.179.84 Cr. during FY 2010-11 with an average price of Rs.3.30 / Unit (avg. of Rs.3.20 & Rs.3.40/Unit). During 2009-10 upto November 2009 GRIDCO has procured 1238.92 MU from CGPs and 422.67 MU from Co-generation Plants.
 18. GRIDCO proposes to procure 300 MU from Renewable sources during FY 2010-11 which includes 150 MU from Meenakshi Power Small Hydro and 150 MU from Samal Barrage Small Hydro projects at a price of Rs.3.00 and 3.10/Unit respectively. The average tariff works out to be Rs. 3.05 P/U with the total procurement cost of Rs.91.50 Crore.
 19. Pending approval of the power procurement price, GRIDCO has proposed for procurement of 1886.59 MU from M/s Sterlite Energy Ltd. (IPP) during FY 2010-11 with the total procurement cost of Rs.485.31 Crore at a price of 257.24 P/U which is the proposed average price / rate of power procurement from Central Thermal Power Plants.
 20. Since the tariff for individual Stations of NTPC-ER has not yet been finalised by CERC as per Tariff Regulations, 2009, NTPC has been billing as per the last CERC Tariff Regulations, 2004. Accordingly, in the tariff proposal for FY 2010-11, GRIDCO has considered the Fixed Cost of the Central Thermal Stations as approved by the CERC for FY 2008-09 as no fresh Orders with regard to the above, is available. Any additional cost, if available, before disposal of this Application by the OERC, would be submitted by GRIDCO. Accordingly, GRIDCO has estimated to procure 5484.86 MU from Central Sector Thermal Power Stations with a total cost of Rs.1410.92 cr. at an average rate of 257.24 P/U. Similarly, GRIDCO has projected to

procure 838 MU from Chukha, Tala, Tista hydro power stations with the procurement cost of Rs.162.23 Cr. at average rate of 193.59 P/U. While estimating energy drawl from Central Sector Stations, transmission loss @ 3.87% has been considered by GRIDCO.

21. The detailed cost of power purchase as furnished by GRIDCO for 2010-11 is reproduced hereunder in Table below.

Table – 5
Summary of Proposed Power Procurement Cost during FY 2010-11

Sl. No.	Generators	Energy (MU)	Rate (P/U)	Total Cost (Rs.Cr.)	Approved rate for 2009-10 (P/U)
1	Hirakud	997.16	75.83	75.61	73.59
2	Rengali	688.05	44.24	30.44	47.61
3	Balimela	1172.16	61.74	72.37	66.36
4	Upper Kolab	828.63	25.14	20.83	20.82
	Sub-Total	3686.00	54.06	199.26	52.78
5	Indravati	1944.36	77.36	150.42	73.35
	Total	5630.36	62.11	349.68	59.68
6	Machhakund	262.5	19.98	5.244	13.90
A	Total State Hydro availability	5,892.86	60.23	354.92	57.67
7	OPGC	2,853.47	157.73	450.08	193.70
8	TPPS	2957.32	211.31	624.92	152.80
B	Total State Thermal availability	5,810.79	185.00	1,074.99	172.81
9	CGPs	1035.00	325.00	336.38	300.00
10	Co-generation Plants	545.00	330.00	179.84	-
11	Renewable Energy Source	300.00	305.00	91.50	269.43
12	IPPs (Sterilite Energy Ltd.)	1886.59	257.24	485.31	-
C	Total availability from State CGPs, IPPs & Renewable Energy Sources	3766.59	290.19	1093.02	275.25
D	State Total (A+B+C)	15,470.24	163.08	2,522.94	122.73
13	TSTPS Stage-I	2,128.24	224.92	478.68	176.25
14	TSTPS Stage-II	1,338.52	226.22	302.80	180.71
15	Farakka	1,281.89	326.33	418.32	227.94
16	Kahalgaon-I	686.61	286.96	197.03	222.35
17	Kahalgaon-II	49.60	283.95	14.08	203.69
E	Total availability from CS Thermal Stations (Orissa share)	5,484.86	257.24	1410.92	197.31
18	Chukha	251.00	187.47	47.06	184.65
19	TALA	144.00	213.48	30.74	209.61
20	Teesta-V	443.00	190.59	84.43	186.73
F	Total availability from Central sector hydro share	838.00	193.59	162.23	190.39
G	Total EREB share (E+F)	6322.86	248.80	1573.15	196.37
H	Total energy available to GRIDCO (D+G)	21793.10	187.95	4096.09	148.27

Pass Through of Past Liabilities and Uncovered Expenses

22. GRIDCO has proposed a sum of Rs.945.22 crore on account of past liabilities and uncovered expenses upto FY 2009-10 to be recovered through tariff of the FY 2010-11 as detailed in Table below.

Table – 6
Pass through of Previous Loss & Uncovered Expenses

Sl. No.	Item	GRIDCO's Proposal for 2010-11 (Rs. Crore)
1	Special Appropriation for principal loan repayment on account of past liabilities upto FY 2008-09 due to non-allowance of depreciation	612.03
2	Recovery of principal loan repayment liabilities due to procurement of costly power during FY 2009-10	99.52
3	Arrear power purchase dues of OPGC	72.57
4	Arrear power purchase dues of OHPC	161.10
Total		945.22

Interest and Financing & Establishment Charges

23. GRIDCO has proposed to recover Rs.364.41 crore during the FY 2010-11 towards interest on long-term liabilities on account of the loans related to Power Purchase. Based on the actual expenses of Rs.3.49 crore towards employees cost during FY 2008-09 against approval of Rs.3.33 crore and keeping in line with the 6th Pay Commission Recommendations for revision of Pay Scales, GRIDCO has considered an amount of Rs.5.98 crore towards Employees Cost for the FY 2010-11. The interest & financing charges including establishment cost etc. as proposed by GRIDCO is presented in Table below.

Table – 7
Interest, Financing & Establishment Charges for FY 2010-11
(Rs. Crore)

	GRIDCO's Proposal for 2010-11
1. Interest Cost	364.31
2. Other Costs:	
a. Employee Cost	5.98
b. A&G Cost	3.99
c. ERLDC, NLDC fees and SLDC scheduling Charges	1.32
d. Repair & Maintenance expenses	0.30
Sub-Total – Other Costs:	11.59
Total (1+2)	376.00

Return on Equity:

24. GRIDCO has proposed RoE of Rs.67.11 Cr @ 15.5 % on its equity capital of Rs. 432.98 Cr.

Other Income / Miscellaneous Receipts:

25. GRIDCO expects to earn an amount of Rs. 4.20 crore from proposed sale of 10 MU emergency power to NALCO and ICCL.

Annual Revenue Requirement:

26. The proposal for Annual Revenue Requirement of GRIDCO for FY 2010-11 is summarised in the Table below.

Table - 8
Annual Revenue Requirement of GRIDCO for FY 2010-11

(Rs. Crore)

	Item	OERC approval for 2009-10	GRIDCO's Proposal for 2010-11
a)	Power Purchase Cost	2923.80	4096.09
b)	Previous Loss including repayment of principal	89.53	945.22
c)	Interest, Finance & Establishment Charges etc.	109.77	376.00
d)	Return on Equity	-	67.11
e)	Revenue Requirement (a+b+c+d)	3123.10	5484.42
f)	(-) Misc. Receipts	173.30	4.20
g)	Net Revenue Requirement (e-f)	2949.80	5480.22

Proposed Revenue Earning at Existing BSP Rates:

27. GRIDCO proposes to earn revenue of Rs.2519.61 crore during 2010-11 from the anticipated sale of 20846.00 MU to DISCOMs at the existing BSP rates for 2009-10, the details of which is given in Table below.

Table – 9
**Expected Revenue for FY 2010-11 with anticipated sale to DISCOMs
at Existing BSP Rates**

	Energy (MU)	Existing BSP Rate (P/U)	Amount (Rs. Cr.)
CESU	6670.00	101.50	677.01
NESCO	5140.00	130.00	668.20
WESCO	6451.00	154.00	993.45
SOUTHCO	2585.00	70.00	180.95
TOTAL	20846.00		2519.61

Excess / Deficit in the ARR for 2010-11:

28. GRIDCO has proposed that it would suffer revenue deficit of Rs.2960.61 Crore considering the proposed ARR and the revenue to be earned from sale of the proposed energy of 20,846.00 MU to DISCOMs during FY 2010- 11 at the existing BSP Rate for FY 2009-10, the details of which are shown in the Table below:

Table - 10
Excess / Deficit on Revenue Requirement for FY 2010-11
(Rs. Crore)

	Item	GRIDCO's Proposal for 2010-11
a)	Total Revenue Requirement	5,484.42
b)	Less: Misc. Receipts	4.20
c)	Net Revenue Requirement	5,480.22
d)	Net Receipt from sale of power to DISCOMs (at existing tariff)	2,519.61
e)	Excess(+) or Deficit(-)	-2,960.61

Recovery of Proposed Cost in the ARR through Energy Charge during 2010-11

29. In order to meet the estimated deficit of Rs. 2960.61 crore, GRIDCO has submitted the application before the Commission for revision of Bulk Supply Price for the FY 2010-11. The licensee proposes to recover the Net Revenue Requirement of Rs.5480.22 crore from the Distribution Licensees through rise in BSP from the existing average energy charge of 122.20 P/U to 262.89 P/U during 2010-11 indicating a hike of 115.13% over the previous year.

Demand Charge:

30. GRIDCO proposes that the Demand Charges may be levied @ Rs.200/KVA/Month from DISCOMs when the actual SMDs of DISCOMs in a month exceed the permitted Monthly SMDs (110% of the approved SMD). The monthly bills raised by GRIDCO in this regard may be paid by DISCOMs on provisional basis to take care of monthly variations, subject to adjustment at the end of the year.

Other Allied Submissions to Facilitate GRIDCO for Recovery of its Expenses :

Over Drawl and Year-End Charges

31. Any excess drawal of energy by a DISCOM during a month over and above the approved energy quantum (Approved MU for FY 2010-11 x No. of days of the relevant month / 365 days) would be payable on provisional basis at the highest OERC approved Power Purchase Rate fixed for a Station for FY 2010-11 (which includes transmission charges and transmission loss) on monthly basis instead of the normal differential BSP applicable to the respective DISCOMs subject to final Year End Adjustment (YEA) considering the highest Power Purchase rate/ cost including the rate/s of energy drawn through U.I. Route of the month plus transmission charges and transmission loss.

Rebate

32. A rebate of 2% on monthly energy bill may be allowed in case of full payment against monthly energy bill of GRIDCO, as well as monthly instalment of arrear dues are credited to the account of GRIDCO within two working days of submission of the bill. In case GRIDCO receives payment for the full bill value including monthly installment through LC or upfront on any other day within a period of 30 days of the presentation of the bill, a rebate of 1% on the monthly energy charges may be allowed. However, DISCOMs will be entitled to the rebate as mentioned above provided the L.C. is established in favour of GRIDCO as per the terms and conditions of the Escrow Agreement entered between GRIDCO and the DISCOMs.

Delayed Payment Surcharge

33. For payment after the periods of 30 days from the date of submission of bills, Surcharge for delayed payment @ 1.25% per month may be retained.

Fuel Price Adjustment (FPA)

34. To insulate GRIDCO from the increase in the power purchase cost from NTPC Stations towards increase in price relating to Fuel and Fuel Related Costs during FY 2010-11, GRIDCO proposes to pass on the excess payment to be made to NTPC Stations towards FPA for each month to DISCOMs in the succeeding month in proportion to their actual drawl in a particular month along with the BSP bill/s, if the Fuel Surcharge Price of the particular month exceeds 5% of approved Average Bulk Supply Price subject to maximum of 25% of the approved Average Bulk Supply Price such that DISCOMs will be in a position to recover the same from their consumers in the same month along with their normal bill/s at a rate which will be arrived at by considering their approved monthly sale quantum to consumer (approved quantum for the financial year/12 months).

Concerns relating to High Prices / Rates of Energy and suggestion of the 11th Meeting of Central Advisory Committee (CAC) for recovery thereof.

35. GRIDCO proposed for implementation of the resolutions in the 11th Meeting of Central Advisory Committee (CAC) held on 6th July, 2009 which is reproduced below:

Quote:

.....that the Regulatory Commission while approving the ARR, should clearly quantify the month wise quantum of purchase of electricity in the short term market and ceiling purchase price thereof and it should be clearly provided that any purchases beyond the quantum so specified would not be allowed as pass through in the ARR. Any extra quantum of purchase, if at the instance of the State Government through upfront payment on lines of the scheme envisaged under section 65 of the Act.

It was felt that such mechanism once instituted, would also bring down the political pressure on the utilities.

Unquote

Appropriate Pass through Mechanism

36. GRIDCO proposes to evolve effective formulae for monthly adjustments of variations in the entire Power Purchase Costs in the BSP to be recovered from the DISCOMs instead of adopting the practice of year-end truing up.

Carry forward of Revenue gap

37. GRIDCO prays that in case of a gap between the approved revenue requirements for FY 2010-11 and the revenue realized, the Commission may kindly approve to carry forward the gap for adjustment during the future years.

Summary of Tariff Filing for FY 2010-11

38. GRIDCO has prayed the Commission to approve the following for FY 2010-11 and make the same effective from 1st April, 2010.

- i) Energy charges @ 262.89 paise/unit on energy supplied to DISCOMs.

- ii) Demand charges @ Rs.200 /KVA/month, when actual SMD exceeds the permitted monthly SMD.
- iii) Charges for over drawl of energy at a cost of highest OERC approved power purchase rate for FY 2010-11 on monthly settlement basis.
- iv) Delayed Payment Surcharge @1.25% per month for the period of delay beyond 30 days from date of submission of bills.
- v) Rebate @ 2% / 1% as proposed above.

VIEWS OF THE OBJECTORS ON BULK SUPPLY PRICE PROPOSAL FOR 2010-11 (Para 39 to 163)

39. During the hearing, the Licensee was allowed at the outset to give a power point presentation regarding its ARR and BSP application for the FY 2010-11. Dr S. Meher of Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar appointed as consumer counsel put up certain queries and objections regarding ARR and BSP filing of GRIDCO. The objectors also made a number of comments/observations regarding the submission of the licensee. Director (Tariff) then raised certain queries and sought clarification on the licensee's filing.
40. The Commission has considered all the issues raised by the participants in their written as well as oral submissions during the public hearing. Some of the objections were found to be of general nature whereas others were specific to the proposed Revenue Requirement and Tariff filing for the financial year 2010-11. Based on their nature and type, these objections have been categorized broadly as indicated below:

VIEWS OF CONSUMER COUNSEL

41. Dr S Meher of Nabakrushna Choudhury Centre for Development Studies as consumer counsel had analyzed the application of the licensee and some of the important observations are as follows:

Revenue Gap

42. GRIDCO has projected a revenue gap of Rs 2960.61 Crore during FY 2010-11, with a net revenue requirement of Rs 5480.22 Crore and revenue receipts of Rs 2519.61 Crore at existing BSP. However, in the revenue requirement it has included a proposal of Rs 945.22 Crore as pass through losses. In order to meet this deficit, GRIDCO has given the proposal for revision of Bulk Supply Price during the FY 2010-11. It has proposed to increase the energy charge by 115.13 per cent from the existing charge of 122.20 P/U during FY 2009-10 to 262.89 P/U during FY 2010-11. GRIDCO has also proposed other measures like surcharge for late payments and revision of rebate for early payments. The calculation of Revenue Gap by GRIDCO for the FY 2010-11 is presented in the following.

Table - 11
Revenue Gap Projected by GRIDCO during FY 2010-11

		2009-10 Approved	2010-11 Proposed	(Rs in Crore) % change from approval
A	Power Purchase by GRIDCO (MU)	19719.38	21793.10	10.52
B	Expenditure			
	Cost of power purchase	2923.80	4096.09	40.09

		2009-10 Approved	2010-11 Proposed	% change from approval
	Interest and financial charges	101.62	364.41	258.60
	Employee costs	3.80	5.98	57.37
	A&G expenses	3.03	3.99	31.68
	R&M expenses	0	0.30	-
	ERLDC & NLDC charges	1.32	1.32	0.00
	Total expenses	3033.57	4472.09	47.42
C	Special appropriation			
	Carry forward of previous losses	0	711.55	-
	Pass through of arrear payment to OPGC	0	72.57	-
	Arrear payment to OHPC	0	161.10	-
	Total	89.53	945.22	955.76
D	Return on Equity	0	67.11	-
	Gross Revenue Requirement (B+C+D)	3123.10	5484.42	75.61
E	Less Misc. Receipts	3.30	4.20	27.27
	Less receivable from DISTCOs	170.00		-
F	Net Revenue Requirement	2949.80	5480.22	85.78
G	Revenue expected from sale of power to DISTCOs at the existing BSP	2312.11	2519.61	8.97
H	Revenue Gap during FY 2009-10	(-637.69)	(-2960.61)	364.27

43. The gap arises as a result of the proposal for increase in ARR during FY 2010-11 and accumulated past losses and unforeseen expenses of 2009-10 by GRIDCO. The Commission should not allow GRIDCO to increase the energy charge, which if allowed would ultimately be passed on to consumers. Reducing the revenue requirement, which is shown very high, can reduce this higher revenue gap.

Pass Through of Past Losses

44. The proposal for passing through of past losses and unforeseen expenses to the extent of Rs 945.22 Crore, if approved, would pose burden on the general consumers of the state. This passing through of past losses to consumers by GRIDCO should not be considered.

Employee, R & M, and A&G Expenses

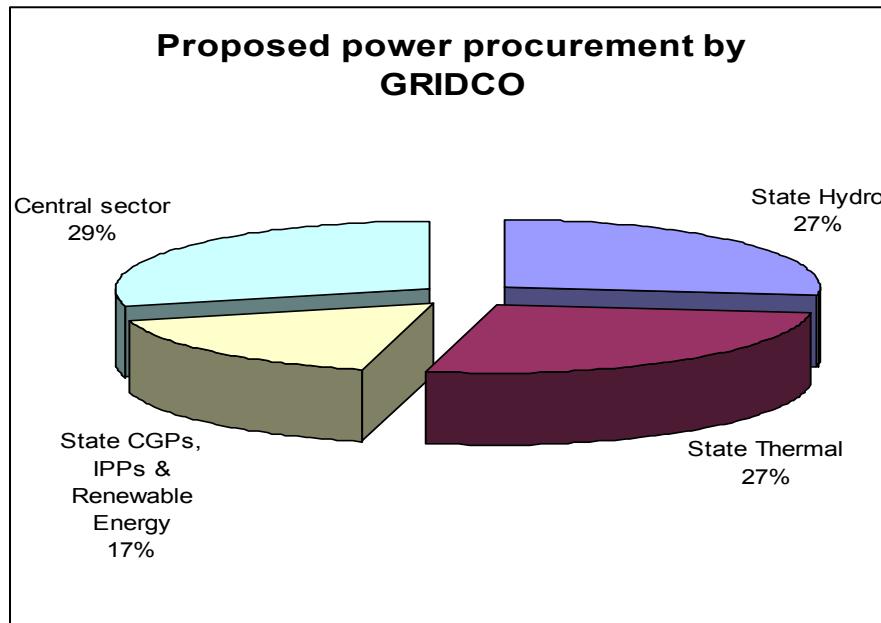
45. Employee cost during 2009-10 was approved at Rs 3.80 Crore. GRIDCO projects Rs 5.98 Crore for the FY 2010-11, which is an increase of 57.37 per cent from the approved figure for FY 2009-10. This seems to be very high.
46. GRIDCO has proposed 31.68 per cent increase in A&G expenses from Rs 3.03 crore approved for FY 2009-10 to Rs 3.99 crore during FY 2010-11. This increase also seems to be very high.
47. Besides, GRIDCO has proposed Rs 0.30 crore for R&M expenses during FY 2010-11. The Commission had, however, not approved any R&M expenses proposed by GRIDCO during 2009-10. In line with the order for FY 2009-10, the Commission should disallow the same.

Power Procurement Costs

48. GRIDCO is proposing to purchase less than one-third of total power requirement from the hydro-based stations on the basis of availability (see chart below). However, this costs less compared to the other sources. Hence, there is a need for proper assessment of the availability of power from hydro stations. GRIDCO has not explained the method of projection. Therefore, the Commission should assess the availability of power from this source. If the availability of power from hydro-based stations would be more than projected by GRIDCO, then the total cost of power purchase would be lower than what is projected.
49. Besides, GRIDCO has calculated the purchase cost based on the projection of tariff, which is yet to be approved by the Commission. These proposed tariffs are also high and the purchase cost projected by GRIDCO would be less if the proposed tariffs are not approved by the Commission.

Table - 12
Proposed power procurement costs during FY 2010-11

Generators	Energy (MU)	Rate (P/U)	Total Cost (Rs. Cr.)
State Hydro	5892.86	60.23	354.92
State Thermal	5810.79	185.00	1074.99
State CGPs, IPPs & Renewable Energy	3766.59	290.19	1093.02
Total State	15470.24	163.08	2522.94
Central sector	6322.86	248.80	1573.15
Total	21793.10	187.95	4096.09



Transmission Loss

50. GRIDCO has proposed a transmission loss of 4.30% as projected in revised business plan of OPTCL for FY 2010-11. But OERC had approved transmission loss of 4%

during 2009-10. Kanungo Committee had recommended for a stepwise reduction of transmission loss so that the same is brought to a level at par with that of Central Power Grid by 2007. However, the trend seems to be in the reverse direction. Therefore, in conformity with the power sector reform, the transmission loss may be reduced and fixed at 3% for the FY 2010-11. This would increase the revenue from power sale to the DISCOMs and CGPs during 2010-11.

Projection of Demand

51. GRIDCO has projected only 6.05 per cent increase in sale of energy to DISCOMs during the FY 2010-11 over FY 2009-10 as compared to 4.62 per cent increase in 2009-10 (prorated projection) over 2008-09. But it is observed that GRIDCO's projection has underestimated the projection of purchase by DISCOMs during FY 2010-11. While all the DISCOMs taken together projected 22005.10 MU during FY 2010-11, GRIDCO has projected only 20846 MU (a lower projection of 1159.10 MU). Due to the significant difference in the projection of demand there is a need for adoption of proper scientific method of projection. If the projection of demand by GRIDCO during FY 2010-11 is an underestimated one, than the revenue of GRIDCO would be more and hence revenue gap would decline accordingly.

Table - 13
Energy Sale to DISTCOs (MU)

Agency	2008-09 Actual	Actual Purchase for 4/2009 to 9/2009	Projection for 2009-10 prorating 1 st six months' actual	% Change over 2008-09	GRIDCO projection for FY 2010-11	% Change over 2009-10 prorated projection	DISTCOs projection	Difference between GRIDCO & DISTCOs projection
CESU	5680.14	3191.77	6383.54	12.38	6670	4.49	7401.78	731.78
NESCO	4545.07	2355.45	4710.90	3.65	5140	9.11	5573.32	433.32
WESCO	6387.62	3136.74	6273.48	-1.79	6451	2.83	6500	49
SOUTHCO	2175.93	1144.50	2289.00	5.20	2585	12.93	2530	-55
Total DISTCOs	18788.76	9828.46	19656.92	4.62	20846	6.05	22005.10	1159.1

Profit from sale of power

52. GRIDCO was selling power to other states when it was having surplus. It should give the picture of what it was doing with this profit. This is important as GRIDCO is now trying to pass through past losses to the consumers.

Summing Up

53. The Commission should not allow GRIDCO to increase BSP, which if allowed would be ultimately passed on to the consumers. The higher revenue gap as shown by GRIDCO can be reduced by reducing the revenue requirement, which is projected to be very high. The high transmission loss is not in conformity with the power sector reform and needs to be reduced gradually and significantly. The projection of demand made by GRIDCO is an underestimated one and is not based on proper scientific method.

VIEWS OF OBJECTORS

Legal Issues:

54. GRIDCO is neither a generator nor distributor but merely a trader and the application filed by GRIDCO is not bonafide and tenable under law, as such the same is liable to be rejected.
55. The application so filed by GRIDCO for determination of tariff is not tenable as the Commission has no authority under law and particularly under Section 62 of Electricity Act, 2003 to determine tariff on the application of a trader.
56. The notice so published by GRIDCO inviting objections does not conform to the requirements of law and does not disclose for what purpose such revenue requirements are asked for without giving details of its calculations.
57. GRIDCO's accounts have not been audited for the financial year 2008-09 and 2009-10. Hence, its application is to be rejected outright which is based on incorrect and manipulated statement of facts/materials.
58. In accordance with Section 14 of the Electricity Act, 2003 GRIDCO is a Deemed Trading Licensee. The Licensees under the Electricity Act, 2003 are Transmission Licensee, Distribution Licensee and Trading Licensee. Since GRIDCO is neither a Transmission Licensee nor Distribution Licensee, it is an Electricity Trader for Intra-State trading of power.
59. The huge expenditure incurred by GRIDCO is too much burdensome for the consumers. Functioning of GRIDCO as company is unnecessary to act as middle man between the generators and distribution licensees.
60. GRIDCO is an intra-state trader and entitled only to a margin and the approval of ARR is not as per law. The present application of GRIDCO as such is not maintainable and should be rejected and in accordance with the provisions of National Electricity Policy, the PPA should be allocated to the DISCOMs.
61. CERC in its order dated 1st May 2006 held that GRIDCO is an intra-state trader and was entitled only to a margin.
62. GRIDCO's position under the fifth proviso of Section 14 of the Act is that of a deemed trading licensee, carrying on trading of electricity in bulk, therefore, GRIDCO is not entitled for consideration of past losses, securitization of arrears and other cost indicated in its application.
63. GRIDCO has claimed more than Rs.900 crore towards costly power purchase by overdrawing from Eastern Grid or otherwise over the quantum and rate approved by the Commission. GRIDCO is regulated entity and cannot take suo motu decision about the high cost power without regulatory approval. The Commission has only approved the tariff for procurement of costly power from CGPs of the State. Any other power procured by GRIDCO at higher rate is obviously without the sanction of the statute.
64. The additional cost due to costly power is solely on account of GRIDCO violating the statutory provisions and working according to the directions of the State Govt. GRIDCO has submitted the Load Generation Balance Report which indicated that there would be deficit of power availability from December 2008 to June 2009. However, GRIDCO did not take any step to obtain the orders of the Commission for

equitable load restriction in exercise of the powers conferred in Section 23 of the Electricity Act, 2003.

65. GRIDCO has not implemented the order of the Commission dtd. 19.06.2009 in Case No. 69/2009 but continued its operation under Government direction by imposing higher restriction on industries. Similarly GRIDCO has not so far carried out the direction of the Commission in its order dtd. 14.01.2010 in Case No. 1/2010 regarding Power Regulation. Due to this inaction of GRIDCO the DISCOMs are not carrying out the instruction and GRIDCO has never brought it to the knowledge of the Commission.
66. The Commission may direct GRIDCO to implement its order dtd. 14.01.2010 in Case No. 1/2010 to implement Power Regulation in the State, failing which penalty may be imposed under Section 142 of Electricity Act, 2003.

Simultaneous Maximum Demand

67. In the absence of any communication from the DISCOMs, GRIDCO has projected the SMD and energy demand considering the projection submitted in DISCOMs' 5-year Business Plan starting from FY 2008-09, which varies from the demand projected by DISCOMs. GRIDCO has not approached the Commission to direct the DISCOMs to submit their filing relating to requirement of energy and SMD for 2010-11.

Energy Requirement & Availability:

68. Higher availability at 90% PLF may be taken for Central Thermal Stations. As regards to lower availability at Kahalgaon and Farakka, GRIDCO should take up the matter with NTPC. If not possible NTPC should agree to allocate additional energy from Talcher STPS out of unallocated energy.
69. The Commission should scrutinize the projection given by GRIDCO regarding the power availability from the generating stations, CGPs and from other sources for the year 2010-11. By applying the distribution losses and transmission losses as approved by the OERC in earlier orders, projections of power availability may be made for the year 2010-11.
70. It is not clear how and what distribution losses are considered by GRIDCO while projecting the power demand of the distribution companies. None of the DISCOMs are abiding by the distribution losses fixed by the Commission from time to time. Hence, the Commission should determine the quantum of power procurement based on the T&D losses approved by the Commission in its earlier orders.
71. The projections of generation capacities given by GRIDCO are not matching with the projections of the Generators. The same is the case with the Distribution Companies regarding power requirement.

Availability from State Stations

72. The projection of generation given by state generating company, OHPC and OPGC are blindly accepted by GRIDCO.
73. The availability of power from state hydro stations would be around 6948 MU in FY 2010-11 as against the GRIDCO proposal of 5893 MU. Some objectors stated that GRIDCO might take at least 7000 MU from OHPC against 5892 MU assuming good rainfall in FY 2010-11.

- 74. The availability of power from state thermal plants will be more in line with the performance trends of past years. The PLF for OPGC and TTPS would be 90% and 89% respectively for FY 2010-11.
- 75. The projected energy of 2853.47 MU from OPGC in FY 2010-11 needs to be re-examined in view of the Commission's approval of 2955.66 MU for the FY 2009-10.
- 76. Neither the State Govt. nor the GRIDCO authority have given any importance and serious thought about installation of Unit-3 and 4 of OPGC. Due to such inefficiency of State Govt. and GRIDCO, the consumers of the State are to face load shedding and to pay for high cost power purchased by GRIDCO, which is not totally acceptable.

NTPC-TTPS

- 77. The capacity of TTPS Stage-I continues to be shown as 240 MW even after the renovation work with huge cost by NTPC.

CGPs

- 78. The objectors do not agree with the projections made by GRIDCO in terms of energy drawl from the CGPs. Based on the actual procurement of 776 MU from April-September, 2009, the availability from CGPs may be considered as 1552 MU against GRIDCO's estimation of 1035 MU.
- 79. Causes of lower availability from CGPs may be indicated by GRIDCO. CGPs may be encouraged to supply more by offering a rate equivalent to that they are expecting from outside sale.

IPP

- 80. Considering 85% PLF and 10% Auxiliary consumption, the energy availability from M/s. Sterlite Energy (P) Ltd. would be 2000 MU against GRIDCO's proposal of 1886.59 MU.

Generation from Renewable Energy

- 81. The projected availability from Co-generation plants and renewable sources are agreed upon by some objectors.
- 82. Treating the power from NINL, Arati Steel and Tata Sponge as renewable source of energy is incorrect as these plants are not co-generation plants.
- 83. GRIDCO should take up with major thermal power developers in Orissa to invest at least 10% of their investment in developing renewable energy sources particularly solar and bio-gas. Revenue from carbon trading may be availed.

Total Power Availability

- 84. Some objectors do not agree with the projected availability of power of 21793 MU as proposed by GRIDCO and estimated that the total availability of power would be 24303 MU during FY 2010-11.
- 85. GRIDCO may procure maximum power available from the Captive Generating Plants in the State and then avail the allocation of the Central Power Stations in the merit order to meet the power drawl of the State Consumers.
- 86. GRIDCO should avail opportunity for importing off-peak and surplus thermal energy from neighbouring state and storing hydro energy for peak operation or irrigation demand. Such import can be supplied back during low frequency period through generation from hydro stations under ABT.

87. In the Year 2006 the State Government and the CMD, GRIDCO was informed that there would be additional requirement of 9000 MW power to meet the growing power demand of the State from 2009-10.
88. Based on the CEA Report, the Chairperson, OERC has also intimated to the State Govt. to take immediate steps for capacity addition in the State but no action was taken by the State Govt. except signing MoUs with 21 IPPs for thermal plants. None of the IPPs, except Sterlite Energy Ltd., has started their normal construction works till date. In this regard the State Govt. as well as GRIDCO authority have not taken any tangible action like other states in the Country.
89. GRIDCO should make necessary arrangement for procurement of power through medium term (two to three years).

Transmission Loss

90. OPTCL to limit the transmission loss to a figure less than 4% and the Central Transmission Loss may be considered at 3% for FY 2010-11 based on the average scheduled system loss for ER system during the period from April 09 to Jan 10.
91. GRIDCO being the 49% shareholder of the DISCOMs and CMD, GRIDCO being the Chairperson of DISCOMs, GRIDCO has to monitor implementation of various measures for reduction of AT&C loss of DISCOMs and action taken thereon.
92. DISCOMs should be encouraged to reduce T&D loss and GRIDCO may consider reduction in BSP to those DISCOMs who achieve T&D loss reduction more than what the Commission approves.

Power Procurement Cost

93. GRIDCO being a Trader is entitled to get a trading margin of 04 paise/unit over and above the procurement cost and manage its all expenses within the receipt of trading margin.
94. GRIDCO is entitled to get only 4 paise/unit as margin over the Power Procurement Cost of the Generating Stations plus the Transmission losses and Transmission Tariff to be paid to OPTCL and SLDC charges as per the tariff fixed by OERC from time to time for arriving at BSP applicable to the DISCOMs.
95. The power crisis in the State is solely on account of non-performance of GRIDCO. GRIDCO has not filed any petition before the Commission for approval of purchasing high cost power. Hence extra cost incurred by GRIDCO towards purchase of high cost power without specific approval of the Commission should not be loaded on the consumers. It is to be borne by GRIDCO or be subsidised by the State Govt.
96. The Commission may examine/ scrutinize whether cheap power is being purchased by GRIDCO to put less burden to the consumers and also whether the administrative, establishment, general and legal expenses are reasonable.
97. Due to lower availability of Hydro Power, procurement cost of GRIDCO has been increased on account of purchase of high cost power from captive and thermal power stations. DISCOMs should take all possible steps to reduce distribution loss and consequently power purchase cost.
98. The Commission should approve purchase of actual energy requirement based on the distribution loss norms approved for each DISCOMs and BSP should be arrived accordingly. Any energy purchase above the approved figure may be billed by

GRIDCO at the costlier rate and it should not be passed over to the consumers. However, overdrawal by DISCOMs should be discouraged

99. The cost of power projected by OHPC should not be accepted by the Commission.
100. The projection of GRIDCO in respect of power purchase cost from renewable energy sources i.e. from Small Hydro Projects of Meenakshi Power Ltd. and Orissa Power Consortium Ltd. is at lower side which is not in conformity with CERC Regulation.

OPGC

101. The fixed cost element ought to reduce in each subsequent year due to repayment of principal loan which would offset any increase in O&M each year. The truing up exercises are essential to find out the actual fixed cost paid by GRIDCO to OPGC in comparison to the fixed cost allowed in GRIDCO ARR each year.
102. The Commission may direct OPGC for submission of PPA and ARR for FY 10-11 and accordingly the purchase cost may be approved.
103. There would be a substantial reduction of fixed cost of OPGC on account of reduced depreciation and interest on loan notwithstanding the nominal increase in O&M expenses.

TTPS

104. Some objectors do not agree with the submissions made by GRIDCO estimating the Annual Fixed Charge to be Rs. 275.66 crore. They have considered the fixed costs of Rs. 217.39 crore by taking into account the CERC Notification regarding the approval of tariff in respect of TPPS.

CGSs

105. The fixed costs for Central Generating Stations may be considered as have already been approved by CERC for the respective stations.
106. Some objectors stated that in case low load factor is allowed for Central Generating Stations as proposed by GRIDCO, proportionate reduction in fixed cost may be considered.

FPA

107. The reasons for variation in the fuel cost of TSTPS Stage-I and Stage-II have not been properly scrutinized by GRIDCO.
108. The average FPA for the period from April to Sept. 2009 with an escalation factor of 10% may be considered to arrive at the FPA estimates for FY 2010-11.
109. Some objectors submit that in case low load factor is allowed for Central Generating Stations as proposed by GRIDCO, proportionate reduction in fixed cost may be considered.
110. The Commission may approve an accepted Fuel Price Adjustment (FPA) formula for GRIDCO to recover the extra cost on account of higher coal price from DISCOMs and the DISCOMs from the consumers every month or the next month of getting the bills from generating companies. This will help not to increase tariff in the next year.

PGCIL Charges

111. GRIDCO may furnish evidential documents for estimating the cost of Regional Transmission System. In the absence of supporting documents, the claim of PGCIL to the tune of Rs. 4.03 crore for FERV should not be allowed.

Establishment & Financing Cost

Employee Cost and A&G Expenses

112. The employee cost of Rs.5.98 crore which is not backed by any detailed computation of the pay fixation or arrear dues. As GRIDCO has less number of employees, the cost projected by GRIDCO is on higher side. It needs a detailed scrutiny by the Commission.
113. The A&G expenses of Rs 3.99 crore appears to be higher than normal expenses. Allowing 5.5% increase over the audited figure for FY 2008-09 and adding Rs.1.00 crore towards license fees, the A&G cost would be at Rs.3.46 crore.
114. No amount should be allowed under the head R&M cost.

Interest on Long Term Liabilities

115. Some objectors have estimated interest cost of GRIDCO at Rs.256.67 crore as against GRIDCO's proposal of Rs. 364.41 crore.
116. GRIDCO has shown a receipt of loan amounting to Rs.1650 crore during FY 2009-10. But the cash flow statement did not spell out the actual receipt of the same. Hence, the interest may be allowed on the actual loan availed by GRIDCO.
117. GRIDCO's submission towards arrear payment to OHPC dues should not be allowed, because all the costs of OHPC's stations have already been passed in tariff. Hence, recovery of such arrear dues will lead to double recovery of costs.
118. In absence of any clear cut information, the arrear power purchase dues of OPGC amounting to Rs.72.57 crore should not be passed through in the ARR of 2010-11 and is liable to be rejected.
119. The amount equivalent to the amount required to be paid by the DISCOMs to GRIDCO may be amortized as regulatory assets in the DISCOMs ARR, which in turn will be paid to GRIDCO by DISCOMs for payment towards their outstanding dues.
120. The interest on the rephrased loans may be allowed in the ARR of GRIDCO as is done in previous years.
121. Repayment of principal is a part of cash management of GRIDCO and not a part of ARR. The repayment is to be met from the collection from the outstanding dues of DISCOMs and income earned from sale of power outside States.
122. A power development fund may be created by the Government or from the profit of GRIDCO earned from UI and trading of surplus power. The principal loan repayment shall be made from this fund. Further, the Commission may advise the State Govt. to bear at least the interest part of the eventual loan lying in books of account of GRIDCO.

Past Losses

123. Some objectors oppose the consideration of past losses, securitization of arrear while approving the ARR of GRIDCO which is affecting the Bulk Supply Price and in turn burdening the consumers while fixing the RST. GRIDCO is, therefore, not entitled for

consideration of past losses, securitization of arrears and other cost indicated in its application.

124. GRIDCO has earned profit from FY 2005-06 to 2007-08 because of availability of more hydro power. As hydrological condition is expected to improve in the coming year, the revenue gap projected by GRIDCO may be deferred to the next year while considering the ARR for FY 2011-12 and keep the BSP at lower level in the ensuing year 2010-11.
125. The main cause of revenue gap of GRIDCO is due to delayed or non payment of the past liabilities by DISCOMs. Some DISCOMs are disrespecting the orders of the Commission and preferring to buy time by going to the court. Some system may have to be designed to prevent such misdeeds of the DISCOMs and to ensure timely payment of the dues to GRIDCO and clearing of all past liabilities.
126. An amount of about Rs.326.72 crores is to be received from State Govt. other States and PSUs. Some are subjudice. An attempt may be made to have an out-of-the-court settlement or collection of the undisputed dues pending final decision of the court.
127. Due to hydrology failure in 2009-10, GRIDCO had to import high cost energy to meet the state demand. There are other past losses also. These losses may be kept in SPV to be funded primarily from profits in 2011-12 onwards as and when new thermal power stations are developed by IPPs.

Truing Up

128. The performance of all the licensees including GRIDCO should be trued up for the year 1999-00 to 2007-08.
129. The losses for the period prior to privatization of DISCOMs should be taken over by State Government as has been done in other States such as Delhi, Gujarat etc. Such losses have however been adjusted from the revenue earned by GRIDCO after the privatization.
130. Surpluses earned on account of trading/UI should be treated as a resource for all entities which should be ploughed back into the sector for improvement of efficiency through investments.
131. The revenue earned/realized by GRIDCO in the last four years is more than Rs.2000 Cr. through UI charges, export trading and by substantial increase in Bulk supply tariff on WESCO & NESCO. Therefore, it is essential that before passing the ARR orders for the FY 2010-11, the Truing up exercise of GRIDCO should be carried out.
132. To give equitable justice to DISCOMs and GRIDCO, it is logical that the back to back liabilities distributed through the Transfer Scheme to DISCOMs are adjusted with the sectoral truing up so that the balance sheets of all the licensees are cleaned up.

Export of Power & UI

133. The benefit of power exports/UI gains should be taken into account in the GRIDCO ARR for FY-11 and should not be used to offset past losses, a significant portion of which pertain to a period prior to 01.04.1999, i.e. before the DISCOMs were privatized.
134. GRIDCO has to produce all relevant documents about the power trading from other states since 2002 till date.

135. GRIDCO has generated some profits in past from power trading and the state govt. has also substantially benefited by power sector reforms. The projected revenue gap of Rs.1653.23 cr. in 2009-10 may be adjusted.

Return on Equity

136. GRIDCO may not charge any RoE as they have no assets. They should manage their finances through actual BSP and profits from trading.
137. As per the Govt. orders, GRIDCO is not entitled to claim any return on equity on equity till end 2010-11 and this claim of GRIDCO may be rejected.

Levy of Over Drawl Charge

138. Only the incremental cost for additional generation may be approved for billing. In case there is over drawl by any DISCOM over and above the quantum fixed by OERC, additional cost on this account to be recovered from DISCOMs.

Rebate

139. To approve the rebate of 2% to the Licensee for prompt payment of BSP bills within three working days excluding Sunday and holidays from the date of presentation of the BSP bill.

Miscellaneous Income

140. Misc. receipts for the year 2007-08 and 2008-09 as per the audited account of GRIDCO are Rs.102 cr and Rs.59.12 cr respectively. Hence, Misc. income for GRIDCO may be fixed at Rs.59 crore for the year 2010-11 against its proposal of Rs.4.29 cr.

Restructuring of Escrow Mechanism

141. The DISCOMs have no control over the revenue management as their entire revenue is escrowed to GRIDCO leading to severe liquidity crunch. When DISCOMs are making full payment of monthly power purchase bills on regular basis and LC is in place, the need for Escrow Mechanism on entire receivables needs to be re-examined.

Other Issues:

142. GRIDCO should have gone for competitive bidding, for establishment of Thermal Power Stations in the State to be assured of definite power supply within 2 to 3 years instead of depending on the huge number of MOUs signed by the Govt. of Orissa. After meeting the State demand, the surplus power may be traded at higher rate to keep the RST stable.
143. GRIDCO has filed this application in question to confuse the consumer/public without disclosing the purpose for such filing.
144. The procedure/method so adopted by Commission be made simple and inexpensive to enable the public to file purposeful objection effectively.
145. The Commission may examine whether GRIDCO has complied with the directions, conditions of license etc. issued in the earlier orders of the Commission.
146. GRIDCO had not improved its efficiency and standard of service and has not reduced administrative expenses, A&G expenses, advertisement and legal expenses etc.
147. GRIDCO should submit a proposal for bulk supply price consisting of Demand Charges and Energy Charges.

148. The Commission may scrutinize the ARR application of GRIDCO and reduce BSP so as to benefit the industrial consumers who are burdened with huge subsidy.
149. GRIDCO may indicate the list of meters recording input/output to the system from generators and EREB interconnection point with the date of last testing and names of the jointly verifying officers.
150. GRIDCO is mainly responsible to the present situation of power deficit with no planning to meet the requirement of the new industries coming in the State. The Commission has considered substantial increase in BSP in the previous years. Hence, the present proposal of GRIDCO for increase in the average BSP for the FY 2010-11 should be rejected outright.
151. Any increase in BST will have direct bearing on RST and in the past the burden of BST increase was loaded on HT & EHT consumers availing load factor incentive.
152. Some objectors requested OERC to issue directives for allocation of PPAs among DISCOMs in accordance with the National Tariff Policy.
153. For implementation of Intra-state ABT, identification of beneficiaries and their mutual relationship needs to be clearly established. Hence, PPA allocation is a primary requirement. Therefore, the net capacity available should be allocated amongst the DISCOMs in proportion to the Demand or Energy Input.
154. The licensee has failed to explain what steps it has taken till date for realization and arresting the growth rate of bad debts.
155. The demand side management and energy conservation measures should be given due importance by DISCOMs. GRIDCO can consider a reduction in BSP to the concerned DISCOMs to achieve energy conservation. The surplus so achieved could be traded at a higher cost by GRIDCO. Funds for free supply can be availed either from World Bank or PFC loans. GRIDCO can repay the loan from the surplus energy on trading. State Govt. may consider providing subsidy for this purpose.
156. GRIDCO for its benefit should take up with Independent Power Producers now active in the State to develop some new hydro stations in association with OHPC. GRIDCO may also take up with the State Govt. for their approval.
157. The erection of 132/33 KV substations is the responsibility of OPTCL.
158. In its counter to the petition filed by FACOR in Case No. 69/2009, GRIDCO has submitted the Load Generation Balance Report which indicated that there would be a deficit of power availability from December 2008 to June 2009. However, GRIDCO did not take any step to obtain the orders of the Commission for equitable load restriction in exercise the power conferred under Section 23 of Electricity Act, 2003. It has already been settled in the proceeding of SAC meeting dtd. 30.09.2009 that only the Commission will determine the load Regulation, not the State Govt. The load restriction order of the Commission is blatantly violated.
159. Due to poor monsoon, earlier it was known that there would be shortage of power in the water year 2009-10. It was the responsibility of GRIDCO to determine the power shortage and get the approval of the Commission for load restrictions. Had the load restriction been imposed from 1st November 2009 till February 2010, there would have been very little public outcry, since it was the period of lower temperature. But GRIDCO has so far not filed any petition before the Commission.

160. The trend of increasing revenue collection from consumers will be adversely affected if there will be any load shedding as well as any tariff filling the DISCOMs will face the financial crisis to meet their day to day expenses.
161. The Commission may direct the State Govt. to undertake short-term and long-term measures to meet the present crisis by subsidizing Rs.8000 cr to the power sector.
162. The present BSP of GRIDCO should not be increased unless and until the Govt. is prepared to subsidize the sector.
163. WESCO, NESCO & SOUTHC0 have issued Rs.400 crore Bond to GRIDCO which was subsequently transferred to NTPC to avoid power regulation to Orissa, for which they are paying the interest on the said amount, whereas CESU did not issue the Bonds of Rs.250 crore, for which it has no interest liability.

GRIDCO's RESPONSE TO THE OBJECTORS (Para 164 to 242)

164. In response to the views of the objectors on GRIDCO's application for approval of the Annual Revenue Requirement and Bulk Supply Price for 2010-11, GRIDCO had filed rejoinders on the same. GRIDCO's rejoinder on views expressed by the objectors has been broadly classified into the following main issues.

Legal Issues

165. GRIDCO's status is very much consistent with the Law and its filing of ARR & BSP Application for approval before the Commission is also equally tenable because of the following reasons:
166. GRIDCO happens to be a Deemed Trading Licensee under 5th provision of Section-14 of the Electricity Act, 2003. Before the enactment of The Electricity Act, 2003, GRIDCO was "Transmission & Bulk Supply Licensee" under the Orissa Electricity Reform Act, 1995. As such GRIDCO has entered into Long Term Power Purchase Agreements (PPAs) with the Generating Companies and also Bulk Supply Agreements (BSAs) with the DISCOMs. Under the said agreements, GRIDCO is obliged to sell power on priority basis to DISCOMs up to their full requirement and the DISCOMs are obliged to buy power from GRIDCO only. This arrangement is called as single Buyer Model of power procurement for DISCOMs in Orissa that prevails in the State as a matter of Historical Legacy.
167. After hiving off the Transmission function from GRIDCO to OPTCL by virtue of the Govt. of Orissa Transfer Notification No. 6892 dated 09.06.2005, only the bulk purchase of electricity for sale to DISCOMs in Orissa remained with GRIDCO. This satisfies the definition of Trading under Sec 2(71) of the Electricity Act, 2003. Besides, Bulk Supply activity by a Trader is not repugnant to any provisions under the Electricity Act, 2003. Such activity is tenable in Law.
168. Above all Govt. of Orissa vide Notification No. 7948 dated 17.08.2006 have notified GRIDCO as the State Designated Entity for execution of Power Purchase Agreements with Developers generating energy like Hydro Power, Wind Power, Power from Agricultural wastes etc. along with thermal power. Therefore, the Legal Status of GRIDCO which is a State Govt. Undertaking can not be questioned.
169. With regard to the question of filing of ARR & BSP Application of GRIDCO before the OERC, it is to clarify that the Commission is empowered under Sec 86 1(b) of the Act to regulate the price for procurement of power by the DISCOMs. Thus, this provision enables the Commission to fix the regulated price for procurement of power

by the DISCOMs under the existing Bulk Supply Agreement with GRIDCO. Incidentally the approval of regulated price of power purchase for DISCOMs happens to be the Bulk Supply Price of GRIDCO under the present arrangement and as such the Commission is empowered to approve the ARR & BSP of GRIDCO. Hence, GRIDCO's submission of its ARR & BSP application before the OERC for approval is quite consistent and very much tenable under the law.

170. For the purpose of filing the ARR and BSP Application for 2010-11, audited accounts for 2009-10 (which is to end on 31.03.2010) is not necessary as the ARR and BSP Applications are to be filed by 30.11.2009. GRIDCO has already published its Annual Accounts for FY 2008-09. The financial year 2009-10 will be over only by 31.03.2010. Under the provisions of the Companies Act, 1956 and License Conditions of GRIDCO, the audited accounts of GRIDCO for 2009-10 are to be filed by November, 2010.
171. Public Notice to this effect is published in widely circulated English and Oriya Dailies in Orissa. Besides, follow up publications are taken up in Newspapers in order to keep the consumers informed in the process of determination and approval of ARR & BSP of GRIDCO through Public Hearing.
172. The Application is quite detailed and voluminous consisting of two volumes. Volume-I contains the ARR Application along with filled in Commission's prescribed formats substantiating the detailed calculation and the Volume-II contains Evidential Documents supporting every expenditure. So, GRIDCO has never tried to hide any information. Hence sufficient information has been given for inviting objection and this can't be treated as frustrated exercise and contrary to law and principle of natural justice.
173. The issues relating to ARR & BSP for FY 2006-07 is pending before the Supreme Court of India in C.A. No.417/2007 & that for FY 2007-08 is pending before the Appellate Tribunal for Electricity in Appeal Nos. 55, 56 & 57 of 2007. In the Appeal before the Supreme Court of India, there has been an Interim Order directing OERC not to proceed further. Therefore, it can not be said that the Distribution Companies (DISCOMs) have stalled the Bulk Supply Price fixed by the OERC.
174. GRIDCO has made all-out efforts to meet the power requirement of the State. In fact, the DISCOMs have not restricted their drawal and reduced the AT&C loss level as approved by OERC which has resulted in higher drawal resulting in higher power purchase cost. There is no violation of statutory provisions by GRIDCO. Further, the deficit of power availability may not be limited to the period from December 2008 to June 2009, but also to the later period due to poor hydrology conditions. The revenue shortfall for FY 2009-10 should be recognised and allowed as pass through in subsequent years.
175. Regarding load regulation, the DISCOMs and the SLDC have not restricted the drawal of power complying to OERC order and consequently, GRIDCO has been compelled to incur high power purchase cost for drawal through UI mechanism and also from CGPs etc. Further, the envisaged hydro power as per tariff order for FY 2009-10 has not been available and as a result, GRIDCO has to buy costly power from other sources.

Simultaneous Maximum Demand and Energy Demand

176. The Simultaneous Maximum Demand (SMD) of DISCOMs for the FY 2010-11 has been projected at 3043.617 MVA per month based on the monthly highest SMD of each DISCOM during first 6 months of FY 2009-10.
177. GRIDCO generally considers the energy demand projection of the DISCOMs. DISCOMs' projection to purchase energy from GRIDCO is based on their sales projection to consumers plus the distribution loss of their system. Hence, GRIDCO does not consider distribution loss for projecting DISCOMs energy demand. Due to non-receipt of the demand projection from DISCOMs, GRIDCO considered the projection of energy demand as per the submission of OPTCL in their revised Five Year Business Plan (FY 2008-09 to FY 2012-13) that was based on the projection submitted by the DISCOMs.

Energy Availability and Procurement

178. GRIDCO has projected the quantum of power procurement from different sources for 2010-11 by considering the following, which are subject to prudence check by the Commission.
 - (i) From OHPC, OPGC & TTPS as per the generation plan submitted by them.
 - (ii) From Central Generating Stations at different PLF considering 1st six months energy sent out during the current year,
 - (iii) From CGPs, Co-generation plants and Renewable sources basing on the present trend of 1st six months drawal during the current year,
 - (iv) From Chhuka, Tala by considering the trend of supply during past years,
 - (v) From Teesta by considering the annual saleable energy.
 - (vi) From the 1st unit of M/s. Sterilite Energy (P) Ltd., an IPP which is scheduled to be operational from October –2010.
179. The Generating Organizations like OHPC, OPGC & TTPS have submitted their Generation Plans for the FY 2010-11 with due consideration to their available capacities, planning for their scheduled maintenance and other related factors of generating units. GRIDCO cannot intervene / influence in the internal planning matters of the Generating Units. GRIDCO does not possess any authority to revise the projection of energy generation plans given by a generator, as it will lead to serious prejudice and may cause distortions in fixing the appropriate tariff. Hence, GRIDCO has the only option to accept the generation plans submitted by the above generating Organizations. Therefore, the suggestion of the objector may not be accepted at all which is too unrealistic and thus, the projections furnished by GRIDCO for OHPC, OPGC & TTPS may be taken into consideration.
180. The suggestion of the objector to consider a projection of 6948 MU from OHPC stations during FY 2010-11 is too unrealistic and may not be accepted at all.
181. GRIDCO has proposed the estimated availability of power at 21793 MU during FY 2010-11 based on the generation plan furnished by the State Generators including drawal from CGPs and the state share from Central Generating Stations of Eastern Region. After considering 4.3 % towards Transmission Loss (937.10 MU), the net availability of energy (20856 MU) is for supply to the DISCOMs & CGPs. Thus, there is no surplus left for sale, hence the assumption of objectors that 937 MU is to be traded is factually wrong.

- 182. In the absence of any data pertaining to projection of the energy requirement for FY 2010-11 by the DISCOMs, GRIDCO has allocated the availability of net energy of 20856 MU amongst the four DISCOMs based on the submission of OPTCL in their revised Five Year Business Plan (FY 2008-09 to FY 2012-13) which was as per the projection submitted by the DISCOMs.
- 183. The issues with regard to Distribution Loss raised are not relevant to GRIDCO. However, GRIDCO estimated its power procurement quantum for FY 2010-11 by considering 4.30% Transmission loss in the OPTCL system which was submitted by the OPTCL before the OERC in its ARR & Transmission Tariff Application for FY 2010-11.
- 184. The estimation of the projected availability of energy of 21793 MU by GRIDCO during FY 2010-11 may be considered as realistic and accepted by the Commission instead of considering the over-estimated projection of 24303 MU by the objectors.

Hydro: (OHPC)

- 185. The Design Energy of OHPC Stations in a year of normal hydrology is 5619.24 MU. However, based on the generation plan furnished by OHPC for the year 2010-11 and after deducting 5 MW allocations to Chhattisgarh and 1% towards Auxiliary Consumption and Transformation Loss, GRIDCO has accordingly projected 5630.36 MU from OHPC Stations which is more than the Design Energy. Scanty rainfall during FY 2009-10 has resulted in lower reservoir levels leading to less generation of hydro power & consequently comparatively less drawal from Hydro Stations and GRIDCO has procured high cost power to meet the State demand.
- 186. Monsoon is always uncertain and acceptance of a high availability of 6948 MU from hydro power as suggested by the objectors would mean reduced drawal from high cost energy sources which in turn would affect power purchase cost in case of reduced generation from hydro stations. A direct corollary of the low hydrology is that it will seriously jeopardize the finances of GRIDCO, as the shortfall of power caused due to low hydrology would require to be compensated by high cost thermal power.
- 187. The suggestion of the objector to consider at least 7000MU from OHPC assuming good rainfall is too unrealistic and may not be acceptable as Monsoon is always uncertain. The projection furnished by GRIDCO for OHPC may be taken into considerations that are in line with those furnished by OHPC.

Thermal

- 188. GRIDCO has projected to procure 5810.79 MU of Thermal energy from State dedicated Stations like OPGC (2853.47 MU) & TPPS (2957.32 MU) in the ARR & BSP Application for FY 2010-11 based on their generation plan. With inclusion of 1035 MU from CGPs, 545 MU from co-generation plants and 1886.59 MU from IPP (M/s. Sterlite Energy Ltd.), it works out to 9277.38 MU. Any projection beyond what has been planned by Thermal Stations will be without any basis and may distort the entire projection for the Sector as a whole.
- 189. **OPGC:** GRIDCO has estimated the Ex-Bus availability of 2829.90 MU from OPGC as per their generation plan for the FY 2010-11. After deducting 9.50% towards Auxiliary Consumption as per the PPA signed with OPGC the net availability has been projected at 2853.47 MU at 85.70% PLF.

- 190. **TTPS:** The net energy availability to GRIDCO from TTPS has been projected at 2957.32 MU at the PLF of 82% after deducting Auxiliary Consumption of 10.50% (as per the Revised CERC Norms).
- 191. **CGPs:** GRIDCO has projected to procure 1035 MU from CGPs and 545 MU from Co-generating Plants during FY 2010-11. This drawal from CGPs and Co-generation Plants is based on the present trend of 1st six months drawal during current year. Any higher procurement from CGP sources, as suggested by the objectors, is welcome provided the economics of purchase and sale of CGP power to meet the State demand is remunerative to GRIDCO and the Commission allows the corresponding costs while approving the ARR and BSP of GRIDCO.

Renewable Energy

- 192. The proposed power procurement from NINL, Aarti Steel and Tata Sponge Ltd. is considered as Renewable Source of energy as the power generation in these cases is obtained from waste heat recovery process.
- 193. GRIDCO has estimated to avail 300 MU from renewable energy sources, 150 MU each from M/s. Meenakshi Power Ltd. and Samal Barrage Small Hydro Projects based on the present trend of first six months drawal during current year 2009-10.

CGSs:

- 194. Different PLF% is considered for Central Generating Stations by considering 1st six months energy sent out during FY 2009-10. Most of the Thermal Stations are unable to generate to the maximum because of shortage of coal supply from Coal India Ltd.
- 195. With regard to higher PLF and procurement of energy in case of Central Sector Thermal Power Stations as suggested by objector, GRIDCO submits that any higher availability is always welcome provided the economics of purchase and sale of power proves to be remunerative and is within the approved quantum of the Commission. Assumption of higher PLF achieved during previous years, may not be the yardstick for projecting the same for the ensuing year rather it is realistic and proper to assume the present trend of generation by CGSs by considering the availability of coal.

Transmission Loss:

- 196. GRIDCO has projected the Central Transmission Loss at 3.87% by considering the maximum Central Sector Loss of 3.8% that occurred during Aug-09 basing on the scheduled system of Eastern Region. The Commission to take a pragmatic view in this regard.
- 197. OPTCL has applied for state transmission loss @ 4.30% in its ARR & Transmission Tariff Application for FY 2010-11 which was considered by GRIDCO for estimation of power procurement quantum for FY 2010-11. GRIDCO will abide by the approval of the OPTCL transmission loss percentage as may be decided by the Commission for FY 2010-11.

Sales Projection

- 198. GRIDCO generally considers the energy demand projection of the DISCOMs. DISCOMs projection to purchase energy from GRIDCO is based on their sales projection to consumers plus the distribution loss of their system. Hence, GRIDCO does not consider distribution loss for projecting DISCOMs energy demand. Due to non-receipt of the demand projection from DISCOMs, GRIDCO considered the

projection as submitted by OPTCL in their revised 5-year Business Plan (FY 2008-09 to FY 2012-13) that was based on the projection submitted by the DISCOMs.

Power Procurement Cost:

199. OHPC has submitted its Application before OERC for approval of its ARR and Generation Tariff of Hydro Stations for FY 2010-11. Once approved, the OHPC tariff for FY 2010-11 would be reckoned by the Commission while approving the power purchase cost in the ARR & BSP of GRIDCO for FY 2010-11. As such, such costs will be binding on all the concerned entities / licensees.
200. After the issue of Govt. of Orissa Notification Dated 21.06.2008 basing on the recommendation of the Task Force, constituted for resolving the tariff related disputes between OPGC and GRIDCO, Tariff for 2010-11 was calculated as per the terms contained in the said Notification and as such, there has been an appreciable reduction in the Fixed Cost. Also no depreciation has been included in the Fixed Cost for FY 2010-11 as the assets have outlived their normal lives.
201. GRIDCO has submitted its proposal for Fixed Cost, Year-End Charges and FPA before OERC supported with Evidential Documents for appreciation by the Commission before approving the appropriate costs / charges for TPPS based on prudence check.
202. OPGC, in conformity with OERC Orders, should furnish its ARR & Tariff Application before the Commission for approval. Hopefully this will be done when the negotiation already taken up reaches its final stage.
203. GRIDCO has submitted to the Commission to consider the projection for CGSs which are based on the CERC Tariff Regulations, 2009, current trend of drawal for energy projection from CGSs, central transmission loss % and variable charges of these stations while approving the ARR & BSP of GRIDCO for FY 2010-11.
204. With regard to FPA, GRIDCO had submitted the increase in FPA would be much more than 11% proposed by GRIDCO in its ARR & BSP Application. OERC is requested to kindly consider and approve the FPA based on the current coal (indigenous and imported) prices and other relevant costs.
205. Coal Prices have gone up during recent times. Coal India is unable to supply coal to the full contracted quantity and insists to purchase 60% at the normative price and the balance through “e-auction price”, which is much higher than the price fixed by the Govt. Sometimes, imported coal is also blended with indigenous coal. The landed cost of imported coal is quite high. This increases the cost of generation. The generating company recovers the extra cost through Fuel Surcharge, which is a burden to GRIDCO. But GRIDCO is unable to recover from the DISCOMs in every month because of non-availability of an approved system. To recover the extra cost through Fuel Surcharge from the DISCOMs during every month, GRIDCO has submitted a proposal in the present application before the Commission for implementation of Fuel Surcharge formula within the prescribed limit as set out in Appendix – 7 under Regulation 60(1) & (2) of OERC (Conduct of Business) Regulations and section 62 (4) of the Electricity Act, 2003 for kind consideration of the Commission.
206. In order to meet the power demand of the State, GRIDCO is procuring maximum available power from CGPs at the price approved by the Commission, through UI at the lowest possible scheduled rate and through power banking. Hence, the

expenditure incurred by GRIDCO towards power purchase cost to meet the State demand is necessary to be recovered through tariff.

207. The Trading Margin of 4 Paise per Unit perse (which is relevant to Inter State Power Traders) is not applicable to GRIDCO as the power trading by GRIDCO is of the nature of Intra State Transaction for Bulk Supply of Power. This has been accepted and upheld by the Hon'ble Supreme Court of India in Appeal No. 5722 of 2006 (Gajendra Haldea vrs. GRIDCO & Others). Hence, the contention of the objector may not be considered.
208. In order to meet the State demand which includes the requirement of new industries coming up in the State, GRIDCO takes all care to harness maximum power from CGPs, Co generation Plants, Renewable Energy Sources during FY 2009-10 and also proposed power procurement during FY2010-11 at a higher cost as fixed by OERC which resulted in increase of power purchase cost for FY 2009-10 and FY 2010-11. More-over, the power purchase cost from NTPC which increased due to rise in fuel price is also a factor for increasing in power purchase cost which is nearly 75% of the ARR estimated for FY 2010-11.

Computation of PGCIL Transmission Charges

209. The relevant Orders of CERC pertaining to tariff for different transmission lines of PGCIL have been furnished to the Commission. Therefore, the contention of the objectors for non-admission of FERV to the tune of Rs.4.03 crore may not be considered. The same amount is claimed by GRIDCO towards PGCIL's additional expenditure on account of change / increase in interest rates on various relevant loans.
210. The new Tariff Norms for the period 2009 to 2014 have been notified by CERC based on which OERC may approve the applicable PGCIL Transmission Charges for factoring the same in the ARR & BSP of GRIDCO for FY 2010-11.

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

211. GRIDCO has calculated the Employees Cost, A&G Expenses etc. by giving detailed computation / reasons thereof in the GRIDCO's ARR & BSP Application for FY 2010-11. Therefore, the contention of the objector may not be accepted.

Interest on long term Liabilities:

212. The objector has estimated interest payment of Rs.256.67 Crore for FY 2010-11 based on their own assessment which may not be accepted. GRIDCO requests the Commission to compute and allow interest cost as Rs.364.41 Crore on actual basis by considering the details as submitted in the filing of GRIDCO's ARR & BSP Application for FY 2010-11.
213. GRIDCO has been requesting the State Govt. for financial assistance to finance deficits which also includes interest on loans. This has not yet materialized and it appears to be a distant possibility.

Return on Equity

214. Return on Equity is projected based on the CERC (Terms and Conditions of Tariff) Regulations, 2009. GRIDCO reiterates its prayer to the Commission to allow Return on Equity (RoE).

Past Losses

215. GRIDCO had accumulated loss of Rs.1787.83 crore as on 31st March 2003 and the same has been reduced to Rs.101.25 crore as on 31.03.2009. The details of the profits earned and accumulated loss for the year ending 31st March 2004 to 31st March 2009 as per audited accounts are as under:

Table - 14

(Rs. Crore)

Financial Year	Net profit	Accumulated loss
2003-04	411.12	1376.71
2004-05	348.56	1028.14
2005-06	25.82	1002.32
2006-07	236.88	765.44
2007-08	566.05	199.39
2008-09	98.14	101.25

216. GRIDCO has proposed special appropriation towards past liabilities amounting to Rs. 612.03 crore in order to enable it to service the loan liabilities availed up to 31st March 2009. In addition, GRIDCO has proposed recovery of an amount of Rs.99.52 crore on account of repayment of loan liabilities availed during FY 2010-11 due to excess power purchase cost for FY 2009-10. The special appropriation as submitted by GRIDCO is required to be passed through in the tariff for FY 2010-11 and subsequent years, so that, the loan liabilities can be serviced. Since, the loan is secured by way of charge on-receivable of GRIDCO with escrow arrangement, this cannot be deferred.
217. The suggestion of the objector not to consider GRIDCO's proposal for special appropriation towards past liabilities and passing over the power purchase cost for next year may not be accepted since these are genuine expenditures of GRIDCO to run the business of bulk supply of power to the DISCOMS in order to meet the State Demand otherwise it will further cripple GRIDCO to carry out its normal business operations.
218. GRIDCO has taken over all the losses of the Power Sector incurred up to FY 1998-99 and no loss has been transferred to DISCOMS as per Transfer Scheme dated 26.11.1998. Further, inadequate tariff approved by OERC, hydrology failure in FY 2002-03, 2008-2009 and 2009-10 have added to the operational loss of GRIDCO. As per the approved tariff, a revenue gap is left out in each year in the ARR of GRIDCO with a direction to bridge the same out of trading revenue, UI charges etc. In fact, in spite of revenue gap GRIDCO has been able to reduce the operational losses of the past years by earning revenue out of trading and UI charges. However, this has not been possible during the last two years due to non-availability of surplus power. GRIDCO has been selling power to four DISCOMS at the approved BSP which is much lower than the Power Purchase Cost. As the losses have arisen out of inadequate tariff allowed by the Commission and the liabilities have been incurred by availing loans from various banks, issuance of bonds etc., the same need to be serviced by way of recovery through tariff only. GRIDCO is under contractual obligation to service the loan liabilities arising out of Bulk Supply activity and the lending institutions may not agree to transfer the same to any Special Purpose Vehicle.

219. Non-payment of principal have serious consequences like regulation of power, recovery from Central Plan Assistance, Invocation of ESCROW mechanism, Invocation of Govt. Guarantee, Loss of Credibility in the Market, Difficulties in raising further loans etc. Therefore, considering the urgency and practicality of situation, GRIDCO has proposed pass through of repayment of principal under Special Appropriation.
220. GRIDCO has no objection of repaying the principal loan amount out of the arrear collection from the DISCOMs. However, it has been the experience of GRIDCO that the repayment of arrear dues by the DISCOMs has been very erratic. In this regard, the Tariff Order of the Commission for the financial year 2009-10 may kindly be referred to wherein the arrear collection of Rs.170 Crore was adjusted against the total revenue requirement of GRIDCO as approved by the Commission. The collection of arrear from all the four DISCOMs upto November, 2009 has been Rs.60.42 Crore (SOUTHCO: Rs.7.30 Crore & CESU: Rs.53.10 Crore). NESCO & WESCO have not paid anything towards arrear during the current year. Therefore, a Security Mechanism should be in place to ensure that whatever is allowed to be paid by the DISCOMs towards arrear is collected by GRIDCO without any default. The Commission in their Order dated 01.12.2008 with regard to the clarification of the Business Plan Order has only allowed GRIDCO to recover the arrear dues from the Escrow Account. This is not a security for repayment as the DISCOMs do not generate sufficient revenue which GRIDCO can recover through Escrow Account. Therefore, it is proposed that the Commission may pass an Order directing the DISCOMs to open irrecoverable Letter of Credit in favour of GRIDCO covering the monthly power purchase dues and the monthly arrear repayment dues. If this is accepted, GRIDCO will raise its monthly bills covering both monthly dues and the arrear dues of GRIDCO that will be regulated under the provisions of the Bulk Supply Agreement and Escrow Agreement. The terms and condition of LC shall be to the satisfaction of GRIDCO. Subject to the above, the amount proposed towards repayment of the principal, may be reduced by an amount of the arrear collection during FY 2009-10 and the balance loan repayment may be allowed in the ARR as a special appropriation.
221. Considering the present situation of deficit, GRIDCO's Loan portfolio is going to increase substantially because of increase in power purchase cost and less availability of hydro power due to depleting reservoir levels at various hydro stations during the current FY 2009-10. The repayment burden of these loans will span over the ensuing years adding extra pressure on GRIDCO than those applied for in the ARR & BSP Application. GRIDCO has proposed for Pass through of Power purchases cost amounting to Rs. 99.52 Crore made for FY 2009-10. In fact, the loans availed by GRIDCO are secured by way of first charge on receivables of GRIDCO, escrow account and non-consideration of the above proposal will lead to crippling GRIDCO's financials which would affect the payments to power generators.

Export of Power & UI Income

222. The revenue from power trading to other States since FY 2003-04 and through Unscheduled Interchange (UI) are taken into GRIDCO's account every year for which the losses and the loans were substantially reduced. All revenues and costs are reflected in the Annual Accounts of GRIDCO which have been finalized and audited up to the end of FY 2008-09. However, this has not been possible during the last two years due to non-availability of surplus power.

223. The earning from UI Charges has reduced substantially due to drastic reduction of hydro power because of depleting reservoir levels at various Hydro Stations which was key to such operations. Further due to increased State Demand for Power, the surplus power scenario in the supply front has drastically changed. In fact, in some of the months during the current FY 2008-09, GRIDCO has overdrawn under UI mechanism.

Receivables from State Govt., PSUs and Other State:

224. The dues from Govt. Depts. (Rs.91.71 crore) and PSUs/ULB (Rs.113.49 crore) have been taken over by GRIDCO as per the Transfer Scheme dated 26.11.1998. GRIDCO has requested DISCOMs to indicate the details of these consumers and the status of realization thereof as they were and are the consumers of DISCOMs. However, the same has not been furnished to GRIDCO so far and GRIDCO is unable to take any action on this matter in absence of the details from the DISCOMs. However, GRIDCO has made a proposal to Govt. for adjustment of these receivables against the payables of Govt. of Orissa towards loan and interest dues which is not yet accepted and confirmed by the State Govt.
225. The dues from MPSEB is Rs.71.78 crore as per GRIDCO accounts which has not been settled so far and this is pending before the ATE for disposal. The outstanding dues from APSEB (Rs.30.19 crore) is under the process of mutual settlement although the case is pending before the ATE. The outstanding dues from IMFA (ICCL) (Rs.19.55 crore) has not been recognized by the Arbitrators and the award is not in favour of GRIDCO. Therefore, the Arbitration Award has been appealed by GRIDCO before SDJM Court, Bhubaneswar which is pending for disposal. The amounts being under dispute and not accepted should not be considered in the ARR of GRIDCO.

Truing-up:

226. Truing-up of all licensees is an exercise which is independent of tariff (BSP) fixation by the Commission. The Commission has already taken up truing-up exercise of GRIDCO for the period on provisional basis up to FY 2007-08 i.e. the year of availability of Audited accounts. GRIDCO hopes that the Commission may carry out the truing up computation up to FY 2008-09 since the audited accounts are available upto the FY 2008-09 and submitted before the Commission. The truing up exercise as carried out by the objectors may not be accepted.

Overdrawal Charges

227. As per the Merit Order Procurement Policy, the cheapest power is considered first for consumption inside the State. In a shortage scenario, any excess drawal over and above the approved drawal by any DISCOM will force GRIDCO to source from costly CGP sources / spot market at very high cost. Therefore, any excess drawal shall have to be billed at the highest cost as proposed in the ARR Application in the monthly bills subject to Year End Adjustment.

Rebate

228. The proposal in the ARR & BSP Application for FY 2010-11 with regard to payment of rebate may kindly be considered and approved to ensure prompt payment and allowing rebate. The proposal of the DISCOMs to allow 2% rebate for payment within three working days may not be accepted as this will differ from the previous year terms and GRIDCO's finance will be affected.

229. **NTPC BOND:** GRIDCO has settled the dues payable to **NTPC** covered under the Bonds of **Rs.400 Crore** issued by the three DISCOMs namely, WESCO, NESCO & SOUTHCO. GRIDCO is holding the Bonds as on date. The DISCOMs have defaulted to service these Bonds. GRIDCO has approached the Company Law Board, Eastern Region Bench, Kolkata under Section 117C of the Companies Act, 1956 for the defaulting in payment of the Bond dues by the DISCOMs and the matter is sub-judice. Since the Bonds are in default and the DISCOMs have not paid the relevant dues to GRIDCO, there is no actual cash benefit to GRIDCO. Hence, the question of passing the rebate to DISCOMs does not arise. However, all the revenues / benefits of GRIDCO are being trued-up by the Commission in the Truing-up Exercise pertaining to GRIDCO on the basis of the Audited Accounts.
230. **Allocation of PPAs:** The matter relating to assignment and allocation of PPAs has been agitated by the objectors before the Commission in connection with the approval of the Business Plan (FY 2008-09 to FY 2012-13) of the DISCOMs for the next five-year period starting from FY 2008-09. GRIDCO has already given its views on the same for consideration of the Commission. For the present purpose of approval of ARR and determination of BSP, this matter is irrelevant.

Escrow Mechanism

231. The DISCOMS have failed to pay the dues to GRIDCO as per the OERC orders from time to time. There is no failure on the part of GRIDCO to collect its dues from DISCOMS as all the revenues from DISCOMS are deposited in the Escrow Account and Escrow Relaxations are allowed complying with OERC orders.
232. The Escrow Mechanism as spelt out in the Escrow Agreement is a default escrow. The Objectors (WESCO, NESCO & SOUTHCO) have filed a Case before OERC which has been registered as Case No. 03 of 2010. The case came up for hearing on 18.01.2010 on the question of admission. The Commission, after hearing, directed GRIDCO to file its counter reply after which the Case will be taken up for final hearing. For the present proposal of GRIDCO for approval of tariff and BSP, the matter of restructuring of escrow mechanism may not be considered and accepted.

BSP

233. GRIDCO has projected the estimated figures pertaining to energy procurement and other expenses in its Annual Revenue Requirement (ARR) & Bulk Supply Price (BSP) Application for FY 2010-11 and accordingly arrived at the proposed BSP of 262.89 P/U in order to recover the proposed ARR of Rs.5080.22 Crore during the ensuing year. Unless the current average BSP of 122.20 P/U is revised upwards, GRIDCO will be left with a deficit of Rs.2960.61 Crore as has been shown in the ARR & BSP Application.
234. In fact, the average BSP has actually decreased over the years since 2004-05 when it was 130.88 paise per unit and subsequently reduced to 122.22 paise per unit for FY 2008-09.
235. The current level of BSP (Average BSP of 122.20 P/U) is grossly insufficient to recover the projected ARR of GRIDCO for FY 2010-11 as it results in an estimated deficit of Rs.1653.23 Crore for FY 2009-10.

Fuel surcharge

236. GRIDCO agrees with the views of the objector that the Commission should approve an acceptable formula for GRIDCO to recover the fuel surcharge every month or the

next month of getting the bill from the Generating Companies. The detailed proposal in this regard have been submitted to the Commission in the ARR and BSP application.

Two-Part Tariff

237. GRIDCO has in fact submitted the proposal for recovery for its ARR through 2-part Charges (Energy Charge & Demand Charge) during FY 2010-11. The Demand Charges @ Rs.200/KVA/ Month has been proposed to be levied along with the Energy Charge when the actual SMDs of DISCOMs calculated on annual basis exceed the permitted SMD.

Miscellaneous

238. The metering system to record the procurement from the generation and sale to DISCOMs is fully in place with the acceptable level of accuracy. These meters are also being tested jointly for accuracy with DISCOMs & Generating Companies annually.
239. GRIDCO holds 49% of equity in WESCO, NESCO & SOUTHCO. Balance 51% is held by Reliance Group of Companies who have the management control of all the three DISCOMs. GRIDCO has the right to nominate the Directors for every 10% of the shareholding. Accordingly, GRIDCO has nominated four Directors to the Board of Directors of the three DISCOMs. GRIDCO has the right to nominate the Chairman (out of its nominated Directors) to the Board of Directors of the DISCOMs.
240. GRIDCO, through its representation in the Board of Directors has been advising the management to improve its operational performance through various means. The CMD of GRIDCO who is the Chairman of all the three DISCOMs is not a whole-time Chairman. The Chairman only presides over the meeting of the Board of Directors. The Chairman is also consistently advising the MDs and CEOs for enforcing various measures so as to reduce the loss as per targets given by OERC. Therefore, GRIDCO, as a joint venture partner, has been discharging its duties and responsibilities for improved performance of DISCOMs.
241. The suggestion of the objector on Demand Side Management (DSM) activity and energy conservation measures are related to DISCOMs activity to reduce power demand. GRIDCO is mostly able to meet the DISCOMs monthly demand of power by adopting the principle of merit order procurement based on least cost power purchases principle. However GRIDCO would strive its best to adopt the suggestion.
242. GRIDCO has executed PPAs with 21 IPPs who are commissioning thermal generating stations in the State and GRIDCO has its share as per the State Govt. guidelines from each of the generating stations. GRIDCO has been reviewing progress of the IPPs at frequent intervals and also facilitating for early commissioning of the projects. However, there are certain constraints for which the developers are putting up their best endeavour for expediting early commissioning of the projects.

GRIDCO'S RESPONSE TO THE QUERIES RAISED BY DIRECTOR (TARIFF) IN THE PUBLIC HEARING (Para 243 to 267)

Energy Demand:

243. Based on the projection by DISCOMs (20846 MU) in their 5-year Business Plan (FY 2008-09 to FY 2012-13) which are reflected in the Business Plan of OPTCL, GRIDCO has projected procurement of the required available energy (21793.10 MU)

including 4.30% transmission loss in the OPTCL System. Procurement of such quantum has been projected with the hope that in addition to the allocated shares from different Stations, GRIDCO would be in a position to procure sizeable quantum of energy from other sources like CGPs, IPPs, Co-Generation Plants and Renewable energy. As may be evident from the ARR & BSP Application for FY 2010-11, the procurement cost of the above quantum of 21793.10 MU works out to be Rs.4096.09 Crore. In order to recover such high procurement cost, GRIDCO has projected a BSP of 262.89 P/U against 122.20 P/U approved for 2009-10.

244. In case additional procurement to meet the higher energy demand of DISCOMs is considered by the Commission, GRIDCO will explore the possibility of sourcing the additional requirement of Power from CGPs / trading etc. which will be at a higher cost and in such a situation while approving the power requirement of the State for FY 2010-11, the Commission may have to consider such additional power purchase cost over and above Rs. 4096.09 Crore as projected by GRIDCO in its ARR. Under the circumstances, GRIDCO respectfully submits that it would be in a position to supply higher quantum of energy as projected only if such higher costs are allowed in BSP.

Status of Revised PPA of OPGC :

245. In view of the issue of Govt. Notification dated 21-6-08, GRIDCO & OPGC had resolved to effect amendment to the existing PPA executed between them on 13.08.1996. The draft amendment to the existing PPA, as mutually agreed between OPGC and GRIDCO has been sent to the State Govt. on 09.04.2009 by GRIDCO for further consideration at their end. After getting due clearance from the State Govt., the amended PPA shall be executed and to be filed jointly by OPGC & GRIDCO before the OERC for approval.
246. GRIDCO, OPGC and the Govt. of Orissa had signed a Tripartite Agreement (TA) on 15.10.1998, which, being an associated document, was also considered to be amended and filed before OERC along with the PPA in a like manner as described above. As such, the draft amended TA was also sent on 09.04.2009 by GRIDCO to the State Govt. for their approval. However, the State Govt. issued another Notification on 12-10-2009 in partial modification to the earlier Notification dated 21.6.2008. As a result of the same, the draft TA sent to Govt. earlier by GRIDCO could not solve the purpose, as it needed corrections to incorporate the provisions contained in the Govt. Notification dated 12-10-2009. The relevant portion of the TA has been modified in consultation with OPGC and updated with change in capacity. The same is under legal vetting and once cleared, it will be sent to the Govt. for approval. Any change relating to the Shareholders Agreement, signed between Govt. of Orissa, OPGC and the AES Corporation on 06.10.1998, in view of its link with the original Tripartite Agreement, is to be taken up at the Govt. level. At present, effort is being made by OPGC & GRIDCO to finalize the draft TA, so that the amended PPA as well as the TA can be filed before OERC after due clearance by the State Govt.

Fixed Cost of TTPS:

247. After considering the impact of additional capitalization expenditure incurred towards R&M during the period 2004-05 to 2006-07, CERC had revised the Annual Fixed Cost (AFC) of TTPS for the FY 2004-05 to 2008-09 in their order dated 03.02.2009 in Pet.No-31/2008 and the same is continuing at present. Thereafter, due to revision in computation of Interest on Working Capital (IWC), again CERC vide their Order

dated 11.01.2010 and 09.02.2010 in Pet. No-31/2008 has revised the Fixed Charges (FC) of TTPS for the FY 2007-08 & 2008-09 and the same is **yet to be implemented** by NTPC. Again, considering the Additional Capitalization for the FY 2007-08 & 2008-09, the NTPC has applied before CERC on 24.08.2009 for revision of F.C. of TTPS and it is **yet to be finalized** by the CERC in Petition No. 184/2009. The details are given in the Table below:

Table - 15

(Rs. Crore)

FY	2004-05	2005-06	2006-07	2007-08	2008-09
As per CERC Order dtd. 03.02.2009	186.87	193.38	195.73	198.63	199.37
As per CERC Order dtd. 11.01.2010 & 09.02.2010	186.87	193.38	195.73	199.38	200.88
As per NTPC filing before CERC on 24.08.2009	188.35	195.67	198.69	207.665	217.39

248. Further, as per new CERC Tariff Regulation, 2009, NTPC has applied before CERC on 30.11.2009 for revision of Fixed Charges for the next five years effective from FY 2009 as well as for revision of rate of Ex-Bus Energy Charges of TTPS vide Petition No-304/2009. The Petition is pending for disposal by the CERC.

Table - 16

FY	2009-10	2010-11	2011-12	2012-13	2013-14
Fixed Charges (Rs. Crore)	338.57	353.18	368.31	381.69	378.90
Ex-Bus Energy Charges (Paise/Kwh)	108.64	108.64	108.64	108.64	108.64

249. The relevant extracts of NTPC Petition filed by NTPC, such as Annual F.C, Energy Charges, Calculation of Depreciation, Interest on Loan, Return on Equity, Interest on W.C., Operational Parameters, Cost of Secondary Fuel Oil, Statement of year-wise proposed Additional Capitalization etc. have been submitted to the OERC on 25.01.2010 in the Compliance to the Queries raised by the Commission for considering the additional financial impact in the ARR of GRIDCO for the FY 2010-11. In view of the above, GRIDCO has submitted that the Commission may consider the Fixed Cost of Rs.353.18 Crore for TTPS for the FY2010-11 (instead of Rs.275.66 Crore) on provisional basis which otherwise will leave a huge gap in recovery of cost of power of TTPS.

Recovery of Income Tax in the Fixed Cost of Central Generating Stations

250. CERC has finalized the terms and conditions of Tariff Regulation, 2009 for the next five-year period starting from 1st April 2009 to 31st March 2014. Since the new Tariff Order for individual Stations has not yet been finalized by the CERC, NTPC is raising the bills in line with the norms of Tariff Regulations / Order, 2004 and considering the Fixed Cost (FC) of FY 2008-09 for the FY 2009-10. Hence, GRIDCO has considered the Fixed Costs for the Central Thermal Generating Stations as approved by the

CERC for the respective stations for FY 2008-09 in its ARR Application for FY 2010-11.

251. As per the norms of Tariff Regulation / Order, 2004, the Fixed Cost does not include the Income Tax and the same is reimbursed as per actual payment made by the NTPC, whereas in the Tariff Regulation / Order, 2009, the Income Tax (IT) is a part of the Return on Equity (RoE), which is a component of the Fixed Cost. Hence, as per the new norms, there should not be any separate bill towards Income Tax. However, since there is no scope for bills under head "Income Tax" in the new norms and NTPC is actually paying hefty amount towards IT, it is raising the same under the head "Additional Capitalization". In this context, a Meeting was held between GRIDCO and NTPC, where it was clarified by NTPC that since the amount is huge and GRIDCO has to pay it whether through RoE or direct reimbursement, the amount payable towards IT are being raised through bills under the head "Additional Capitalization" in order to avoid onetime sudden financial burden on GRIDCO. Once the individual orders for NTPC Stations are in place, the amount thus reimbursed / paid by GRIDCO, shall be duly adjusted towards Fixed Costs of respective Stations. In view of the above, in addition to the Fixed Cost, GRIDCO has considered the Income Tax of Rs.94.22 Cr for TSTPS-I, Rs.163.72 Cr for TSTPS-II, Rs.108.36 Cr. for FSTPS and Rs.51.68 Cr. for KHSTPS-I towards Additional Capitalization.
252. In the mean time, NTPC has made submissions for fixation of Tariff of the above Generating Stations for the period from FY 2009-10 to 2013-14. It is observed that the Annual Fixed Charges claimed by NTPC for various Stations are on much higher side than those considered by GRIDCO in its ARR for FY 2010-11. Accordingly, it has requested that the Commission may consider the Fixed Charges claimed by NTPC in its submissions for respective Stations for the FY 2010-11 instead of the amounts earlier submitted by GRIDCO for fixation of BSP. The Fixed Charges for FY 2010-11 of various Stations as claimed by NTPC in its respective Tariff Petitions at CERC are given below:

Table – 17

Name of the Generating Station	Fixed cost as claimed By NTPC in its Petition for the FY 2010-11 (Rs. Cr)	GRIDCO share (%)	GRIDCO (Rs. Cr)
FSTPS	846.04	13.63	115.32
KHSTPS-I	519.81	15.24	79.22
KHSTPS-II	1240.65	0.60	7.44
TSTPS-I	561.23	31.80	178.47
TSTPS-II	1145.01	10.00	114.50
TOTAL	4312.74		494.95

Arrear BSP Dues:

253. The payments towards arrear BSP dues during FY 2009-10 (as on 23.02.2010) by the DISCOMs are as under:

Table – 18

DISCOMS	Approval by OERC (Rs. Crore)	Actual Payment (Rs. Crore)
CESU	151.00	74.20
SOUTHCO	19.00	8.90
TOTAL	170.00	83.10

UI & Trading:

254. The Commission had allowed a gap of Rs. 882.85 Crore in its ARR & BSP Order dated 20.03.2009 for FY 2009-10 (excluding the Pension trust Bond repayment of Rs.32.63 Crore) to be bridged by earning through UI & Trading. During the year 2009-10, with increased State Demand coupled with inadequate rainfall, resulting in much less availability of power from Hydro Stations, there was no scope of selling power through UI & Trading. On the other hand, to meet the requirement of the State, GRIDCO has been a net procurer of power through UI & Trading, the details of which are given below:

Table – 19**TRADING**

Sl. No.	Trading Platform	Energy Trading (MU)	Amount (Rs. Crore)
1 (A)	Indian Energy Exchange (Sale)	0.9	0.783
1 (B)	Indian Energy Exchange (Purchase)	-20.91925	-5.158
	Net Purchase	-20.01925	-4.375
2	Bilateral trading Through LANCO (Purchase)	-20.7	-8.020
	Total	-40.71925	-12.395

Table – 20**MONTH-WISE UI CHARGES RECEIVABLE / PAYABLE FOR FY 2009-10
UNDER ABT MODE OF OPERATION**

Month	Scheduled Drawl (MU)	Actual Drawl (MU)	Net Unscheduled Interchange (MU)	Net UI Receivable (Rs. Lakh)
April-09	-515.439691	-541.187490	-25.747799	-420.96252
May-09	-568.817575	-694.203940	-125.386365	-3506.47349
June-09	-637.217552	-759.694585	-122.477033	-5076.63516
July-09	-573.946228	-658.237568	-84.291340	-2602.58526
Aug-09	-494.075166	-446.807793	47.267373	4636.08848
Sep'09	-505.361173	-610.847791	-105.486618	-2866.30851
Oct'09	-490.647512	-539.244094	-48.596582	-887.17037
Nov'09	-484.197275	-672.228606	-188.031331	-4330.20244
Dec'09	-523.786657	-701.501596	-177.714939	-6450.87290
Jan'10	-542.551016	-667.078207	-124.527191	-5253.24498
Total	-5336.039845	-6291.031670	-954.991825	-26758.367160

- (-ve) means drawl by GRIDCO.
- (+ve) means injection by GRIDCO.
- (-ve) means payable by GRIDCO.
- (+ve) means receivable by GRIDCO.

255. GRIDCO has been experiencing huge revenue gaps due to power deficit arising out of the increased State Demand coupled with less hydrology that has resulted in net drawal of power through U.I. & Trading Route including drawal from high cost sources like CGPs & the like etc. In fact, as against pro-rated revenue gap of Rs.662.14 Crore for the period from April'09 to December'09, the actual Revenue Gap for the said period is Rs.1461.99 Crore including repayment of loan during April'09 to December'09. The total deficit for the whole year is estimated at Rs.1800 Crore as against that of Rs.1653.23 Crore estimated earlier for the whole year 2009-10.
256. As against Arrear Payment of Rs.170.00 Crore by the DISCOMs, the total payment as on date is Rs.83.10 Crore. The situation of deficit is not likely to improve in the near future and it is apprehended that GRIDCO will land in huge deficits in the subsequent days. The Commission may consider such factors and accordingly, prudentially approve the ARR & BSP applicable for FY 2010-11 so that GRIDCO will be in a position to overcome such deficit situation.

Miscellaneous Receipts:

257. M/s. NALCO and M/s. IMFA are basically supplier of their surplus power to GRIDCO after meeting their own captive consumption and occasionally, they draw the Emergency & Back-up power from the Grid. From the past records, it is observed that the limit of drawal of such power usually remained within 10 MU upto FY 2007-08, whereas during FY 2008-09 and FY 2009-10 (upto December'09), NALCO had alone drawn 144.06 MU & 274.78 MU, respectively from the grid due to its low generation because of acute short supply of coal at its Captive Plant. Emergency drawal by IMFA has always been negligible including the years of FY 2008-09 & 2009-10 (upto December'09) which were only 0.36 MU & 0.12 MU, respectively. These two years, being exceptional cases, GRIDCO hopes that the above type of situation may not arise during FY 2010-11 and accordingly, GRIDCO has considered 10 MU towards supply of Emergency and Back-up power to NALCO & IMFA as per the generic trend observed till FY 2007-08 or mid of FY 2008-09 and shown an amount of Rs. 4.20 Crore towards revenue from sale of Emergency and Back-up power to NALCO and IMFA.

Single-Part Vs Two-Part BSP:

258. GRIDCO, in fact, in its ARR & BSP Application for FY 2010-11 has proposed for levy of two-part Bulk Supply Price (BSP) consisting of Demand Charge & Energy Charge for recovery of its ARR during FY 2010-11. It may be evident from the ARR & BSP Application of GRIDCO that the Demand Charges @ Rs.200/- KVA/Month has been proposed to be levied along with the Energy Charge when the actual SMDs of DISCOMs calculated on annual basis exceeds the permitted SMD (i.e. 110% of the approved SMD for the concerned DISCOMs). Therefore, the contention that GRIDCO has proposed for levy of Single Part Tariff is actually not true.

PPAs for OHPC Old Power Stations:

259. The modified PPA for Rengali Hydro Electric Project & the PPA for Balimela, Upper Kolab, Hirakud & Chiplima Power House has been executed between OHPC & GRIDCO on 20th November'2009. All the PPAs will be filed shortly before the Commission for vetting.

Debts and upto-date Status of Recovery

260. The details of amount recoverable from Debtors lying beyond more than six months as on 31.03.2009 and 31.12.2009 are as under:

Table – 21

Sl. No.	Particulars / Units of Debtors	Amount recoverable as on 31.03.2009 (Rs. Crore)
1	ICCL (IMFA)	19.55
2	CESU	593.01
3	WESCO, NESCO & SOUTHCO	38.81
4	Govt. Deptt. / PSUs	204.05
5	MPSEB	71.78
6	APSEB	30.19
7	DPS	4.26
8	Others	0.64
9	Total	962.29

261. Most of the above debtors are either disputed or sub-judice which may not be realizable in the near future except that the dues of Rs.30.19 Crore from APSEB that has been mutually settled and agreed to be paid by the APSEB recently in a meeting held at Hyderabad. However, APSEB is yet to clear the same.
262. The outstanding dues from IMFA (ICCL) (Rs.19.55 Crore) have not been recognized by the Arbitrators and the award is not in favour of GRIDCO. Therefore, the Arbitration Award has been appealed by GRIDCO before SDJM Court, Bhubaneswar which is pending for disposal.
263. The outstanding dues from DISCOMs have been securitized by the Commission in the Order dated 01.12.2008 for payment by way of 120 monthly installments starting from April, 2006. However, the DISCOMs have not been able to pay the same as directed by the Commission. In fact, as per GRIDCO ARR & BSP Order for FY 2009-10, CESU & SOUTHCO are supposed to pay Rs.151 Crore and Rs. 19 Crore, respectively to GRIDCO. Against the above dues of Rs.170 Crore to be received from DISCOMs, CESU & SOUTHCO have paid a sum of Rs.83.10 Crore only till date during FY 2009-10.
264. The dues from Govt. Depts. and PSUs / ULBs have been taken over by GRIDCO as per the Transfer Scheme dated 26.11.1998. GRIDCO has requested DISCOMs to indicate the details of these consumers and the status of realization, thereof as they were and are the consumers of DISCOMs. However, the same has not been furnished to GRIDCO so far and GRIDCO is unable to take any action on this matter in absence of the details from the DISCOMs. However, GRIDCO has also made a proposal to Govt. for adjustment of these receivables against the payables of Govt. of Orissa

towards loan and interest dues by GRIDCO which has not yet been accepted and confirmed by the State Govt.

265. The dues from MPSEB is Rs.71.78 Crore as per GRIDCO Accounts, has not been settled so far and this is pending before Hon'ble ATE for disposal.
266. The DPS & other dues totaling Rs.4.90 Crore are related to old dues and these are not likely to be paid by parties by FY 2010-11.

Security and Govt. Guarantee for Obtaining Loan

267. GRIDCO has availed the term loans from various Banks with the following Securities:
 - Pari-pasu Charge over receivables of GRIDCO
 - Default Escrow Arrangement

Although GRIDCO approached the State Government for Govt. Guarantee to obtain the said loans, no guarantee has so far been provided by the Government. GRIDCO will avail loans from the banks to pay the current power purchase dues after receipt of the State Government Guarantee.

VIEWS OF GOVERNMENT OF ORISSA (Para 268 to 271)

268. In responding to the issues raised by GRIDCO, the representative of State Government stated that GRIDCO has applied for providing an interest free loan of Rs.4700.00 cr over a period of 4 years to improve their liquidity position. No decision has been taken on it. However, extension of guarantee to GRIDCO for availing loan from REC is under active consideration of Government. In the meantime, State Govt. on 20.03.2010 has agreed to provide Govt. guarantee for Rs.1000.00 crore to GRIDCO.
269. Regarding up-valuation of assets of GRIDCO/OHPC he stated that necessary notification for keeping in abeyance the upvaluation of assets of GRIDCO and OHPC till 2010-11 has been issued by Government under intimation to all concerned. Government orders will be obtained for modification of the above notification on the basis of the suggestion of OERC intimated vide their Lr. NO. JD(F)-175/02/3235 dt. 27.01.2010.
270. He also stated that the State Government has so far signed MoU with 21 IPPs for setting up Thermal Power Plants. The State Government has also signed 32 MoUs with Private Developers for setting up of Small Hydel Plants. Out of the 21 IPPs Sterlite Energy is likely to commission its 1st Unit of 600 MW during March, 2010 and 2nd Unit 600 MW capacity during last quarter of 2010. Sterlite Energy has also agreed to supply approximately 500-600 MW from its 1st Unit to the State after auxiliary consumption. Similarly, Aarati Steel and Shyam DRI have agreed to supply full power from their 50 MW and 30 MW power plants respectively. State Government have directed OPTCL to expedite the construction of necessary transmission network to evacuate power from these plants.
271. He further stated that the State Government would support GRIDCO in its endeavour to ensure power supply at affordable rate, but the Government would continue its subsidy withdrawal policy.

OBSERVATIONS OF STATE ADVISORY COMMITTEE (SAC) (Para No.272 to 283)

272. The State Advisory Committee (SAC) constituted under Section 87 of Electricity Act, 2003 met on 18, Feb 2010 to deliberate on the Annual revenue requirement and tariff applications for the FY 2010-11 of the utilities, namely OHPC, OPTCL, GRIDCO, SLDC, CESU, NESCO, SOUTHCO and WESCO.
273. The Director (Tariff) made a brief presentation on the ARR and tariff applications for FY 2010-11 of the above mentioned utilities. Members in general expressed their concern about the poor performance of the licensees particularly on distribution loss, poor consumer services and lack of investment etc.
274. The members of SAC expressed the following views/suggestions on the ARR & BSP Application of GRIDCO for FY 2010-11
- i) All the liabilities of the DISCOMs payable to GRIDCO are in back to back arrangements with their lenders, and are serviced by GRIDCO even though DISCOMs have not met their repayment obligations to GRIDCO in time; due to such default in timely payment, honest consumers bear the burden of interest on loan and other charges incurred for serving such liabilities by GRIDCO, which should not be allowed. Further, interest and premium charges on securitization of arrear dues payable to generating companies should not be passed over to the consumer. DISCOMs are going to court rather than paying their legitimate dues to GRIDCO and this is adding to GRIDCO's burden. This practice should be discouraged.
 - ii) The Commission should work out an accepted formula for GRIDCO to recover fuel surcharge from the DISCOMs every month.
 - iii) Exemplary deterrent action should be taken against DISCOMs defaulting on payment of receivables to GRIDCO towards loan liability, interest thereof and BST dues with DPS as on 31.03.2005.
 - iv) The truing up exercise by the Commission on yearly profit and loss account should be updated to arrive at the present cumulative gap and huge past losses shown by GRIDCO as a "pass over item" may not be allowed.
 - v) GRIDCO should follow prudent commercial practice to draw more UI power during off peak and high frequency period and under draw during peak period to reduce high financial burden (fiscal deficit).
 - vi) Licensees are adding the amount disallowed by OERC in previous years in their revenue gap. Bad debts are increasing every year and must not be allowed to pass through.
275. The sector is not getting the benefits of reform from the centre and also the State Govt. is not investing in it. Clearly privatisation is not working and must be rolled back to put pressure on the Govt. If tariff is not raised now, the system will collapse. However, Orissa is a poor state with a low per capita income, hence a judicious decision has to be taken with regard to tariff hike. For last nine years there was no tariff hike for domestic consumers. Today it has become necessary because of lack of foresight of the State Govt. Power restriction was not imposed during winter when it was necessary. As a result of buying expensive power from outside losses have mounted on GRIDCO. It is time to rationalize and distribute our limited resources properly. There should be a moderate hike and power restriction must be implemented to avoid mounting loss being incurred by GRIDCO. All stake-holders must

constructively think as to how the power sector development can be put on a sustainable basis.

276. Privatisation was taken up to infuse fresh funds into the sector but this is not done. Neither the State Govt. nor the DISCOMs are doing it. Govt. through GRIDCO holds 49% of share and Distribution Companies hold 51% share. For system up-gradation both govt. and Distribution Companies should infuse capital. OERC has not yet been able to foot down the utilities to invest capital for system up-gradation or to prevail upon govt. to infuse capital through a regulatory order.
277. Price for the distribution companies for supply of power to the consumers consist of the input cost i.e. the Bulk Supply price of GRIDCO, Transmission cost of OPTCL and Distribution cost of the Distribution companies for supply of power to the consumers. The input cost of GRIDCO depends on the Generation cost of the generating companies such as OHPC, OPGC and others. When GRIDCO, Transmission companies and Generating Companies raise their price, the distribution companies are bound to raise their retail supply.
278. The Govt. companies, OHPC, GRIDCO and OPTCL are the epitomes of inefficiency, and the distribution companies are also equally inefficient. GRIDCO in its ARR proposes an increase of 150% in BST as well as OHPC and OPTCL. Taking the normative parameters of OHPC, GRIDCO, OPTCL and distribution companies, the Commission should take steps to protect the interest of poor consumers, particularly the domestic consumers.
279. With increase in fuel price the cost of thermal power is bound to increase. The Commission may build into the tariff structure, fuel surcharge elements so that as and when fuel cost increases beyond a particular percentage, hike assumed by the Commission taken in tariff determination. The extra cost arising out of fuel cost should be passed on to the distribution companies and distribution companies in turn should recover from the consumers.
280. The hike in cost of generation, procurement and distribution has been proposed on the ground of implementation of recommendation of 6th pay Commission for the employees and the pensioner. The pay hike is to be borne ultimately by the consumers. Their pay/pension hike must be linked to the productivity and efficiency parameters of the utilities and not merely because such recommendation has been implemented for State Govt. employees.
281. The scheduling of power cut approved by the Commission in their order 14.01.2010 based on the submission of GRIDCO and distribution companies and after hearing different stakeholders including the State Govt. should be implemented in order to avoid increase of loss of GRIDCO on account of purchase of high cost power and supplying to the customers at a rate approved by the Commission for the year 2009-10.
282. The representative of GRIDCO responded to the different observations of the members present that:
 - (a) The bulk supply price of power supply to distribution companies was 120.85 paise per unit in 2006-07 and this was increased to 135.65 paise per unit during 2007-08. But this was subsequently reduced to 121.59 paise per unit for the same year retrospectively and the additional amount paid was adjusted towards part of the arrear BST payable by distribution companies to the GRIDCO during that year. In the subsequent years 2008-09 to 2009-10 the

BST price approved by the Commission remained the same level 122.15 paise per unit and 122.20 paise per unit respectively even though there has been increase in the cost of procurement of power and other expenditure.

- (b) GRIDCO was able to manage the supply of power to the distribution companies at a lower rate and absorbed the loss from the profit earned from the sale of surplus power and income earned through better UI management. Besides this, it could also wipe out about Rs.1800 crore of loss out of the accumulated loss of Rs.3000 crore.
 - (c) During 2009-10 the average bulk supply price by GRIDCO to the distribution companies have been approved by the Commission 122.20 P/U (excluding the transmission charges) where as average price of procurement of power by GRIDCO upto December 2009 is 195 P/U and GRIDCO has proposed the bulk supply price at 187 P/U for 2010-11 which is lower than the average price paid by GRIDCO to generators during the current year though higher than the average procurement price of 122.20 P/U approved for 2009-10.
 - (d) Higher cost of bulk supply price for 2010-11 is because of low hydro generation based on the past experience of 2008-09 and 2009-10. The contribution of hydro power of the total demand is declining from 56.67% in 2004-05 to 30.33% in 2008-09 and it may be less than 30% during the 2009-10 and 2010-11.
 - (e) Regarding the loan incurred by GRIDCO it is the difference between power purchase cost incurred by GRIDCO and purchase cost approved by the Commission and at present the gap is of the order of 150 crore per month which GRIDCO is to meet by incurring loan. Upto March 2009 GRIDCO has incurred 300 crores to meet the high power purchase cost and during the current year up to September 2009 it has already incurred 900 crore and which has gone up to 1460 crore by December, 2009. By 31.3.2010 the total loan that would be incurred by GRIDCO during 2009-10 to meet the gap between the power purchase cost and power purchase cost approved by Commission will be around to Rs.1800 crore. This is the loan which GRIDCO has reflected in the ARR and on this loan GRIDCO has claimed interest in the ARR along with the pass through of the past losses.
283. The Secretary, Deptt. of Energy, GoO responding to the observations of the members stated as under:
- b) There has been increase of number of consumers from 16 lakh in 1999-00 to 27.51 lakh by the end of 2008-09 and 28.36 lakh by 30.9.2009, and after implementation of RGGVY and BGJY the number of consumers is likely to reach 68 lakh by 2011-12. The likely scenario for the next few years is that all households will be electrified which is a national mandate. On the other hand, while hydro energy was meeting about 56.67% of the total State demand in 2004-05 it has been reduced to 30.33% in 2008-09 and this ratio is likely to be reduced further with increase in number of consumers and consequently rising demand. In that case we have to purchase costly thermal power from different sources to meet the rising demand of the consumers. Under such circumstances it is no longer possible to keep the tariff at the existing low level because of declining ratio of hydro power to the total State demand.

- c) The thermal power is becoming more costly day by day because of increase in coal price. When the cost of power would definitely go up which will have direct impact on tariff, it is absolutely necessary for the distribution companies to reduce the existing high level of AT&C loss which is of the order of 41.31% at the end of 2008-09 (40.27% by end of 30.9.09). 1% reduction in AT&C loss in monetary term works out to Rs.48 crore for the power sector in the State. If the existing level of AT&C loss of 41% is reduced to about 30% the power sector as a whole would gain by Rs.528 crore and in that case the necessity of tariff hike would be kept to the minimum. If AT&C loss is systematically and aggressively reduced, a time may come when there may not be any necessity of tariff hike in future. The AT&C loss in 1990-91 was 52.1% which increased to 60.9% by end of 1998-99 just before the distribution companies were privatized w.e.f. 01.04.1999.
- d) The 6th Pay Commission implementation is putting a huge salary and pension burden on the licensees. This is one of the causes for the proposed tariff hike.
- e) Since at present the distribution companies have not yet been able to infuse capital for system up-gradation of the distribution network, Govt. is considering to give a loan of about Rs.2000 crore to distribution companies at a reasonable rate of interest through GRIDCO. The principal and interest is to be paid back to the State govt. through GRIDCO as all receivables of the distribution companies are being deposited in the escrow account. This proposal is at an initial stage and no formal govt. order has yet been taken but, this is an indication of govt. seriousness to extend its help and play its facilitating role effectively to bring about overall improvement of power sector for the ultimate benefit of the consumers of the State.
- f) Regarding power scheduling of this year, the State Govt. is better prepared as there is more water in our reservoirs. Contrary to what has been said, there has been power cut of 5-7 hours in rural areas but during off-peak hours. However the extra cost to GRIDCO is a result of over drawl by DISCOMs. If the SAC agrees, the State can go for power restriction this year. At least another two years i.e. upto 2012, Orissa will face a power crisis. The State Govt. is trying to do its best to meet the exigency. It has been trying to get additional power from the unallocated share from the Central Generating Stations. However since other states are worse off it is unlikely that Orissa will get additional allocation of power. However, 200 MW (10%) out of Orissa demand of 35% was restored to Orissa from TSTPS. For up-gradation of TSTPS & new Power Stations, Orissa is demanding 50% of power produced in the State. The State Govt. is also trying for power banking from other States. 300 MW has been obtained from Punjab & Assam. All attempts are being made to maximize generation from the existing water reserves by making use of the same for the irrigation purpose as well as for generation during the peak demand as far as practicable.

COMMISSION'S OBSERVATIONS AND ANALYSIS OF LICENSEE'S PROPOSAL (Para 284 to 544)

Legal Status of GRIDCO Ltd. and Nature of its Application

284. Before enactment of the Electricity Act, 2003 (hereinafter referred to as the Act) GRIDCO was a "Transmission and Bulk Supply Licensee" under the Orissa Electricity Reforms Act, 1995 (hereinafter referred to as the Reforms Act). As such

GRIDCO had entered into long-term Power Purchase Agreements (PPAs) with generating companies namely OPGC, OHPC, NTPC etc. and also Bulk Supply Agreements with the four DISCOMs namely, NESCO, WESCO, CESU (previously CESCO) and SOUTHC. Under the said agreements GRIDCO was obliged to sell power on priority basis to the aforesaid DISCOMs of Orissa up to their full requirement and the DISCOMs were obliged to buy power only from GRIDCO. This arrangement is known as the “Single-Buyer-Model” of power procurement for DISCOMs of Orissa. The arrangement was convenient because GRIDCO was also the transmission licensee. The mutual obligations under the long term bulk supply agreements have devolved on GRIDCO & DISCOMs as of now and the Single-Buyer-Model still prevails in the state as a historical legacy.

285. The legal existence of GRIDCO as a trader owes its origin to its incorporation as a Government Company under the Companies Act,1956, with effect from 20.04.1995, with the main object of engaging in the business of procurement, transmission and bulk supply of electric energy. With the enactment of the Reforms Act, effective on 01.04.1996, GRIDCO was given some additional powers and functions under S.13 of the said Act. Thereafter under OER(Transfer of Assets, Liabilities, Proceedings and Personnel of GRIDCO to Distribution Companies) Rules,1998 framed under S.23(5) of the Reforms Act,1995, the distribution function of GRIDCO was hived off and vested in four distribution Companies namely WESCO, NESCO, SOUTHC and CESCO (now CESU) registered under the Companies Act, 1956. GRIDCO thereafter functioned as a Govt. Company engaged in bulk supply and transmission under a licence issued by the Commission under S.15(1) of the Reforms Act, with effect from 01.04.1997. Neither the word “supply” nor the word “bulk supply” had been defined in the Reforms Act, but the aforesaid Bulk Supply and Transmission Licence, 1997 issued to GRIDCO, indicated that, apart from transmission business, its business consisted in procuring electricity in bulk and supplying the same to the four DISCOMs and not to consumers. For the bulk supply business GRIDCO entered into several long-term PPAs with generators and long-term BSAs with the four DISCOMs. After coming into force of the Act on 26.05.2003 this supply business of GRIDCO fitted in with the definition of “trading” introduced for the first time in S.2(71) of the Act, with a restriction in its aforesaid licence that it could not sell directly to consumers. In 2005, by virtue of Transfer Scheme OER (Transfer of Transmission Related Activities) Scheme, 2005 under S.131(4) of the Act, the transmission business of GRIDCO was hived off from GRIDCO because of 3rd Proviso to S.41 & 1st Proviso to S.39 of the Act. Thus what remained with GRIDCO was the business of trading in electricity. Ordinarily, GRIDCO would have been required to take a trading licence under S.14(c) of the Act, but because of the 5th Proviso to S. 14 of the Act, GRIDCO shall be deemed to be a licensee under the said Act. The Proviso runs thus:-

Provided also that the Government company or the company referred to in sub-section (2) of Section 131 of this Act and the company or companies created in pursuance of the Acts specified in the Schedules, shall be deemed to be a licensee under this Act.

GRIDCO shall be deemed to be a licensee under the above Proviso because it is a Government company and also because it is a company created in pursuance of the Reforms Act, which has been specified in the Schedules to the Act and not because a

company referred to in sub-section (2) of the S. 131 of the Act. The 5th Proviso to S. 14 of the Act speaks of deemed “licensee under the Act” it does not speak of intra-State or inter-State licensee in particular. Therefore, GRIDCO as a deemed licensee would be deemed to be a licensee under this Commission as well as CERC. This justifies GRIDCO’s purchase from Kahalgaon, Farakka, Chukha, Teesta and Tala power plants for delivery within Orissa. Though under the 5th Proviso to Sec.14 of the Act, GRIDCO has become a deemed licensee, yet its position has had to be consistent with the provisions of the Act. GRIDCO has had to belong to one of the categories of licensees as set forth in clauses (a) (b) or (c) of Sec.14 of the Act. It could not continue to maintain its position as “Transmission and Bulk Supply Licensee” under the Reforms Act. Its present activity, after its transmission business was taken over by OPTCL is now confined to bulk purchase of electricity for sale to DISCOMs of Orissa. This satisfies the definition of trading in Sec. 2(71) of the Act. Therefore GRIDCO’s position under the 5th Proviso to Sec. 14 of the Act is doubtless that of a deemed trading licensee, carrying on trading of electricity in bulk.

286. Bulk supply activity by a trader is not repugnant to any provision of the Act. Such activity is tenable in law. It is a historical legacy coming down from the period under the Reforms Act and it continues so long as the long term bulk supply agreements with DISCOMs subsist. Some objectors have canvassed the view that the single buyer model is against the spirit of the Act and adversely affects the consumers. In this proceeding, the Commission has to set price in the situation as it stands now and therefore, it refrains from addressing this larger issue. The Commission, however, holds that even after coming into force of the Act, the position of the GRIDCO as a (deemed) trading licensee continues to hold good, even though its trading operations on the basis of PPAs and BSAs may arguably be questioned as anti-competitive and violative of S.60 of the Act and Ss.3(1) and 4(1) of the Competition Act, 2002 warranting a reference under S.21(1) of the said Act. As to this latter question, the Commission expresses no opinion, in as much as the question has not been specifically raised and the Commission has not had the advantage of hearing arguments on that score. The Commission proceeds on the footing that GRIDCO has indubitably a legally valid existence as a trader and the present fact is that the DISCOMs procure their power solely from GRIDCO. In all practical purposes GRIDCO continues as the sole shock absorber in the Odisha power sector by supplying power to the DISCOMs at the price approved by the Commission even though it is incurring loss by purchasing at a higher cost from different sources. The ultimate beneficiaries are the consumers of Odisha.
287. There is a significant distinction between activities and operations of GRIDCO as a trader, and the legal existence of GRIDCO. The Commission rejects the contention that GRIDCO can have no legal existence as a trader because S.131(2) & (4) of the Act speak of transferees being generating company, transmission licensee or distribution licensee and not trading licensee. S. 131 deals only with transfer and vesting of properties, interests, rights and liabilities in the process of reorganization of electricity industry. The provision does not deal with creation of entities like traders, which is provided for elsewhere in the Act, namely S.14, S.2(71), S.79 (1)(e) and S.86 (1)(d) of the Act. It is true that under S.131, properties, interests, rights and liabilities cannot be transferred to trading licensees but it is incorrect to suggest that Govt. company existing at the time of commencement of the Act, whose business activity satisfies definition of trading under S.2(71) cannot be a deemed licensee under the 5th Proviso to S.14 of the Act.

288. However, the single buyer model has put GRIDCO in a dominant position, indeed a monopolistic position, so far as supply to the DISCOMs of Orissa is concerned. By virtue of S.60 of the Act, GRIDCO is under an obligation to refrain from abusing its dominant position. In particular, GRIDCO has to refrain from exploiting scarcity situation in the State arising from inability of generating companies to supply adequate power to GRIDCO under their PPAs. Where, in such a situation, GRIDCO chooses to purchase power *de hors* the PPAs from open market, it has to do so prudently and following merit order dispatch principle. Also in taking such decision GRIDCO has to weigh the possibility of over-burdening the tariff payable by the consumers of Orissa as against reasonable power regulation. It would be proper for GRIDCO to present facts before the Commission and seek Commission's directions under S.23 of the Act. In this connection Commission's Order dated 14.01.2010 in Case No.01/2010 regarding Power Regulation Protocol may be referred to. If it is established that GRIDCO has not taken such steps and arbitrarily purchased power at high cost, the Commission would be within its rights not to allow such costs to be passed on to consumers. From figures available with the Commission it appears that GRIDCO has incurred extra cost of Rs.504.01 crore in purchasing 870.20 MU *de hors* the PPAs in the period April to September, 2009.
289. Under Sec.86(1)(b) of the Act, the Commission is entitled to regulate the price at which DISCOMs may buy power from generating companies or licensees (such as GRIDCO, which is a deemed trading licensee) or from other sources through agreements. The power to regulate price includes the power to fix regulated price from time to time. This provision enables the Commission to fix a regulated price for procurement of power by DISCOMs under the existing Bulk Supply Agreements with GRIDCO. Conceptually this is different from setting of general tariff for sale of electricity by GRIDCO to any purchaser (for which the Commission has no power).
290. The Commission can not and does not fix tariff for sale of electricity by a trader, vide Sec.62 of the Act, and it does not intend to do so for GRIDCO as a trader; even though under Section 86(1) read with Sec.62 of the Act, the Commission may determine tariff for whole-sale or bulk supply of electricity by generators or distributors (i.e. licensees other than traders). This follows from a harmonious reading of Sec.62 and Sec.86 (1) (a) and Sec. 86(1) (j) of the Act. But it just happens that in the present situation of Single-Buyer-Model the regulated purchase price for DISCOMs fixed under Sec. 86(1)(b) coincides with the selling price of GRIDCO as a trader for sale of power only to the present DISCOMs of Orissa. If GRIDCO sells surplus power, after meeting its contractual obligation under existing bulk supply agreements, directly to any consumer u/s 42 read with Sec.49 or another trader, or even to another distributor licensed under the 6th proviso to Sec.14 of the Act, the procurement price, which coincides with GRIDCO's selling price, fixed in this order is not applicable. Thus, this order does not fix tariff for GRIDCO as a trader.
291. GRIDCO has filed application under S.86(1)(b) of the Act and prayed for fixation of its selling price qua the present distribution companies by virtue of the subsisting Bulk Supply Agreement and has filed its ARR along with the application. The DISCOMs in their tariff application vide Case Nos.140,141,142 & 143 of 2009 have not prayed for fixation of their power procurement price but such fixation being fundamental determinant of tariff is implicit in their prayer for determination of tariff. In the circumstances GRIDCO's application is not being treated as a tariff application but as material for the Commission to proceed for fixation of a regulatory price for power procurement by the present DISCOMs under the existing Bulk Supply

Agreements. In this context GRIDCO has been heard at length on its ARR because under the prevailing single buyer model, the procurement price of the present DISCOMs coincides with the selling price of GRIDCO. Therefore GRIDCO ought to have a say in the matter and ought to be heard even though the Commission is essentially fixing the procurement price for the present DISCOMs. No meaningful hearing can be given to GRIDCO in this context unless its ARR is considered and approved. It is in this context that ARR of GRIDCO was considered and analyzed and not in the context of fixing a general tariff for GRIDCO.

292. In the process of re-organization of electricity industry, GRIDCO as a trading licensee could not be a transferee of the liabilities either of erstwhile OSEB or of erstwhile GRIDCO functioning as a distribution or transmission company vide S.131 of the Act. Therefore, it has been contended that GRIDCO as deemed trading licensee now is not entitled to consideration of past losses, securitization of arrear dues and other related costs indicated in its application. On deeper analysis it transpires that these past losses, securitization of liabilities and other related costs etc. are a mirror reflection or virtual image of what in reality are the liabilities of DISCOMs and are actually being serviced by DISCOMs. These liabilities can be classified as follows:
- 1) Liabilities already incurred by GRIDCO as on 01.04.1999 when its distribution business was transferred to DISCOMs. These are arrears on account of power purchase payable to generators and incurred by GRIDCO in the course of its distribution business. These liabilities could not be transferred to DISCOMs as they refused to accept them and hence have remained with GRIDCO even after it became a deemed trading licensee subsequently.
 - 2) Securitized liabilities of DISCOMs after 01.04.1999 up to date. These are NTPC-III and NTPC-IV Bonds, OHPC Bonds, NALCO-I, NALCO-II Bonds, Power Bonds I & II, OPGC- I Bonds. These bonds are being serviced by DISCOMs through GRIDCO on the basis of back-to-back arrangement.
 - 3) Other liabilities of DISCOMs being liquidated through GRIDCO on the basis of back-to-back arrangement. These are loans from financial institutions, like REC, PFC & World Bank etc.
293. When distribution function of GRIDCO was transferred to four DISCOMs under OER (Transfer of Assets, Liabilities, Proceedings and Personnel of GRIDCO to Distribution Companies) Rules,1998, vide Clause3(3), the distribution-related liabilities except accumulated losses incurred by GRIDCO in its erst-while distribution business up to that date (classified under (1) above) was also transferred to the said DISCOMs. From that date onwards further distribution related liabilities were incurred directly by the DISCOMs. Thereafter, when transmission function of GRIDCO was transferred to OPTCL under OER (Transfer of Transmission Related Activities) Scheme,2005, GRIDCO became a pure trader under the Act and naturally the distribution liabilities could not be, nor was, incurred by GRIDCO. But GRIDCO as a trader has been the sole bulk supplier of DISCOMs on account of existing BSAs. As such, GRIDCO has had the vital responsibility of maintaining steady supply of power to DISCOMs without any interruption. For discharging this responsibility and for ensuring smoothness of its trading activity qua DISCOMs, GRIDCO has entered into arrangement with DISCOMs to serve as conduit for liquidation of liabilities already incurred up to the date of separation (i.e. 31.03.1999) and also being incurred thereafter by DISCOMs through back-to-back payment arrangements (classification (2) and (3) above) such as escrow mechanism under bulk

supply agreement, loan agreement and subsidiary project implementation agreement, so that the revenues realized by DISCOMs are paid to respective creditors such as generators and financial institutions (REC, PFC, World Bank etc.) through GRIDCO. Though the creditors are nominally creditors of GRIDCO, the liabilities are serviced by DISCOMs and security for such liabilities are also held by DISCOMs and in that sense the creditors are in truth and substance creditors of DISCOMs, especially because GRIDCO has no asset of its own. GRIDCO, in the interests of its smooth trading activity, is merely providing a mechanism for assured payment to DISCOMs' creditors. The Commission has recognized this arrangement as a legally valid activity of GRIDCO, ancillary to its trading activity, and has allowed the liabilities to be reflected in the application of GRIDCO, so that sums payable to the creditors can be smoothly recovered from DISCOMs, through escrow mechanism.

294. On detailed scrutiny and examination of the Annual Revenue Requirement and Bulk Supply Price Application of GRIDCO for FY 2010-11, the written and oral submissions of the objectors, the Commission has passed the order as enunciated in the subsequent paragraphs.

Calculation of BSP for FY 2010-11

295. The Commission, for determination and approval of the ARR of GRIDCO for FY 2010-11 continues to follow the same principles as in the previous year. For the purpose of tariff setting for FY 2010-11, the Commission has followed the principles laid down in its terms and conditions for determination of tariff and continues to be guided by the provisions of the National Tariff Policy as well as other statutory notifications and directives, while giving due considerations to the complexities of the Orissa Power Sector.
296. Tariff determination involves adoption of various assumptions and principles to arrive at the individual ARR components for a future year and hence, is liable to be at variance to actual turn of events. The Commission has also accepted the concept of truing-up in order to insulate the licensee from any eventuality. The Commission, as in the previous years, has continued to determine the ARR for the year FY 2010-11 using the following principles.
297. The cost of power purchase for GRIDCO, which constitutes more than 86.5% of the total cost structure of GRIDCO has been considered on a merit-order basis, with state hydro generation and state thermal generation being computed based on the generation plan submitted by the OHPC and OPGC to GRIDCO, and the cost being considered as per norms of the PPA/CERC guidelines. Drawal from the CGPs and Cogeneration Plants have been maximised as well. Availability from the Eastern Region CGSs has been considered as per the allocation of shares in these stations and the applicable CERC Regulations.
298. All the liabilities of the DISCOMs payable to GRIDCO are in a back-to-back arrangement with various lenders and financial institutions and GRIDCO continues to service these liabilities, even though the DISCOMs have not been able to meet their repayment obligations to GRIDCO in full and in time during the previous years. The servicing cost (corresponding interest charges on these liabilities) forms a part of the BSP and is being paid by GRIDCO. Hence, the Commission feels that charging the same from the DISCOMs over and above the component being recovered through the BSP would lead to double recovery from consumers, and hence has not been factored separately outside the BSP.

299. Following the separation of the transmission business and given to OPTCL along with related assets, liabilities and personnel w.e.f 01.04.2005, GRIDCO does not possess any assets on its books. It continues however to carry the burden of past liabilities, accumulated over a period of time to service operational losses and non-payment of arrears by the DISCOMs in time in the past. The Commission has, over the last few years, recognised these liabilities and the fact that these need to be serviced from within the sector. GRIDCO also does not have the benefit of depreciation provisions to meet these debt obligations. Keeping in line with our earlier order, to avoid any undue additional burden being passed on to the retail consumers, the Commission has provided for the servicing of these liabilities from the non-core activities of GRIDCO, namely earnings from export of power which now stand highly limited, and from earnings from un-scheduled interchanges.
300. The Commission has scrutinised in detail the energy requirement proposed by the DISCOMs for FY 2010-11. Based on the energy availability, the Commission is of the view that after drawal of power from all state-owned generating stations both Thermal and Hydro, the state's share from central generating stations, and drawal from renewable and captive sources, some surplus energy will be available after meeting the State demand for 2010-11, which has been calculated on normative loss basis. The quantum of surplus energy may be reduced in case of poor hydrology and/or projected drawal from CGPs/Co-generation plants or central sector power not materializing as estimated.
301. GRIDCO has been burdened with huge past liabilities. The earning from UI Charges and trading had helped in the past to reduce these liabilities to a large extent. In recent months the earnings of GRIDCO on account of trading and UI charges have reduced to almost nothing due to a drastic reduction of hydro generation due to monsoon failure, as well as less generation in thermal generating stations due to non-availability of adequate fuel. Further due to increased State Demand for Power, the situation of surplus power scenario in the supply front has practically vanished. In fact, GRIDCO has overdrawn 954.99 MU under UI mechanism upto January, 2010 during the current FY 2009-10 to meet the restricted power requirement of the State.
302. The price of coal has gone up substantially and the availability of coal fluctuates so widely that the question of planned generation of additional power required for the state's use has become impossible. Therefore, the generators are compelled to use imported coal blended with domestic coal which adds considerably to the cost of fuel. It appears that all coal companies may further raise coal prices during 2010-11. Due to a rise in fuel prices, the variable charges of the generators have increased manifold.
303. The Commission in its order dt.28.02.2009 on CGP pricing had stated that in order to encourage the CGPs/Co-generating plants to fully utilize their bottled up capacity and to enable GRIDCO to access power from different sources including CGPs/Co-generating plants to meet the demands in the State and make available a good quantum of power for trading, GRIDCO should offer a remunerative price to the CGPs in respect of power used for trading. Keeping in view the prevailing rate in the power exchanges, UI rate and price quoted in the bidding it would be just and equitable for GRIDCO and the CGPs and Co-generating plants to have an indicative rate of Rs.3.50 per KWh for procuring surplus power meant for trading. This is merely an indicative price suggested by the Commission. However, individual CGPs/Co-generating plant and GRIDCO, if they so like, may enter into further negotiation for an agreed price above this indicative rate. However, the procurement

price by GRIDCO from the Captive Generating Plants/Co-generating plants for the purpose of trading should not unduly vary from the indicative price of Rs.3.50 per KWh as was suggested by the Commission as an interim measure. This was necessary for the benefit of the consumers of the State because the profit earned by GRIDCO from trading will be taken as ‘other receipt’ to meet its revenue requirement and bridge the gap in the ARR. Further, the Commission in this order dt.28.02.2009 had stated that for supply of power by the CGPs/Co-generating plants to GRIDCO for sale to DISCOMs meant for consumption by the consumers in the State, the procurement price of firm power from the CGPs will be Rs.3.00/KWh with effect from 01.3.2009 and to encourage co-generation as is mandated under the Electricity Act, 2003 the power generated by co-generation plants may be given an incentive and shall be paid @ Rs.3.10 per/KWh with effect from 01.3.2009.

304. Keeping in view the serious deficit of power in the State because of low generation of power from hydro sources and the high cost of power procured through UI or power exchange and also increase in coal price from time to time, the Commission in its Order dated 28.10.2009 in Case Nos. 06/09 to 20/09 have revised CGP price to Rs. 3.10 / 3.40 / 3.70 / 4.05 / Unit for different slabs of quantum of power supply w.e.f. 1st November, 2009 in order to ensure supply of surplus power from the Captive Generating Plants at their optimum capacity to the grid when the State is facing acute power shortage. Further in the same order, the price for Co-generation plants has been revised to Rs. 3.20 / 3.40 / 3.70 / 4.05 / Unit w.e.f. 1st November, 2009 for different slabs of quantum of power supply to encourage co-generation as is mandated under the Electricity Act, 2003. The Commission accepts the same procurement price fixed in the aforesaid order dated 28.10.2009 for CGPs and Co-generation Plants for the year 2010-11.

Quantum of Power Purchase

305. GRIDCO as a deemed trading Licensee procures power from the generating stations inside and outside the State to meet the requirements of the consumers of the State. The power purchased by GRIDCO is transmitted through the OPTCL system and supplied to the DISCOMs. There are four Distribution Companies operating within the State. They purchase power in bulk from GRIDCO for supply to the consumers.
306. The estimate for purchase of power for a financial year is worked out in accordance with the following principles laid down in OERC (Terms and Conditions Determination of Tariff) Regulations, 2004:
- (a) *The quantum of power purchase for the ensuing financial year shall be estimated on the basis of actual purchase made during the previous financial year(s), actuals to the extent available for the current year and any projections for the balance period of the current year with appropriate adjustments for any abnormal variations during the period. The licensee through appropriate documentation shall justify all the abnormal deviations. This quantity will be evaluated at the price based on the power purchase agreements, bulk supply agreements etc. consented to by the Commission.*
- (b) *The Commission will not ordinarily consider the additional power purchases beyond the approved level of power purchases. However, if the variation in the actual purchase vis-à-vis the quantum of power as ordered by the Commission is on account of events beyond the reasonable control of the licensee, as established to the satisfaction of the Commission, the resultant*

effect will be taken into account in subsequent accounting years. To meet this additional requirement of power, the licensee shall follow the least cost combination of power procurement.

307. GRIDCO Ltd. as well as DISCOMs have submitted the ARR for 2010-11 to the Commission for approval. The quantum of energy drawl by DISCOMs from GRIDCO has been projected differently both by GRIDCO and DISCOMs in their respective filings. The figures filed by GRIDCO and DISCOMs in their ARR for 2010-11 in respect of drawl of power by DISCOMs are examined and estimated depending upon the quantum of drawl of power based on present trend and additional load growth during FY 2010-11 for EHT and HT industries. The load growth for LT consumer may be met through loss reduction by distribution companies.
308. The Distribution Companies have furnished projections for FY 2010-11 for drawl of power from GRIDCO and GRIDCO has projected the total power purchase to be made from the Generators after taking into account the requirement of distribution companies and emergency requirement of CGPs owning industries and the energy loss in transmission system of OPTCL. Consumers' demand as worked out by DISCOMs and GRIDCO for FY 2010-11 separately are distinctly different in their respective filings.
309. The quantum of power to be purchased for the FY 2010-11 in respect of the four distribution companies has been assessed and approved by the Commission while determining the Revenue Requirement and tariff for the DISCOMs in Case Nos. 140/2009 (CESU), 141/2009 (WESCO), 142/2009 (NESCO) and 143/2009 (SOUTHCO) by following the guidelines of the Regulations quoted above. The Commission approves the quantum of power to be purchased for the FY 2010-11 relating to WESCO, NESCO, SOUTHCO and CESU as 6244 MU, 5122 MU, 2368 MU and 6420 MU respectively totaling to 20154 MU.
310. The Commission has approved 4% towards transmission loss in the OPTCL system for the FY 2010-11, the same level as was approved for the FY 2009-10. The details of transmission loss have been furnished in the tariff order for OPTCL for the FY 2010-11 in Case no 145 of 2009.
311. GRIDCO shall purchase power from the generators and at inter-state points from outside sources while for transmission charges, OPTCL will bill its customers at the delivery points. There would be a gap between the units treated as lost on account of delivery to the customers on the normative basis approved by the Commission and the actual figure. It will be desirable that existing practice of billing on the basis of actual loss shall be followed and final adjustment shall be carried out at the end of FY 2010-11 between GRIDCO and OPTCL adopting the normative basis approved by the Commission. GRIDCO shall give credit to OPTCL for the units deemed to have been lost on account of export of power, if any, because the exporter will pay OPTCL only on actual power received.
312. After having determined the quantum of power purchase for the DISCOMs, the Commission has to estimate the quantum of energy lost on account of transmission at EHT within the State for delivery to the DISCOMs. The Commission has taken into account the sale to CGPs and approves the emergency drawal by CGPs at 10 MU for 2010-11 as projected by GRIDCO. The detailed requirement of power purchase for use within the State is projected in the table below:

Table – 22
Purchase of Power by GRIDCO for State Use for FY 2010-11
(Figures in MU)

Name of the DISCOMs	Commission's Approval for 2009-10	GRIDCO's Proposal in ARR 2010-11	Commission's Approval for 2010-11
CESU	6045.0	6670.00	6420.0
NESCO	4285.0	5140.00	5122.0
WESCO	6430.0	6451.00	6244.0
SOUTHCO	2161.0	2585.00	2368.0
TOTAL DISCOMs	18921.0	20846.00	20154.0
CGP	10.00	10.00	10
TOTAL SALE	18931.0	20856.00	20164.0
Transmission loss at EHT in MU (DISCOMs Purchase only)	788.38 (@ 4.0% Transmission loss)	937.1 (@ 4.3% Transmission loss)	839.75 (@ 4.0% Transmission loss)
Total Purchase	19719.38	21793.10	21003.75

313. The Commission is approving the energy drawal for FY 2010-11 after considering the projections made by DISCOMs and hence there should not normally be any variations from the approved drawal. The Commission has also fixed the monthly drawal limit for each licensee in the aforesaid RST order of the DISCOMs. The licensees should limit their monthly drawal to the approved quantum of energy by reducing distribution Loss. The licensees must also try to stick to the annual energy drawal as approved by the Commission.

Determination of Simultaneous Maximum Demand (SMD) in MVA:

314. Bulk Supply Price (BSP) contains a component of demand charge which is calculated on the basis of average system demand of the distribution companies. The simultaneous maximum demand projected by GRIDCO varies from those of the DISCOMs. The DISCOMs have projected a higher maximum demand keeping in view the up-coming load growth on account of rapid industrialization and rural electrification under RGGVY and BGJY. The monthly drawl of DISCOMs for the period from April'09 to Nov'09 is furnished in a table as under:

Table - 23
Demand in MVA for 2009-10

	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Average (4/09 to 11/09)
CESU	982.06	988.52	986.66	960.26	940.55	944.64	963.92	969.30	966.99
NESCO	706.43	671.69	681.80	708.17	705.42	702.53	697.69	673.93	693.46
WESCO	901.52	887.07	761.56	871.49	842.34	971.18	902.89	787.47	865.69
SOUTHCO	375.74	372.04	360.08	367.22	375.57	371.42	376.42	368.63	370.89
ALL ORISSA	2,965.75	2,919.32	2,790.10	2,907.14	2,863.88	2,989.77	2,940.92	2,799.33	2,897.03

315. It is observed from the above table that the summation of billing demand has fluctuated from months to months with a decline trend during the period from Sept,09 to Nov,09 and has reached a peak of 2989.77 MVA during September, 09. The billing demand recorded in November, 2009 (2799.33 MVA) is even lower than that of

September, 09 (2989.77 MVA) by about 190.44 MVA. The drawl during the period from Dec,09 to March,10 may not exceed the level of September,09 due to prevailing power shortage scenario.

316. GRIDCO in its filing stated that in order to make the projection of SMD more pragmatic, the highest SMD of each DISCOM during first six months for FY 2009-10 has been considered as the SMD of each DISCOM for FY 2010-11. Based on said premise, they have projected the total SMDs for FY 2010-11 as 3043.617 MVA per month as indicated in the Table below:

Table - 24
SMD in MVA per month

DISCOMs	FY 08-09 (Actual)	OERC approval for FY 2009-10	Average SMD of first Six months of FY 2009-10	Projection of GRIDCO for FY 2010 –11 Considering the highest SMD of first Six months of FY 2009-10
CESU	911.138	976.990	967.114	988.523
NESCO	682.526	679.700	696.008	708.173
WESCO	960.018	1007.670	872.526	971.181
SOUTHCO	358.087	362.240	370.344	375.740
TOTAL	2911.769	3026.600	2905.992	3043.617

317. The Commission analysed the drawl pattern by the HT and EHT consumers as well as the requirement of area loads. After recasting the estimated requirement of power during the current FY 2009-10, it was observed that due to industrialization, there may be an additional requirement of about 431.69 MU during FY 2010-11 by the HT and EHT group only excluding WESCO, as WESCO is likely to register a negative growth of 141.09 MU during FY 2010-11. As far as the requirement of low voltage consumers are concerned it is expected that the additional load growth in this category will be met out of the savings due to reduction in distribution loss. Thus, for meeting this additional demand of 431.69 MU, the additional MVA requirement has been worked out with a system power factor of 0.90. So, the Commission has estimated the Demand of the DISCOMs for FY 2010-11 taking the actual demand of Sept, 09 plus additional load growth during FY 2010-11. But in case of CESU , the Commission approves the demand taking actual average from April,09 to Nov,09 plus additional load growth during 2010-11 since CESUs demand during Sept,09 was minimum. However, NESCO projected a lower demand for 2010-11 than our estimated figure, the Commission approves the same as projected by NESCO. The total estimated demand in MVA for DISCOMs is given in the table below.

Table - 25
Demand in MVA for 2010-11

DISCOMs	OERC Approval for 2009-10	Proposal by DISCOMs for 2010-11	Proposal by GRIDCO for 2010-11	Actual avg SMD during 4/09 to 11/09	Actual for Sept, 2009	Additional Load growth for HT & EHT consumer as estimated for 2010-11 (MU)	Additional load growth converted to MVA at a power factor 0.9	Actual for 9/09 + Additional load growth	OERC Approval for 2010-11
CESU	976.99	1072.0	988.52	966.99	944.64	42.72	5.42	950.06	972.0 (Avg. upto 11/09+ addl load)
NESCO	679.70	730.0	708.17	693.46	702.53	338.15	42.89	745.42	730.0 (As projected by Discoms)
WESCO	1007.67	1050.0	971.18	865.69	971.18			971.18	971.0
SOUTHCO	362.24	410.0	375.74	370.89	371.42	50.82	6.45	377.87	377.0
ALL ORISSA	3026.60	3262.0	3043.62	2897.03	2989.77	431.69	54.76	3044.53	3050.0

318. Taking into account the SMD in different months of 2009-10 and the additional load projected by the DISCOMs the SMD for 2010-11 has been fixed at 3050 MVA, within which the DISCOMs should operate subject to an overdrawal of maximum 10%. There is penal provision for drawal exceeding the prescribed demand limit (refer Para 517).

Purchase of Power from Different Generating Stations

State Hydro

319. GRIDCO's proposal and Commission's approval for 2010-11 for various stations of OHPC are given in the table below, the details of which have been dealt in Case No.147/2009 for determination of tariff and revenue requirement of OHPC, where the Commission has considered the existing design energy of OHPC power stations for the purpose.

Table – 26
Drawal from State Hydro Stations (in MU)

Source of Generation	FY 2009-10		FY 2010-11	
	Commission's Approval	GRIDCO's Proposal	Commission's Approval	GRIDCO's Proposal
OHPC (Old Stations)	3948.35	3686.00	3676.86	
Upper Indravati	1971.09	1944.36	1942.38	
Machkund	265.00	262.50	262.50	
Total Hydro	6184.44	5892.86	5881.74	

320. The Commission noted that in the year 2008-09, out of 561.45 MU (net energy for sharing) of Machkund Power, Orissa drawal is 242.85 MU (43.25%). In the current year 2009-10 (up to December, 09), the net energy for sharing of Machkund Power is 405.06 MU and the Orissa drawal is 199.62 MU (49.28%). Machkund power station runs in synchronisation with Southern Grid. Orissa avails the power from Machkund radially. Commission desires that requisite radial load be put on the Machkund power station by disconnecting from the Eastern Grid, so that the State can draw at least 50%

of Machkund generation every day. GRIDCO/OPTCL and SOUTHCOP should co-ordinate to maximise the drawal from Machkund.

Talcher Thermal Power Station (TTPS)

321. Talcher Thermal Power Station having installed capacity of 460 MW is owned and operated by NTPC, but its generation is fully dedicated to the State. The net energy availability to GRIDCO has been projected at 2957.32 MU at a normative plant availability of 82.0% with adjustment of Auxiliary Consumption of 10.50 % as per CERC Norms applicable from April, 2009 onwards. The NTPC will get full capacity charge at a normative plant availability of 82% and any deviation from normative plant availability will attract lower capacity charge or incentive payment. Therefore, the Commission approves the net drawl of 2957.32 MU from TTPS for the FY 2010-11 as projected by GRIDCO.

IB Thermal Power Station of OPGC

322. Orissa Power Generation Corporation (OPGC) owns IB Thermal Power Station at Banarpalli in Dist. Jharsuguda with an installed capacity of 2x210 MW.
323. The Commission vide letter No.2548 dtd.13.11.2009 had directed OPGC to file the ARR in the specified tariff filing formats by 30.11.2009. OPGC vide its letter No.3105 dtd.30.11.2009 informed the Commission that they reiterate their position communicated vide their letter no. 319 dated. 02.02.2009 and further informed that the Tripartite Agreement is being renegotiated among the counter-parties considering the Govt. of Orissa Notification dtd. 12.10.2009 modifying the earlier notification dtd. 21.06.2008. On the finalization of the amendments to Power Purchase Agreement and Tripartite Agreement further course of action as stated in the above communication will be followed. In this letter they have also mentioned that in view of the above, they may not be required to file any further information for determination of generation tariff of OPGC for the year 2010-11 at this point of time.
324. OPGC did not file its ARR with the Commission for the FY 2010-11 under the plea that it was selling power not to any distribution company but to GRIDCO, which is now a trader. The sale of power by OPGC to GRIDCO is governed by a bilateral agreement (PPA) dated. 13.08.1996. This PPA was held to be invalid by the Hon'ble High Court of Orissa in their Judgement dated 22.02.2005 in OJC No.13338/2001 for want of consent of the Commission u/s 21(4) of the Orissa Electricity Reforms Act, 1995; and in the said Judgement the Hon'ble High Court directed that a fresh PPA filed by GRIDCO, vide Case No.13/02, should be disposed of by the Commission. OPGC went up in appeal against the aforesaid Order of the Hon'ble High Court and by Order dated. 29.04.2005 in SLP(C) Nos.6812-6813 of 2005, the Hon'ble Supreme Court had stayed further proceedings before the Commission in respect of the said subsequent PPA. The question of Commission's power to set tariff for generating companies in respect of sale to distribution companies u/s.62 (1)(a) of the Act, has not been an issue in the aforesaid case before the High Court and the Supreme Court. In the Supreme Court, OPGC has taken the stand that the PPA dated 13.08.1996 subsists and the High Court has wrongly decided that the said PPA was void. In view of OPGC's own stand before the Supreme Court, the Commission has proceeded on the footing that till the issue of validity of PPA is settled, the sale of power by OPGC to GRIDCO would be governed by the provisions of the said PPA dated. 13.08.1996 and the matter rest on the bilateral contract between OPGC and GRIDCO including provisions relating to parameters of tariff calculation.

325. In order to resolve the dispute between GRIDCO and OPGC regarding tariff for power purchase from Unit I&II, the Govt. of Orissa vide its Resolution No.3895 dated 07.05.2007 constituted a Task Force. The said Task Force had submitted its recommendations to the State Govt. and after considering the same the Deptt. of Energy, GoO vide its notification dated 21.06.2008 (published in Orissa Gazettee No.1280 dated 07.09.2008) has decided as follows:
- (a) OPGC shall withdraw the SLP filed before the Hon'ble Supreme Court of India against the judgment of Hon'ble Orissa High Court regarding the jurisdiction of OERC for approval of PPA for units I & II of ITPS.
 - (b) To avoid any ambiguity with regard to tariff norms and parameters for Units I & II, the provisions for calculation of incentives in the existing PPA shall stand amended to enhance the Plant Load Factor (PLF) from 68.49% to 80%.
 - (c) The amended PPA shall be filed before the OERC for consent/approval.
 - (d) The amended PPA shall be effective with effect from 1st April, 2007.
 - (e) OPGC shall take expeditious steps for commissioning of units 3 & 4 with installed capacity of 2x600 MW and shall make 50% of the power generated from these units available to GRIDCO.
 - (f) The PPA for power made available to the State/GIDCO shall be subject to approval of OERC and the tariff norms and parameters shall be as per the tariff norms as may be notified by CERC from time to time.
326. OPGC vide its letter No.319 dated 02.02.2009 has informed the Commission that after due consultation with Govt. of Orissa and GRIDCO it will bring suitable amendment to the PPA and tripartite agreement which shall be filed before the Commission after appropriate withdrawal of the pending case before the Hon'ble Supreme Court. But till today OPGC has not withdrawn the said SLP from the Hon'ble Supreme Court.
327. The Commission has to determine the power procurement price of DISCOMs, which in the situation of a Single-Buyer-Model prevailing in Orissa turns out to be the selling price of the single buyer i.e, GRIDCO under the subsisting BSAs with the DISCOMs. Moreover, because of the prevailing single buyer model created by the joint operation of the PPA of OPGC and GRIDCO and of the BSAs of GRIDCO with the DISCOMs of Orissa, GRIDCO is functioning as a mere conduit, and the only conduit, for supply of power from OPGC to DISCOMs of Orissa. The aforesaid PPA coupled with Bulk Supply Agreements of GRIDCO with DISCOMs has brought about a situation that in effect and substance amounts to supply of power by OPGC to DISCOMs. Since u/s. 62(1)(a) of the Act, the Commission has a duty to determine tariff for supply of electricity by a generating company to a distribution licensee, the Commission can apply the tariff so determined to the sole trader whose trading is confined to buying all the power generated by OPGC and selling it only to DISCOMs of Orissa so long as their requirements remain unfulfilled, and DISCOMs have no option to buy power from any other source. The Commission, therefore, overruled OPGC's plea in its letter No.3531 dated.27.11.2008, that the Commission cannot require it to furnish ARR u/s. 62(2) of the Act. OPGC ought to have filed its ARR as a matter of its statutory duty. Since it did not do so, the Commission has had to provisionally apply the parameters of tariff set forth in the aforesaid PPA dated.13.08.1996 & Orissa Gazette No.1280 dtd.07.09.2008 and proceed on the information made available to it by the other contracting party namely GRIDCO for

calculating its fixed cost, variable charges, FPA and Year-end Charges for fixing its tariff u/s. 62(1) (a) of the Act qua DISCOMs. The Commission further directs that the bulk purchase price based on tariff now determined shall be applicable to sale of OPGC's power to GRIDCO under the single buyer model.

328. OPGC in its generation plan for FY 2010-11 had projected a target generation of 3153.01 MU. As per the power purchase agreement signed between GRIDCO and OPGC the auxiliary consumption is taken as 9.50%. Accordingly, GRIDCO proposes net generation availability of 2853.474 MU from OPGC considering projected PLF of 85.7%. The Commission approves a net drawl of 2853.53 MU for FY 2010-11 considering 85.7% PLF and 9.50% auxiliary consumption.

Captive Generating Plants (CGPs) & Co-generation Plants

329. GRIDCO, in its application, has submitted that as per guidelines stipulated in the OERC Pricing Policy dated 14.03.2008 for sale of surplus power of CGPs in Case No. 72/2007, GRIDCO is committed towards harnessing surplus power from various Captive Generating Plants (CGPs) & Co-generation Plants of the State. GRIDCO has been procuring power from different CGPs & Co-generation Plants in line with the tariff and provisions fixed by the Commission from time to time in its Interim Orders dated 28.02.2009, 30.06.2009 and 28.10.2009 in Case Nos. 06/09 to 20/09 in the matter of sale of surplus power by CGPs & Co-generation Plants with effect from March'09.
330. As per the direction of the Commission in their Order dated 27.06.09 in Case No. 59/2009, GRIDCO has classified 15 Nos. of CGPs as Co-generating Plants in accordance with the Report of the Chief Electrical Inspector (CEI) dated 23.09.09 based on the Govt. of India Notification dated 06.11.1996.
331. In the first half of the current Financial Year, GRIDCO has already procured 776 MU of power from CGPs and 286 MU from Co-generation Plants including the maximum injection by CGPs like NBVL and Jindal Stainless Ltd. However, based on the average monthly injection by each of the CGPs and Cogeneration plants during the first 6 months of current year 2009-10, GRIDCO proposes to draw around 1035 MU from different CGPs and 545 MU from the Cogeneration Plants during FY 2010-11 as given in the Tables below.

Table - 27

Drawl from Captive Generating Plants (CGPs)

Captive Generating Stations	Energy drawal during 2008-09 (MU)	Energy drawal during the 1st six months of 2009-10 (MU)	Energy Proposed for FY 2010-11 (MU)
NALCO	80.28	13.62	26
IMFA	45.323	136.69	260
HINDALCO	49.941	39.20	74
RSP	14.00	7.94	15
NBVL	179.36	139.03	168
Vedant (Jharsuguda)	28.553	122.92	233
Jindal Stainless Ltd.	280.01	317.08	259
SCAW	3.103	0	0
TOTAL	681	776	1035

Table – 28
Drawal from Co-Generation Stations

Co-Generating Plants	Energy drawal during 2008-09 (MU)	Energy drawal during the 1st six months of 2009-10 (MU)	Energy Proposed for FY 2010-11 (MU)
NINL	76.49	41.90	80
ARATI STEEL	127.39	68.31	130
Tata Sponge	126.11	61.66	117
SMC Power	33.54	12.53	24
Pattnaik Steel	15.19	16.83	32
IFFCO	0.00	8.27	16
VISA Steel	1.97	3.54	7
VEDANTA, Lanjigarh	15.01	11.44	22
SHYAM DRI	31.012	9.51	18
BHUSAN Steel Ltd.	62.697	12.48	24
Rathi Steel & Power	0.38	9.33	18
SREE Mahavir Ferro Alloys.	0.15	15.54	30
Action Ispat	0.00	5.32	10
Aryan Ispat	0.00	0.55	1
Bhushan power & Steel Ltd.	35.382	8.58	16
Total	525.32	285.79	545.00

332. Further, GRIDCO in its additional submission on 25.01.2010 has stated that the drawl of 16 MU from Bhushan Power & Steel Ltd (BPSL) was considered as the drawal from Co-generation plant in their original application. But this is to be considered as drawal from CGPs instead of Co-generation plant because Bhushan Power & Steel Ltd (BPSL) is actually a CGP Unit, but not a Co-generation plant. Hence the total projected drawal from CGPs and Co-generation Plants for FY 2010-11 comes to 1051 MU & 529 MU respectively.
333. The Commission scrutinized the proposal of GRIDCO and based on the requirement for the state to be met by the DISCOMs, the Commission approves drawal of power at 1051 MU from CGPs & 529 MU from Co-generation Plant for FY 2010-11 and of course this excludes purchase of surplus power from CGPs & Co-generation Plant for trading purpose.
334. However, the present approval shall not be a limiting factor for GRIDCO for drawl of power from CGPs and Cogeneration plants to meet the demand of the State. GRIDCO shall inform the Commission for drawl in excess of the power now approved. Further, the Commission also directs GRIDCO to negotiate with CGPs & Co-generation Plants for harnessing more power for trading purposes.
- Renewable Energy:**
335. GRIDCO has submitted that it was able to procure 96.50 MU from Renewable sources during the first six months of FY 2009-10 in respect of power from Small Hydro Project of M/s Meenakshi Power Ltd. GRIDCO submitted that around 300 MU

of renewable power from small hydro sources would be available to GRIDCO during FY 2010-11 as given in the table below.

Table – 29
Proposed Drawal from Renewable Energy Sources

Renewable Energy Sources.	Energy drawal during FY 2008-09 (MU)	Energy drawal during the 1st six months of 2009-10 (MU)	Energy Proposed for FY 2010-11 (MU)
Meenaskhi Small Hydro	0.00	96.521	150
SAMAL Small Hydro	0.00	0.00	150
Total	0.00	96.521	300

336. Further in replies to the Commission's queries, GRIDCO has stated that Meenakshi and Samal were expected to get synchronized earlier for which higher expectation was made while filling the ARR of 2009-10. Meenakshi and Samal have delayed in synchronization. The details about installed capacity, design energy and date of commercial operation are given below:

Table – 30

Name of the Stations	Installed Capacity (MW)	Design Energy (MU)	Date of Synchronisation/ Commercial Operation
Meenaskhi HEP	3x4+2x12.5=37	141.57	14.07.2009
SAMAL Small HEP	5x4=20	113.84	20.10.2009

337. The generation from these SHEPs depends on the flow from the Kolab and Rengali respectively. Since the reservoirs of the above units are at a lower level during 2009-10, the flow is at a lower side for which the generation at those two SHEPs are in lower side. Till Dec'09 GRIDCO received 139 MU and 6.126 MU from Meenakshi HEP & Samal small HEP respectively. GRIDCO expects to draw 250 MU from these two stations during FY 2009-10. Hence GRIDCO expected to draw 300 MU from those stations during FY 2010-11.
338. The Commission allows GRIDCO to purchase 300 MU from renewable sources of these two SHEPs for consumption in the state during FY 2010-11.
339. The Commission in its Order dated 20.08.05 in Case No. 14/2005 have directed that procurement of power from Non-conventional and Renewable Energy sources such as small hydro, wind, bio-mass, co-generation of electricity from waste heat products etc. would be allowed by the supply licensees for use of consumers within the State upto 3% of the total power purchase during the FY 2007-08 and to go up at the rate of 0.5 % per annum for each subsequent year to reach a level of 5 % per annum by FY 2011-12.
340. The Commission observes that generation of power in co-generation plant were obtained from waste heat recovery process which can be treated as Green Power but not non-conventional or renewable. It is Green Power, because Green House Gas (GHG) emission is reduced. Since fossil fuel is used in the Kilns of the Co-generation Plants in our State, it is not renewable energy. Co-generation is a process which simultaneously produces two or more outputs including electricity. Under Section

86(4)(e), the Commission is mandated to promote co-generation. However, since co-generation plants also generate electricity and promote efficiency of energy usage they deserve all encouragement and should continue to be classified under co-generation, rather than under captive generation.

341. GRIDCO has projected to avail 529 MU from the co-generation plants in the State and 300 MU from Renewable sources of small hydro during the FY 2010-11. Hence, for compliance of the aforesaid order dtd. 28.08.2005 of the Commission, the total procurement projected by GRIDCO comes to 829 MU for the FY 2010-11.

Independent Power Producer (IPP):

342. GRIDCO submitted that the IPPs with whom it has executed Power Purchase Agreements (PPAs) are in various stages of implementation. The first unit of M/s. Sterlite Energy (P) Ltd. (4x600 MW) is expected to be commissioned during October, 2010. M/s. Sterlite Energy Limited has signed an agreement with GRIDCO to make available the entire power from its first Unit of 600 MW for State Consumption. With an expected PLF of 80% and Auxiliary Consumption of 10%, GRIDCO hopes that M/s Sterlite Energy Ltd. may inject about 430 MW. Thus, GRIDCO expects to receive around 1886.59 MU (equivalent to 430 MW) from M/s. Sterlite Energy Ltd. from 1st October, 2010 to 31st March 2011.
343. The Commission considered the above proposal of GRIDCO and observed that the generation from the plant of M/s. Sterlite Energy Ltd. has not yet been started. Hence, based on the requirement for the state to be met by the DISCOMs, against GRIDCO's anticipated figure of 1886.59 MU, the Commission approves only 646.23 MU to be purchased by GRIDCO from M/s. Sterlite Energy Ltd. during the FY 2010-11 for consumption in the state. However, depending on the requirement, cost and availability GRIDCO may purchase more quantity of energy from M/s Sterlite Energy Ltd. In fact, GRIDCO may draw the full quantum of power from the 1st unit of the IPP as State's share as per the amended PPA and may like to have export earning after meeting the State's requirement.
344. Commission understands that M/s Sterlite Energy Ltd. is planning to synchronise its first 600 MW unit in April, 2010 itself through 220 KV D/C line between M/s Sterlite IPP generating S/s – M/s Vedanta Aluminium Ltd. CGP S/s and Budhipadar 220 KV Grid S/s of OPTCL. The infirm power and power during the stabilization period of the first unit of the IPP may start flowing to the State Grid from April, 2010 itself. Commission directs GRIDCO/OPTCL to make all necessary arrangements including metering arrangement at the bus-bar of M/s Sterlite Energy Ltd. (IPP) to identify separately injection of M/s Sterlite (IPP) and M/s Vedanta Aluminium (CGP). All efforts to be taken to harness maximum injection from both the IPP and the CGP.

Power Purchase from Central Generating Stations

Transmission Loss:

345. The constituents of power utilities of the Eastern Region share the losses occurring in the central transmission system. GRIDCO had considered the central sector system loss at 3.87% in the ARR for 2010-11 based on the Central Sector Transmission Loss for 2009-10 as approved by OERC in ARR of 2009-10. In replies to the Commission's queries, GRIDCO has submitted that the Central Sector Transmission Loss for FY 2008-09 and FY 2009-10 (up to October, 09) was at level of 3.73% & 3.09% respectively. It is observed from the data circulated by ERLDC that the weekly system loss for ER system varied from 2.3% to 3.8% for the current year up to 2nd

Week of February 2010. However, the same for FY 2008-09 varied from 2.8% to 4.5%. On examination of the proposal submitted by GRIDCO and ERLDC data, it is observed that the average central transmission loss has been in decreasing trend due to system improvement. As per the calculation based on the data submitted by GRIDCO, the actual central sector system loss for GRIDCO drawal of central sector power during FY 2008-09 was at the rate of 3.65% & the same for 2009-10 up to October, 09 was 3.09% only. Higher loss in ER system has impact only on actual energy drawl of GRIDCO but not on total cost, since cost is calculated on gross drawl. As ABT system is in operation and loss has been calculated by ERLDC on weekly basis, the percentage loss varies from week to week ranging from 2.3% to 3.8% during the period from April, 09 to second week of February, 10. This kind of loss variation is on account of the nature and quantum of power flow in the system. So, the Commission accepts the Central Sector loss of 3.09% for FY 2010-11 based on average of actual loss in Central Transmission System from April to October, 2009.

Central Generating Stations (CGSs)

346. Orissa has been allocated shares in all the NTPC stations located in the Eastern Region as well as from the Chukha and Tala Hydro Electric Projects in Bhutan and Teesta Hydro Electric Project in Sikkim. The entitlement from these stations is based on share allocation made by the CEA/MoP from time to time. The energy accounting from these stations is done on a monthly basis as per the ABT based Regional Energy Accounts (REA) prepared by the Eastern Regional Power Committee. Since ABT has come into operation from 01.04.2003 in the Eastern Region, GRIDCO has proposed to draw the entire share from ER NTPC stations considering generation at different PLF i.e. TSTPS Stage-I at 85%, TSTPS Stage-II at 85%, FSTPS at 75%, KhSTPS Stage I & II at 70% instead of normative availability of 85% as per CERC Tariff Regulation, 2009. GRIDCO has considered the central sector transmission loss of 3.87% while projecting the availability from these stations for FY 2010-11.
347. GRIDCO has stated that in case of TSTPS-I & II, the normative generation have been considered for FY 2010-11 as the normative availability was achieved during last / current year (up to Sept'09) by the Plant. While for FSTPS & KhSTPS-I & II, the targeted availability could not be achieved during last / current year (up to Sept'09) in view of the coal shortage scenario. The same situation is expected to continue for the ensuing year 2010-11. Hence, GRIDCO has estimated the drawal from the Central Sector Thermal Stations considering the PLF% as suggested above and percentage of auxiliary Consumption based on the CERC Regulations, 2009 along with the Central Sector Transmission Loss.
348. The Central Electricity Regulatory Commission (CERC) has notified the CERC (Terms and Conditions of Tariff) Regulations, 2009 on 19th January, 2009. As per new CERC Tariff Regulations 2009, the availability from the CGSs at 85% PLF would entitle them for recovery of full capacity charge. If the normative availability is not achieved by any stations there would be reduction in their fixed cost. That is why the energy drawl from the above central sector stations has been estimated by taking 85% PLF for FY 2010-11. The Commission considers the Central Sector transmission loss @ 3.09% for the above drawl as stated earlier.
349. Tariff of the CGSs is determined by the CERC by virtue of the authority vested under Section 79 of the Electricity Act, 2003. The Commission takes note of these decisions examining the justification and correctness of the claims raised by GRIDCO in respect of CGSs power, based on the various orders of the GOI/MOP/ CEA & CERC

and clarifications thereon provided by the applicant. With the above stipulations, the details of GRIDCO's drawl from Central Thermal Stations, approved for the FY 2010-11 are given in table below:

Table - 31
Drawal From Central Thermal Generating Stations for FY-2010-11

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons. (%)	Availability considering 85% PLF (MU)	GRIDCO Share (%)	GRIDCO Share (MU)	Approved estimated Share excluding Central Sector Transmission Loss of 3.09% (MU)	GRIDCO's proposal excluding Central Sector Transmission Loss of 3.87% (MU)
TSTPS –I	1000	6.50	7446	31.80	2213.92	2145.54	2128.24
TSTPS –II	2000	6.50	14892	10.00	1392.40	1349.39	1338.52
FSTPS	1600	6.94	11913.6	13.63	1511.17	1464.49	1281.89
KhSTPS –I	840	9.00	6254.6	15.24	867.42	840.63	686.62
KhSTPS – II	1500	6.50	11169.0	0.60	62.66	60.72	49.60
TOTAL	6940		51675.2		6047.57	5860.77	5484.87

- 350. **Chukha:** Orissa has been assigned a share of 15.19% from ER allocation of 270 MW of Chukha Hydro Power Station, Bhutan. Drawl from Chukha has been projected by GRIDCO at 261 MU for FY 2010-11 considering the average drawal of last 5 years i.e. from FY 2004-05 to 2008-09. After deducting central sector loss of 3.87%, the net availability to GRIDCO is projected at 251 MU for the FY 2010-11.
- 351. The Commission scrutinized the proposal of GRIDCO and observed that the drawal of GRIDCO from Chukha was 283.37 MU for the FY 2008-09 and during 2009-10 upto January, 2010, it comes to 265.43 MU. It is also known that the generation from Chukka during summer is very high and during winter it is generally very low. The Commission had approved a drawal of 281.14 MU from Chukka during 2009-10. The Commission's approved drawal from Chukha for the year 2009-10 is expected to be achieved by the end of the year. So the Commission approves the drawl from Chukha hydro station at 280.46 MU for FY 2010-11 considering the average drawal of last 3 years i.e. from FY 2006-07 to 2008-09. After deducting the Central Loss of 3.09%, the net drawal of GRIDCO comes to 271.79 MU for FY 2010-11.
- 352. **TALA:** GRIDCO has an allocated share of 4.25% from Tala HEP having installed capacity of 1020 MW (6X170 MW). GRIDCO proposed to draw 150 MU of energy from Tala HEP during FY 2010-11 by averaging previous 2 years data. After deducting Central Sector Loss of 3.87%, the net availability to GRIDCO is projected as 144 MU during FY 2010-11.
- 353. The Commission accepts the proposal of GRIDCO for estimated drawal of 150 MU and considering central sector transmission loss of 3.09%, approves the net drawl of 145.17 MU from Tala HEP for FY 2010-11.
- 354. **TEESTA:** GRIDCO has an allocated share of 20.59% from the Teesta-V HEP Installed Capacity of 510 MW (3X170 MW). GRIDCO has proposed to draw 461 MU of energy during FY 2010-11considering annual saleable energy for Teesta HEP. After deducting Central Sector Loss of 3.87%, the net availability to GRIDCO is projected at 443 MU.

355. The Commission scrutinized the proposal of GRIDCO with reference to Regional Energy Account (REA) prepared by ERPC. It is observed that the GRIDCO is entitled to get a share of 20.59% on the total generation less auxiliary consumption. So the Commission estimates a drawal of 523.36 MU considering the share of 20.59% on 2541.80 MU i.e. design energy less auxiliary consumption of 1.2%. After considering the central sector transmission loss of 3.09%, Commission approves the net drawl of 507.19 MU from Teesta HEP during FY 2010-11.

Summary of the proposal for purchase of power and approval by OERC

356. A summary of GRIDCO's proposal for purchase of power from different generating stations and the Commission's approved quantum of purchase for FY 2010-11 is given in the table below:

Table – 32
Quantum of Power Purchase from Various Sources for FY 2010-11
(Figures in MU)

Sources of Purchase	Commission's Approval for State Drawl for 2009-10	GRIDCO's Proposal for 2010-11	Estimated Availability for 2010-11	Commission's Approval for State Drawl for 2010-11
OHPC (OLD)	3948.35	3686.00	3676.86	3676.86
Indravati	1971.09	1944.36	1942.38	1942.38
Machhkund	265.00	262.50	262.50	262.50
HYDRO (Orissa)	6184.44	5892.86	5881.74	5881.74
TTPS	3085.07	2957.32	2957.32	2957.32
OPGC	2955.66	2853.47	2853.53	2853.53
CGP	124.64	1051.00	1051.00	1051.00
Co-Generation Plants		529.00	529.00	529.00
Renewable Energy	530.00	300.00	300.00	300.00
IPPs (Sterilite Energy)		1886.59	1886.59	646.23
TOTAL ORISSA	12879.81	15470.24	15459.18	14218.82
Chukha	270.26	251.00	271.79	271.79
TALA	174.02	144.00	145.17	145.17
TEESTA	490.06	443.00	507.19	507.19
HYDRO(Central)	934.34	838.00	924.156	924.16
TSTPS-I	2105.52	2128.24	2145.54	2145.54
TSTPS-Stage -II	1324.22	1338.52	1349.39	1349.39
FSTPS	1443.00	1281.89	1464.49	1464.49
KHSTPS-I	833.86	686.61	840.63	840.63
KhSTPS-Stage -II	198.63	49.60	60.72	60.72
Thermal (central)	5905.23	5484.86	5860.77	5860.77
TOTAL EREB	6839.57	6322.86	6784.93	6784.93
TOTAL GRIDCO PURCHASE	19719.38	21793.10	22244.11	21003.75

Power Procurement Cost

357. The cost of power is the highest component in the revenue requirement of GRIDCO. The Commission, for determination of the cost of power purchase, has exercised due diligence in arriving at the cost in respect of each of the power station based on the relevant rules, regulations and documents available.

358. Section 86 of the Electricity Act, 2003, amongst other things, provides for determination of the generation tariff by the Commission. Further, under Section-61 of the Electricity Act, 2003, the OERC shall be guided by the principles and methodologies specified by the CERC for determination of tariff applicable to generating companies.
359. OHPC had submitted the application for approval of its Annual Revenue Requirement and Tariff of its individual power stations separately for the financial year 2010-11 in terms of Section-62, 64 and 86 of the Electricity Act, 2003 registered as Case No.147/2009. The tariff approved in the said order will be utilised as the input for the determination of cost of power purchase from all stations of OHPC.
360. Accordingly, the rate as approved in respect of each of the power stations of OHPC is given in the table below:

Table – 33
Schedule of Tariff for OHPC Stations for FY 2010-11

Name of the Power Station	Quantum of Power Purchase for 2010-11 (MU)	Approved Average Tariff for 2010-11 (P/U)	Cost Rs.in Cr.
Burla	677.16	89.54	60.64
Chipilima	485.10	46.98	22.79
Balimela	1171.17	58.41	68.40
Rengali	519.75	69.09	35.91
Upper Kolab	823.68	33.17	27.32
Upper Indravati	1942.38	75.59	146.82
Total	5619.24	64.40	361.88

Machhkund Hydro Electric Project

361. OHPC had requested for approval of a rate of 21.95 paise/unit for purchase of power of Machhkund Power Station for the year 2010-11 based on energy drawl of 262.50 MU. Orissa has to pay O & M charges for the energy drawal from Machakund upto 30% and beyond 30% and upto 50% @ 8 paise/unit. OHPC has also requested to pass through an amount of Rs 0.52 Crore towards arrear royalty to be reimbursed from GRIDCO and payable to the State Govt. With this principle, the cost of Machakund power comes to 21.95 P/U considering energy drawal of 262.5 MU against 13.90 paise per unit approved for 2009-10.
362. The Commission has taken into consideration the net amount payable by Orissa towards O&M expenses for the year 2008-09 (actual) on account of 30% share which is of the order of Rs.3.94 crore. Allowing an escalation of 5.72% per annum for the year 2009-10 and 2010-11, O&M expenses come to Rs. 4.404 crore. Taking power purchase cost of Rs. 0.84 crore towards purchase of power beyond 30% and upto 50% @ 8 paise/unit and arrear royalty of Rs 0.52 crore as proposed by OHPC, total cost comes to Rs. 5.76 crore. Hence, the rate per unit of Machakund power comes to 21.95 paise for the year 2010-11 considering energy drawal of 262.50 MU. Accordingly, the procurement cost of Machakund Power by GRIDCO works out to be Rs.5.76 crore for an approved energy drawal of 262.50 MU.

Talcher Thermal Power Station (TTPS)

363. Talcher Thermal Power Station is owned and operated by NTPC and determination of tariff for this generating station comes under the purview of Central Electricity Regulatory Commission (CERC).
364. **Fixed Cost:** GRIDCO in its ARR application has projected the fixed cost of TTPS at Rs.217.39 cr. as per the recent NTPC filing before the CERC for the FY 2008-09 after considering the additional capitalization. Besides as per the new CERC Regulation, 2009, effective from 01.04.2009 onwards on account of O&M cost @ Rs.34.62 lakh/MW, the additional O&M cost alone has been proposed at Rs. 58.27 cr per annum. Hence, the total fixed cost proposed by GRIDCO taking into account the revised O&M charges was Rs.275.66 cr. Further, GRIDCO in its filing on complying the queries of Director (Tariff) has stated that as per the new CERC Regulation, 2009, NTPC has applied to CERC on 30.11.2009 for revision of the fixed charges of TTPS for the next five years effective from FY 2009-10. As per the said filing of NTPC the fixed cost of TTPS for FY 2010-11 has been proposed at Rs.353.18 cr. Hence, GRIDCO requested the Commission to consider the fixed cost of Rs.353.18 cr for TTPS for the FY 2010-11 instead of Rs. 275.66 cr. as was proposed in the original application.
365. After scrutiny of all the submissions of GRIDCO in this regard, the Commission observed that as per the CERC order dtd. 03.02.2009, the Annual Fixed Cost for TTPS was Rs.199.37 cr for FY 2008-09 and also CERC in its Order dtd. 11.01.2010 has revised the fixed cost of TTPS to Rs.200.88 cr for FY 2008-09. The submission of NTPC before CERC for revision of the fixed cost of TTPS to Rs.217.39 cr. for the FY 2008-09 as per the CERC Regulations, 2004 and determination of fixed charges of TTPS for the FY 2009-10 to 2013-14 as per the new CERC Regulations, 2009 are yet to be finalized by CERC. Hence, the Commission provisionally approves the fixed cost of TTPS to the tune of Rs.200.88 cr for the FY 2010-11 as per the latest order dtd. 11.01.2010 of CERC regarding fixed cost of TTPS for the FY 2008-09.
366. **Variable Charges:** GRIDCO has proposed that as per the latest CERC order in consonance with CERC Regulations, 2004, NTPC is presently claiming the base variable charge for TTPS @ 46.05 P/U. CERC has not yet come out with any rate to be applicable for 2009-14 tariff periods. Therefore, GRIDCO has proposed the same rate of 46.05 P/U towards variable charge of TTPS for FY 2010-11. After scrutiny of the above proposal of GRIDCO, the Commission accepts the variable cost of TTPS @ 46.05 P/U for the FY 2010-11.
367. **FPA:** GRIDCO in its ARR submitted that the average Fuel Price Adjustment (FPA) Charge as claimed by TTPS for first six month of FY 2009-10 comes to 43.81 P/U. Considering 11% escalation over and above the Average Price of 43.81 P/U, the FPA comes to 48.63 P/U for FY 2010-11. The month-wise FPA as claimed by TTPS are given below:

Table - 34
Fuel Price Adjustment (FPA) OF TTPS (P/U)

Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Average	GRIDCO proposal for FY 2010-11 considering 11% escalation over the avg.
54.78	36.69	36.92	34.64	46.89	52.95	43.81	48.63

368. GRIDCO has further stated that the proposed charges are likely to increase due to non-availability of indigenous coal and use of costlier imported coal. Hence, Commission may consider approving a higher rate of such charge by exercising their prudence at the time of approving the ARR and BSP of GRIDCO for FY 2010-11.
369. The Commission scrutinized the proposal of GRIDCO and approves the FPA rate of 48.63 P/U for FY 2010-11 in respect of TPPS as estimated by GRIDCO.
370. **Year-end Charges:** GRIDCO has submitted that the year-end charges of TPPS include cess on water, water charges, electricity duty, incentive and income tax. GRIDCO has claimed Rs.18.92 crore towards income tax, Rs.7.24 crore towards Electricity duty, Rs.0.124 crore towards water/pollution Cess charge and Rs 3.19 crore towards incentive @ 25 P/U for 2010-11 based on excess generation over and above the normative level of generation. Besides an amount of Rs.6.00 crore has been claimed towards UI overdrawl. Hence the total year-end-charges proposed by GRIDCO come to Rs. 69.25 crore for FY 2010.11. The Commission on examination of the claims approves (i) Rs.18.92 crore towards income tax (ii) Electricity duty of Rs.6.94 crore calculated @ 20 paise/unit on auxiliary consumption on the generation at 82% PLF, (iii) No Incentive has been approved as there is no excess generation over and above the normative generation of 82%. (iv) Water cess/Charge of Rs.0.124 crore. Thus, the year-end charges approved for 2010-11 come to Rs.25.98 crore. The claim for UI overdrawl is not being allowed in the tariff since the possibility of overdrawl or underdrawl is difficult to predict at this moment. The year-end charges proposed by GRIDCO and approved by the Commission for the FY 2009-10 is shown in the table below:

Table – 35
Year-End Charges of TPPS

(Rs. in crore)

ITEM	OERC approval for FY 2009-10	GRIDCO's Proposal for 2010-11	OERC approval for FY 2010-11
Income tax	18.92	18.92	18.92
Electricity duty@20P/U	7.24	7.24	6.94
Water Cess / Charge	0.12	0.12	0.12
Incentive:	3.19	3.19	0.00
FC arrears from FY 2004-05 to 2008-09 (CERC filing)		33.78	0.00
UI overdrawl	0.00	6.00	0.00
Total	29.47	69.25	25.98

Orissa Power Generation Corporation (OPGC)

371. OPGC did not file its ARR with OERC for the year 2010-11 under the same plea as it had maintained for the preceding years. The matter is sub-judice as OPGC has gone on appeal against the orders of the Hon'ble High Court of Orissa passed in OJC No.13338 of 2001. However, till the issue is settled, the per unit rate of energy drawal from OPGC for FY 2010-11 is provisionally estimated based on the parameters of subsisting PPA between GRIDCO and OPGC as well as the Notification issued by

Govt. of Orissa dtd. 21.06.2008, which is subject to change in accordance with court orders or otherwise.

372. **Fixed Cost:** The fixed cost of Ib Thermal Power Station of OPGC for FY 2010-11 as proposed by GRIDCO is Rs.158.79 crore. After scrutiny, the Commission approves the estimated fixed cost of Rs. 158.78 crore for the FY 2010-11.
373. **Variable Charges:** GRIDCO has proposed variable charges in respect of Ib Thermal Power Stations at 79.25 P/U for 2010-11. The Commission after detailed scrutiny accepts 79.25 P/U as variable charges of Ib Thermal Power Stations for FY 2010-11.
374. **Year-end Charges:** GRIDCO had proposed year-end charges of Rs. 50.15 crore on account of land tax, water cess, electricity duty, income tax and incentive payable to OPGC.
375. **Income Tax :** GRIDCO has claimed Rs. 37.07 crore towards Income Tax payment for FY 2010-11. But no explanation is given in the application for the enhanced payment compared to the previous year's proposal of Rs.9.76 crore. The Commission on examination of the claims observed that the actual payments made in the monthly bills on account of Income Tax comes to around Rs.90.99 lakhs per month. Hence, the total annual payment made on this account is estimated at Rs.12 crore for 2008-09. Based on this the Commission provisionally approves Rs.12.00 crore towards income tax payment for 2010-11 subject to change after actual payments are made,
376. **Electricity Duty:** The Commission approves Electricity duty of Rs.5.99 crore @ 20 P/U on auxiliary consumption on the generation at 85.70% PLF.
377. **Incentive:** Incentive of Rs.6.34 crore is approved for generation over and above normative generation of 80% PLF for the year 2010-11 in line with the notification dtd. 21.06.2008 of Govt. of Orissa regarding settlement of dispute of OPGC.
378. Thus, the total estimated year-end charges approved for FY 2010-11 is Rs.25.39 crore which is shown in table below.

Table – 36
Year-end Charges of OPGC

ITEM	OERC approval for 2009-10	Proposed year end charges for 2010-11	OERC approval for 2010-11 (Rs. crore)
Income Tax:	9.20	37.07	12.00
Water Cess & Water Ch.	0.00	0.76	0.76
Land Tax and Cess	-	0.13	0.13
Electricity duty@20P/U	6.21	5.68	5.99
Incentive	9.76	6.34	6.34
Electricity Inspection Fees	-	0.17	0.17
Total	25.17	50.15	25.39

Captive Generating Plants (CGPs) and Co-generating Plants

379. GRIDCO has stated that the Commission in their Interim Order dated 28.02.2009 in Case No. 6/09 to 20/09 have stipulated that CGPs having Co-generating Status may be allowed a marginal hike in prices as compared to that of the CGPs without Co-generation facilities so as to encourage Co-generating Plants under the mandate of the Electricity Act, 2003. Accordingly, Commission fixed the price @ Rs. 3.10 per kWh

and Rs.3.00 per kWh for procurement of surplus power from Co-generating Plants and CGPs respectively. As per the direction of the Commission in their Order dated 27.06.09 in Case No. 59/2009, GRIDCO has classified 15 Nos. of CGPs as Co-generating Plants in accordance with the Report of the Chief Electrical Inspector (CEI) dated 23.09.09 based on the Govt. of India Notification dated 06.11.1996.

380. Further the Commission in its Interim Order dated 28.10.2009 in Case Nos. 06/09 to 20/09 have revised CGP price to Rs. 3.10 / 3.40 / 3.70 / 4.05 / Unit for different slabs of quantum of power supply w.e.f. 1st November, 2009 to 31st March, 2010 and in the same order the price for Co-generation plants has been revised to Rs. 3.20 / 3.40 / 3.70 / 4.05 / Unit w.e.f. 1st November, 2009 to 31st March, 2010 for different slabs of quantum of power supply. In the absence of approved tariff for Co-generating Plants and CGPs for FY 2010-11, an average price based on the existing approved rate, have been considered by GRIDCO subject to approval of the Commission.
381. GRIDCO stated that considering the quantum of power procured from various CGPs and Co-generating Plants during the first six months of FY 2009-10, it is observed that majority of CGPs and Co-generating Plants are supplying power either below 5 MW or within 50 MW at best. Thus, an average price of Rs. 3.25 / Unit (avg. of Rs. 3.10 & Rs. 3.40 / Unit) for CGPs and Rs.3.30 / Unit (avg. of Rs.3.20 & Rs.3.40/Unit) for Co-generating Plants have been worked out and proposed to be considered as procurement price for power from CGPs and Co-generation Plants respectively during the FY 2010-11. GRIDCO proposes to procure 1035 MU of power at a cost of Rs. 336.38 Cr. from CGPs and 545 MU of power at a cost of Rs.179.84 Cr. from Co-generation plants during FY 2010-11.
382. Further, GRIDCO in its additional submission on 25.01.2010 stated that the drawl of 16 MU from Bhusan Power & Steel Ltd (BPSL) was considered as the drawal from Co-generation plant in their original application. But this may be considered as drawal from CGPs instead of Co-generation plant because Bhusan Power & Steel Ltd (BPSL) is actually a CGP Unit, but not a Co-generation plant. Hence the total projected drawal from CGPs & Co-generation Plants for FY 2010-11 comes to 1051 MU & 529 MU respectively.
383. The Commission scrutinized the above proposal of GRIDCO for procurement of surplus power from CGPs and Co-generation Plants. The abstracts of the Commission's interim order dt.28.10.2009 in Case Nos.6/2009 to 20/2009 on sale of surplus power from CGPs is reproduced below:

"18. The State is facing serious deficit of power availability because of low generation of power from hydro sources and the generation from hydro sources may also be further reduced as the water is to be saved in the reservoir to meet the requirement of irrigation during Rabi season. The cost of power procured through UI or power exchange is more than Rs.4.00 per Kwh on the average. It is an admitted fact that there is increase in coal price from time to time and the problem faced by the CGP in procurement of coal is genuine one. In order to ensure supply of surplus power from the Captive Generating Plants to the grid when the State is facing acute power shortage, it is necessary to incentivise the generation from the Captive Generating Plant through full utilisation of their capacity.

19. Accordingly in continuation of the review order dt.30.06.2009, the Commission now directs and stipulates as under:

- (i) *The price of supply of energy upto 3.6 MU/month (~ 5 MW Avg.) would be Rs.3.10/KWH.*
- (ii) *The price for supply of incremental energy above 3.6 MU/month upto 36 MU/month (~ 50 MW Avg.) would be Rs.3.40 per Kwh.*
- (iii) *In respect of supply of incremental energy above 36 MU/month upto 72 MU/month (~ 100 MW Avg.), the price would be Rs.3.70 /Kwh.*
- (iv) *In respect of supply of incremental energy beyond 72 MU/month, the incremental energy would be priced at Rs.4.05/Kwh.*
- (v) *As regards the pricing of power supply by the co-generating plants Rs.3.20 per unit would be paid up to 3.6 MU/month and for injection beyond 3.6 MU the additional unit will qualify for payment at the same rate as that of (ii), (iii) & (iv) above.*

x x x x x x x x x x

20. *The modified CGP pricing stipulated in Para-19 will be applicable w.e.f. 01.11.2009 and will continue until further order.”*

384. The Commission observed that the price fixed for procurement of surplus power from CGPs and Co-generation Plants in the above mentioned Order dt.28.10.2009 is still in force as no further order has been issued by the Commission in this regard. Hence, the Commission provisionally accepts the same procurement price for CGPs and Co-generation Plants as was fixed in its interim Order dt.28.10.2009 for calculation of ARR of GRIDCO for the FY 2010-11. However, in case of any revision of price for sale of surplus power from CGPs and Co-generation plants by the Commission for FY 2010-11, the revised price shall be applicable for procurement of surplus power by GRIDCO from CGPs and Co-generation plants and such deviations/adjustment will be considered while taking up tariff fixation for FY 2011-12.
385. Accordingly for the FY 2010-11, the cost of power purchase from CGPs comes to Rs.341.58 crore for the approved energy drawal of 1051 MU at an average price of Rs.3.25/unit and the procurement cost of power from Co-generation Plants comes to Rs.174.57 crore for the approved energy drawal of 529 MU at an average price of Rs.3.30/unit. The Commission approves the same for the FY 2010-11. Further, the Commission directs that changes, if any, due to the CGP pricing policy notified on 14.03.2008 and interim order dt.28.10.2009, the pricing shall be accounted for in the truing up exercise, if need arises, but payment for CGPs and Co-generating Plants shall not be held up on the ground that truing up is yet to be taken up.

Power Purchase from Renewable Sources:

386. GRIDCO has projected in its ARR for FY 2010-11 to procure 150 MU from Meenakhi Small Hydro Electric Project @ Rs. 3.00 per unit and 150 MU from Samal Small Hydro Electric Project @ Rs. 3.10 per unit during FY 2010-11. The total procurement cost of this 300 MU Renewable Energy amounts to Rs 91.50 crore with an average tariff of Rs 3.05 per unit.
387. The Commission in its Order dated 09.06.2009 in Case no. 34 of 2009 had approved a provisional rate of Rs 3.00 per unit in respect of power from Meenakhi Small Hydro Electric Project to be purchased by GRIDCO and in its Order dated. 01.10.2009 in Case no. 101 of 2009 had approved a provisional rate of Rs 3.10 per unit in respect of power from Samal Small Hydro Electric Project to be purchased by GRIDCO. Both

the rates are inclusive of PTC's trading margin of 4 paise per unit. The Commission scrutinised the application of GRIDCO and provisionally accepts the rate as proposed by GRIDCO for procurement of Renewable Energy from these two Small Hydro Electric Projects. Accordingly the cost of power purchase from the aforesaid sources during FY 2010-11 as approved by the Commission comes to Rs.91.50 Cr. for 300 MU at an average rate of 305 P/U.

IPPs (M/s. Sterlite Energy Ltd.)

388. GRIDCO has stated that pursuant to the terms of PPA executed with M/s Sterlite Energy Ltd. and submitted with OERC for approval, the cost of power procurement by GRIDCO shall be at a rate as may be approved by OERC. Pending approval of the power procurement cost, GRIDCO proposes an average price of 257.24 P/U which is the proposed average price / rate of power procurement from Central Thermal Power Plants for procurement of 1886.59 MU (equivalent to about 430 MW). The total procurement cost is thus, estimated at Rs.485.31 crore.
389. In the reply to the Commission's query GRIDCO has stated that while M/s Sterlite Energy Ltd. (SEL) has tied up for supplying 25% of power to the State, it is expected to sell balance power to Outside. Being an Inter-State Project, the tariff is to be determined by CERC. But SEL, as it appears, has not filed any application before CERC. GRIDCO is in the process of submitting tariff application before OERC for provisional determination of tariff so as to avail power from SEL from April'2010. Once CERC determines its tariff the same will be accepted after approval from OERC. Till then GRIDCO will pay the same at provisional rate. As per the terms and conditions of tariff of CERC if the tariff of a generating station is not determined before date of commercial operation, payment can be made provisionally on the basis of project cost. GRIDCO is shortly filling a tariff application on the above basis for provisional payments till CERC Order is available. Orissa has got the entitlements from the 4x600 MW of Sterilite Thermal Power Station (STPS) of M/s SEL to avail (i) The entire infirm power (ii) Up to 25% of the power sent out (iii) 7% / 5% (depending upon allocation of coal blocks within the State) of the power sent out.
390. The Commission has approved 646.23 MU to be procured by GRIDCO from M/s Sterlite Energy Ltd. for State consumption during the FY 2010-11 and the Commission has estimated the average price of power procurement from Central Thermal Generating Stations to the tune of 243.54 P/U for the FY 2010-11. Accordingly, the power procurement cost in respect of 646.23 MU from M/s Sterlite Energy Ltd. comes to Rs.157.38 crore at the price of 243.45 P/U. The Commission provisionally approves the same for the FY 2010-11.

Central Generating Stations

391. **Chukha:** GRIDCO has stated that the procurement cost of power from Chukha for FY 2010-11 has been calculated based on the revised rate fixed by MoP/GOI, which is 155 P/U for the full year effective from 01.04.2008 as per PTC India letter dt.07.03.2008.
392. Further, trading margin @ 4 paise/unit has to be added to the above rates to be paid to PTC India as Nodal Agency. GRIDCO has also to bear the expenditure on account of the transmission charges and central transmission losses in the PGCIL network. GRIDCO has, therefore, proposed a rate of 187.47 paise/unit for 2010-11 including PGCIL transmission Charge of 22.07 P/U and Central Transmission Loss of 3.87%.

Thus, the power purchase cost from Chhuka Hydro Station for 251 MU @ 187.47 P/U works out to Rs. 47.06 crore for FY 2010-11.

393. The Commission scrutinized the application of GRIDCO and approves 183.32 paise/unit inclusive of central transmission loss @ 3.09% and applicable transmission charges for the power procurement from Chukka for FY 2010-11. So the cost for Chukka power comes to Rs.49.83 crore for 271.79 MU @ 183.32 P/U for FY 2010-11. The details are given in Table below.

Table - 37

	GRIDCO Proposal for FY 2010-11	Commission's Approval for FY 2010-11
Net Energy Drawal (MU)	251.0	271.79
Energy Charge (Paise/Unit)	159.0	159.0
Energy Charge incl. Tr.Loss (P/U)	165.40	164.07
Cost of Tr charge incl. Loss (P/U)	22.07	19.26
Total rate P/U	187.47	183.32
Cost of Chukka Power (Rs. in Crore)	47.06	49.83

394. **TALA:** GRIDCO has stated that the procurement cost of both primary and secondary energy from TALA for FY 2010-11 has been calculated at 180 P/U based on the agreement signed between MoP/GOI, and Royal Govt of Bhutan on 28.07.2006.
395. Further a transaction charges @ 4 paise/unit has to be added to the above rates to be paid to PTC India as Nodal Agency towards handling charges. GRIDCO has also to bear the expenditure on account of the transmission charges and central transmission losses in the PGCIL network. GRIDCO has, therefore, proposed a rate of 213.48 P/U for 2010-11 considering Central Transmission Loss of 3.87% and PGCIL transmission charge of 22.07 P/U. Thus, the power purchase cost for Tala Hydro Station works out to Rs. 30.74 crore for 144 MU @ 213.48 P/U for FY 2010-11.
396. Submission of GRIDCO was examined. The average rate per unit of TALA power has been worked out to 209.12 P/U inclusive of central transmission loss of 3.09% and applicable transmission charge for FY 2010-11. The total cost of Tala power comes to Rs.30.36 crore for 145.17 MU for FY 2010-11 and the same is approved by the Commission. The details are given in Table below.

Table - 38

	GRIDCO Proposal for 2010-11	Commission's Approval for 2010-11
Net Energy Drawal MU	144.0	145.17
Energy Charge (Paise/Unit)	184.0	184.0
Energy Charge incl. Tr.Loss (P/U)	191.41	189.86
Cost of Tr charge incl. Loss (P/U)	22.07	19.26
Total rate P/U	213.48	209.12
Cost of Tala Power (Rs. in Crore)	30.74	30.36

397. **TEESTA:** GRIDCO has stated that CERC vide its Order dated 31.03.2008 has calculated the provisional tariff for Teesta power @ 1.62 P/U on the scheduled

saleable energy, which is applicable from the date of Commercial Operation. As per the subsisting Order the Per Unit Cost of the energy from Teesta-V has been projected at 190.59 P/U including Central Sector Loss of 3.87% and the PGCIL Transmission Charges of 22.07 P/U. Thus, the power purchase cost from Teesta-V HEP for 443 MU @ 190.59 P/U comes to Rs.84.43 crore for FY 2010-11.

398. After due scrutiny, the Commission approves the average rate per unit of TEESTA power at 186.42 P/U inclusive of central transmission loss of 3.09% and applicable transmission charge for FY 2010-11. The total cost of Teesta power comes to Rs.94.55 crore for 507.19 MU for FY 2010-11. The details are given in Table below.

Table - 39

	GRIDCO Proposal for FY 2010-11	Commission's Approval for FY 2010-11
Net Energy Drawal MU	443.0	507.19
Energy Charge (Paise/Unit)	162.0	162.0
Energy Charge incl. Tr.Loss (P/U)	168.52	167.16
Cost of Tr charge incl. Loss (P/U)	22.07	19.26
Total rate P/U	190.59	186.42
Cost of Teesta Power (Rs. in Crore)	84.43	94.55

Central Sector Thermal Power Stations:

399. GRIDCO in its ARR filing stated that CERC have finalised the Terms and Conditions of Tariff Regulations, 2009 for the next 5-year period starting from April 01, 2009 to March 31, 2014. NTPC has submitted its application for approval of tariff for different Stations at CERC. Since the tariff for individual Stations of NTPC-ER has not yet been finalised, NTPC has been billing as per the last CERC Tariff Regulations, 2004. Accordingly, GRIDCO considers it prudent to take the Fixed Cost as approved by CERC for the respective Stations for FY 2008-09 in the tariff proposal for FY 2010-11 as no fresh Orders with regard to the above was available. Thus the additional impact, if any, as per the new Regulations has not been considered in the power procurement cost of NTPC Stations.
400. In reply to Director queries, GRIDCO submitted that as per the CERC norms of Tariff Regulation, 2004, the Fixed Cost does not include the Income Tax and the same was reimbursed as per actual payment made by the NTPC, whereas in the Tariff Regulation, 2009 of CERC, the Income Tax (IT) was a part of the Return on Equity (RoE), which was a component of the Fixed Cost. Hence, as per the new norms, there should not be any separate bill towards Income Tax. However, since there is no scope for bills under head "Income Tax" in the new norms and NTPC is actually paying hefty amount towards IT, it is raising the same under the head "Additional Capitalization". In this context, a Meeting was held between GRIDCO and NTPC. In the said Meeting, it was clarified by NTPC that since the amount is huge and GRIDCO has to pay it whether through RoE or direct reimbursement, the amount payable towards IT are being raised through bills under the head "Additional Capitalization" in order to avoid onetime sudden financial burden on GRIDCO. Once the individual orders for NTPC Stations are in place, the amount thus reimbursed / paid by GRIDCO, shall be duly adjusted towards Fixed Costs of respective Stations.

401. In view of the above, in addition to the Fixed Cost of the NTPC thermal stations, GRIDCO has considered the Income Tax of Rs.94.22 Cr for TSTPS-I, Rs.163.72 Cr for TSTPS-II, Rs.108.36 Cr. for FSTPS and Rs.51.68 Cr. for KHSTPS-I towards Additional Capitalization and the same may be considered in the ARR of FY 2010-11.
402. Further, GRIDCO stated that in the mean time, NTPC has made submissions for fixation of Tariff of the above Generating Stations for the period from FY 2009-10 to 2013-14 before CERC. On examination of the submission, it is observed that the Annual Fixed Charges claimed by NTPC for various Stations are on much higher side than those considered by GRIDCO in its ARR for FY 2010-11. Accordingly, it is requested that the Commission may kindly consider the Fixed Charges (FC) claimed by NTPC in its submissions for respective Stations for the FY 2010-11 instead of FC amounts earlier submitted by GRIDCO for fixation of BSP. The FC for FY 2010-11 of various Stations as claimed by NTPC in its respective Tariff Petitions at CERC are given below which may be considered by the Commission while approving the ARR & BSP of GRIDCO for FY 2010-11:

Table – 40

Name of the Generating Station	Fixed Cost as claimed by NTPC in its Petition before CERC for the FY 2010-11 (Rs. in Cr)	Share of GRIDCO (%)	Fixed cost to be paid by GRIDCO (Rs. in Cr)
FSTPS	846.04	13.63	115.32
KHSTPS-I	519.81	15.24	79.22
KHSTPS-II	1240.65	0.60	7.44
TSTPS-I	561.23	31.80	178.47
TSTPS-II	1145.01	10.00	114.50
TOTAL	4312.74		494.95

403. Tariff determination involves using various assumptions and principles to arrive at the individual ARR components for a future year and hence, is liable to be at variance depending on the actual turn of events. In order to deal with such eventualities, the Commission has also accepted the concept of truing-up. So, the Commission feels it would be appropriate for the present to calculate the cost of power purchase from central sector stations provisionally based on CERC Tariff Regulations, 2004 and also the Commission did not accept the proposal of GRIDCO for addition of Income tax in the fixed cost as Additional Capital Charge. But, the Commission has allowed to recover the Income tax as billed by NTPC as year end charges.
404. **Fixed Cost:** Tariff of Central Thermal Generating Stations is governed by CERC tariff notifications. Based on the CERC tariff notifications applicable for 2008-09 and the share allocation from CGSs by MoP, GRIDCO has claimed fixed cost for different Central Sector Thermal Power Stations. The approval of the Commission in respect of these, is shown in table below:

Table - 41
Fixed Cost of Central Thermal Stations for 2010-11

Name of Power Station	Fixed cost approved by CERC for 2008-09 (Rs. In Cr.)	GRIDCO share in %	GRIDCO's proposal for its share of Fixed Cost including Income Tax (Rs. In Cr.)	GRIDCO's proposal including Central Tr. Loss of 3.87% (P/U)	Commission's approval for Fixed Cost for 2010-11 (Rs. In Cr.)	Estimated energy Drawal (MU)	Commission's approval including Central Tr. Loss of 3.09% (P/U)
TSTPS -I	397.30	31.80	156.30	73.44	126.34	2145.54	58.89
TSTPS -II	955.57	10.00	102.72	76.74	95.56	1349.39	70.81
FSTPS	518.33	13.63	77.11	60.15	70.65	1464.49	48.24
KhSTPS - I	316.79	15.24	47.64	69.38	48.28	840.63	57.43
KhSTPS-II	515.38 (Unit-I& II)	0.60	3.75	75.60	4.639 (*)	60.72	76.39

(*) The CERC has approved the provisional tariff for KhSTPS Stage -II (Unit-I & II) on 30.12.2008. The tariff for Unit- III OF KhSTPS has not yet been notified by CERC. But GRIDCO has proposed in the ARR for 2010-11 to consider the fixed cost for Unit-II& III equivalent to Unit -I. After scrutiny the Commission allows the fixed cost of Rs. 4.639 crore for Unit-I, II & III of KhSTPS Stage -II by prorating the fixed cost of Unit I & II only.

405. **Variable Charges:** GRIDCO stated that variable charges based on the CERC notification for 2008-09 has been considered for 2010-11. The Commission has accepted the variable charges as proposed by GRIDCO as those are in accordance with the said CERC notification. However, the variable cost per unit changes as the Commission accepts a Central Transmission Loss of 3.09% instead of 3.87% as proposed by GRIDCO. The proposed and approved variable charges are indicated in the table below.

Table – 42
Variable Charges of Central Thermal Power Stations

Stations	Variable Cost as per CERC order (excluding central transmission loss) (P/U)	GRIDCO's Proposal for 2010-11 (Including Central Tr. Loss of 3.87%) (P/U)	Variable Cost Approved by the Commission for 2010-11 (Including Central Tr. Loss of 3.09%) (P/U)
TSTPS -I	41.10	42.76	42.41
TSTPS -II	58.73	61.09	60.60
FSTPS	98.57	102.53	101.71
KhSTPS -I	108.50	112.87	111.96
KhSTPS -II	125.37	130.42	129.37

Fuel Price Adjustment (FPA)

406. GRIDCO in its ARR application had stated that due to increase in price of coal by 11% and instruction of GoI to use costlier imported coal to the extent of 30% by the Central Thermal Generating Stations, GRIDCO has proposed 11% escalation in FPA over the average actual FPA of first six months of FY 2009-10. With Central Transmission Loss of 3.87%, the FPA projection for FY 2010-11 is shown in the Table below:

Table - 43
Fuel Price Adjustment (FPA)

Central Thermal Stations	OERC approval for 09-10 (factoring central Loss) (P/U)	Average FPA of 1st six months of FY2009-10 (P/U)	Projection for 10-11 considering 11% escalations over 1st six months of FY 2009-10 excluding C.S. Loss of 3.87% (P/U)	Projection for FY10-11 including Central Transmission Loss of 3.87% (P/U)
TSTPS Stage-I	32.64	73.19	81.24	84.51
TSTPS Stage-II	16.64	55.56	61.67	64.16
FSTPS	33.78	113.37	125.84	130.90
KhSTPS Stage-I	31.22	71.53	79.40	82.59
KhSTPS Stage-II	0	48.38	53.70	55.86

407. Actual bills submitted by NTPC to GRIDCO are scrutinised and it is observed that the coal and oil prices have increased substantially. The details of coal and oil prices and FPA rates as produced by NTPC for the period from April, 2009 to January, 2010 are given below.

Table – 44
Coal & Oil Prices and FPA Rates of CGSs

MONTH	FSTPS			KHSTPS -I			KHSTPS -II	TSTPS -I			TSTPS -II
	Cost of Oil (Rs./KL)	Cost of Coal (Rs./MT)	FPA P/U	Cost of Oil (Rs./KL)	Cost of Coal (Rs./MT)	FPA P/U	FPA P/U	Cost of Oil (Rs./KL)	Cost of Coal (Rs./MT)	FPA P/U	FPA P/U
Apr-09	23,718.39	2,433.94	105.69	20,540.20	1,707.05	67.18	44.09	20,767.82	1,569.88	93.50	75.87
May-09	23,718.39	2,573.77	114.87	20,540.20	1,670.17	59.57	37.08	21,326.53	1,488.04	86.95	69.46
Jun-09	23,648.67	3,068.15	134.86	23,131.28	1,984.77	84.48	60.81	21,259.82	1,181.81	70.01	53.12
Jul-09	24,495.32	2,394.70	144.30	26,035.11	2,090.43	105.22	80.89	22,586.70	1,426.22	105.38	87.76
Aug-09	25,832.03	1,684.62	104.54	27,220.78	1,746.64	71.82	57.26	26,394.97	813.41	43.78	26.16
Sep-09	25,832.03	1,599.48	75.95	29,358.98	1,370.53	40.90	18.78	26,499.52	767.96	39.38	21.75
Oct-09	26,544.72	1,666.61	75.80	29,353.99	1,311.87	35.68	13.74	26,688.43	778.39	39.59	21.96
Nov-09	26,544.72	1,962.29	91.24	29,133.30	1,618.68	68.04	44.93	26,921.52	813.49	44.02	26.39
Dec-09	26,544.72	2,357.37	112.66	32,857.01	1,827.37	77.42	54.00	26,777.40	975.12	52.75	35.13
Jan-10	27,398.94	2,896.27	131.96	32,540.36	1,917.00	79.94	56.42	26,760.88	1,177.89	70.41	52.78
Avg from 4/09 to 1/10	25,208.78	2,193.44	110.86	26,463.43	1,703.06	69.48	47.23	24,358.08	1,090.48	65.34	47.81

408. From the above table it is found that the FPA rates for FSTPS are varied from 75.80 p/u to 144.30 p/u, for KhSTPS-I, it varies from 35.68 p/u to 105.22 p/u, for KhSTPS-II, it varies from 13.74 p/u to 80.89 p/u, for TSTPS-I, it varies from 39.38 p/u to 105.38 p/u and for TSTPS-II, it varies from 21.75 p/u to 87.76 p/u for the period from April, 2009 to January, 2010. That means the FPA rates are erratically behaved. Hence it is difficult to assess actual FPA rates for the ensuing year 2010-11.

409. The wide variation in FPA Rates in recent times was due to the use of imported / high cost coal by NTPC for power generation in its Plants. The Commission is of the opinion that the use of imported /high cost coal for generation of power may not be regular and permanent phenomenon. In fact, this may or may not continue during the

year 2010-11. Considering the above, the Commission estimated the average FPA rate based on the average price and GCV of coal and oil for the period from April'09 to January'10 with 10% escalation over average FPA to meet the variations as against an escalation of 11% proposed by GRIDCO as indicated in Table-45 below.

Table - 45
Fuel Price Adjustment Charges of CGSs for 2010-11

(Figs in Paise/Unit)

Stations	GRIDCO's proposal (including central Tr. Loss of 3.87%)	Avg FPA for the Period from April,09 to Jan,10	Approval of the Commission with an escalation of 10%	Approval of the Commission including central Tr. Loss of 3.09%
TSTPS -I	84.51	65.34	71.88	74.17
TSTPS -II	64.16	47.81	52.59	54.27
FSTPS	130.90	110.86	121.95	125.83
KHSTPS - I	82.59	69.48	76.42	78.86
KHSTPS - II	55.86	47.23	51.96	53.61

410. In case of any further variation in FPA during 2010-11 over and above 10% assumed by the Commission, the same may be recovered in the manner outlined in para-371 of the RST order dtd.20.03.2010 for the FY 2010-11 which is extracted below:

“371 It is observed that there is a wide variation in coal and oil price (both in upward and downward directions) during the period from April, 2009 to January, 2010. Accordingly, the FPA rates for thermal power stations have been varied erratically. The variation in FPA Rates in recent times was due to the use of imported / high cost coal by NTPC for power generation in its Plants. The Commission is of the opinion that the use of imported /high cost coal for generation of power may not be regular and permanent phenomenon. In fact, this may or may not continue during the year 2010-11. Considering the above, the Commission has estimated the average FPA rate based on the average price and GCV of coal and oil for the period from April,09 to January,10 with 10% escalation over average FPA to meet the variations as against an escalation of 11% proposed by GRIDCO. In case there is any further variation in FPA during 2010-11 over and above 10% assumed by the Commission, GRIDCO may recover such additional cost of coal and oil in accordance with the procedure and guidelines outlined in Appendix-7 read with the Regulations 60 of the OERC (Conduct of Business) Regulations, 2004. This would be over and above the normal tariff applicable.”

411. **Year-end Charges:** GRIDCO has proposed the year-end charges for FY 2010-11 including Central Sector loss based on the actual year-end charges for FY 2008-09 and for FY 2009-10(April,09 to Sept,09).
412. The Commission scrutinised the proposal and adopted the following principles for the purpose of calculation of the year-end charges for the FY 2010-11.
413. Income tax constitutes a major segment of the year-end charges. On scrutiny, it is observed that NTPC has raised bills on GRIDCO towards Income Tax for FY 2009-10 in their monthly bills as an Additional Capacity Charge. The GRIDCO has considered the Income tax as additional capacity charge and included the same in the

fixed cost of the central generating stations. The same additional charge has not backed by any order/Regulations. On Commission's quarry, GRIDCO in its filing dt.25.01.2010 has submitted a statement showing the details of Year-end charges payable by GRIDCO to NTPC for 2008-09 and 2009-10 up to Dec, 09. The Commission provisionally accepts for recovery of income tax through Year End Charges. The amount as proposed by GRIDCO in its filing dtd. 25.01.2010 for the actual tax for the FY 2009-10 up to Dec, 09 is prorated for the entire year 2009-10 and the same is considered towards year-end charges in the ARR of GRIDCO for FY 2010-11.

414. Electricity duty for TSTPS Stage-I and Stage-II has been calculated @ 20 paise/unit based on the auxiliary consumption for FY 2010-11.
415. The Commission has considered generation at PLF of 85% for FY 2010-11 for which payment towards incentive has been taken into account at present for CGSs. The incentive is calculated at a flat rate of 25 P/U for ex-bus scheduled generation in excess of ex-bus energy corresponding to Plant Load Factor 80% i.e the normative availability as per CERC Tariff Regulations, 2004.
416. NTPC has raised water cess bills for CGSs for the year 2008-09 and 2009-10 upto Dec, 09. The Commission approves the water cess payments for FY 2010-11 based on prorating the NTPC bills for FY 2009-10 upto Dec, 09.
417. Accordingly, the year-end charges approved by the Commission including central transmission loss are given in the table below.

Table – 46
Approved Year-end Charges for 2010-11 (Paise/Unit)

Central Thermal Stations	GRIDCO's Proposal Including Central Sector Loss @ 3.87%	Commission's Approval Including Central Sector Loss @ 3.09%
TSTPS -I	2.14	12.35
TSTPS -II	2.16	11.07
FSTPS	10.67	7.54
KHSTPS - I	0.05	7.81
KHSTPS - II	0	1.01

Transmission Charge for PGCIL System

418. The tariff for central transmission system is fixed by the principles and norms laid down by the CERC from time to time. CERC has finalized the Terms and Conditions of Tariff Regulations, 2009 for the next 5-year period starting from April 01, 2009 to March 31, 2014. The tariff for individual Lines and substations of PGCIL have not yet been finalised, PGCIL has been billing as per the last CERC Tariff Regulations, 2004. Accordingly, GRIDCO has considered to take the Fixed Cost as approved by CERC for the respective lines for FY 2008-09 in the tariff proposal for FY 2010-11 as no fresh Orders with regard to the above was available. Based on CERC notification and share allocation by CEA, PGCIL claims transmission charge for use of central transmission system by the eastern regional customers. The weighted average of percentage share allocation of the fixed cost towards PGCIL transmission charge has also been reflected in ABT-based Regional Energy Accounts. As per Jan,2010 Regional Energy account, GRIDCO has to pay a weighted average of 14.732% share

of the fixed cost towards Regional Transmission System and 22.780% for inter-regional transmission system as PGCIL transmission charges.

419. In the ARR application, GRIDCO submitted that Annual fixed charges of PGCIL towards regional assets is Rs. 781.495 Cr. (including incentive and income tax as per new regulation effective from 1.04.2009 and as per the current billing pattern of PGCIL). Similarly Annual Fixed Charges of PGCIL towards Inter-Regional Asset is Rs. 18.362 Cr. (including incentive and income tax as per new regulation effective from 1.04.2009 and as per the current billing pattern of PGCIL). Thus, GRIDCO is required to pay Rs 115.13 Crore (Rs. 781.495 Cr. X 14.73%) towards Regional Transmission charges and Rs. 4.18 Crore (Rs.18.362 Cr. X 22.78%) towards Inter Regional Transmission Charge for the usage of transmission facility in the Eastern Region.
420. In addition to these, GRIDCO has stated that CERC vide its Order dtd 27.11.06 has allowed provisional charges for Unified Load Despatch & Communication Scheme (ULDC) for both Central and State Sectors. Accordingly, GRIDCO has to pay an amount of Rs. 13.43 crore to PGCIL towards ULDC charges both for State and Central sectors.
421. Further, GRIDCO has to pay an amount of Rs.9.45 crore towards year-end charges and adjust an amount of Rs.3.18 crore received from short term open accesses customers towards utilising central sector transmission system. The net transmission charge aggregates to Rs.139.01 crore. Considering the above, the Transmission charges for PGCIL transmission system works out to 22.07 P/U including central sector transmission loss at energy drawal of 6322.86 MU.
422. The Commission examined the monthly bill for January, 2010 produced by PGCIL to GRIDCO and found that it has claimed Rs.696.41 crore as annual fixed cost towards transmission charges for regional transmission systems and Rs14.831Crre towards inter-regional transmission systems for the whole region. Besides that PGCIL has also claimed an amount of Rs.2.151 crore towards Bi-lateral dues paid by GRIDCO to PGCIL for ICT-II at Baripada substation vide CERC order dt.22.12.2009. Therefore, the Commission considers the same amount as fixed cost towards PGCIL transmission charges for FY 2010-11. Accordingly the fixed cost component payable to GRIDCO to PGCIL towards Central Transmission Charges comes to Rs.108.12 crore comprising of Rs.102.59 cr. (i.e. 14.73% of Rs.696.41 crore) towards regional transmission system and Rs.3.38 crore (i.e. 22.781% of Rs.14.831 crore) towards inter-regional transmission system and Rs.2.151 crore towards Bi-lateral dues paid by GRIDCO to PGCIL for ICT-II at Baripada substation for FY 2010-11.
423. GRIDCO has shown a sum of Rs.9.45 crore as year-end adjustment charges comprising of incentive of Rs.5.42 crore, and FERV & Interest paid for Floating rate of interest incurred for 2004-2007 at Rs.4.03 crore.
424. PGCIL is eligible for incentive for availability of transmission system above 98% as per CERC notification. GRIDCO had considered Rs.5.42 crore towards incentive for FY 2010-11 based on amount paid to PGCIL for FY 2007-08. The Commission scrutinised the proposal of GRIDCO and approved an amount of Rs.5.012 crore for FY 2010-11 as incentive as per actual bills raised by PGCIL to GRIDCO.
425. The Commission observed that the amount paid by GRIDCO to PGCIL towards income tax for the year 2008-09 has been added by GRIDCO in the fixed cost of PGCIL charges in its ARR for 2010-11 on provisional basis. As per CERC

Regulation, 2009, return on equity is to be computed on pre-tax basis hence income tax is embedded in the RoE, which is a component of the fixed cost. Therefore, income tax shall not be recovered from the beneficiaries or the long-term transmission customers. Since, GRIDCO has estimated the RoE as per CERC Regulation, 2004 i.e. on post-tax basis, they have included income tax component in the fixed cost. Since GRIDCO has paid an amount of Rs.6.593 crore towards income tax for the FY 2008-09 and projected the same amount for the year 2010-11, the Commission approves this amount of Rs.6.593 crore for 2010-11 as year end charges.

426. The Commission scrutinized the amount filed by GRIDCO under the head year-end charges of Rs.4.03 crore towards FERV and differential interest paid for floating rate of interest incurred for the period from 2004 to 2007. The average yearly differential interest paid for floating rate of interest comes to Rs.1.343 cr. (i.e. Rs.4.03 for 3 years/3). The Commission approves an amount of Rs.1.343 crore as differential interest for the ensuing year 2010-11.
427. After totaling all the items, the Commission approves an amount of Rs.12.95 crore towards year-end adjustment charges of PGCIL for 2010-11.
428. SLDC has implemented unified load despatch and communication scheme as a part of ULDC programme for the Eastern Region. On scrutiny, it is observed that PGCIL has claimed an amount of Rs.8.376 crore towards state sector ULD and communication charges and also an amount of Rs.5.014 crore towards central sector ULD and communication charges totaling to Rs.13.390 crore/Year on GRIDCO for the purpose. Hence, the Commission provisionally accepts the aforesaid claim of PGCIL and allows pass through of Rs.13.390 crore in the tariff for 2010-11.
429. It is further observed from the statement submitted by GRIDCO that an amount of Rs.1.588 crore has been credited to GRIDCO account towards short-term open access charges for the period from April, 2009 to August, 2009. The Commission after prorating the same for the whole year has deducted an amount of Rs.3.81 crore from PGCIL transmission charges.
430. The total cost towards PGCIL transmission charges is indicated in the table below:

Table - 47
PGCIL Transmission Charges for FY 2010-11

	GRIDCO's Proposal	Commission's Approval
Regional Transmission System (Rs. crore)	781.50	696.41
Inter-Regional Transmission system chargeable to Eastern Region (Rs. crore)	18.36	14.83
TOTAL FIXED COST	799.86	711.25
GRIDCO's Share form Regional Tr. System (Rs. crore) (14.732%)	115.13	102.59
GRIDCO's Share form Inter-Regional Tr. System (Rs. crore) (22.781%)	4.18	3.38
Bi-Lateral Transaction (ICT –II at Baripada Substation)		2.15
Sub-Total	119.31	108.12
GRIDCO's Share for Year end charge (Rs. crore)	9.45	12.95
ULD and communication charges	13.43	13.39
Total annual Transmission Charge Payable by GRIDCO for Central Transmission System (Rs. crore)	142.19	134.46

	GRIDCO's Proposal	Commission's Approval
Less: Transmission Charges Received from Short term customers	3.18	3.81
Net amount payable by GRIDCO towards Tr. Charge (Rs. crore)	139.01	130.65
Energy Drawl by GRIDCO (MU)	6322.86	7001.18
PGCIL Tr. Charge (P/U)	20.87	18.66
PGCIL Tr. Charge Including Central Loss (P/U)	22.07	19.26

431. GRIDCO's proposal for the cost of power purchase from various generating stations and the Commission's approval based on least cost power purchase for the FY 2010-11 are given in the table below:

Table - 48
GRIDCO's Proposal & Commission's Approval for 2010-11

Generators	GRIDCO's PROPOSAL FOR 2010-11			COMMISSION'S APPROVAL FOR 2010-11		
	Energy	Total Rate	Total cost	Energy	Total Rate	Total cost
	MU	P/U	Rs.in Cr.	MU	P/U	Rs.in Cr.
HYDRO (OLD)	3,686.00	54.06	199.27	3,676.86	58.49	215.06
Indravati	1,944.36	77.36	150.42	1,942.38	75.59	146.82
Machakund	262.50	19.98	5.24	262.50	21.95	5.76
Total Hydro	5,892.86	60.23	354.93	5,881.74	62.51	367.65
OPGC	2,853.47	157.73	450.08	2,853.53	149.04	425.30
TTPS (NTPC)	2,957.32	211.31	624.91	2,957.32	171.38	506.84
IPPs (Sterilite Energy ltd.)	1,886.59	257.24	485.31	646.23	243.54	157.38
Total CGPs	1,035.00	325.00	336.38	1,051.00	325.00	341.58
Co-Generation Plants	545.00	330.00	179.85	529.00	330.00	174.57
Total Renewable	300.00	305.00	91.50	300.00	305.00	91.50
TOTAL STATE	15,470.24	163.08	2,522.95	14,218.82	145.22	2,064.81
CHUKHA	251.00	187.47	47.05	271.79	183.32	49.83
Tala HPS	144.00	213.48	30.74	145.17	209.12	30.36
Teesta-V	443.00	190.59	84.43	507.19	186.42	94.55
Total Central Hydro	838.00	193.59	162.23	924.16	189.07	174.73
TSTPS St-I	2,128.24	224.92	478.68	2,145.54	207.08	444.29
TSTPS St-II	1,338.52	226.22	302.80	1,349.39	216.01	291.48
FSTPS	1,281.89	326.33	418.32	1,464.49	302.57	443.12
KhTPS St-I	686.61	286.96	197.03	840.63	275.32	231.44
KhTPS St-II	49.60	283.95	14.08	60.72	279.63	16.98
Total Central Thermal	5,484.86	257.24	1,410.92	5,860.77	243.54	1,427.31
Total Central Sector	6,322.86	248.80	1,573.14	6,784.93	236.12	1,602.04
TOTAL GRIDCO	21,793.10	187.95	4,096.09	21,003.75	174.58	3,666.85

Rebate for Prompt Payment from the Generators

432. The PPA between the generators and GRIDCO provides for a rebate of 2% 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 @ 1.25% per month is payable by GRIDCO to the generators.
433. For the purpose of calculation of revenue requirement, the cost of power should be calculated at its gross value, as the rebate available from the generator is likely to offset the rebate that will be allowed to the DISCOMs for payment through L.C.

GRIDCO Finance

434. During FY 2010-11 GRIDCO has projected an amount of Rs.5.98 crore towards employee cost as a pass through in the ARR. A comparative analysis of employees cost under major heads is depicted in table below:

Table - 49

(Rs. cr.)

	2009-10 (Approved)	GRIDCO's proposal for 2010-11
Basic pay	1.15	2.04
DA	0.54	0.80
HRA	0.18	0.24
Medical reimbursement	0.06	0.15
Others	0.85	0.76
Terminal benefit	0.46	0.61
30% proposed hike	0.56	NIL
Arrear 6 th Pay	NIL	1.38
Total	3.80	5.98

435. GRIDCO has submitted its audited annual account upto 2008-09. But for determining the base figure for Basic Pay plus GP, Commission relied on the data as actual salary drawn during October, November and December, 2009 and January, 2010. The components of Basic Pay plus GP out of the total salary drawn is depicted below:

Table - 50

(Rs. lakh)

Month	Basic + GP
10/2009	15.46
11/2009	15.56
12/2009	15.48
01/2010	13.75

436. Average of the above four months figure is Rs.15.06 lakh. Extrapolating the same for a period of 12 months and factoring 3% normal annual rise over the figure the Basic Pay plus GP for the FY 2010-11 works out to 186.17 lakh or 1.86 cr.
437. The present rate of DA as notified by Govt. of Orissa is 27% with effect from 01.07.2009. In past there has been a periodic rise in DA from 1st day of January and July of each year. With anticipated rise in DA @3%, the annual average DA is evaluated around 33% for the financial year 2010-11.
438. In respect of our major expenditure such as medical allowance, house rent allowance the following principle has been adopted:
439. Medical reimbursement - 5% of Basic Pay + GP
440. House rent allowance - 20% of Basic Pay + GP
441. For the financial year 2010-11, GRIDCO claimed an amount of Rs.0.61 cr. towards terminal benefit. Commission approves the terminal benefit at Rs.0.56 crore after due scrutiny.
442. GRIDCO claimed an amount of Rs.1.38 cr. towards arrear, employees cost upto 31.03.2009. Commission allows the same.
443. Summary of employees cost proposed by GRIDCO and approved by Commission for the year 2010-11 is shown in following table:

Table - 51

(Rs. cr.)

	Approved for 2009-10	GRIDCO's Proposal (2010-11)	Commission's Approval (2010-11)
Basic Pay + GP	1.15	2.04	1.86
DA	0.54	0.80	0.61
HRA	0.18	0.24	0.22
Medical	0.06	0.15	0.09
Others	0.85	0.76	0.25
Terminal benefit	0.46	0.61	0.56
Arrear/Proposed hike during 2009-10	0.56	1.38	1.38
Total	3.80	5.98	4.97

444. Thus against Rs.3.80 crore approved for 2009-10, the employee cost for 2010-11 is now approved at Rs.4.97 crore.

Repair and Maintenance

445. GRIDCO claimed an amount of Rs.0.30 cr. towards repair and maintenance of vehicle, furniture and other equipments for FY 2010-11. In line with the earlier order Commission disallows the same.

Administrative and General Expenses

446. During FY 2010-11 GRIDCO has projected an amount of Rs.3.99 cr. towards A & G expenses. The audited accounts for 2008-09 revealed an amount of Rs.2.71 cr. under the head A & G which includes amount of 0.50 cr. towards licensee fee. Thus actual A & G expenses excluding license fee works out to 2.21 cr. for 2008-09. Factoring in the inflation for 2009-10 and 2010-11 at the rate of 3.4% and 5.5%, the A & G cost for 2010-11 works out to Rs.2.41 cr. excluding license fee of Rs.1.00 cr. Thus total expenses under A & G head is estimated at Rs.3.41 cr. which is approved by the Commission for FY 2010-11.

ERLDC, NLDC and ULDC fees

447. GRIDCO estimated an amount of Rs.1.32 cr. under this head for 2010-11. In line with earlier order Commission approves the same.

Interest on Loan

448. During financial year 2010-11, GRIDCO has estimated an amount of Rs.364.41 cr. towards interest on loans. On scrutiny of the figure in format TRF-3 as well as electronic copy submitted by the licensee it is found that new loan availed during 2008-09 and proposed to be availed during 2009-10 amounts to Rs.300 cr. and Rs.1650 cr. respectively. Subsequently in reply to Commission's query GRIDCO submitted the cash flow for 2008-09 and 2009-10 from where it is confirmed that GRIDCO availed Rs.300 cr. of loan during 2008-09. During 2009-10 the actual receipt of loan upto December, 2009 is Rs.900 cr. as against the proposed/estimated amount of Rs.1650 cr. Subsequently GRIDCO in a letter vide No.3101 dtd.12.3.2010 to the Commission stated that over and above the actual receipt of Rs.900 cr. of loans, GRIDCO is likely to avail another Rs.1000 cr. Accordingly GRIDCO has revised its interest to Rs.393.06 cr. during FY 2010-11. GRIDCO submitted that the above loans are availed to meet revenue gap which is mostly due to unfavourable hydro position and procurement of power at a high cost. A table showing the loan position as submitted by GRIDCO as on 31.03.2011 is depicted below:

Table - 52

Sl No	Particulars	Rate of Interest as on 01-11-09	OB as on 01-04-08	2008-09			2009-10			2010-11			
				Principal			Principal			Principal			
				Principal	Addition	Repayment	CB as on 31-3-09	Principal	Repayment	CB as on 31-3-010	Principal	CB as on 31-3-11	Interest due for the year
A. Existing Loan as on 1-04-2009													
1 State Govt.(WCL)	13.00%	120.00	-	-	120.00	-	-	120.00	100.00	20.00	15.60		
2 St.Govt (OPGC Adj.)	10.50%	42.54	-	-	42.54	-	-	42.54	29.14	13.40	4.47		
3 NTPC (Govt.Bonds)	8.50%	937.44	-	110.29	827.15	-	-	827.15	220.58	606.57	140.62		
4 REC- Term Loan	10.61%	24.51	-	24.51	-	-	-	-	-	-	-		
5 Union Bank of India- I	8.25%	29.04	-	16.68	12.36	-	12.36	-	-	-	-		
6 Union Bank of India- III *	10.00%	77.26	-	14.53	62.73	-	14.28	48.45	14.29	34.16	4.19		
7 Union Bank of India- IV *	11.25%	99.91	-	18.20	81.71	-	16.67	65.04	16.67	48.37	6.46		
8 Allahabad Bank - I	8.25%	10.69	-	3.57	7.12	-	3.57	3.55	3.55	-	0.18		
9 Allahabad Bank - II	8.25%	49.99	-	10.72	39.27	-	10.72	28.55	10.72	17.83	1.95		
10 Allahabad Bank - III	8.25%	33.33	-	7.14	26.19	-	7.14	19.05	7.14	11.91	1.30		
11 Dena Bank - I	8.25%	51.57	-	20.04	31.53	-	20.04	11.49	11.49	-	0.27		
12 Dena Bank - II	8.25%	65.60	-	11.52	54.08	-	11.52	42.56	11.52	31.04	3.07		
13 Andhra Bank-I *	10.50%	35.71	-	7.17	28.54	-	7.14	21.40	7.14	14.26	1.90		
14 Syndicate Bank	8.25%	40.00	-	10.01	29.99	-	10.00	19.99	10.00	9.99	1.27		
15 Karnataka Bank *	9.75%	13.63	-	4.55	9.08	-	4.55	4.53	4.53	-	0.22		
16 Uco Bank -I (200 cr) *	10.00%	-	200.00	-	200.00	-	38.89	161.11	66.67	94.44	13.06		
17 Uco Bank -II (100 cr) *	10.00%	-	100.00	-	100.00	-	2.78	97.22	33.33	63.89	8.20		
18 OHPC-(Rs.50 Cr.)	8.50%	20.00	-	-	20.00	-	20.00	-	-	-	-		
19 Pension Trust Bond	9.00%	195.78	-	82.41	113.37	-	-	113.37	65.26	48.11	7.99		
20 NTPC (Rs.342.85 Cr.)	10.00%	57.25	-	32.92	24.33	-	24.33	-	-	-	-		
	Sub Total		1,904.25	300.00	374.26	1,829.99	-	203.99	1,626.00	612.03	1,013.97	210.75	
B. New Loan availed during FY 2009-10(upto 01-11-2009) to Meet the Revenue Deficit													
21 Union Bank of India- V *	9.50%	-	-	-	-	100.00	-	100.00	-	100.00	-	9.50	
22 Union Bank of India- VI *	9.50%	-	-	-	-	200.00	-	200.00	33.33	166.67	17.82		
23 Andhra Bank-II *	9.50%	-	-	-	-	200.00	-	200.00	23.33	176.67	18.45		
24 Canara -I_100 cr TL *	9.50%	-	-	-	-	100.00	-	100.00	23.81	76.19	8.66		
25 Canara -II _100 cr TL *	9.50%	-	-	-	-	100.00	-	100.00	19.05	80.95	8.98		
26 Kalinga GB_50 cr *	9.50%	-	-	-	-	50.00	-	50.00	-	50.00	4.75		
27 New Loan 900 cr *	9.50%	-	-	-	-	900.00	-	900.00	-	900.00	85.50		
	Sub Total		-	-	-	-	1,650.00	-	1,650.00	99.52	1,550.48	153.66	
C. Finance & Other Charges													
Rebate & Finance Charges												-	
D. Grand Total (A+B+C)			1,904.25	300.00	374.26	1,829.99	1,650.00	203.99	3,276.00	711.55	2,564.45	364.41	
E. Less:Interest Capitalisation												-	
F. Interest Chargeble												364.41	

* Floating Rate of Interest

Average rate of interest (before Capitalisation)

Note: All loans are Secured except those at Sl No 1,2,3 18,19 &20

449. Except the new loan availed during 2008-09 and 2009-10, all other loans are old loans. In line with earlier orders Commission allows interest on old loans excepting loans from State govt. and pension trust bond. Regarding payment of interest on loans to State Govt., Commission vide letter No.3235 dtd.27.01.2010 have requested Govt. of Orissa to extend the benefit of moratorium on debt servicing to GRIDCO & OHPC upto 2012-13 to which Govt. of Orissa vide letter No.1577 dtd.23.02.2010 stated the following:

“xxx Govt. orders will be obtained for modification of the above notification on the basis of suggestion of OERC intimated vide their letter No.JD(F)-175/02/3235 dtd.27.01.2010.”

450. In view of the above, Commission for the time being disallows interest on State Govt. Loan as a pass through in the revenue requirement for 2010-11.

451. GRIDCO during FY 2008-09 availed loan of Rs.300.00 crore. This loan is over and above the earlier loans approved by the Commission. The loan amount of Rs.300 crore availed during 2008-09 is to meet the deficit in cash flow attributable to unfavourable hydro position resulting in procurement of power at a higher cost. On this loan, GRIDCO claims interest of Rs.21.26 crore due for FY 2010-11.

452. Commission vide para 421 of BSP order 2008-09 stated the following:

From the above table, it is found that GRIDCO after meeting all expenses will still have a gap of Rs.94.93 crore. The Commission expects that the same gap along with Rs.315.12 crore of repayment liability shall be bridged through export earning, UI charges and recovery of receivable of DISTCOs.

453. At the end of the year 2008-09, the fund position as shown in cash flow for the year 2008-09 (submitted by GRIDCO in Annexure-22 of the compliance to Commission's query) reveals the following:

Table - 53

A.	Inflow	Amount (Rs. cr.)
	1. Revenue from DISCOMs excluding Transmission charges	2364.75
	2. Revenue from UI charges, trading, ICCL, NALCO	396.57
	3. Miscellaneous income	34.20
	Total:	2795.52
B.	Outflow	
	1. Power Purchase Bill	2827.63
	2. Employees Cost	2.47
	3. A&G expenses	7.07
	4. Interest	138.25
	5. Miscellaneous	4.22
	Total	2979.64
	Gap	(-)184.12

454. GRIDCO at the beginning of the financial year has a surplus cash balance of Rs.279.81 crore. After setting off the same, the net gap works out to (+) Rs.95.69 crore.

455. As discussed in the above para, Commission left a gap of Rs.410.05 crore (Rs.94.93 cr. + Rs.315.12 cr.) during 2008-09. Thus the net gap after setting off Rs.95.69 crore as stated in the above para, the net gap works out to (-) Rs.314.36 crore. Commission, therefore, accepts the loan amount of Rs.300 crore availed by GRIDCO during 2008-09 and allows interest of Rs.21.26 crore on the above loan during FY 2010-11.

456. For the FY 2009-10, GRIDCO availed Rs.900 crore of loan to meet the deficit situation in cash flow attributable to procurement of power at a higher cost. Further GRIDCO proposed to avail Rs.1000 crore during balance 2 months of the FY 2009-10. GRIDCO in its supplementary submission dt.12.03.2010 stated that besides discharging the power purchase liability by incurring short-term loan of Rs.900 crore, GRIDCO still defaulted an amount of Rs.441.50 crore to various CGPs, Central Power Generating Stations and others. However, other liabilities like Govt. of Orissa bond, OHPC bond, Pension Trust bond had not been included. Also during FY 2009-10, GRIDCO could not pay the installment amount of principal as well as interest on

NTPC bond. To avoid such default, GRIDCO proposes to avail another Rs.1000 crore of short-term loan during FY 2009-10, over and above Rs.900 crore already availed upto January, 2010.

457. The Cash flow statement submitted by GRIDCO for the FY 2009-10 (upto January, 2010) was examined. Abstract of the cash flow is depicted in table below:

Table - 54

A.	Inflow	Amount (Rs. cr.)
	1. Revenue from DISCOMs excluding Transmission charges	2025.14
	2. Revenue from UI charges, trading, ICCL, NALCO	195.67
	3. Miscellaneous income	116.81
	Total:	2337.62
B.	Outflow	
	1. Power Purchase Bill	3067.77
	2. Employees Cost	2.99
	3. A&G expenses	8.08
	4. Interest	103.16
	5. Miscellaneous	6.63
	Total	3188.63
	Gap	(-)851.01
	Add opening cash balance	(-)64.11
	Net cash deficit	(-)915.12

458. In FY 2009-10 of the BSP order (vide Para-444), Commission left a gap of Rs.637.39 crore which along with Rs.245.16 crore towards repayment of principal was added upto Rs.882.55 crore. The Commission had directed to bridge the gap through export earning, UI charges and other revenues. But real deficit position as seen from the cash flow is Rs.915.12 crore (upto January, 2010) without considering repayment of principal approved by the Commission in BSP order 2009-10. Thus, net cash deficit including the principal amount would tentatively be Rs.1160.28 crore by the end of January, 2010, which Commission treats as regulatory asset for the time being which may be revised after audited data are available. This amount will be amortised over a period of six years from now. Keeping the above facts in view, Commission feels it justified to allow the interest impact of Rs.82.31 crore due for the FY 2010-11 on the loan amount of Rs.900 crore proposed by GRIDCO.
459. Regarding the proposed new loan of Rs.1000 crore, Commission will consider to allow interest on the loans actually received upto the end of the FY 2009-10 considering the fact that GRIDCO is yet to discharge liabilities on account of power purchase and debt servicing on NTPC bond. At present, Commission is not sure how much loan GRIDCO is going to avail out of the proposed Rs.1000 crore. Hence, Commission will undertake truing up of power purchase cost at the end of FY 2009-10.
460. After undertaking the truing up exercise, the same will be given effect in the Tariff order of FY 2011-12. However, loans already approved and allowed during 2009-10 shall be adjusted from the actual power purchase cost for the FY 2009-10. Balance amount defaulted by GRIDCO shall be considered as a short-term loan and

accordingly, Commission will allow its debt service as a pass through in the revenue requirement for FY 2011-12.

461. With the above observation, interest liability for the FY 2010-11 proposed by GRIDCO and approved by Commission is depicted in the table below :

Table - 55

Sl. No.	Particulars	Rate of interest as on 01.11.09	2010-11	
			Interest due for the year as per the revised proposal of GRIDCO	Approval
A. Existing Loan as on 01.4.2009				
1	State Govt. (WLC)	13.00%	15.60	-
2	State Govt. (OPGC Adj.)	10.50%	4.47	-
3	NTPC (Govt. Bonds)	8.50%	140.62	70.31
4	REC-Term Loan	10.61%	-	-
5	Union Bank of India-I	8.25%	-	-
6	Union Bank of India-III	10.00%	4.19	4.19
7	Union Bank of India-IV	11.25%	6.46	6.46
8	Allahabad Bank-I	8.25%	0.18	0.18
9	Allahabad Bank-II	8.25%	1.95	1.95
10	Allahabad Bank-III	8.25%	1.30	1.30
11	Dena Bank-I	8.25%	0.27	0.27
12	Dena Bank-II	8.25%	3.07	3.07
13	Andhra Bank-I	10.50%	1.90	1.90
14	Syndicate Bank	8.25%	1.27	1.27
15	Karnataka Bank	9.75%	0.22	0.22
16	Uco Bank-I (200 cr.)	10.00%	13.06	13.06
17	Uco Bank-II (100 cr.)	10.00%	8.20	8.20
18	OHPC (Rs.50 cr.)	8.50%	-	-
19	Pension Trust Bond	9.00%	7.99	-
20	NTPC (Rs.342.85 cr.)	10.00%	-	-
Sub Total			210.75	112.38
B. New Loan availed during FY 2009-10 (upto 01.11.2009) to meet the Revenue Deficit				
21	Union Bank of India-V-100 cr.	9.50%	9.50	9.50
22	Union Bank of India-VI-200 cr.	9.50%	17.82	17.82
23	Andhra Bank-II-200 cr.	9.50%	18.45	18.45
24	Canara-I-100 cr.	9.50%	8.66	8.66
25	Canara-II-100 cr.	9.50%	8.98	8.98
26	Kalinga GB-50 cr.	9.50%	4.75	4.75
27	Kaur Vysya Bank-50 cr.	9.50%	4.75	4.75
28	Karnataka Bank-II-100 cr.	9.50%	9.40	9.40
29	New Loan Proposed-1000 cr.	10.00%	100.00	-
Sub Total			182.31	82.31
C. Finance & Other Charges				
D. Grand Total (A+B+C)			393.06	194.69

Special Appropriation

462. GRIDCO has proposed special appropriation of Rs.945.22 cr. during FY 2010-11 under the following heads.

1. Special Appropriation of repayment of loan upto 31.3.2009 Rs.612.03 cr.
2. Repayment of loan liability availed during 2009-10 Rs.99.52 cr.

- | | |
|---------------------------|---------------------|
| 3. Arrear payment of OHPC | Rs.161.10 cr. |
| 4. Arrear payment to OPGC | <u>Rs.72.57 cr.</u> |
| | Total |
| | Rs.945.22 cr. |
463. Regarding item 1 i.e. Special Appropriation of repayment of loan of Rs.612.03 cr., GRIDCO has submitted loan-wise repayment schedule in TRF-3. On scrutiny it is found that GRIDCO has availed new loan of Rs.300 cr. from UCO bank during 2008-09 which Commission did not take into consideration in last tariff order. The repayment liability of the above loan is estimated at Rs.100 cr. (Rs.66.67 cr. + Rs.33.33 cr.) during 2009-10. Commission observes that the above loan was availed by GRIDCO to discharge the power purchase liability. Hence, Commission feels it prudent to allow repayment of principal of Rs.100 cr. towards special appropriation. Except the loan amount of Rs.300 cr. availed during 2008-09 all other loans are old and approved loans. Commission in their securitization order dtd.20.7.2006 had approved the loans and approved the repayment schedule, except loans from state govt. and pension trust bond, the details of which are given in table below.

Table - 56

Financial Year	Repayment approved (Rs. cr.) for liquidation of power purchase dues
FY 2005-06	406.25
FY 2006-07	480.12
FY 2007-08	480.62
FY 2008-09	306.55
FY 2009-10	226.73
FY 2010-11	166.39
FY 2011-12	146.82
FY 2012-13	140.85
FY 2013-14	118.29
FY 2014-15	110.29
FY 2015-16	110.26
Total Repayment Amount	2693.17

464. As seen from the above table during FY 2010-11, Commission had approved an amount of Rs.166.39 cr. towards repayment of loan. In line with the orders, Commission allows Rs.166.39 cr. of loan repayment towards special appropriation. To summarise Commission approves Rs.266.39 cr. (Rs.166.39 cr. + Rs.100 cr.) towards special appropriation for the FY 2010-11 as against the proposed amount of Rs.612.03 cr.
465. Regarding repayment of loan liability availed during 2009-10, GRIDCO has projected an amount of Rs.99.52 cr. towards repayment of principal during FY 2010-11. Subsequently the same figure is revised to Rs.126.18 cr. Commission in above paras have stated that the actual receipt of loan during 2009-10 is Rs.900 cr. on which the interest is allowed as a pass through in the revenue requirement. Commission now allows the repayment of principal of Rs.99.92 cr. on the loan value of Rs.900 cr. for the year 2010-11. The calculation is given in the table below.

Table - 57

Name of the Bank	Sanctioned Amount	Date of drawal	Moratorium	Repayment term	Monthly instalment	Annual repayment for 10-11
Union Bank	100	01.10.09	6 months	Monthly	N.A.	
Canara Bank	100	01.6.09	1 year	Monthly	2.08	20.80
Union Bank	200	30.6.09	1 year	Monthly	3.33	29.97
Canara Bank	100	01.8.09	1 year	Monthly	1.67	13.36
Andhra Bank	200	01.9.09	1 year	Monthly	3.33	23.31
Kalinga Gramya Bank	50	31.10.09	2 year	Monthly	0.83	4.15
Kaur Vysya Bank	50	20.11.09	2 year	Monthly	0.83	3.32
Karnataka Bank	100	17.12.09	1 year	Monthly	1.67	5.01
Total	900					99.92

466. Hence, Commission approves Rs.99.92 cr. of principal repayment towards special appropriation for 2010-11 in respect of the loans of Rs.900 crore availed during 2009-10.

Arrear Payment to OPGC

467. GRIDCO has submitted that it was liable to pay Rs.72.57 crore to OPGC towards arrear dues which were held up because of the dispute with regard to tariff norms applicable for procurement of power from OPGC. Further, GRIDCO in its compliance to the Commission's queries has stated that this arrear dues of Rs.72.57 crore to OPGC is upto the end of September, 2008. However, GRIDCO is liable to pay Rs.90.95 cr. towards such arrear dues at the end of the FY 2008-09.
468. Commission is of the view that the dues of OPGC will be considered after approval of amended agreement. Hence, the amount claimed by GRIDCO is not allowed at present as a pass through in the ARR.

Pass Through of Power Purchase related cost of OHPC

469. GRIDCO has claimed an amount of Rs.161.10 cr. towards payment of outstanding dues to OHPC on account of default payment due to revenue shortfall in FY 2008-09 and in the current year 2009-10. After scrutiny the Commission has allowed an amount of Rs.3.08 cr. towards payment of income tax, ED on auxiliary consumption and ARR application and related publication fees as against Rs.161.10 crore claimed for payment to OHPC as explained hereunder.

Electricity Duty on Auxiliary Consumption

470. As per the agreed PPA between OHPC and GRIDCO, the taxes and duties including ED on auxiliary consumption etc payable by OHPC to the State Government and other statutory bodies shall be passed on to GRIDCO in the shape of supplementary bill to be raised by OHPC and GRIDCO will make payment accordingly within 30 days of receipt of bills. To facilitate reimbursement of electricity duty, GRIDCO should include the same (based on the Design Energy), in its Annual Revenue Requirement prior to beginning of the year. Accordingly, ED on Auxiliary consumption of all the hydro-electric projects to the tune of Rs.0.57 cr. is to be

reimbursed to OHPC from GRIDCO through separate billing. The Commission approves the same.

Income Tax

471. As per new CERC Regulations, 2009, tax on the income streams of the generating company or the transmission licensee, as the case may be, shall not be recovered from the beneficiaries, or the long-term transmission customers, as the case may be: Provided that the deferred tax liability, excluding Fringe Benefit Tax, for the period up to 31st March, 2009 whenever it materializes, shall be recoverable directly from the beneficiaries and the long-term customers.

Accordingly, income tax liability i.e. Minimum Alternative Tax paid by OHPC during the FY 2008-09 to the tune of Rs.2.25 cr. is to be reimbursed directly to OHPC from GRIDCO. The Commission approves the said amount as pass through.

ARR & Tariff Application Fees and related Publication Expenses

472. As per Regulation 42 of CERC Tariff Regulations, 2009, the application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may in the discretion of the Commission, be allowed to be recovered by the generating company or the transmission licensee, as the case may be, directly from the beneficiaries or the transmission customers, as the case may be. Accordingly, OHPC has claimed for reimbursement of Rs.0.26 cr. from GRIDCO towards ARR and tariff application fees and related publication expenses. The Commission approves the said amount of Rs.0.26 cr. as pass through in the ARR of GRIDCO.

SLDC Charges

473. The Commission, while determining the ARR and Fees & Charges of SLDC for the FY 2010-11 in Case no.146/2009, has allowed SLDC to levy and collect Annual Charges from the users towards System Operation Functions and Market Operation Functions in accordance with Regulations 22 & 23 of CERC (Fees and Charges of Regional Load Dispatch Centre and Other Related Matters) Regulations, 2009. Accordingly, the Commission has fixed Rs.8930/MW/Annum to be collected from the generators towards annual charges of SLDC. Considering the installed capacity of 2027.50 MW of OHPC (as submitted by SLDC in its ARR application), the total SLDC charges of OHPC comes to Rs.1.81 cr. for the FY 2010-11, which is to be collected by SLDC from OHPC on monthly basis and OHPC has to reimburse the same from GRIDCO. Accordingly, the Commission provisionally approves an amount of Rs.1.81 cr. as pass through in the ARR of GRIDCO for the FY 2010-11 towards power purchase related cost of OHPC.
474. The details of ED on auxiliary consumption and income tax, application fees & related publication expenses and SLDC charges of OHPC are summarized in the table below:

Table – 58

Component of Costs	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	Total (Rs. cr.)
ED on Auxi. Consumption	0.05	0.08	0.12	0.07	0.05	0.20	0.57
Income Tax (MAT)	0.00	0.00	0.08	0.00	0.00	2.17	2.25
Application fees & publication expenses							0.26
SLDC Charges for the FY 2010-11							1.81
Total							4.89

Truing up for GRIDCO

475. In the last tariff order, Commission had undertaken truing up exercise of GRIDCO upto FY 2007-08 based on the audited accounts. Now audited accounts upto FY 2008-09 is available. The existing principle adopted in the previous tariff order is amended in respect of certain components of cost and accordingly the Commission updated the truing up exercise upto 2008-09. A table showing truing up exercise upto FY 2008-09 is depicted below.

Table – 59

(Rs. cr.)

Financial Year	Gap in revenue requirement	Gap in revenue from sale of power	Total gap (for the year)	Add : approved gap in ARR allowed by the Commission	Gap considered for true up	Cumulative Gap (+/-)
1996-97						-295.00
1997-98	-310.15	5.86	-304.29	0.68	-303.61	-598.61
1998-99	-236.10	-420.39	-656.49	0.19	-656.30	-1254.91
1999-00	-230.33	244.14	13.81	-30.91	-17.10	-1272.01
2000-01	-359.42	194.43	-164.99	0	-164.99	-1437.00
2001-02	13.74	65.61	79.35	43.59	122.94	-1314.06
2002-03	-297.86	-264.11	-561.97	0	-561.97	-1876.03
2003-04	-79.79	586.13	506.34	0	506.34	-1369.69
2004-05	-73.19	322.13	248.94	217.35	466.29	-903.40
2005-06	-403.92	384.32	-19.60	15.72	-3.88	-907.28
2006-07	-175.47	723.02	547.55	-504.52	43.03	-864.25
2007-08	149.93	902.41	1052.34	-464.86	587.48	-276.77
2008-09	-410.14	938.76	528.62	-410.05	118.27	-158.20

476. The following principles are adopted while undertaking truing up exercise.

- a) Power Purchase cost is allowed on actual basis.
- b) Employees cost is allowed on actual basis
- c) R&M cost is allowed on actual basis.
- d) A&G cost is allowed as per actuals subject to the limit approved in the ARR.
- e) Interest on loan amount is allowed on actual basis except interest on loan from State Govt.
- f) Depreciation is allowed as per actuals upto the FY 2000-01. From 2001-02 onwards, depreciation is calculated in line with Hon'ble High Court order i.e. at pre-revalued cost of asset and pre-92 rate notified by Govt. of India.
- g) Income from interest payable by WESCO, NESCO & SOUTHCO on bond value of Rs.400 core shown in audited accounts for the FY 2006-07 has not been considered in truing up exercise since the matter is subjudice.

477. The above table on truing up exercise reveals that GRIDCO at the end of FY 2008-09 landed in a deficit gap of Rs.158.20 core. However, in reality this gap will further increase on the following ground. The revenue requirement as well as BSP of GRIDCO was determined by considering the arrear payment of DISCOMs to GRIDCO which did not materialize fully at the end of the year. A detailed position of arrear approved in arrear vis-avis actual amount paid by DISCOMs are shown in table below:

Table – 60

		WESCO	NESCO	SOUTHCO	CESU	Total
A.	Amount approved by Commission					
	2006-07	36.83	41.36	31.91	-	110.10
	2007-08	36.83	41.36	31.91	43.23	153.33
	2008-09	36.83	65.00	-	118.00	219.83
	Total:	110.49	147.72	63.82	161.23	483.26
B.	Amount paid by DISCOMs					
	2006-07	52.00	59.84	-	-	111.84
	2007-08	4.40	57.58	9.53	-	71.51
	2008-09	-	80.72	5.86	32.47	119.05
	Total:	56.40	198.14	15.33	32.47	302.40
	Default (B-A)	(-)54.09	50.42	(-)48.49	(-)128.76	(-)180.86

478. Considering the above default amount of Rs.180.86 core, the net deficit would be Rs.339.06 crore (Rs.158.20 cr. + Rs.180.86 cr.) by the end of FY 2008-09, which Commission accepts as a regulatory asset on provisional basis and the actual quantum of which will be amortised over a period of six years.
479. However, Commission is of the opinion that outcome of the orders on receivable audit has some bearing on the income of GRIDCO and hence decides to undertake final truing up exercise after pronouncement of order on receivable audit.

Return on Equity

480. For the FY 2010-11 GRIDCO proposed a sum of Rs.67.11 cr. towards return on equity on an equity base of Rs.432.98 cr. at 15.5%. Commission in their reasoned order for the earlier year had disallowed RoE. Extracts of such order is reproduced below.

“424. GRIDCO had projected an amount of Rs.60.62 crore towards Return on Equity @ 14% on equity capital of Rs.432.98 crore for the FY 2009-10.

425. At the time of vesting of the transmission and distribution business with GRIDCO by the State Govt. on 01.04.1996, the Equity Share Capital was Rs.327.00 crore. During the subsequent years upto FY 2004-05, there were additional infusions of equity capital of Rs.165.98 crore by the State Govt. raising the total equity of GRIDCO to Rs.492.98 crore. At the time of demerger of GRIDCO effective from 01.04.2005, the equity share capital of OPTCL was stated at Rs.60 crore, leaving the balance equity share capital with GRIDCO. The equity share capital issued to Govt. of Orissa was both in consideration of cash and other than cash. Therefore, the licensee claimed ROE @14% on the equity share capital of Rs.432.98 crore.

426. *The Commission in earlier orders referred to the GoO Notification of 29.1.2003, wherein it has been stated that GRIDCO and OHPC should not be entitled to any return in equity till the sector becomes viable or FY 2005-06 whichever is earlier. Further, in partial modification of earlier notification, the Govt. of Orissa in its letter no. 5302 dtd. 6.5.2003 stated the following “GRIDCO and OHPC shall not be entitled to any Return on Equity (ROE) except in respect of the new projects commissioned after 01.04.1996 till the sector becomes viable or end of 2005-06 whichever is earlier.” The Commission would like to clarify that correspondence has been made with Govt. of Orissa to clarify the status of the notification dtd. 29.1.2003, as it has great impact on Tariff. Govt. while communicating their views/comment in their letter No.1704 dtd. 17.02.2009 in response to the Commission’s letter No.2807 dtd. 31.12.2008 have stated as under:*

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

427. *As regards infusion of capital for the new project, the Commission verified audited accounts of GRIDCO upto 2004-05. It is found that the addition of share capital shown in the balance sheet after 1996-97 includes only the grants received from DFID towards R&M expenditure and rehabilitation assistance. As per Project Memorandum signed between Govt. of India and Govt of Orissa and DFID, the above amount has been shown under share deposit account pending allotment of shares for non-receipt of approval from Govt. of Orissa.”*

Subsequently, Govt. of Orissa, Dept. of Energy vide No.R&R-I-15/2009/81 dtd.06.01.2010 notified the following in connection with Return on Equity. The extract is reproduced below.

“The additional equity share, allotted to the State Govt. based on revaluation of assets, shall not earn any Return on Equity for a further period of five years from 2006-07 to 2010-11.”

481. In this connection, it may be noted that Govt. in their notification No.1068/R&R-1-2/2002/E dt.29.01.2003 had stipulated that 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.
482. Keeping in view of the above facts, Commission does not allow Return on Equity to GRIDCO for the FY 2010-11.

Miscellaneous Receipt

483. During FY 2010-11, GRIDCO expects to earn an amount of Rs.4.20 cr. from proposed sale of 10 MU of emergency power to long term customers like NALCO, ICCL as per MoU signed with the entities. The Commission in its Retail Supply Tariff order for the FY 2010-11 has fixed the rate of 510 p/u for emergency power to long term customers like NALCO & ICCL etc. Accordingly, the total earning of GRIDCO on this account comes to Rs.5.10 cr. and the Commission approves the same for the FY 2010-11.

Receivables from DISCOMs and others

484. GRIDCO in its application has stated that DISCOMs have not paid their outstanding dues approved by the Commission. Since the amounts are considered in ARR of GRIDCO the non-payment by DISCOMs has affected the finances of GRIDCO.
485. Commission vide order dtd.20.10.2009 in Case No.104/2009 and 105/2009 have directed WESCO, NESCO, SOUTHC0 and CESU to pay the default amount approved during 2008-09 and approved amount from 2009-10 during FY 2009-10. But as reported by GRIDCO upto December, 2009 the following amounts are still outstanding from different DISCOMs as depicted in table below.

Table - 61

Sl. No.	Particulars	WESCO	NESCO	SOUTHC0	CESU	Total
1	Amount approved for FY 2009-10	-	-	19.00	151.00	170.00
2	Amount to be paid by SOUTHC0 to WESCO through GRIDCO	-	-	9.00	-	9.00
3	Arrear amount for FY 2008-09 payable during 2009-10	36.83	-	-	85.53	122.36
4	Total payable	36.83	-	28.00	236.53	301.36
5	Amount paid upto Dec.2009	2.00	-	7.80	61.60	71.40
6	Balance payable	34.83	-	20.20	174.93	229.96

486. GRIDCO is currently passing through a serious financial crunch. This is mainly because GRIDCO is purchasing power at higher cost and supplying power at a reduced rate (122.2 paise per Kwh) approved by the Commission. Therefore, the defaulting DISCOMs must step up their collection drive and ensure payment of the balance arrear BST dues indicated in the above table. There is urgent need to bridge the gap in the account of GRIDCO to enable it to pay the power purchase cost to the generators in time and regularly. This will be possible if the distribution companies take systematic and sincere steps to collect the current electricity dues regularly and a bulk of the arrear outstanding as on 01.04.2010 is collected for which the DISCOMs have to launch a special drive right from the beginning of the FY 2010-11. On the other hand, while DISCOMs expect full realization of the revenue from different consumers, they must demonstrate their commitment in taking repair and maintenance

work in time to improve the standard of performance and quality of supply. For this to happen, GRIDCO shall release fund from the escrow accounts as per the priority indicated in para 496 of the RST order 2010-11 which is extracted below for ready reference:

"496 In view of the above, the Commission directs the manner and the order of priority for Escrow relaxation by GRIDCO from the Escrow account wherein current revenue of DISCOMs are deposited:

- a. Current BSP dues in full including current Transmission charges and SLDC charges.*
- b. Employees cost as approved by the Commission in this tariff order for FY 2010-11.*
- c. Monthly R&M expenditure as approved by the Commission in this tariff order for FY 2010-11.*
- d. 50% of the average monthly obligation of the defaulted arrear BST as approved by the Commission in the RST Order for FY 2008-09 and 2009-10.*
- e. The balance amount towards arrear BSP dues as approved in the securitization order of the Commission dtd. 01.12.2008.*

All the previous order of the Commission in the matter of escrow relaxation stands modified to the extent indicated above."

487. Further, Commission reiterates that the directions of the Commission vide order dtd.01.12.2008 relating to securitization of receivables of GRIDCO as on 31.3.2005 must be scrupulously followed by the DISCOMs.

Receivable from other States and Govt. Departments

488. GRIDCO in its filing have stated that the following receivables are due from Govt. Dept. and other States. The dues from different agencies are as per details below.

Table - 62

Sl	Agency	Amount	Date as on
1	Govt. Departments	Rs.91.71 cr.	01.04.1999
2	PSUs/ULB	Rs.113.49 cr.	01.04.1999
3	MPSEB	Rs.71.78 cr.	01.04.2005
4	APSEB	Rs.30.19	01.04.2005
5	IMFA (ICCL)	Rs.19.55 cr.	01.04.2005
Total		Rs.326.72 cr.	

489. As reported by GRIDCO dues from govt. departments and PSUs are carried over in accounts of GRIDCO although they are consumers of DISCOMs pursuant to transfer notification dtd.25.11.1998. The DISCOMs have not yet collected the outstanding dues nor provided the detailed status of the consumers and also the outstanding dues as per the consumer ledger. Commission accepts the submission of GRIDCO and views that once the receivable audit is finalized the arrear outstanding against the Govt. departments will be settled.
490. Regarding dues from other States, GRIDCO stated that dues from MPSEB, APSEB, IMFA are under litigation and not yet settled. Hence, GRIDCO is not likely to receive

any amount from these parties during FY 2010-11. Commission accepts the submission of GRIDCO.

491. Summary of the ARR approved for 2010-11 for GRIDCO is given below:

Table – 63
Revenue Requirement of GRIDCO for FY 2010-11
(Rs. cr.)

		2009-10	2010-11	
		Approved	Proposed	Approved
A	Expenditure			
	Cost of Power Purchase	2923.80	4096.09	3666.85
	Employee costs	3.80	5.98	4.97
	Repair & Maintenance	0	0.30	-
	Administrative and General Expenses	3.03	3.99	3.41
	Other expenses (ERLDC Charges)	1.32	1.32	1.32
	Interest Chargeable to Revenue	101.62	364.41	194.69
	Sub-Total	3033.57	4472.09	3871.24
	Less: Expenses capitalized	-	-	-
	Total expenses	3033.57	4472.09	3871.24
B	Special appropriation			
	Carry forward of Previous Losses	-	612.03	266.39
	Repayment of principal for the loan availed during FY 2009-10	-	99.52	99.92
	Arrear payment of OPGC	-	72.57	-
	Power Purchase related cost of OHPC	16.08	161.10	4.89
	Power Purchase related cost of TPPS	73.45	-	-
	Total	89.53	945.22	371.20
C	Return on Equity		67.11	-
	TOTAL (A+B+C)	3123.10	5484.42	4242.44
D	Less Miscellaneous Receipt	3.30	4.20	5.10
E	Less receivable from DISCOMs	170.00	-	-
F	Less receivable from outside States	-	-	-
G	Total Revenue Requirement	2949.80	5480.22	4237.34
H	Expected Revenue (Full year) from DISCOMs	2312.11	2519.61 (at existing BSP)	3431.19
I	GAP (+/-)	(- 637.69)	(- 2960.61)	(- 806.15)

492. From the above table, it is found that GRIDCO after meeting all expenses would still be left with a negative gap of Rs.806.15 crore. The Commission expects that the same gap shall be bridged through export earning, UI charges and recovery of arrears from DISCOMs over and above their current BSP dues.

Bridging the gap in the account of GRIDCO

493. The Commission had approved procurement of 19719.37 MU energy by GRIDCO from different sources at an estimated cost of Rs.2923.80 crore for the year 2009-10 at an average power purchase price of 148.27 paise per unit meant for sale to distribution companies in the State. However, the Bulk Supply Tariff approved by the Commission for sale to the distribution companies for 2009-10 was 122.20 paise per unit. The gap between the revenue realization and the revenue requirement of

GRIDCO for 2009-10 was approved at Rs.637.69 crore but including principal repayment by GRIDCO for Rs.245.16 crore, the total gap left was Rs.882.85 crore. The gap was supposed to be bridged by profit to be earned through trading of power and/or UI mechanism etc or by borrowing from financial institutions with Govt. guarantee and in that case the interest on such borrowing was to be allowed as carrying cost in the ARR of 2010-11. In the current year upto January, 2010, GRIDCO landed in a net deficit of Rs.915.12 cr (Para-457) as per the data submitted by GRIDCO in its cash flow statement upto January, 2010. The above amount does not include the repayment of principal of Rs.245.16 cr as discussed above. As stated in para-458 above the net cash deficit including principal repayment would, therefore, amount to Rs.1160.28 cr which Commission treats as Regulatory Asset provisionally. This figure may be revised after the audited data for the year 2009-10 are available to the Commission and the same will be amortized over a period of six years starting from FY 2010-11.

494. Taking into account the requirement of energy projected by GRIDCO and the DISCOMs for the year 2010-11, the Commission has approved 21003.75 MU of energy for purchase by GRIDCO from different generators based on least cost criterion for the year 2010-11. Based on the cost of generation determined for the generators, the average power purchase cost per unit comes to 174.58 paise. Thus, the cost of procurement of power by GRIDCO from the generators for the year 2010-11 comes to Rs.3666.85 crore. After taking into account the salary cost, interest payment and A&G expenses of Rs.204.39 crore, Special Appropriate towards repayment of loans amounting to Rs.366.31 cr (Rs.266.39 cr + Rs.99.92 cr) and that of OHPC amounting to Rs.4.89 crore, net revenue requirement works out to Rs.4242.44 crore. Against this, revenue realization anticipated from DISCOMs at the approved bulk supply price of 170.25 paise/unit comes to Rs.3431.19 crore for the FY 2010-11. After taking into account the Misc. Revenue of Rs.5.10 crore, there will be a gap of Rs.806.15 crore for the year 2010-11. Commission expects this gap to be met by earning from trading, UI, recovery of arrears from DISCOMs over and above the current BSP and subvention from Govt. Shortfall, if any, after such adjustment shall be a recognized as regulatory asset and carrying cost thereof shall be passed on to the ARR for the FY 2011-12 onwards. Govt. may also consider to provide a special budgetary support to GRIDCO for enabling it to pay the power purchase cost to the generators in time and release the full amount of R&M expenditure to the distribution companies after adjusting the amount received from the DISCOMs in the escrow account towards transmission charges, SLDC charges, bulk supply price and current salary expenditure of the employees. This will help the DISCOMs in improving the quality of supply by taking repair and maintenance work in time. DISCOMs on their part must take systematic and coordinated efforts to ensure 100% billing of the power supplied and realize the current tariff bills in full.
495. Based on normative parameters for most generating stations and GRIDCO projection for CGP, Co-generation and IPP power, the total availability is estimated at 22244 MU. After deducting the state requirement of 21003.75 MU, there is a surplus of 1240.36 MU which GRIDCO can trade. The quantum of surplus may be more if withdrawal from CGPs, Co-generation plants and IPPs is maximized.
496. The Commission is aware of the past record of GRIDCO in negotiating both ways trading for export of its surplus power as well as import of power at time of need with power traders. GRIDCO is also a member of power exchange of the country in participation of both ways trading of power. Apart from bi-lateral trading, UI

exchange, GRIDCO also has adopted the banking route for trading of power. In the past, GRIDCO has managed to its best of capability both ways of trading of power for the best interest of Odisha Power Sector. The Commission, therefore, desires that GRIDCO should continue to procure maximum power from CGPs and IPPs of the State and try to trade the surplus power, after meeting the State need. Similarly, at the time of shortage at different period of the year and different hours of the day, GRIDCO may import power through trading and UI exchange. Some of the objectors, in the tariff hearing, as well as in writing had complained that GRIDCO had bought power at higher rates from outside the State than that of OERC approved average cost of purchase. Objectors have suggested that GRIDCO's purchase at higher rate than that of OERC approved quantity should not be passed on the ARR of GRIDCO. The Commission would like to clarify that in the past the Commission had only approved the average cost of purchase of GRIDCO from the central and state generators and the approved quantity of purchase of energy of GRIDCO is a normative one for estimation of ARR of GRIDCO. Even though GRIDCO is required to purchase power at a cost higher than the rate approved by the Commission for the purpose of supply to the consumers in the State through the DISCOMs, such additional cost of power purchase by GRIDCO is not passed on to the consumers through the DISCOMs during that year because the tariff for the consumers is not being revised during the course of the year. In view of this, the apprehension of the objector is not based on facts.

497. However, there is no difficulty for GRIDCO to purchase power for the purpose of trading at a rate higher than that approved by the Commission for sale to DISCOMs meant for consumption by the consumers of the State. Nevertheless, Commission would like to put a ceiling for the purchase and floor sale price of GRIDCO through trading route. For the purpose of trading, GRIDCO can purchase power at any rate not exceeding Rs.4.10 per unit (the highest rate of purchase of power by GRIDCO from CGP is Rs.4.05 per unit) and can sell through trading route at any rate which in any case not be less than Rs.3.50 per unit. GRIDCO may negotiate at the time of exigency for import of power at a rate below the ceiling rate of Rs.4.10 and try to sell exportable power above the floor rate of Rs.3.50 per unit. The above ceiling and floor price, however, is not applicable for UI exchange, the rate of which at different grid frequency is determined by CERC.

Design for Bulk Supply Pricing Philosophy

498. A significant issue in the power sector in Orissa today is the changing nature of the consumer mix in the four distribution companies and its impact on power tariff. While the four Distribution Companies in Orissa were carved out of different areas of the State with varying consumer mix, electricity consumers through out the State are being charged an uniform rate for supply of power. The changing consumer scenario has, however, created regional imbalances as far as the revenues and financial health of the DISCOMs are concerned. The load growth in Orissa has been phenomenal in the last decade. Due to liberalization and open door policy coupled with rich mineral wealth, industrial houses have invested heavily in the State.
499. However, this load growth is mostly restricted to Western and North-Eastern/Central Orissa, largely due to exploitation of minerals for production of iron, steel and aluminum etc. On the other hand, the Southern part of the State is not witnessing growth of HT and EHT load due to absence of such natural resources. Most of the Aluminum/Charge Chrome industries located in South Orissa are old and have their

own captive power plants. Therefore, while HT & EHT sales in WESCO & NESCO are 59% & 61% respectively, in case of CESU & SOUTHCOP it is 40% & 31% respectively.

500. South Orissa is also disadvantaged from the point of view of the nature of electricity consumption. As a forest dominated region with a tribal population, it has poor economic capacity for utilization of electricity. Therefore, SOUTHCOP is entirely dependent on low-voltage consumers, mostly domestic, for its revenues.
501. The industrial scenario is very different from the 90's with substantial growth of large and heavy industries in Western, North-Eastern and to some extent in Central Orissa. This has naturally fuelled demand for power. For the last few years, consumers of Orissa have benefited from the State being a power surplus one. Low cost hydro power has been utilised within the state and higher cost thermal power has been exported by GRIDCO and the gains thus accrued have been passed on to consumers. Now the power scenario has changed from that of a surplus state to a deficit one as far as the current year is concerned. In the coming years also because of higher growth of HT and EHT most of the power produced will be consumed within the State. If there is adequate rainfall during 2010-11 the hydro generation may be more than that estimated and in that case there may be some scope for trading of surplus power on a limited scale.
502. GRIDCO used to procure surplus power from CGPs at variable cost or at negotiated price very close to the variable cost. Following the promulgations of Inter State Open Access Regulation, CGPs are increasingly interested to sell the surplus power outside the State at market-discovered price which is very much lucrative because of deficit power scenario in the country. In order to avail the surplus power of CGPs, GRIDCO has offered attractive rates to all the CGPs to meet the growing demand of the State in terms of the order dt.14.03.2008 of the Commission on CGP pricing. As an interim arrangement, the Commission in their order dt.28.02.2009 had fixed Rs.3.00/kWH for surplus power from CGP and Rs.3.10/kWH from co-generation plants w.e.f 01.03.2009. Further, in its subsequent Order dt.28.10.2009 the Commission has revised the purchase price of CGP power, the abstract of which is reproduced below:

"18. The State is facing serious deficit of power availability because of low generation of power from hydro sources and the generation from hydro sources may also be further reduced as the water is to be saved in the reservoir to meet the requirement of irrigation during Rabi season. The cost of power procured through UI or power exchange is more than Rs.4.00 per Kwh on the average. It is an admitted fact that there is increase in coal price from time to time and the problem faced by the CGP in procurement of coal is genuine one. In order to ensure supply of surplus power from the Captive Generating Plants to the grid when the State is facing acute power shortage, it is necessary to incentivise the generation from the Captive Generating Plant through full utilisation of their capacity.

19. Accordingly in continuation of the review order dt.30.06.2009, the Commission now directs and stipulates as under:

- (i) *The price of supply of energy upto 3.6 MU/month (~ 5 MW Avg.) would be Rs.3.10/KWH.*
- (ii) *The price for supply of incremental energy above 3.6 MU/month upto 36 MU/month (~ 50 MW Avg.) would be Rs.3.40 per Kwh.*

- (iii) In respect of supply of incremental energy above 36 MU/month upto 72 MU/month (~ 100 MW Avg.), the price would be Rs.3.70 /Kwh.
- (iv) In respect of supply of incremental energy beyond 72 MU/month, the incremental energy would be priced at Rs.4.05/Kwh.
- (v) As regards the pricing of power supply by the co-generating plants Rs.3.20 per unit would be paid up to 3.6 MU/month and for injection beyond 3.6 MU the additional unit will qualify for payment at the same rate as that of (ii), (iii) & (iv) above.

x x x x x x x x x x

20. The modified CGP pricing stipulated in Para-19 will be applicable w.e.f. 01.11.2009 and will continue until further order.”

503. This high cost power will be utilized within the State for use by the consumers. Purchase of power from high cost sources is raising the per unit cost of supply. In 2009-10, the approved weighted average cost of power purchase was 148.27 paise per unit (para 380, Table-32 of BSP order for FY 2009-10). However, the average power cost during 2009-10 has increased to 185.02 paise per unit upto September, 2009 and 202 paise per unit upto January, 2010. The Commission after due scrutiny has now approved the power cost of 174.58 paise per unit on the average for FY 2010-11. This rise in cost of power has been largely due to higher coal and oil prices and growing mis-match between demand for and supply of power.
504. Utilities in Orissa are entering a dynamic phase with introduction of open access from 1.4.2008. It is difficult to forecast at this point of time about the quantum of energy which shall move between utilities. The expected revenue earning from EHT and HT group of consumers of capacity 1 MW and above may undergo a change affecting the overall finance of DISCOMs. The Bulk Supply Price now being determined is essentially being designed with the expected earning of revenue by the DISCOMs to meet the power purchase liabilities of GRIDCO, Transmission charges of OPTCL and SLDC expenses.
505. Moreover, distribution companies with higher sale at EHT/HT have been found to be inefficient in reducing LT losses. They try to manage with revenue earned from EHT/HT consumers from the margin available to them between BSP and consumer tariff. The difference between purchase price and the revenue is the margin of the companies. Essentially this margin should be used for cross-subsidy among the companies.
506. OERC has been following a uniform retail tariff policy. Considerations of public interest for consumers of the entire State warrants continuance of an uniform retail tariff policy, and a retail tariff for each distribution licensee based solely on its ARR and its expected revenue ought not to be considered in isolation. The law requires the Commission to take into consideration not only the annual revenue requirement and the expected revenue of the distribution licensee but also such policy inputs for safeguarding consumers interest one of which is a uniform retail tariff for the whole State, vide Section 61(d) of the Electricity Act, 2003. Moreover, uniformity of retail tariff for the whole State is in line with the National Tariff Policy, vide Para 8.4(2) thereof. Only when distribution licensees show appreciable rise in their respective levels of efficiency by reducing distribution losses, both technical and commercial, a

question of rewarding efficiency by a differential retail tariff may arise. This is not the case now. Besides, the benefit of differential Bulk Supply Price has been an accepted practice, as the State transmission network serves the whole State as a single backbone system and the consumers of Orissa have been paying for the cost of this transmission system uniformly. The distribution companies have little contribution towards the growth and development of the EHT industries and yet a distribution licensee would reap substantial higher revenue than another distribution licensee by virtue of mere concentration of EHT industries in its area. It is just and proper that differential Bulk Supply Price should be higher for the DISCOMs with higher concentration of HT/EHT industries than for those with little HT/EHT load. Therefore, with differential Bulk Supply Price there is no necessity of shifting away from the uniform retail tariff prevailing in the state of Orissa.

507. Until we move away from the uniform RST structure, the higher bulk pricing mechanism should give a signal to the utility having higher EHT & HT concentration that improved performance at LT through higher LT sale would enable that utility to get power at a lower rate. That is to say, such utility should endeavour to convert lost units to billing units at LT resulting in reduction of commercial loss, which needs to be encouraged.
508. Tariff is essentially intended to balance the conflicting interest of various stakeholders like the distribution licensees and various groups of consumers as well as the generators. Some amount of judgment is to be exercised while determining the bulk supply price for distribution utilities. The process has to be fair, transparent, with sound logic, so that the revenue earned by the utilities are adequate to service all their expenditures like the cost of employees, servicing the interest burden, meet return on equity in addition to meeting the cost of power purchase which constitute a substantial part of their revenue requirement.
509. At this point, we are taking into consideration the extent of revenue that a distribution utility is likely to earn for sale of power to HT & EHT groups of consumers. Besides, the volume of sale at LT is an important criterion where the loss level is high and the expected revenue realisation is low. Thus, the Bulk Supply Price (BSP) is fixed in a manner that makes all the distribution utilities more or less financially viable.
510. The consumer mix at EHT, HT and LT varies widely among the four distribution utilities of the State which may be seen from the table given below:

Table - 64

	CESU	NESCO	WESCO	SOUTHCO	All Orissa
No. of consumers as on 30.09.2009					
EHT	19	20	22	11	72
HT	907	314	565	161	1947
LT	1100208	593499	550969	589762	2834438
Total	1101134	593833	551556	589934	2836457
Percentage of consumption					
EHT	26.89	46.75	39.68	19.21	35.53
HT	21.21	20.36	33.84	18.55	24.97
LT	51.90	32.90	26.48	62.24	39.50

NB : As furnished by the DISCOMs in the performance review upto Sep'09.

- 511. While all the utilities are served by the State Transmission Utility, the distribution networks within the jurisdiction of the DISCOMs give power supply to LT & HT groups of consumers. As explained earlier there are some utilities who are very conveniently placed and have the advantage of large base of EHT and HT consumers like NESCO and WESCO whereas utilities like CESU and SOUTHCOP are primarily utilities covering a very large number of LT consumer base. This is reflected in financial terms while determining the expected revenue that these utilities are likely to earn during the year 2010-11. As we have stated earlier a uniform retail supply tariff is followed in the State. Accepting a normative level of efficiency in terms of approved distribution loss and collection efficiency, their expected revenue is calculated.
- 512. Around 28% of the state's internal requirement is met out of low cost hydro generation, which has made the power sector revenue very vulnerable to the vagaries of nature. Hydro power no doubt provides stability to system operation but at the same time failure of monsoon can play havoc on the state's utilities. The Commission has considered revenue requirement of the current year based on the assumption of a normal rainfall.
- 513. The current power scenario of the State is in a state of transition due to rise in demand on account of rapid industrialization and massive rural electrification envisaged under Rajeev Gandhi Gramin Vidyut Yojana (RGGVY) and Biju Gramya Jyoti Yojana (BGJY). The surplus scenario is fast diminishing. Effective steps need to be taken at the level of the government for creation of new capacity about which the Commission has already advised the Govt and hopes that follow-up action shall be taken at the appropriate level. The Commission may be kept apprised of the developments in this regard by the concerned quarters.

Determination of Demand and Energy Charges

- 514. Demand charge is levied in consonance with the philosophy of realization of a part cost of the fixed charges in proportionate to the capacity utilization by the licensee. The energy consumption is recovered in proportion to the actual quantum of energy consumed by the utilities.
- 515. There are chances of over recovery or under recovery through demand charges if there is a difference between the approved SMD and actual SMD in a particular year. Over recovery through demand charges by GRIDCO could mean additional recovery of revenue if the distribution companies draw power at the permitted level.
- 516. A case was made out that fixation of higher SMD by the Commission could reduce the energy charge per unit, the total revenue requirement remaining fixed. But if there is under drawl by the DISCOMs due to reduced energy charges, GRIDCO will not be able to receive the full revenue requirement due to it. On the other hand, if the permitted SMD is not attained, GRIDCO also stands to lose the revenue. To obviate this difficulty the Commission had in earlier BSP orders decided that the entire revenue recovery of GRIDCO could be effected through energy charges only by combining the demand charges and energy charges. The same philosophy is followed in this Tariff Order for 2010-11. The SMD fixation of a composite energy charges will however not take away the concept of SMD. However, this has also to take care of the permitted maximum demand for any utility so that the utility does not resort to unbridled maximum demand drawl of power and jeopardize the system's stability.

517. Some of the objectors are vehement in their approach that like HT and EHT class of consumer, there should be a two-part tariff for Bulk Supply of power by GRIDCO to DISCOMs. It needs to be emphasized that the Bulk Supply Price by GRIDCO to DISCOMs is essentially a two-part tariff with a demand charge of Rs.200/- per KVA plus the Energy charges. However, there shall not be any levy of separate maximum demand charges upto the permitted SMD for the distribution companies for the FY 2010-11. Permitted SMD would mean monthly SMD recorded upto maximum of 10% over the approved SMD in the current tariff order to take care of monthly variations. Any excess drawl over the permitted SMD will have to be paid @Rs.200 per KVA per month. This is again subject to the condition that the annual average SMD shall be limited to the SMD permitted in the order. This is necessary to maintain the planning of load and system's stability. Any drawl over and above the annual average SMD will be payable @Rs.200 per KVA per month, notwithstanding the fact that a utility might have paid the SMD charges for exceeding the permitted SMD in any month.

Determination of Bulk Supply Price

518. GRIDCO had proposed energy charge @ 262.89 P/U to be levied on the DISCOMs towards their purchase of power. The Commission determines the Bulk Supply price such that with the expected estimated revenue at the disposal of the utilities, they shall be in a position to pay the power bills, the transmission charge bills including SLDC charges and meet their statutory obligations including meeting the expenses towards establishment, maintenance and other allied expenses.
519. It was also revealed that during 2009-10 except WESCO all other DISCOMs have availed a rebate of 2% on the current power purchase dues. WESCO availed the rebate of 1% by taking Secured Over Draft (SOD) from Banks.
520. The Commission has determined the revenue requirement of DISCOMs for FY 2010-11 considering the approved BSP. It was revealed that all DISCOMs do not post any negative Gap. The revenue gaps (i.e. surplus) of the four DISCOMs for the FY 2010-11 considering the approved BSP are given below:

			(Rs. cr.)
WESCO	-	(+)	2.32
NESCO	-	(+)	11.12
SOUTHCO	-	(+)	1.31
CESU	-	(+)	1.43

521. The details of Bulk Supply Price as well as the quantum of energy approved by the Commission for each DISCOM are presented in a table below:

Table - 65
Bulk Supply Price and Quantum of Energy for 2010-11

Name of the DISCOM	Quantum of Energy (MU)	Bulk Supply Price (P/U)	Revenue from Bulk Supply Price (Rs. Crore)
WESCO	6244	194.00	1211.34
NESCO	5122	195.00	998.79
SOUTHCO	2368	90.00	213.12
CESU	6420	157.00	1007.94
Total	20154	170.25	3431.19

- 522. As against GRIDCO's total net revenue requirement of Rs.4237.34 crore after adjustment of miscellaneous receipts of Rs.5.10 cr., it will recover only Rs.3431.19 crore through energy charge for the year 2010-11 from DISCOMs and will leave a negative gap of Rs.806.15 crore. The treatment of this gap has already been discussed vide paras 493 to 497.
- 523. Determination of BSP for SOUTHCO possesses a difficult task considering that the total consumption base is very small even though the cost of distribution is high. This necessitates a condition where the BSP for SOUTHCO has to be kept at a level much lower than other utilities such that there is a breakeven of revenue for the ensuing financial year. The Commission faces these complaints from year to year for which we would advise SOUTHCO that they should take advantage of the Open Access charges approved by the Commission and attract as many as EHT and HT industries to their fold so that there is a quick financial turn around. The owners of the utility may also consider merger of SOUTHCO and WESCO if legally and administratively it does not pose any problem so that it can lead to beneficial advantages to the consumers of these utilities. Possibly the easier option is to get the benefit of Open Access now made available within the state.

Charges for Overdrawl of Energy

- 524. GRIDCO in its application proposes that any excess drawl of energy by a Distribution and Retail Supply licensee over and above the approved drawl would be payable at a cost of imported power on monthly basis.
- 525. The Availability Based Tariff has been implemented in the Eastern Region with effect from 1st April, 2003. The principle of ABT aims at enforcing grid discipline with an objective to maintain stability in frequency excursion and efficient use of available energy resources. The Commission has already framed suitable guidelines/regulations for intra-state ABT, which will be binding on all the users of the system. Any excess drawl of energy by a Distribution and Retail Supply Licensees, over and above what is approved in the RST order for FY 2010-11 would be payable at the actual cost of power purchase plus transmission charges and transmission loss subject to necessary changes on account of UI charges if any, once the bill is raised by GRIDCO.

Rebate

- 526. For payment of bills through a letter of credit or by cash within two working days(except holidays under N.I.Act), a rebate of 2% shall be allowed. If the payments are made by a mode other than through a letter of credit but within a period of one month of presentation of bills, by the Distribution Licensee, a rebate of 1% shall be allowed.

Late Payment Surcharge

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

Duty and Taxes

- 528. The Commission approves that statutory levy/duty/tax/cess/toll imposed under any law from time to time shall be charged over and above the price fixed by the Commission.

Implementation of Intra-State ABT

529. OERC (Intra-State ABT) Regulation, 2007 was published in Odisha Gazette on 14.02.2008. As per Regulation 1 (III), OERC (Intra-State ABT) Regulation, 2007 is in force from 14.02.2008 i.e. the date of publication in the Official Gazette.
530. The Present Status of Implementation of Intra-State ABT is as under:
- The licensees i.e. DISCOMs were yet to implement the Intra-State ABT in the State as Distribution System Operation and Control Center (DSOCC) of DISCOMs were not fully operational for On-Line monitoring and operation of Intra-State ABT.
 - SLDC was not geared up and had not established Energy Accounting & Settlement System Centre (EASSC) for preparation of both provisional & final monthly Energy Account, weekly UI Account & weekly Reactive Energy Account
 - On-Line Schedule vs. Drawal data were not available.
531. Three meetings were held in the Conference Hall of the Commission on 18.07.2009, 17.09.2009 and 25.11.2009 where the matters relating to implementation of Intra State ABT were discussed thread bare step by step in the presence of the representatives of the various stake holders, i.e. DISCOMs, GRIDCO, SLDC & OPTCL.
532. In the 3rd meeting held on 25.11.2009, Joint Director (IT), OERC presented the On-Line data of all DISCOMs indicating their individual drawal in 15 minute mode with the corresponding frequency and the UI charges which were available in OERC Web Site www.orerc.org under Utility Interface w.e.f. 20.11.2009. As the On Line Data are available, it was suggested and agreed in the 3rd meeting held on 25.11.2009 to hold a full day workshop on the “Mock Exercise” in the premises of OERC on 23.12.2009 for implementation of Intra-State ABT in 15 minute mode.
533. A full day “Mock Workshop” was held in the Conference Hall of the OERC on 23.12.2009 for implementation of Intra-State ABT. During the period of “Mock Workshop”, an effective inter-action between each DISCOM and SLDC was made as regards to their command area, points of injections of power to each DISCOM, points of Intra-DISCOM transfer and its energy accounting etc.
534. A consensus emerged in the “Mock workshop” held on 23.12.2009 for effective implementations of intra-State ABT which were as under:
- Intra-State ABT will be implemented in First Phase with DISCOMs vis-à-vis GRIDCO.
 - Generators, CGPs & other beneficiaries will join in Second Phase after successful operation of First Phase.
 - All the Discoms should fully strengthen their DSOCCs for implementation of Intra-State ABT on 24x7 hours for real time operation mode deploying the required manpower and infrastructure.
 - All the DSOCCs should arrange to display the Schematic Diagram showing from the OPTCL network from the Exchange Metering Points to Distribution network up to 11 KV feeders of the respective DISCOM.

- All the 33 KV Feeders except the feeders supplying to Process Industries, District HQs and State Capital should be grouped under Category ‘A’, Category ‘B’ and Category ‘C’ are to be provided with UFR at graded settings and the same may be intimated to OPTCL by 15.01.2010 for initiating the appropriate action for installation of such UFRs.

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

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

- **CESU** has given utmost importance for implementation of the schedule given by SLDC. All field level officers have been instructed to strictly follow the schedule. However, due to some confusing media report, in some places the field units of CESU may have unintentionally deviated the schedule buckling under the public pressure resulting in overdrawal from the Grid.
- **NESCO** has stated that it was getting a schedule of 420 MW from SLDC against the average drawal of 530 MW. NESCO is facing difficulties to curtail the demand of 5 Traction Consumers, 2 Defence Consumers & 3 Emergency Power Consumers. NESCO has ascertained that the implementation schedule given by SLDC is not correct as SLDC is taking average assessed data for Kuchai & Bhadrak Grid Sub-stations due to non-availability of real time data. NESCO has already given requisition to OPTCL for installation of UFRs on the 33 KV Feeders at different Grid Sub-Stations as per the decision in the Workshop held on 23.12.2009.
- **WESCO** has stated that at present it is not fully equipped in all respects for implementation of Intra-State ABT (Phase-I). WESCO has underlined the following practical difficulties encountered during implementation of Intra-State ABT.
 - There is no such special feeder for giving power supplies on priority basis to Hospital, Water supply and Railways etc. and they are all availing power supply from shared feeders, so the Intra-State ABT implementation is becoming increasingly difficult.
 - There is no control mechanism to regulate the power supply of individual industrial consumer, so the implementation of Intra-State ABT mechanism is a difficult task.
 - In all the existing 97 nos of 33KV feeders, all the feeders have no incoming VCBs and similarly in case of all 463 nos 11KV feeders, all the 11KV feeders have no out going VCBs.
 - DSOCC requires real time data acquisition from all 33/11KV Substations (SCADA system) for proper implementation of Intra-State ABT.
- **SOUTHCO** has stated that after implementation of the schedule given by SLDC, it is noticed that at times SLDC directly restricts drawal of SOUTHCO by instructing OPTCL Grid Substations to reduce power further after 6 P.M. & also from 6 A.M. to 6 P.M. resulting in consumers' dissatisfaction because of frequent load restriction in the area of SOUTHCO. SOUTHCO has further stated that the

data given by SLDC is also mismatched with the load allocated and load drawal as per the implementation schedule. The drawal data of SOUTHCOP available in the website of OERC relates to past 15 minute drawal of 220KV Auto Transformer which does not help SOUTHCOP to manage the drawal within the schedule. Sometimes OPTCL extended the Machhkund supply of Odisha share up to Mohana Grid Substation on which SOUTHCOP has no control. These problems need to be sorted out/ addressed before the implementation of Intra-State ABT (Phase-I).

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

Harnessing Power from Renewable Energy Sources

537. The issue of global warming, burning of fossil fuels and emission of Green House Gases has certain environmental impact on the planet and upon society at large. Renewable Energy, therefore, assumes extreme importance in meeting the cascading growth of power needs of the State. Orissa possesses a vast coast, has large number of sunny days, a good number of streams and canal falls. Yet the State has not been in a position to harness these renewable sources. The Commission would like to encourage these sources.
538. In India, solar energy is usually considered for rural or off-grid applications. However, international experience shows that technology development and commercialization is best achieved by way of large-scale deployment of solar PV in grid-integrated mode. With a view to developing and demonstrating technical performance of grid interactive solar power projects in India, the Ministry of New and Renewable Energy (MNRE) has come out with guidelines for generation-based incentives for Grid Interactive Solar Power generating projects. The ministry has also come out with a number of incentive schemes for wind power and other sources of renewable energy. In the meantime, CERC has also notified CERC (Terms and Conditions of Tariff Determination from Renewable Energy Sources) Regulations, 2009. These regulations are expected to promote new investments in renewable electricity sector and to meet the goals stipulated in the National Action Plan on Climate Change for achieving minimum renewable purchase of 5% of the total power purchase in the year 2010 and thereafter increase by 1% each year for the next 10 years.
539. Keeping in view the provisions of Electricity Act, 2003, the National Electricity Policy and Tariff Policy, the Commission had addressed this issue in its Order dtd. 20.08.2005 in Case No. 14 of 2005. The extract of this order as under:
- (a) The procurement of power from non-conventional and renewable energy such as, small hydro, wind, biomass, co-generation of electricity from waste heat products etc. would be allowed by the supply licensees for use of consumers within the State upto 3% of the total purchase during the FY 07-08 to go up at the rate of 0.5% per annum for each subsequent year to reach a level of 5% by the year 2011-12.
 - (b) The project cost fixed by the State Technical Committee after due diligence will be taken as the ceiling cost for determination of tariff.
 - (c) The tariff for procurement of the power from this sources will be determined by the Commission under Section 62(1)(a) so long as this power is being supplied to the State consumers through distribution companies.

- (d) To encourage competition for reduction in cost of power purchase of by DISCOMs shall be through competitive bidding process within the same sources of generation where the price determined by the Commission under Section 62(1) shall be treated as the ceiling price.
 - (e) The generating companies of non-conventional and renewable sources may be permitted by DISCOMs/OPTCL to deliver the power at 11 KV or 33 KV as the case may be. Depending upon the techno-commercial viability of the project, the interconnection point for delivery of power may be at 132 KV.
540. Further, OERC had floated a discussion paper on harnessing renewable energy including co-generation to elicit public opinion. The Commission received various comments on the matter. In the meantime, the Commission has engaged a consultant to work out tariff for various sources of renewable energy after making a detailed field study in this regard. The consultant has already submitted the detailed report to the Commission, which is under study. However, the Commission, in its order dtd.09.09.2009 in case nos.62, 96, 97 & 98 of 2009, has already fixed the provisional ceiling tariff for solar PV projects which could be established in the State by March, 2010. The tariff fixed in the said order is as follows:
- | | | |
|--|---|--------------|
| For the 1 st to 12 th years | : | Rs.15.00/KWh |
| For the 13 th to 25 th years | : | Rs.7.50/KWh |
541. The above tariff is generic in nature and all incentives/subsidies received by the developers from MNRE/ GoI/ GoO shall be factored into the same. Therefore, GRIDCO shall pay to the developers the net amount after deducting such incentives/subsidies. However, both GRIDCO as well as the developers are free to negotiate for an agreed tariff within the above ceiling rate. The connectivity of these 5 MW solar PV projects shall be at 33 KV voltage level.
542. The Commission would take expeditious action soon for fixation of tariff for all renewable energy sources, after consulting different stakeholders including OREDA which is the nodal agency for developing renewable sources of energy in the State. However, in the mean time the Commission has framed the draft OERC (Renewable Purchase Obligation and its Compliance) Regulations, 2010 in accordance with Section 61, 66 and 86(1)(e) of the Electricity Act, 2003 and invited suggestions/opinions from the interested persons/institutions/associations on or before 20.04.2010 for modifications, if any, before issue of final notification.
543. The Bulk Supply Price in respect of GRIDCO as indicated in para-521 will become effective from 1st April, 2010 and shall continue until further orders.
544. The application of GRIDCO in Case No.144/2009 is disposed of accordingly.

**Sd/-
(B. K. MISRA)
MEMBER**

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

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